DRAINAGE CALCULATIONS

Hillside Grove

LAKE COUNTY, FLORIDA

Prepared for:

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CWI Project No.: 21-04-0008
Date: September 6, 2022
Revised Date: April 14, 2025

All elevations referrence the North American Vertical Datum of 1988 (NAVD88)

Hillside Grove
Index Sheet

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JUSTIN E. WILLIAMS
No. 69260

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JUSTIN E. WILLIAMS ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Justin E Williams

Digitally signed by Justin E Williams
DN: cn=Justin E Williams, c=US, o=CONNELLY AND WICKER INC., email=jwilliams@cwieng.com
Date: 2025.04.21 11:23:46 -04'00'

Prepared under the direction of

Justin Ellery Williams, P.E.
PE # 69260

GENERAL SITE DESCRIPTION

THE PROJECT

Hillside Grove is a roughly 320 acre single family residential project located north of State Road 19, west of S Palm Avenue and south of Number 2 Road within Howey in the Hills, Lake County, Florida. It is situated in Section 35, Township 20S, Range 25E. The proposed construction will consist of grubbing and filling, grading, and construction of stormwater management facilities for the entire site and underground utilities, roadways and related infrastructure for phase 1 consisting of 215 single family residential units. The project is anticipated to have 4 total phases.

PRE-DEVELOPMENT DRAINAGE INFORMATION

The site in pre-development generally discharges to two different basins with a drainage divide down the middle of the project from north to south. The basin to the west drains to a closed basin where water is impounded and percolates into the ground. The area to the east of this divide drains through a series of ditches and wetland systems and ultimately to a positive outfall and Lake Illinois.

For the closed basin, two different outfall points have been identified. The first, OUT-01-PRE, is the largest of the two and is located on the west side of the project. The second, OUT-02-PRE, is located at the north side of the project. Post development discharge rates for both the Mean Annual and the 25 Year / 24 Hour storm events will be limited to those of pre-development at these two outfall locations. In addition, because these are closed basins, post development discharge volumes for the 25 Year / 96 Hour storm will be limited to that of Pre-Development.

For the open basin also, two outfall points have been identified. The first, OUT-03-PRE, is located at the north east corner of the project. This outfall point receives the runoff from the majority of the east side of the project. The second, OUT-04-PRE, receives the runoff from the southern portion of the project. This portion then drains through an existing 6' wide x 4' tall box culvert under S Palm Avenue. The drainage eventually is routed back under S Palm Avenue through another 6' wide x 4' tall box culvert and back to WET-04-PRE. The intent of these drainage calculations is not to be a comprehensive drainage model of both the project and surrounding areas, but to provide modeling and calculations showing permit compliance.

Generally, the project area in pre-development has moderate surface storage in some locations due to depressional areas, mild slopes and limited drainage features. Thus, a 323 K' value has been used for all upland conditions and a 484 K' value has been used for all wetland conditions in pre-development.

The limits of the wetlands are based on flagging done by Allen & Company, Inc and has been provided via cadd files. The topographical survey was also prepared by Allen & Company, Inc and was provided via cadd files.

POST-DEVELOPMENT DRAINAGE INFORMATION

The post-development stormwater management system is comprised of 20 wet detention stormwater management facilities. These facilities will provide for both stormwater treatment and attenuation of the Mean Annual and 25 Year / 24 Hour storms.

The post-development rates of discharge are limited to that of pre-development at each of the outfall points identified above: OUT-01-PST, OUT-02-PST, OUT-03-PST and OUT-04-PST. In addition, the volumetric discharge from the basins connected to OUT-01-PST and OUT-02-PST will be limited that of pre-development for the 25 Year / 96 Hour storm. A summary of the volumetric discharge is included in these drainage calculations.

Treatment and attenuation is controlled via control structures connected to SMF-01, SMF-02, SMF-03, SMF-05, SMF-08, SMF-11, SMF-12, SMF-13, SMF-14, SMF-15, SMF-16, SMF-17 and SMF-20.

The project area in post-development will have a clearly defined drainage network with well established drainage ditches, stormwater pipes, and stormwater management facilities. Thus, a 484 K' value has been used for all post-development conditions.

The project in post development is generally broken into three groups. The first is development areas draining to stormwater management facilities. The runoff from these areas will be treated and attenuated via the stormwater ponds. These areas are labeled as subdivision areas (SUB-##). A 484 K’ value is used for these areas and times of concentration (Tc’s) are calculated for each of these areas and are included in these drainage calculations. In some instances two or more stormwater management facilities are equalized to provide more uniform stormwater treatment for the basins they treat. In those instances, any runoff collected within the linked network between the ponds is broken out from the SUB area and included in a basin for an individual curb inlet. In that instance a 10 or 15 minute time of concentration is used for the individual curb inlet basin. An example of the above is stormwater network between SMF-05 and SMF-07, or SMF-08 and SMF-11. In these instances, the curb inlet basin is labeled "S-" and a number with alpha corresponding to the downstream pond number.

The second group is wetlands (WET-##-PST). These basins include only wetland areas and the adjacent buffers that are to remain natural. In these areas, the pre-development and post-development properties for each remains the same.

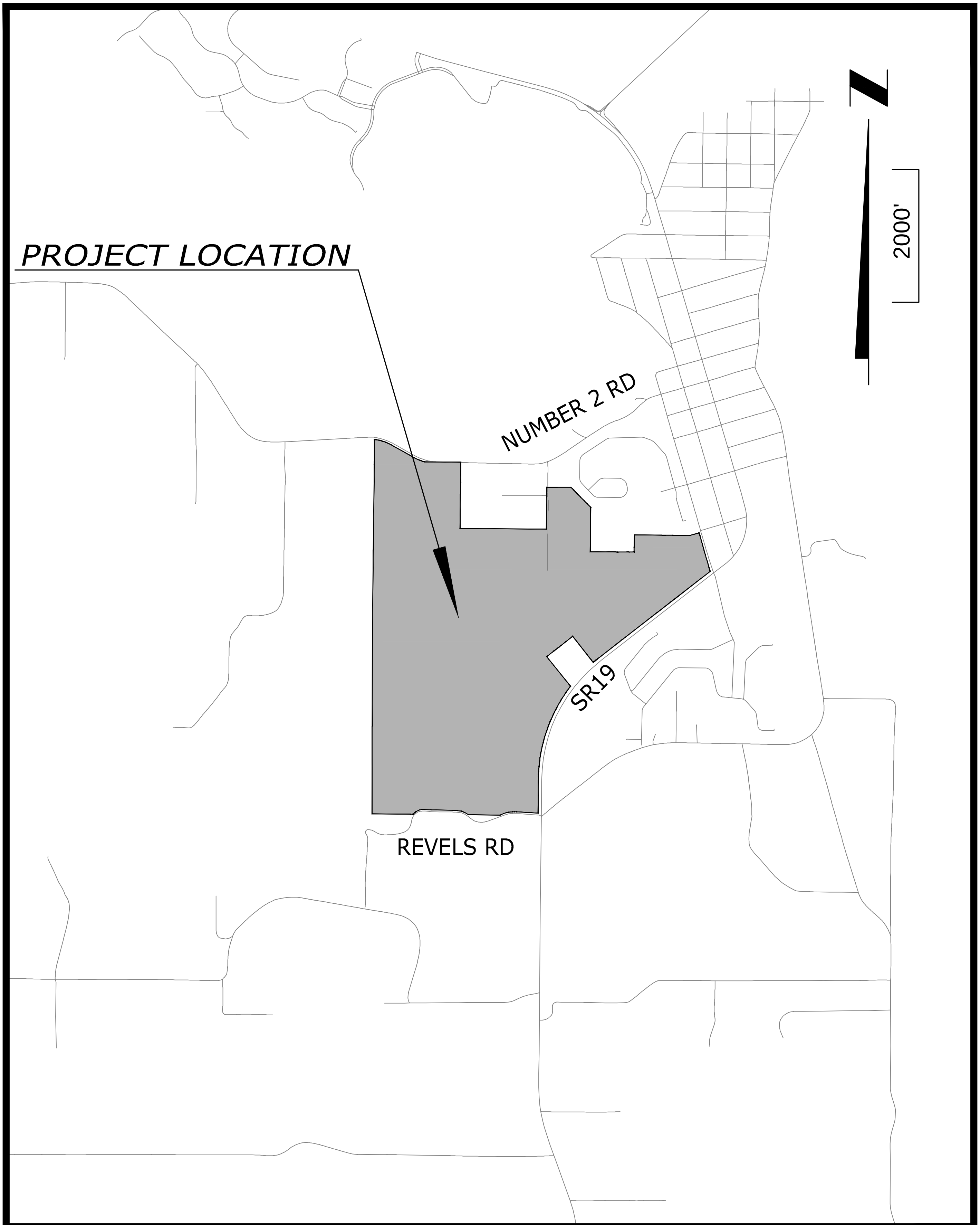
The third area is rear yard areas (RY-##). These areas include the rear yards of lots. These areas will be treated via natural / vegetative upland buffers with limited exceptions where there are wetland impacts or no naturally vegetated buffers proposed. The areas that are unable to be treated via treatment buffers are accounted for and overtreatment is provided in the stormwater ponds. Each overtreatment area is numbered and identified in their respective overtreatment calculation. (Refer to the Treatment Volume and Permanent Pool Volume Calculations). A 484 K’ value is used for these areas, except for the RY areas on the back of the pond banks. These areas received a 484 K' value.

DESIGN ANALYSIS

The hydrologic modeling for this system was accomplished using standard SCS runoff procedures and modeled using ICPR version 3.10 Service Pack 11. This project has been designed based on Lake County and SJRWMD criteria for post-development flow attenuations; therefore, there are no adverse hydrologic impacts anticipated based on the referenced outlined regulations.

TAILWATER STAGES AND TIMES

Tailwater effects on the stormwater management facilities are modeled via boundary stages at the outfall locations, OUT-01 POST, OUT-02 POST, OUT-03 POST and OUT-04 POST. The stage boundary stages were obtained using survey data of the existing standing water stages and the 100 Yr base flood elevations taken from the FEMA FIRM panel. Elevations for in between design storms (Mean Annual, 10 YR, and 25 Year) were conservatively interpolated.



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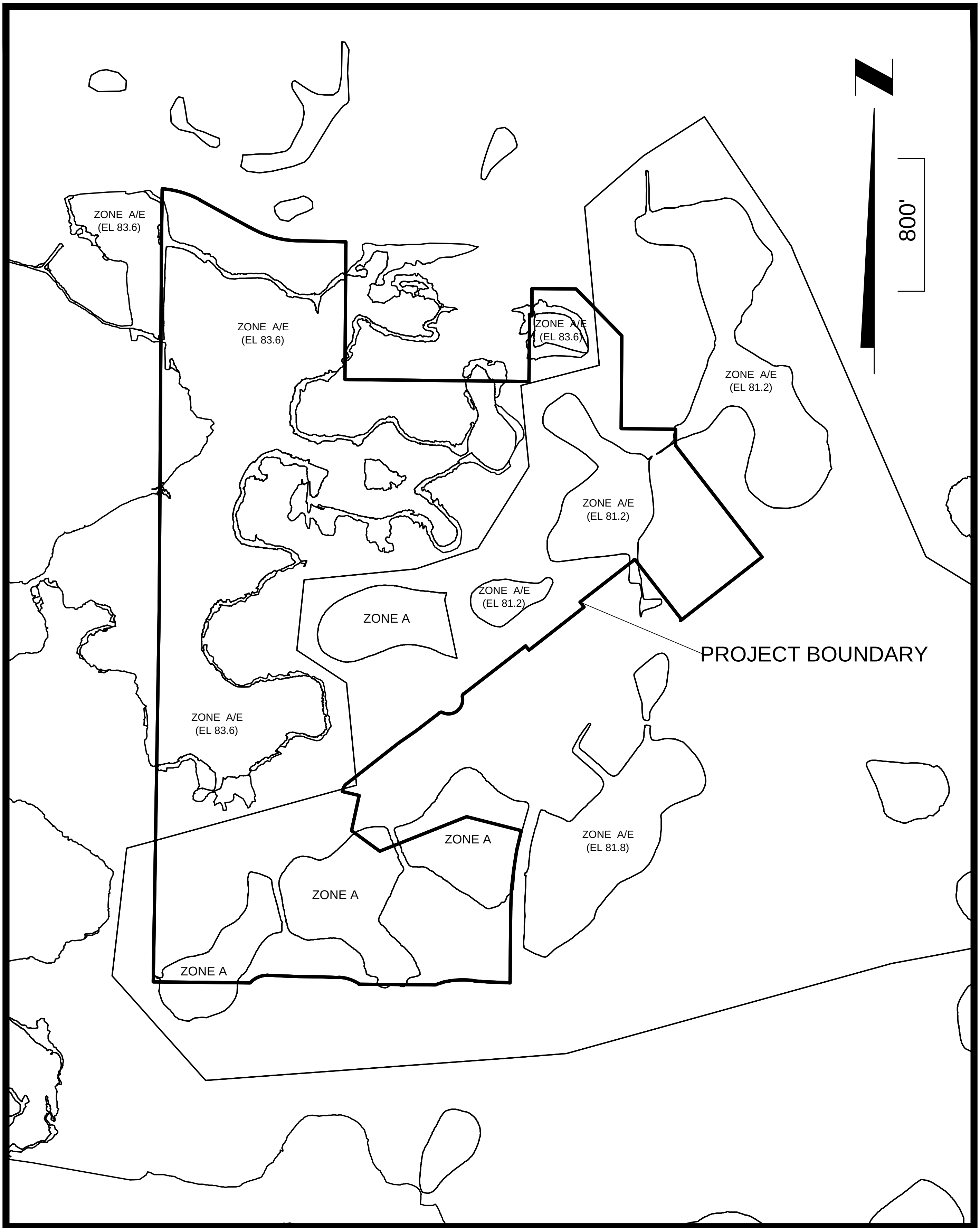
VICINITY MAP

21-04-0008
AUGUST 2022



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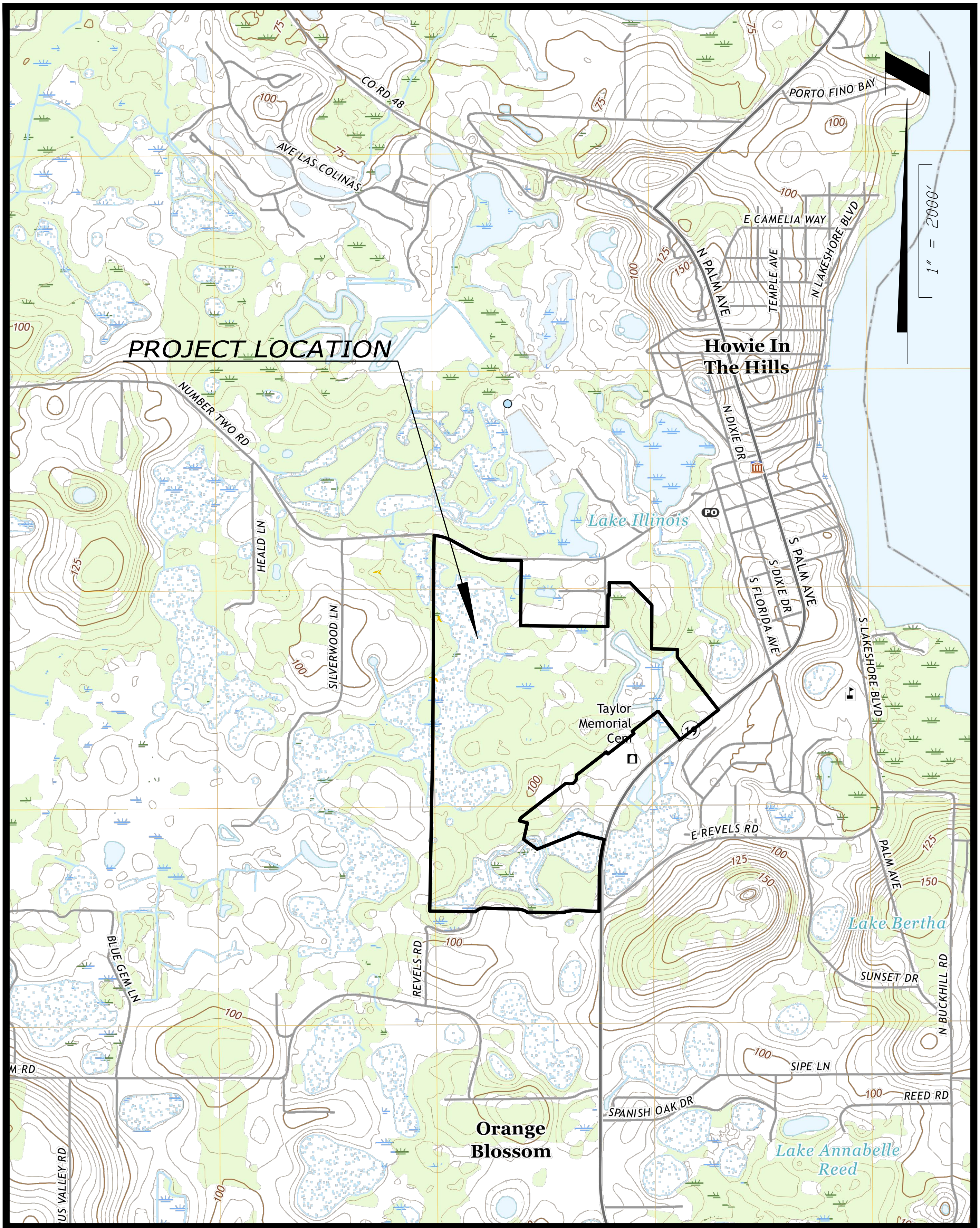
FEMA MAP

21-04-0008	JULY 2022



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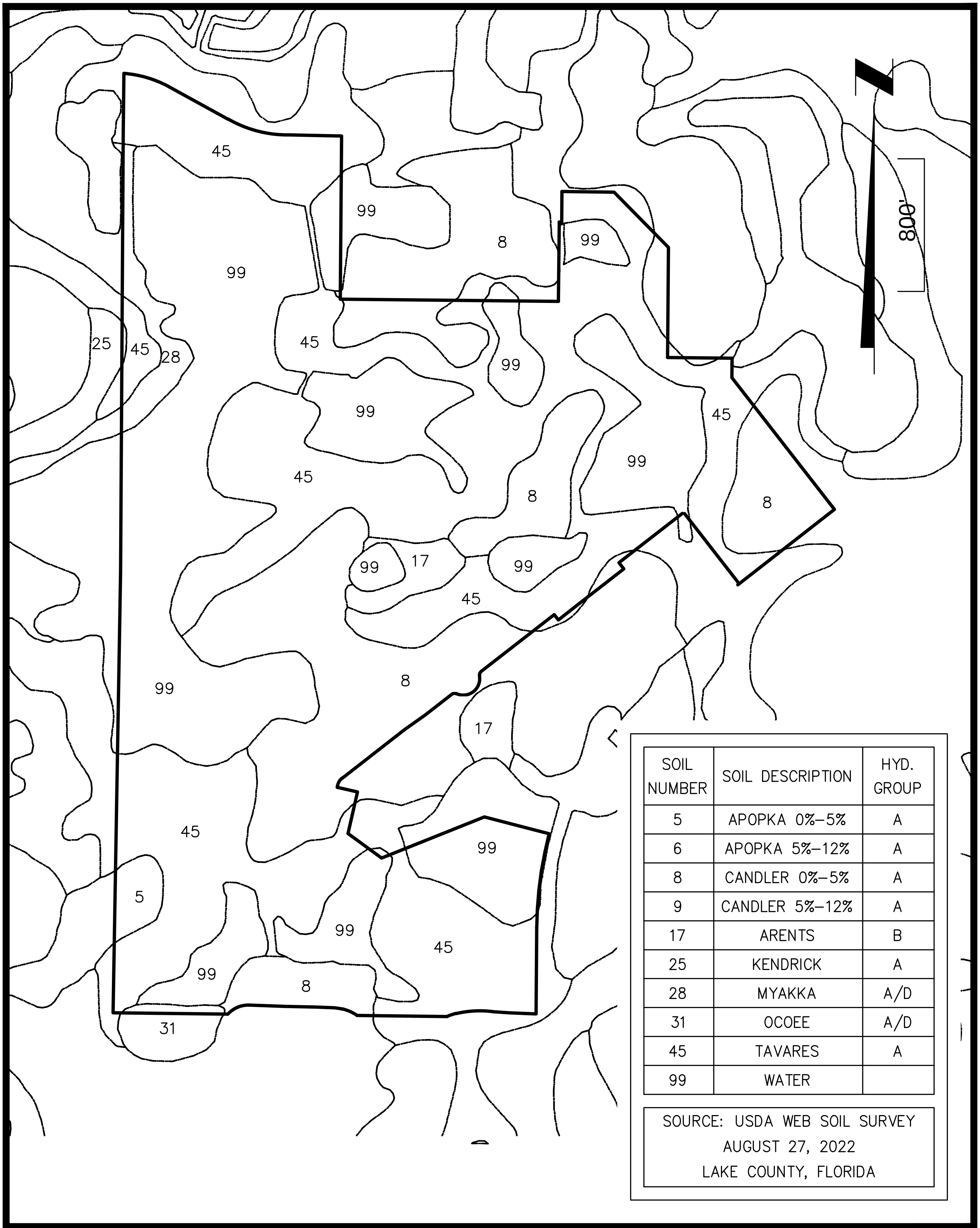
QUAD MAP

21-04-0008

August, 2022



SOIL NUMBER	SOIL DESCRIPTION	HYD. GROUP
5	APOPKA 0%–5%	A
6	APOPKA 5%–12%	A
8	CANDLER 0%–5%	A
9	CANDLER 5%–12%	A
17	ARENTS	B
25	KENDRICK	A
28	MYAKKA	A/D
31	OCOEE	A/D
45	TAVARES	A
99	WATER	

SOURCE: USDA WEB SOIL SURVEY
AUGUST 27, 2022
LAKE COUNTY, FLORIDA

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SOILS MAP

21-04-0008

July, 2022

Printed: Nov 18, 2022 - 4:48pm
Printed By: Wesley
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WETLAND (WET–01–PRE)
DHW (25 YR) EL. = 82.43

WETLAND (WET–02–PRE)
DHW (25 YR) EL. = 80.92

WETLAND (WET–04–PRE)
DHW (25 YR) EL. = 80.23

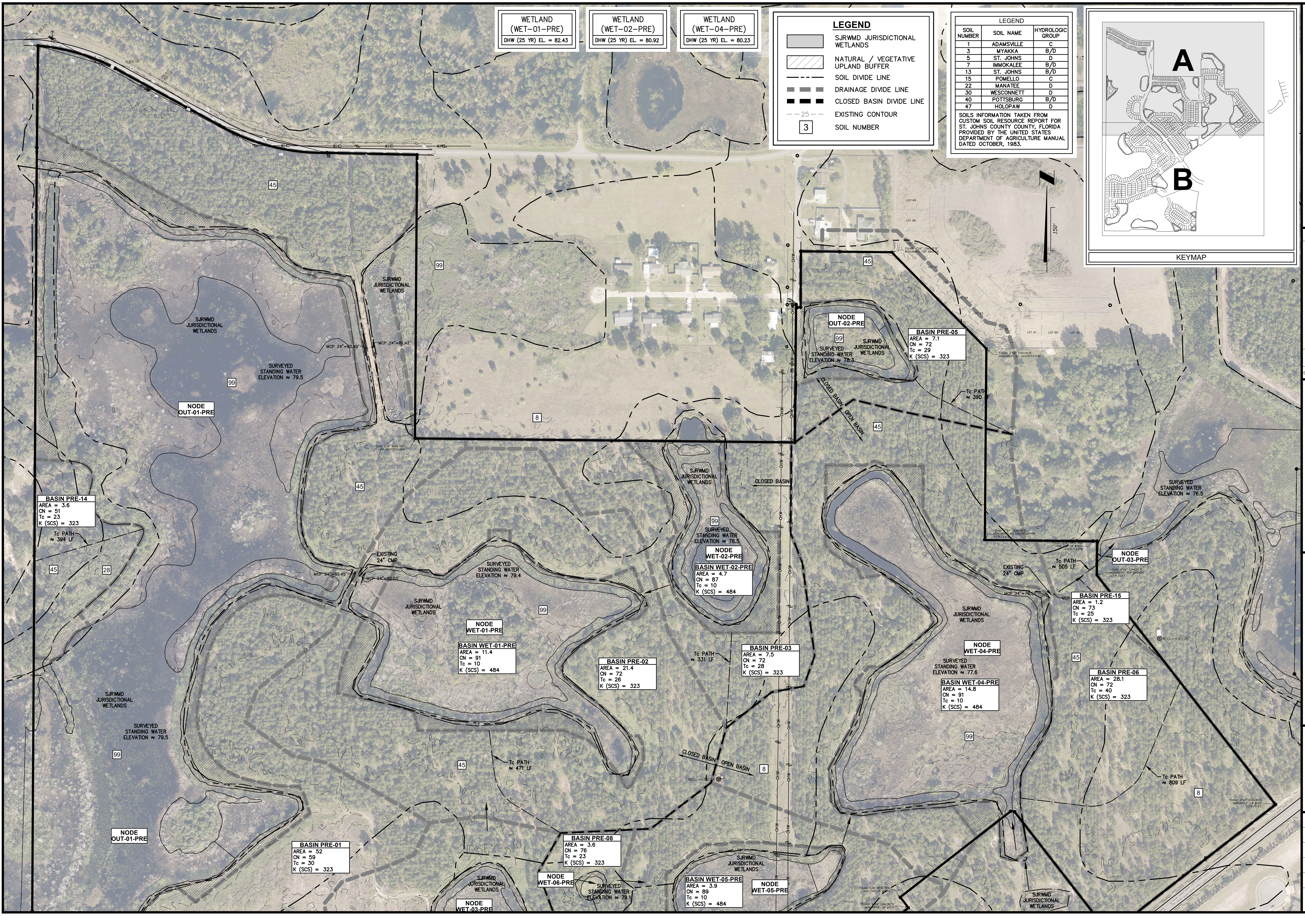
LEGEND

▒	SJRWMD JURISDICTIONAL WETLANDS
▨	NATURAL / VEGETATIVE UPLAND BUFFER
— - —	SOIL DIVIDE LINE
▬ ▬ ▬	DRAINAGE DIVIDE LINE
■ ■ ■	CLOSED BASIN DIVIDE LINE
— — 25 — —	EXISTING CONTOUR
3	SOIL NUMBER

LEGEND

SOIL NUMBER	SOIL NAME	HYDROLOGIC GROUP
1	ADAMSVILLE	C
3	MYAKKA	B/D
5	ST. JOHNS	D
7	IMMOKALEE	B/D
13	ST. JOHNS	B/D
15	POMELLO	C
22	MANATEE	D
30	WESCONNETT	D
40	POTTSBURG	B/D
47	HOLOPAW	D

SOILS INFORMATION TAKEN FROM CUSTOM SOIL RESOURCE REPORT FOR ST. JOHNS COUNTY COUNTY, FLORIDA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE MANUAL DATED OCTOBER, 1983.



BASIN PRE-14
AREA = 3.6
CN = 51
Tc = 23
K (SCS) = 323

BASIN WET-01-PRE
AREA = 11.4
CN = 91
Tc = 10
K (SCS) = 484

BASIN PRE-02
AREA = 21.4
CN = 72
Tc = 26
K (SCS) = 323

BASIN WET-02-PRE
AREA = 4.7
CN = 87
Tc = 10
K (SCS) = 484

BASIN PRE-03
AREA = 7.5
CN = 72
Tc = 28
K (SCS) = 323

BASIN PRE-05
AREA = 7.1
CN = 72
Tc = 29
K (SCS) = 323

BASIN WET-04-PRE
AREA = 14.8
CN = 91
Tc = 10
K (SCS) = 484

BASIN PRE-15
AREA = 1.2
CN = 73
Tc = 25
K (SCS) = 323

BASIN PRE-06
AREA = 28.1
CN = 72
Tc = 40
K (SCS) = 323

BASIN PRE-01
AREA = 52
CN = 59
Tc = 30
K (SCS) = 323

BASIN PRE-08
AREA = 3.6
CN = 76
Tc = 23
K (SCS) = 323

BASIN WET-05-PRE
AREA = 3.9
CN = 89
Tc = 10
K (SCS) = 484

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Florida Registry 3650 L.A. Number: LC26000311

No.	Date	Revision	By
7			
6			
5			
4			
3			
2			
1			

PRE DEVELOPMENT DRAINAGE PLAN

HILLSIDE GROVE

HOWEY IN THE HILLS

PREPARED FOR
LENNAR HOMES - ORLANDO

JUSTIN ELLERY WILLIAMS
P.E. NUMBER: 69260
Reg. Engineer

Project No.: 21-04-0008	
Designed: JEW	Drawn: JEW
Checked: JEW	Q.C.: RCW
Date: AUGUST 2022	
Scale: 1" =150'	
Sheet 5A	

Printed: Nov 18, 2022 - 4:49pm Printed By: Wesley

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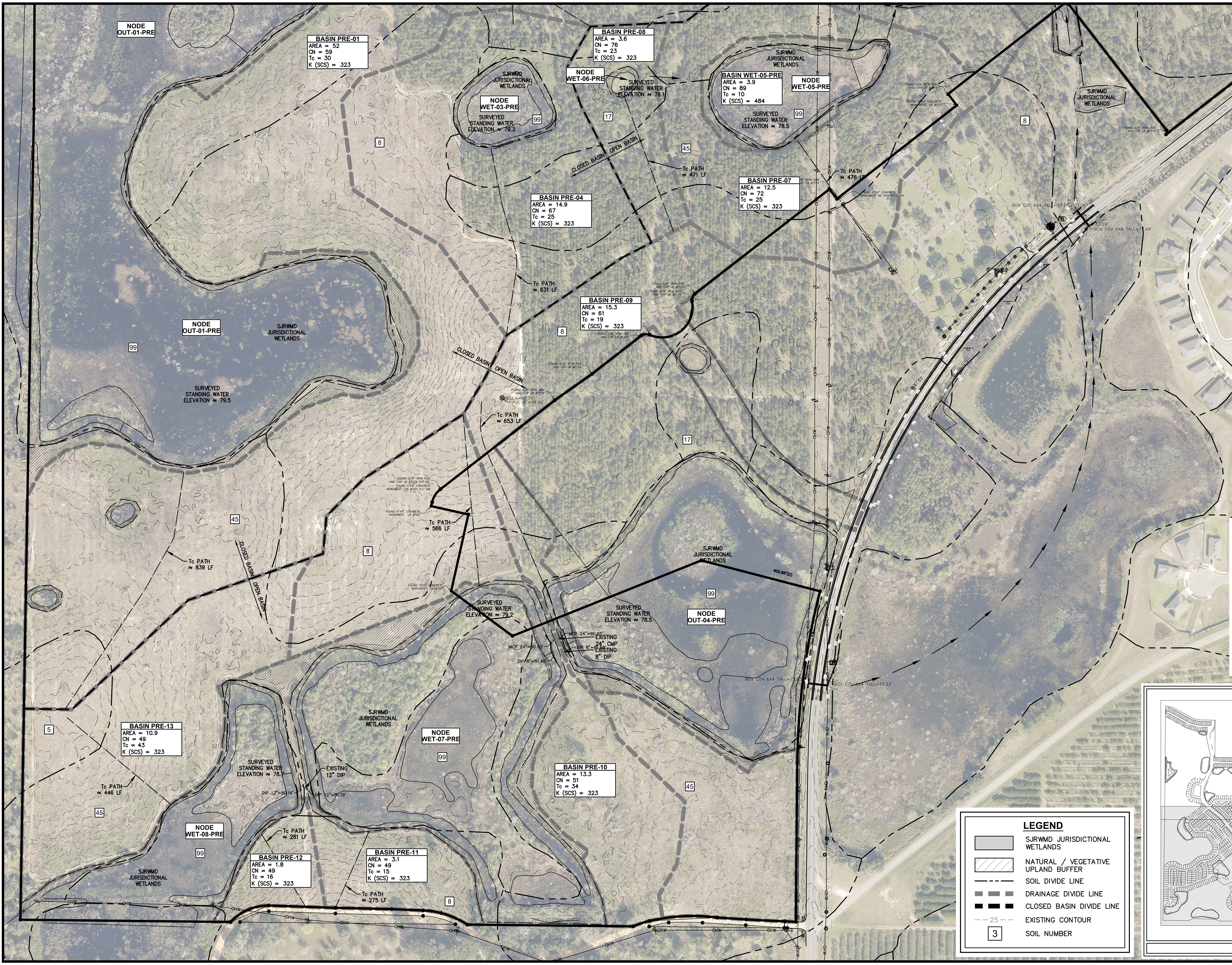

WETLAND
(WET-01-PRE)
DHW (25 YR) EL. = 82.43

WETLAND
(WET-05-PRE)
DHW (25 YR) EL. = 81.56

LEGEND

SOIL NUMBER	SOIL NAME	HYDROLOGIC GROUP
1	ADAMSVILLE	C
3	MYAKKA	B/D
5	ST. JOHNS	D
7	IMMOKALEE	B/D
13	ST. JOHNS	B/D
15	POMELLO	C
22	MANATEE	D
30	WESCONNETT	D
40	POTTSBURG	B/D
47	HOLOPAW	D

SOILS INFORMATION TAKEN FROM CUSTOM SOIL RESOURCE REPORT FOR ST. JOHNS COUNTY COUNTY, FLORIDA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE MANUAL DATED OCTOBER, 1983.

LEGEND

▩	SJRWMD JURISDICTIONAL WETLANDS
▨	NATURAL / VEGETATIVE UPLAND BUFFER
-·-·-	SOIL DIVIDE LINE
▬ ▬ ▬	DRAINAGE DIVIDE LINE
▬ ▬ ▬	CLOSED BASIN DIVIDE LINE
- - 25 - -	EXISTING CONTOUR
3	SOIL NUMBER

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Florida Registry 3650 L.A. Number: LC26000311

No.	Date	Revision	By
7	:		
6	:		
5	:		
4	:		
3	:		
2	:		
1	:		

PRE DEVELOPMENT DRAINAGE PLAN

HILLSIDE GROVE

HOWEY IN THE HILLS

PREPARED FOR

LENNAR HOMES - ORLANDO

JUSTIN ELLERY WILLIAMS
P.E. NUMBER: 69260
Reg. Engineer

Project No.: 21-04-0008
Designed: JEW
Drawn: JEW
Checked: JEW
Q.C.: RCW
Date: AUGUST 2022
Scale: 1" =150'
Sheet 5B

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Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area PRE-01 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	19.4	72	1393
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	30.8	49	1510
Type A Soils	Wetland: Pine flatwoods	1.8	93	171
Total Ac / Weighted Cn		**52.0**		**59**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.013	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**23**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	738	LF
Watercourse Slope, s	0.014	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.87	Ft / s
Tc segment Tt = L / (60 * V)	**7**	Min.
Tc Total (Min. 10 minutes) =	**30**	Min.

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Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area PRE-02 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	21.4	72	1540
Total Ac / Weighted Cn		**21.4**		**72**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.016	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**21**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	371	LF
Watercourse Slope, s	0.006	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.20	Ft / s
Tc segment Tt = L / (60 * V)	**5**	Min.
Tc Total (Min. 10 minutes) =	**26**	Min.

Pre-Development Area PRE-03 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	7.5	72	537
Total Ac / Weighted Cn		**7.5**		**72**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.009	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**26**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	231	LF
Watercourse Slope, s	0.020	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.27	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**28**	Min.

Pre-Development Area	**PRE-04 - Calculate Weighted Curve Number**			
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	6.2	72	446
Type B Soils	Cultivated row: poor straight row	1.5	81	122
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	5.0	49	244
Type B Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	0.6	69	39
Type A Soils	Wetland: Pine flatwoods	1.6	93	153
Total Ac / Weighted Cn		**14.9**		**67**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.014	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**22**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	531	LF
Watercourse Slope, s	0.030	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.81	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Tc Total (Min. 10 minutes) =	**25**	Min.

Pre-Development Area	**PRE-05 - Calculate Weighted Curve Number**			
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	4.0	72	291
Type B Soils	Cultivated row: poor straight row	1.7	81	135
Type A Soils	Residential: 1 ac. lots (20% imp.)	0.8	51	39
Type B Soils	Residential: 1 ac. lots (20% imp.)	0.6	68	40
Total Ac / Weighted Cn		**7.1**		**72**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.008	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**28**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	290	LF
Watercourse Slope, s	0.041	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	3.29	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**29**	Min.

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Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area	**PRE-06 - Calculate Weighted Curve Number**			
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	26.6	72	1913
Type B Soils	Cultivated row: poor straight row	1.5	81	122
Total Ac / Weighted Cn		**28.1**		**72**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.005	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**33**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	708	LF
Watercourse Slope, s	0.011	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.71	Ft / s
Tc segment Tt = L / (60 * V)	**7**	Min.
Tc Total (Min. 10 minutes) =	**40**	Min.

Pre-Development Area	**PRE-07 - Calculate Weighted Curve Number**			
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	12.4	72	893
Type B Soils	Cultivated row: poor straight row	0.1	81	4
Total Ac / Weighted Cn		**12.5**		**72**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.013	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**23**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	375	LF
Watercourse Slope, s	0.023	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.47	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Tc Total (Min. 10 minutes) =	**26**	Min.

CONNELLY & WICKER, INC.

Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area PRE-08 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	2.1	72	151
Type B Soils	Cultivated row: poor straight row	1.5	81	119
Total Ac / Weighted Cn		**3.6**		**76**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.016	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**21**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	371	LF
Watercourse Slope, s	0.028	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.71	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**23**	Min.

Pre-Development Area PRE-09 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	5.9	72	424
Type B Soils	Cultivated row: poor straight row	0.9	81	70
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	8.1	49	399
Type A Soils	Wetland: Pine flatwoods	0.4	93	33
Total Ac / Weighted Cn		**15.3**		**61**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.026	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	553	LF
Watercourse Slope, s	0.025	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.56	Ft / s
Tc segment Tt = L / (60 * V)	**4**	Min.
Tc Total (Min. 10 minutes) =	**21**	Min.

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Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area PRE-10 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	12.8	49	625
Type A Soils	Wetland: Pine flatwoods	0.6	93	52
Total Ac / Weighted Cn		**13.3**		**51**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.019	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**20**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	466	LF
Watercourse Slope, s	0.031	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.84	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Tc Total (Min. 10 minutes) =	**23**	Min.

Pre-Development Area PRE-11 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	3.1	49	153
Total Ac / Weighted Cn		**3.1**		**49**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.041	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**14**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	175	LF
Watercourse Slope, s	0.051	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	3.67	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**15**	Min.

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Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area PRE-12 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	1.8	49	87
Total Ac / Weighted Cn		**1.8**		**49**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.037	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**15**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	181	LF
Watercourse Slope, s	0.040	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	3.25	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**16**	Min.

Pre-Development Area PRE-13 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	10.9	49	535
Total Ac / Weighted Cn		**10.9**		**49**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.003	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**41**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	345	LF
Watercourse Slope, s	0.034	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.99	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**43**	Min.

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Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area PRE-14 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	3.4	49	167
Type A Soils	Wetland: Pine flatwoods	0.2	93	18
Total Ac / Weighted Cn		**3.6**		**51**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.019	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**20**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	294	LF
Watercourse Slope, s	0.014	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.92	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Tc Total (Min. 10 minutes) =	**23**	Min.

CONNELLY & WICKER, INC.

Hillside Grove
Pre-Development - Weighted Curve Number Calculations

Pre-Development Area	**PRE-15 - Calculate Weighted Curve Number**			
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	1.1	72	80
Type B Soils	Cultivated row: poor straight row	0.1	81	7
Total Ac / Weighted Cn		**1.2**		**73**

Calculate Time of Concentration		
Segment A - Sheet Flow		
Surface Description	Woods: Light Underbrush	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.40	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.013	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**23**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	327	LF
Watercourse Slope, s	0.027	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.63	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**25**	Min.
Segment C - Channel Flow		
Cross Sectional Flow Area, A	30	Ft ^ 2
Wetted Perimeter, Pw	15.2	LF
Hydraulic Radius, R = A / Pw	1.969	LF
Channel Slope, s	0.026	Ft / Ft
Manning's Roughness Coefficient, n	0.03	
V = (1.49 * R^(2/3) * s^(1/2)) / n	12.49	Ft / s
Flow Length, L	78	LF
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**25**	Min.

Hillside Grove

Pre-Development - Weighted Curve Number Calculations

Pre-Development Area WET-01-PRE - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	1.3	72	92
Type A Soils	Wetland: Pine flatwoods	10.1	93	938
Total Ac / Weighted Cn		**11.4**		**91**

Pre-Development Area WET-02-PRE - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	1.3	72	92
Type A Soils	Wetland: Pine flatwoods	3.4	93	313
Total Ac / Weighted Cn		**4.7**		**87**

Pre-Development Area WET-04-PRE - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	1.4	72	98
Type A Soils	Wetland: Pine flatwoods	13.4	93	1250
Total Ac / Weighted Cn		**14.8**		**91**

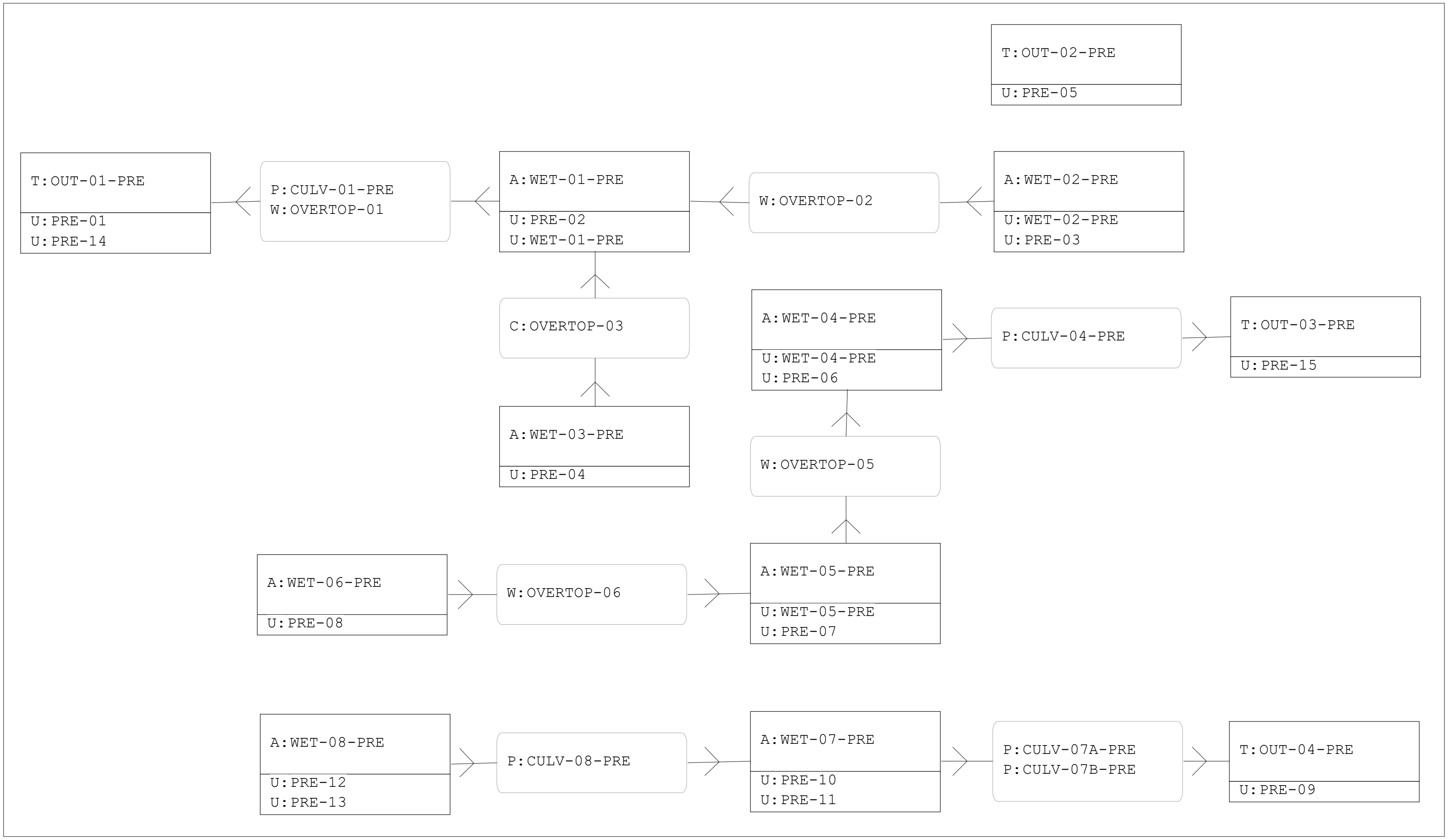
Pre-Development Area WET-05-PRE - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated row: poor straight row	0.7	72	50
Type A Soils	Wetland: Pine flatwoods	3.2	93	293
Total Ac / Weighted Cn		**3.9**		**89**

NODAL DIAGRAM | PRE-DEVELOPMENT DRAINAGE

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



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NODE MAXIMUM CONDITIONS REPORT | PRE-DEVELOPMENT DRAINAGE

                                               Max Time       Max   Warning Max Delta  Max Surf  Max Time       Max  Max Time       Max
           Name          Group     Simulation     Stage     Stage     Stage     Stage      Area    Inflow    Inflow   Outflow   Outflow
                                                    hrs        ft        ft        ft       ft2       hrs       cfs       hrs       cfs
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
     OUT-01-PRE            PRE      HYDRA-025     13.00     82.60      0.00    0.0040         5     12.25     83.53      0.00      0.00
     OUT-02-PRE            PRE      HYDRA-025     13.00     82.60      0.00    0.0053         0     12.25     17.81      0.00      0.00
     OUT-03-PRE            PRE      HYDRA-025     13.00     80.20      0.00    0.0047        19     12.17      2.42      0.00      0.00
     OUT-04-PRE            PRE      HYDRA-025     13.00     80.60      0.00    0.0027         2     12.17     32.61      0.00      0.00
     WET-01-PRE            PRE      HYDRA-025     18.90     82.43      0.00    0.0003    398691     12.00    110.42     23.66      6.56
     WET-02-PRE            PRE      HYDRA-025     26.25     80.92      0.00    0.0003    133653     12.00     40.75      0.00      0.00
     WET-03-PRE            PRE      HYDRA-025     26.00     83.59      0.00    0.0005     73012     12.17     35.41      0.00      0.00
     WET-04-PRE            PRE      HYDRA-025     24.23     80.23      0.00    0.0003    505498     12.00    121.88     24.19      2.32
     WET-05-PRE            PRE      HYDRA-025     48.00     81.56      0.00    0.0003    124426     12.08     49.89      0.00      0.00
     WET-06-PRE            PRE      HYDRA-025     13.06     85.06      0.00    0.0013     23936     12.17     11.09     13.06      3.60
     WET-07-PRE            PRE      HYDRA-025     26.00     79.81      0.00    0.0001    270685     12.17     21.85      0.00      0.00
     WET-08-PRE            PRE      HYDRA-025     27.50     79.37      0.00    0.0001    172497     12.42     11.10      0.00      0.00
     OUT-01-PRE            PRE     HYDRA-MEAN     13.00     80.60      0.00    0.0014         8     12.42     16.31      0.00      0.00
     OUT-02-PRE            PRE     HYDRA-MEAN     13.00     80.60      0.00    0.0027         0     12.25      5.39      0.00      0.00
     OUT-03-PRE            PRE     HYDRA-MEAN     13.00     78.20      0.00    0.0022         1     12.17      1.03      0.00      0.00
     OUT-04-PRE            PRE     HYDRA-MEAN     13.00     79.40      0.00    0.0012         2     12.25      6.57      0.00      0.00
     WET-01-PRE            PRE     HYDRA-MEAN     25.71     80.69      0.00    0.0001    261125     12.00     42.69     25.71      0.01
     WET-02-PRE            PRE     HYDRA-MEAN     26.25     79.58      0.00    0.0001    106749     12.00     15.29      0.00      0.00
     WET-03-PRE            PRE     HYDRA-MEAN     26.00     81.03      0.00    0.0002     61878     12.25      9.15      0.00      0.00
     WET-04-PRE            PRE     HYDRA-MEAN     27.25     79.07      0.00    0.0001    399690     12.00     48.90      0.00      0.00
     WET-05-PRE            PRE     HYDRA-MEAN     26.25     79.52      0.00    0.0001    115510     12.08     17.55      0.00      0.00
     WET-06-PRE            PRE     HYDRA-MEAN     26.00     83.55      0.00    0.0004      7687     12.17      3.73      0.00      0.00
     WET-07-PRE            PRE     HYDRA-MEAN     26.00     79.31      0.00    0.0000    237870     12.42      2.13      0.00      0.00
     WET-08-PRE            PRE     HYDRA-MEAN     27.50     78.80      0.00    0.0000    159463     12.67      0.91      0.00      0.00
```

LINK MAXIMUM CONDITIONS REPORT | PRE-DEVELOPMENT DRAINAGE

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
CULV-01-PRE	PRE	HYDRA-025	23.66	6.56	0.077	18.90	82.43	13.00	82.60
CULV-04-PRE	PRE	HYDRA-025	24.19	2.32	-0.711	24.23	80.23	13.00	80.20
CULV-07A-PRE	PRE	HYDRA-025	0.00	0.00	0.000	26.00	79.81	13.00	80.60
CULV-07B-PRE	PRE	HYDRA-025	0.00	0.00	0.000	26.00	79.81	13.00	80.60
CULV-08-PRE	PRE	HYDRA-025	0.00	0.00	0.000	27.50	79.37	26.00	79.81
OVERTOP-01	PRE	HYDRA-025	0.00	0.00	0.000	18.90	82.43	13.00	82.60
OVERTOP-02	PRE	HYDRA-025	0.00	0.00	0.000	26.25	80.92	18.90	82.43
OVERTOP-03	PRE	HYDRA-025	0.00	0.00	0.000	26.00	83.59	18.90	82.43
OVERTOP-05	PRE	HYDRA-025	0.00	0.00	0.000	48.00	81.56	24.23	80.23
OVERTOP-06	PRE	HYDRA-025	13.06	3.60	0.014	13.06	85.06	48.00	81.56
CULV-01-PRE	PRE	HYDRA-MEAN	25.71	0.01	0.000	25.71	80.69	13.00	80.60
CULV-04-PRE	PRE	HYDRA-MEAN	0.00	0.00	0.000	27.25	79.07	13.00	78.20
CULV-07A-PRE	PRE	HYDRA-MEAN	0.00	0.00	0.000	26.00	79.31	13.00	79.40
CULV-07B-PRE	PRE	HYDRA-MEAN	0.00	0.00	0.000	26.00	79.31	13.00	79.40
CULV-08-PRE	PRE	HYDRA-MEAN	0.00	0.00	0.000	27.50	78.80	26.00	79.31
OVERTOP-01	PRE	HYDRA-MEAN	0.00	0.00	0.000	25.71	80.69	13.00	80.60
OVERTOP-02	PRE	HYDRA-MEAN	0.00	0.00	0.000	26.25	79.58	25.71	80.69
OVERTOP-03	PRE	HYDRA-MEAN	0.00	0.00	0.000	26.00	81.03	25.71	80.69
OVERTOP-05	PRE	HYDRA-MEAN	0.00	0.00	0.000	26.25	79.52	27.25	79.07
OVERTOP-06	PRE	HYDRA-MEAN	0.00	0.00	0.000	26.00	83.55	26.25	79.52

```
             Basin Name: PRE-01
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: OUT-01-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 4.00
    Comp Time Inc (min): 4.00
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 30.00
       Time Shift (hrs): 0.00
              Area (ac): 52.000
   Vol of Unit Hyd (in): 1.001
           Curve Number: 59.000
              DCIA (%): 0.000

         Time Max (hrs): 48.13
         Flow Max (cfs): 61.43
     Runoff Volume (in): 5.580
    Runoff Volume (ft3): 1053205


--------------------------------------------------------------------------------

             Basin Name: PRE-02
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: WET-01-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 3.47
    Comp Time Inc (min): 3.47
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 26.00
       Time Shift (hrs): 0.00
              Area (ac): 21.400
   Vol of Unit Hyd (in): 1.000
           Curve Number: 72.000
               DCIA (%): 0.000

         Time Max (hrs): 48.07
         Flow Max (cfs): 33.86
     Runoff Volume (in): 7.407
    Runoff Volume (ft3): 575424


--------------------------------------------------------------------------------

             Basin Name: PRE-03
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: WET-02-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 3.73
    Comp Time Inc (min): 3.73
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 28.00
       Time Shift (hrs): 0.00
              Area (ac): 7.500
   Vol of Unit Hyd (in): 1.000
           Curve Number: 72.000
               DCIA (%): 0.000

         Time Max (hrs): 48.03
         Flow Max (cfs): 11.69
     Runoff Volume (in): 7.407
    Runoff Volume (ft3): 201652


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             Basin Name: PRE-04
             Group Name: PRE
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```
             Simulation: HYDRO-025-96
              Node Name: WET-03-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 3.33
    Comp Time Inc (min): 3.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 25.00
       Time Shift (hrs): 0.00
              Area (ac): 14.900
   Vol of Unit Hyd (in): 1.000
           Curve Number: 67.000
              DCIA (%): 0.000

         Time Max (hrs): 48.05
         Flow Max (cfs): 21.83
     Runoff Volume (in): 6.716
    Runoff Volume (ft3): 363256


--------------------------------------------------------------------------------

             Basin Name: PRE-05
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: OUT-02-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 3.87
    Comp Time Inc (min): 3.87
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 29.00
       Time Shift (hrs): 0.00
              Area (ac): 7.100
   Vol of Unit Hyd (in): 1.000
           Curve Number: 72.000
              DCIA (%): 0.000

         Time Max (hrs): 48.07
         Flow Max (cfs): 11.02
     Runoff Volume (in): 7.407
    Runoff Volume (ft3): 190904


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             Basin Name: PRE-14
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: OUT-01-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 3.07
    Comp Time Inc (min): 3.07
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 23.00
       Time Shift (hrs): 0.00
              Area (ac): 3.600
   Vol of Unit Hyd (in): 1.000
           Curve Number: 51.000
              DCIA (%): 0.000

         Time Max (hrs): 48.04
         Flow Max (cfs): 3.54
     Runoff Volume (in): 4.412
    Runoff Volume (ft3): 57659


--------------------------------------------------------------------------------

             Basin Name: WET-01-PRE
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: WET-01-PRE
```

```
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 11.400
   Vol of Unit Hyd (in): 1.000
           Curve Number: 91.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 23.18
     Runoff Volume (in): 9.883
    Runoff Volume (ft3): 408975


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             Basin Name: WET-02-PRE
             Group Name: PRE
             Simulation: HYDRO-025-96
              Node Name: WET-02-PRE
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 4.700
   Vol of Unit Hyd (in): 1.000
           Curve Number: 87.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 9.36
     Runoff Volume (in): 9.377
    Runoff Volume (ft3): 159989
```

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

         Name: PRE-01                   Node: OUT-01-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 30.00
               Area(ac): 52.000                  Time Shift(hrs): 0.00
           Curve Number: 59.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-02                   Node: WET-01-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 26.00
               Area(ac): 21.400                  Time Shift(hrs): 0.00
           Curve Number: 72.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-03                   Node: WET-02-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 28.00
               Area(ac): 7.500                   Time Shift(hrs): 0.00
           Curve Number: 72.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-04                   Node: WET-03-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 25.00
               Area(ac): 14.900                  Time Shift(hrs): 0.00
           Curve Number: 67.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-05                   Node: OUT-02-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 29.00
               Area(ac): 7.100                   Time Shift(hrs): 0.00
           Curve Number: 72.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-06                   Node: WET-04-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 40.00
               Area(ac): 28.100                  Time Shift(hrs): 0.00
           Curve Number: 72.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-07                   Node: WET-05-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 26.00
```

```
               Area(ac): 12.500                  Time Shift(hrs): 0.00
           Curve Number: 72.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-08                   Node: WET-06-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 23.00
               Area(ac): 3.600                   Time Shift(hrs): 0.00
           Curve Number: 76.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-09                   Node: OUT-04-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 19.00
               Area(ac): 15.300                  Time Shift(hrs): 0.00
           Curve Number: 61.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-10                   Node: WET-07-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 23.00
               Area(ac): 13.300                  Time Shift(hrs): 0.00
           Curve Number: 51.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-11                   Node: WET-07-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 3.100                   Time Shift(hrs): 0.00
           Curve Number: 49.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-12                   Node: WET-08-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 16.00
               Area(ac): 1.800                   Time Shift(hrs): 0.00
           Curve Number: 49.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-13                   Node: WET-08-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 43.00
               Area(ac): 10.900                  Time Shift(hrs): 0.00
           Curve Number: 49.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-14                   Node: OUT-01-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
```

```
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 23.00
               Area(ac): 3.600                   Time Shift(hrs): 0.00
           Curve Number: 51.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: PRE-15                   Node: OUT-03-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 25.00
               Area(ac): 1.200                   Time Shift(hrs): 0.00
           Curve Number: 73.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: WET-01-PRE               Node: WET-01-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 11.400                  Time Shift(hrs): 0.00
           Curve Number: 91.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: WET-02-PRE               Node: WET-02-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 4.700                   Time Shift(hrs): 0.00
           Curve Number: 87.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: WET-04-PRE               Node: WET-04-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 14.800                  Time Shift(hrs): 0.00
           Curve Number: 91.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: WET-05-PRE               Node: WET-05-PRE             Status: Onsite
        Group: PRE                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 3.900                   Time Shift(hrs): 0.00
           Curve Number: 89.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



==========================================================================================
==== Nodes ===============================================================================
==========================================================================================

      Name: OUT-01-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 79.500
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Time/Stage



      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          79.500
          96.00          79.500

------------------------------------------------------------------------------------------
```

```
      Name: OUT-02-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Time/Stage



      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          78.500
          96.00          78.500

--------------------------------------------------------------------------------------------
      Name: OUT-03-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 76.500
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Time/Stage



      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          76.500
          48.00          76.500

--------------------------------------------------------------------------------------------
      Name: OUT-04-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Time/Stage



      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          78.500
          48.00          78.500

--------------------------------------------------------------------------------------------
      Name: WET-01-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 79.400
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         79.380            2.30
         80.000            4.80
         81.000            6.50
         82.000            8.70
         83.000            9.70
         84.000           12.90

--------------------------------------------------------------------------------------------
      Name: WET-02-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         78.500            1.00
         79.000            2.10
         80.000            2.70
         81.000            3.10
         82.000            3.20
         83.000            3.30
         84.000            3.80

--------------------------------------------------------------------------------------------
      Name: WET-03-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 79.300
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         79.300            0.60
         80.000            0.70
         81.000            1.40
         82.000            1.50
         83.000            1.60
         84.000            1.70
         85.000            1.90
         86.000            2.00

--------------------------------------------------------------------------------------------
      Name: WET-04-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 77.600
     Group: PRE                                                Warn Stage(ft): 0.000
```

```
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         76.500            1.90
         77.000            2.00
         78.000            2.90
         79.000            9.00
         80.000           11.40
         81.000           12.30
         82.000           13.30
         83.000           14.40

--------------------------------------------------------------------------------------------
      Name: WET-05-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         76.500            2.30
         77.000            2.40
         78.000            2.50
         79.000            2.60
         80.000            2.70
         81.000            2.80
         82.000            2.90
         83.000            3.10

--------------------------------------------------------------------------------------------
      Name: WET-06-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 79.100
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         79.100            0.09
         80.000            0.10
         81.000            0.12
         82.000            0.14
         83.000            0.16
         84.000            0.19
         85.000            0.37
         86.000            3.50

--------------------------------------------------------------------------------------------
      Name: WET-07-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 79.200
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         78.500            4.50
         79.000            5.00
         80.000            6.50
         81.000           10.50
         82.000           13.80
         83.000           14.90
         84.000           15.30

--------------------------------------------------------------------------------------------
      Name: WET-08-PRE          Base Flow(cfs): 0.000          Init Stage(ft): 78.700
     Group: PRE                                                Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         78.500            3.60
         79.000            3.70
         80.000            4.40
         81.000            5.60
         82.000            5.90
         83.000            6.10
         84.000            6.60

============================================================================================
==== Pipes =================================================================================
============================================================================================
```

```
         Name: CULV-01-PRE         From Node: WET-01-PRE         Length(ft): 19.00
        Group: PRE                   To Node: OUT-01-PRE              Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                          Exit Loss Coef: 1.00
   Invert(ft): 80.650         80.450                         Bend Loss Coef: 0.00
  Manning's N: 0.022000       0.022000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Projecting

Downstream FHWA Inlet Edge Description:
Circular CMP: Projecting



----------------------------------------------------------------------------------------------------
         Name: CULV-04-PRE         From Node: WET-04-PRE         Length(ft): 21.00
        Group: PRE                   To Node: OUT-03-PRE              Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 79.520         78.740                         Bend Loss Coef: 0.00
  Manning's N: 0.022000       0.022000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Projecting

Downstream FHWA Inlet Edge Description:
Circular CMP: Projecting



----------------------------------------------------------------------------------------------------
         Name: CULV-07A-PRE        From Node: WET-07-PRE         Length(ft): 23.00
        Group: PRE                   To Node: OUT-04-PRE              Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 80.630         80.650                         Bend Loss Coef: 0.00
  Manning's N: 0.022000       0.022000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Projecting

Downstream FHWA Inlet Edge Description:
Circular CMP: Projecting



----------------------------------------------------------------------------------------------------
         Name: CULV-07B-PRE        From Node: WET-07-PRE         Length(ft): 49.00
        Group: PRE                   To Node: OUT-04-PRE              Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 8.00           8.00                       Entrance Loss Coef: 0.20
     Rise(in): 8.00           8.00                           Exit Loss Coef: 0.00
   Invert(ft): 81.480         81.680                         Bend Loss Coef: 0.00
  Manning's N: 0.011000       0.011000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Projecting

Downstream FHWA Inlet Edge Description:
Circular CMP: Projecting
```

```
----------------------------------------------------------------------------------------------------
         Name: CULV-08-PRE         From Node: WET-08-PRE         Length(ft): 21.00
        Group: PRE                   To Node: WET-07-PRE              Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 12.00          12.00                       Entrance Loss Coef: 0.20
     Rise(in): 12.00          12.00                           Exit Loss Coef: 0.00
   Invert(ft): 80.160         80.190                          Bend Loss Coef: 0.00
  Manning's N: 0.011000       0.011000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                        Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular CMP: Projecting

Downstream FHWA Inlet Edge Description:
Circular CMP: Projecting



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

          Name: OVERTOP-03         From Node: WET-03-PRE         Length(ft): 470.00
         Group: PRE                  To Node: WET-01-PRE              Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 84.800         84.000                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.000
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.000
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                            Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 60.000         80.000
  LtSdSlp(h/v): 75.00          60.00
  RtSdSlp(h/v): 100.00         60.00



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

         Name: OVERTOP-01          From Node: WET-01-PRE
        Group: PRE                   To Node: OUT-01-PRE
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 135.00
        Left Side Slope(h/v): 20.00
       Right Side Slope(h/v): 20.00
                  Invert(ft): 83.420
       Control Elevation(ft): 83.420
      Struct Opening Dim(ft): 9999.00
                                                  TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



----------------------------------------------------------------------------------------------------
         Name: OVERTOP-02          From Node: WET-02-PRE
        Group: PRE                   To Node: WET-01-PRE
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 70.00
       Right Side Slope(h/v): 80.00
                  Invert(ft): 83.500
       Control Elevation(ft): 83.500
      Struct Opening Dim(ft): 9999.00
                                                  TABLE
             Bottom Clip(ft): 0.000
```

```
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



----------------------------------------------------------------------------------------------------
         Name: OVERTOP-05          From Node: WET-05-PRE
        Group: PRE                   To Node: WET-04-PRE
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 85.00
        Left Side Slope(h/v): 70.00
       Right Side Slope(h/v): 140.00
                  Invert(ft): 83.500
       Control Elevation(ft): 83.500
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



----------------------------------------------------------------------------------------------------
         Name: OVERTOP-06          From Node: WET-06-PRE
        Group: PRE                   To Node: WET-05-PRE
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 80.00
        Left Side Slope(h/v): 40.00
       Right Side Slope(h/v): 40.00
                  Invert(ft): 85.000
       Control Elevation(ft): 85.000
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



==========================================================================================
==== Hydrology Simulations ===============================================================
==========================================================================================

         Name: FDOT002Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT002Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 2.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT002Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 2.76

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT002Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 3.24

Time(hrs)       Print Inc(min)
```

```
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT002Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 3.77

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT002Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 4.87

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT002Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 5.36

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT005Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 2.90

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT005Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 3.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT005Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 4.00
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT005Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 4.72

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT005Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 6.05

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT005Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 6.63

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT010Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 3.20

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT010Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 3.90

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT010Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
```

```
          Rainfall File: Fdot-4
    Rainfall Amount(in): 4.60

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT010Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 5.56

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT010Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 7.44

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT010Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 7.91

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT025Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 3.72

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT025Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 4.46

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT025Y004H.R32
```

```
      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 5.28

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

--------------------------------------------------------------------------------------------------
         Name: FDOT025Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT025Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 6.32

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

--------------------------------------------------------------------------------------------------
         Name: FDOT025Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT025Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 8.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

--------------------------------------------------------------------------------------------------
         Name: FDOT025Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT025Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 10.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

--------------------------------------------------------------------------------------------------
         Name: FDOT050Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT050Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 4.05

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

--------------------------------------------------------------------------------------------------
         Name: FDOT050Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT050Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 4.96

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

--------------------------------------------------------------------------------------------------
         Name: FDOT050Y004H
```

```
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT050Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 5.96

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT050Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 9.84

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT050Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 9.84

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT050Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 11.90

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT100Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 4.50

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT100Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 5.48

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
```

```
----------------------------------------------------------------------------------------------------
         Name: FDOT100Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT100Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 6.56

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT100Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 7.80

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT100Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 10.56

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\FDOT100Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 14.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-010
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\HYDRO-010.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 6.50

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-025
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\HYDRO-025.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 8.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
```

```
17.000          5.00
30.000          15.00
48.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-025-96
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\HYDRO-025-96.R32

      Override Defaults: Yes
    Storm Duration(hrs): 96.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
96.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-100
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\HYDRO-100.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-MEAN
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT\HYDRO-MEAN.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 4.20

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

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

         Name: FDOT002Y001H        Hydrology Sim: FDOT002Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y002H        Hydrology Sim: FDOT002Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y002H.I32

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

```
        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y004H        Hydrology Sim: FDOT002Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y008H        Hydrology Sim: FDOT002Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y024H        Hydrology Sim: FDOT002Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


====================================================================================================
         Name: FDOT002Y072H        Hydrology Sim: FDOT002Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


====================================================================================================
         Name: FDOT005Y001H        Hydrology Sim: FDOT005Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


====================================================================================================
         Name: FDOT005Y002H        Hydrology Sim: FDOT005Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
```

```
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y004H        Hydrology Sim: FDOT005Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y008H        Hydrology Sim: FDOT005Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y024H        Hydrology Sim: FDOT005Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y072H        Hydrology Sim: FDOT005Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y072H.I32
```

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y001H        Hydrology Sim: FDOT010Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y002H        Hydrology Sim: FDOT010Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y004H        Hydrology Sim: FDOT010Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
```

```
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y008H        Hydrology Sim: FDOT010Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y024H        Hydrology Sim: FDOT010Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y072H        Hydrology Sim: FDOT010Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
```

```
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y001H        Hydrology Sim: FDOT025Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y002H        Hydrology Sim: FDOT025Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y004H        Hydrology Sim: FDOT025Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes
```

```
------------------------------------------------------------------------------------------------------
         Name: FDOT025Y008H        Hydrology Sim: FDOT025Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


------------------------------------------------------------------------------------------------------
         Name: FDOT025Y024H        Hydrology Sim: FDOT025Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


------------------------------------------------------------------------------------------------------
         Name: FDOT025Y072H        Hydrology Sim: FDOT025Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


------------------------------------------------------------------------------------------------------
         Name: FDOT050Y001H        Hydrology Sim: FDOT050Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y001H.I32

      Execute: Yes         Restart: No            Patch: No
```

```
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y002H        Hydrology Sim: FDOT050Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y004H        Hydrology Sim: FDOT050Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y008H        Hydrology Sim: FDOT050Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y024H        Hydrology Sim: FDOT050Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y072H        Hydrology Sim: FDOT050Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y001H        Hydrology Sim: FDOT100Y001H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
```

```
Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y002H        Hydrology Sim: FDOT100Y002H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y004H        Hydrology Sim: FDOT100Y004H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y008H        Hydrology Sim: FDOT100Y008H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
```

```
         Name: FDOT100Y024H        Hydrology Sim: FDOT100Y024H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y072H        Hydrology Sim: FDOT100Y072H
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
         Name: HYDRA-000           Hydrology Sim:
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-000.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          60.000
30.000          10.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes

----------------------------------------------------------------------------------------------------
         Name: HYDRA-010           Hydrology Sim: HYDRO-010
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-010.I32

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

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

```
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-010                  Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-025           Hydrology Sim: HYDRO-025
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-025.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-025                  Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-025-96        Hydrology Sim: HYDRO-025-96
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-025-96.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 96.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-025                  Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
96.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-100           Hydrology Sim: HYDRO-100
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-100.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-100                  Boundary Flows:
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-MEAN          Hydrology Sim: HYDRO-MEAN
     Filename: J:\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-MEAN.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-MEAN                 Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


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

      Name: BND-100               Node: OUT-01-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          83.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-010               Node: OUT-01-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          81.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-01-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          82.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-100               Node: OUT-02-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          83.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-010               Node: OUT-02-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          81.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
```

```
      Name: BND-025               Node: OUT-01-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          82.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-02-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          82.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-02-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          82.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-01-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          80.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-01-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          80.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-02-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-02-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-100               Node: OUT-03-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          81.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-100               Node: OUT-04-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          81.200
         48.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-03-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          80.200
         48.000          76.500
         96.000          76.500
```

```
----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-03-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          80.200
         48.000          76.500
         96.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-04-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         48.000          78.500
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025               Node: OUT-04-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         48.000          78.500
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-010               Node: OUT-03-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          79.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-010               Node: OUT-04-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.000
         48.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-03-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          78.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-03-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          78.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-04-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          79.400
         48.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-04-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          79.400
         48.000          78.500
```

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Hillside Grove
Post-Development - Weighted Curve Number Calculations

Post-Development Area COMP-01 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.9	39	73
Varies	Standing Water	1.7	100	173
Total Ac / Weighted Cn		**3.6**		**68**

Post-Development Area COMP-02 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Lawns (Good Condition, > 75% grass cover)	2.8	39	108
Varies	Standing Water	2.1	100	213
Total Ac / Weighted Cn		**4.9**		**66**

Post-Development - Weighted Curve Number Calculations

Post-Development Area OFF-01 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Woods (Fair)	1.0	36	34
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.3	39	11
Total Ac / Weighted Cn		**1.2**		**37**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	0	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**0**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	0	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	0	LF
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

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Hillside Grove

Post-Development - Weighted Curve Number Calculations

Post-Development Area OFF-02 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Woods (Fair)	2.4	36	87
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.9	39	73
Total Ac / Weighted Cn		**4.3**		**37**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	0	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**0**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	0	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	0	LF
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

Hillside Grove

Post-Development - Weighted Curve Number Calculations

Post-Development Area OFF-03 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	90' R/W (70% Impervious)	0.3	80	21
Total Ac / Weighted Cn		**0.3**		**80**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	0	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**0**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	0	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	0	LF
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

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Hillside Grove

Post-Development - Weighted Curve Number Calculations

Post-Development Area RY-01 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	7.5	73	545
Type A Soils	Row Houses / Townhouses (78% Impervious)	1.3	87	112
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.7	39	67
Total Ac / Weighted Cn		**10.5**		**69**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.038	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**9**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	21	LF
Watercourse Slope, s	0.038	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	3.15	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

Post-Development Area RY-02 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	90' R/W (70% Impervious)	0.1	80	7
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.6	39	21
Total Ac / Weighted Cn		**0.6**		**45**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	25	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.280	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**1**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area RY-03 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	1.4	77	107
Type A Soils	Row Houses / Townhouses (78% Impervious)	0.1	87	4
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.9	39	73
Total Ac / Weighted Cn		**3.3**		**56**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.026	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**11**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	17	LF
Watercourse Slope, s	0.026	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.58	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**11**	Min.

Post-Development Area RY-04 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Row Houses / Townhouses (78% Impervious)	0.6	87	52
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.9	39	34
Total Ac / Weighted Cn		**1.5**		**59**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.026	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**11**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	17	LF
Watercourse Slope, s	0.026	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.58	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**11**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area RY-05 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.7	73	51
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.5	39	21
Total Ac / Weighted Cn		**1.2**		**58**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**15**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	18	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**15**	Min.

Post-Development Area RY-06 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Non-cultivated: Woods (Fair)	0.2	36	8
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.9	39	37
Total Ac / Weighted Cn		**1.2**		**38**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	25	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**5**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area RY-07 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.7	73	51
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	0.5	77	40
Type A Soils	Lawns (Good Condition, > 75% grass cover)	2.8	39	110
Total Ac / Weighted Cn		**4.1**		**50**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**15**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	44	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**15**	Min.

Post-Development Area RY-08 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	0.9	77	70
Type A Soils	Non-cultivated: Woods (Fair)	0.3	36	10
Type A Soils	Lawns (Good Condition, > 75% grass cover)	2.0	39	76
Total Ac / Weighted Cn		**3.2**		**50**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**15**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	211	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**17**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area RY-09 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.7	73	53
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.6	39	23
Total Ac / Weighted Cn		**1.3**		**58**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	45	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**8**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

Post-Development Area RY-10 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	1.9	73	136
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.9	39	34
Total Ac / Weighted Cn		**2.7**		**62**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**15**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	88	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**16**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area RY-11 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.6	73	42
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.8	39	31
Total Ac / Weighted Cn		**1.4**		**53**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.8	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**15**	Min.
Segment B - Shallow Concentrated Flow		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	67	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**16**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-01 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	8.7	73	631
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	1.9	77	149
Type A Soils	Recreational: 25% impervious	0.8	62	48
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.9	39	34
Varies	Normal Water Level	2.1	100	210
Total Ac / Weighted Cn		**14.3**		**75**

Calculate Time of Concentration

Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	31	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	372	LF
Watercourse Slope, s	0.014	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.87	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	591	LF
Tc segment Tt = L / (60 * V)	**4**	Min.
Tc Total (Min. 10 minutes) =	**24**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-02 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	6.2	73	449
Type A Soils	90' R/W (70% Impervious)	2.4	80	188
Type A Soils	Recreational: 70% impervious	1.2	82	99
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.3	39	50
Varies	Normal Water Level	0.5	100	46
Total Ac / Weighted Cn		**11.5**		**73**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.011	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	21	LF
Watercourse Slope, s	0.013	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.83	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	195	LF
Watercourse Slope, s	0.003	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.19	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	450	LF
Tc segment Tt = L / (60 * V)	**3**	Min.
Tc Total (Min. 10 minutes) =	**22**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-03 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.9	39	33
Varies	Normal Water Level	1.4	100	137
Total Ac / Weighted Cn		**2.2**		**77**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	25	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.202	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**2**	Min.
Tc Total (Min. 10 minutes) =	**10**	Min.

Post-Development Area SUB-04 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	15.3	73	1119
Type B Soils	Residential: 1/8 Ac. lots (60% Impervious)	3.4	83	278
Type A Soils	90' R/W (70% Impervious)	2.8	80	225
Type B Soils	90' R/W (70% Impervious)	1.1	87	97
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.7	39	67
Varies	Normal Water Level	0.5	100	46
Total Ac / Weighted Cn		**24.8**		**74**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	93	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	132	LF
Watercourse Slope, s	0.035	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	3.81	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	1314	LF
Tc segment Tt = L / (60 * V)	**9**	Min.
Tc Total (Min. 10 minutes) =	**26**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-05 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	1.9	73	137
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	3.5	77	271
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.8	39	70
Varies	Normal Water Level	0.8	100	76
Total Ac / Weighted Cn		**8.0**		**70**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	93	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	250	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	246	LF
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**21**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-06 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.3	73	23
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.4	39	14
Varies	Normal Water Level	0.5	100	52
Total Ac / Weighted Cn		**1.2**		**75**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	57	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**11**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	100	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	964	LF
Tc segment Tt = L / (60 * V)	**6**	Min.
Tc Total (Min. 10 minutes) =	**18**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-07 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	2.8	77	216
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.5	39	20
Varies	Normal Water Level	1.1	100	108
Total Ac / Weighted Cn		**4.4**		**78**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	93	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	141	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	197	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**19**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-08 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Row Houses / Townhouses (78% Impervious)	0.4	87	35
Type A Soils	90' R/W (70% Impervious)	2.7	80	218
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.6	39	25
Varies	Normal Water Level	1.4	100	135
Total Ac / Weighted Cn		**5.1**		**81**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	71	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**13**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	92	LF
Watercourse Slope, s	0.005	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.52	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	170	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**15**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-09 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Row Houses / Townhouses (78% Impervious)	2.7	87	231
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.7	39	29
Varies	Normal Water Level	0.6	100	62
Total Ac / Weighted Cn		**4.0**		**80**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	23	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	269	LF
Watercourse Slope, s	0.003	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.21	Ft / s
Tc segment Tt = L / (60 * V)	**4**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	303	LF
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**23**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-10 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Row Houses / Townhouses (78% Impervious)	1.8	87	154
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.7	39	28
Varies	Normal Water Level	0.7	100	65
Total Ac / Weighted Cn		**3.1**		**79**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	71	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**13**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	260	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.24	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	179	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**17**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-11 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Row Houses / Townhouses (78% Impervious)	6.1	87	528
Type A Soils	90' R/W (70% Impervious)	0.4	80	35
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.7	39	66
Varies	Normal Water Level	0.2	100	16
Total Ac / Weighted Cn		**8.4**		**77**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	49	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	117	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	1020	LF
Tc segment Tt = L / (60 * V)	**7**	Min.
Tc Total (Min. 10 minutes) =	**27**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-12 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.6	39	64
Varies	Normal Water Level	0.6	100	62
Total Ac / Weighted Cn		**2.3**		**56**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	16	LF
Watercourse Slope, s	0.250	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	10.06	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Tc Total (Min. 10 minutes) =	**17**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-13 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	5.0	73	366
Type A Soils	Non-cultivated: Woods (Fair)	0.4	36	15
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.4	39	54
Varies	Normal Water Level	1.7	100	168
Total Ac / Weighted Cn		**8.5**		**71**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	28	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	200	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	283	LF
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**22**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-14 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	8.0	77	619
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.8	39	71
Varies	Normal Water Level	2.1	100	210
Total Ac / Weighted Cn		**12.0**		**75**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	91	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	70	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	623	LF
Tc segment Tt = L / (60 * V)	**4**	Min.
Tc Total (Min. 10 minutes) =	**21**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-15 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	4.9	73	360
Type A Soils	Lawns (Good Condition, > 75% grass cover)	1.5	39	59
Varies	Normal Water Level	1.9	100	194
Total Ac / Weighted Cn		**8.4**		**73**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	28	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	236	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**3**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	320	LF
Tc segment Tt = L / (60 * V)	**2**	Min.
Tc Total (Min. 10 minutes) =	**22**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-16 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	13.5	73	986
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	3.3	77	253
Type A Soils	Lawns (Good Condition, > 75% grass cover)	2.0	39	76
Varies	Normal Water Level	2.5	100	246
Total Ac / Weighted Cn		**21.2**		**74**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	100	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**17**	Min.
Segment B - Shallow Concentrated Flow: Swale		
Surface Description (Paved or Unpaved)	Unpaved	
Flow Length, L	31	LF
Watercourse Slope, s	0.010	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.61	Ft / s
Tc segment Tt = L / (60 * V)	**0**	Min.
Segment C - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	263	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**4**	Min.
Segment D - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	784	LF
Tc segment Tt = L / (60 * V)	**5**	Min.
Tc Total (Min. 10 minutes) =	**26**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-17 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	5.0	73	361
Type A Soils	Residential: 1/10 Ac. lots (65% Impervious)	1.6	77	126
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.8	39	29
Varies	Normal Water Level	0.2	100	15
Total Ac / Weighted Cn		**7.5**		**71**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	93	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	300	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**4**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	185	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**21**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-18 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.5	73	38
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.5	39	20
Varies	Normal Water Level	0.1	100	13
Total Ac / Weighted Cn		**1.2**		**61**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	97	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	126	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**2**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	181	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**19**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-19 - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.4	73	27
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.5	39	18
Varies	Normal Water Level	0.3	100	34
Total Ac / Weighted Cn		**1.2**		**67**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	93	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.010	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**16**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	461	LF
Watercourse Slope, s	0.004	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	1.22	Ft / s
Tc segment Tt = L / (60 * V)	**6**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	191	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**23**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area SUB-20 - Calculate Weighted Curve Number

Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Residential: 1/8 Ac. lots (60% Impervious)	0.6	73	45
Type A Soils	90' R/W (70% Impervious)	0.4	80	32
Type A Soils	Lawns (Good Condition, > 75% grass cover)	0.5	39	20
Varies	Normal Water Level	0.3	100	28
Total Ac / Weighted Cn		**1.8**		**69**

Calculate Time of Concentration		
Segment A - Sheet Flow: Overland		
Surface Description	Dense grasses	
Manning's roughness coefficient (n) (from Table 3-1 TR-55)	0.24	
Flow length (L) (total <= 100')	96	LF
Two-Yr 24-Hr Rainfall, P2 (Interpolated SJRWMD Handbook)	4.0	Inches
Land Slope, (s)	0.014	Ft / Ft
Tc segment Tt = ((0.007 x (n x L)^0.8) / ((P2^ 0.5) x (s ^ 0.4))) * 60	**14**	Min.
Segment B - Shallow Concentrated Flow: Gutter		
Surface Description (Paved or Unpaved)	Paved	
Flow Length, L	170	LF
Watercourse Slope, s	0.016	Ft / Ft
Average Velocity, V (from Figure 3-1 TR-55)	2.59	Ft / s
Tc segment Tt = L / (60 * V)	**1**	Min.
Segment C - Pipe Flow		
Surface Description	Concrete Pipe	
Minimum Design Velocity (V)	2.50	Ft / Sec
Flow length (L)	113	LF
Tc segment Tt = L / (60 * V)	**1**	Min.
Tc Total (Min. 10 minutes) =	**16**	Min.

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Post-Development - Weighted Curve Number Calculations

Post-Development Area WET-01-PST - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated Row: poor straight row	1.3	72	92
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	0.0	49	0
Type A Soils	Wetland: Pine flatwoods	10.1	93	938
Varies	Standing Water	0.0	100	0
Total Ac / Weighted Cn		**11.4**		**91**

Post-Development Area WET-02-PST - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated Row: poor straight row	1.3	72	92
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	0.0	49	0
Type A Soils	Wetland: Pine flatwoods	3.4	93	313
Varies	Standing Water	0.0	100	0
Total Ac / Weighted Cn		**4.7**		**87**

Post-Development Area WET-04-PST - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated Row: poor straight row	1.4	72	98
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	0.0	49	0
Type A Soils	Wetland: Pine flatwoods	13.4	93	1250
Varies	Standing Water	0.0	100	0
Total Ac / Weighted Cn		**14.8**		**91**

Post-Development Area WET-05-PST - Calculate Weighted Curve Number				
Soil Types	Land Type	Acres +/-	Cn	Ac * Cn
Type A Soils	Cultivated Row: poor straight row	0.7	72	50
Type A Soils	Non-cultivated: Pasture, No Mech. Treat. (Fair)	0.0	49	0
Type A Soils	Wetland: Pine flatwoods	3.2	93	293
Varies	Standing Water	0.0	100	0
Total Ac / Weighted Cn		**3.8**		**89**

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Hillside Grove
Treatment Volume and Bleeddown Calculations **SMF-01**

Wet Detention SMF Data Summary

Total Drainage Area to SMF	14.3	Ac +/-
Area at Normal Water Level	2.1	Ac +/-
Normal Water Level Elevation	84.00	MSL
Proposed Weir Elevation	84.75	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	84.00	MSL
Bleeddown Slot Width (Span)	4.3	Inches
Height from NWL to Weir Elevation (Rise)	9.0	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	10.6	60%	0.9	51.9%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.8	25%	0.1	1.6%
Landscape Area	0.9	0%	0.1	0.0%
Totals	**12.2**		**1.0**	**53.5%**

Calculate Treatment Volume Required

A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	1.19	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	1.36	Ac-Ft
		Use Higher Value for Required Treatment Volume	**1.36**	**Ac-Ft**
		Total Treatment Provided	**1.62**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-01	EL.	87.00	84.75	84.00	79.00	76.00	72.00
	Area (Ac.)	2.62	2.23	2.10	1.46	0.98	0.59
	Vol. (Ac-Ft)	7.08	1.62	0	8.90	12.56	15.70

Calculate Q for Bleedown Slot for Treatment Volume

Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.

1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.38	Feet
2. h2 (Head) = (Weir El - NWL El)	0.75	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.56	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.409	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.327	CFS
6. Use Q between Q24 and Q30 (and Closer to Q30)	0.328	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.24	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.36**	**Feet**

Calculate Groundwater Infiltration into SMF

K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	0	SF
Backslope Length	533	Feet
Assume Groundwater El (Based on project Geotechnical Report)	84.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.0	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow

Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2

H = [Q / (C * Le)] ^ 2/3	**0.00**	**Feet**

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Hillside Grove

Permanent Pool Volume Calculations **SMF-01**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	2.62	Acre-Feet
Total Permanent Pool Provided	12.56	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	2.1	100	0.00	4.200	1.000	2.10
Residential Area	10.6	77	2.99	1.970	0.469	4.96
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.8	74	3.51	1.745	0.415	0.32
Landscape Area	0.9	39	15.64	0.069	0.016	0.01
Totals	**14.3**					**7.40**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**19.12**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.00**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.12**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**2.62**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**12.56**	**Acre-Feet**

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Treatment Volume and Bleeddown Calculations **SMF-02**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	11.5	Ac +/-
Area at Normal Water Level	0.5	Ac +/-
Normal Water Level Elevation	82.30	MSL
Proposed Weir Elevation	84.65	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	82.25	MSL
Bleeddown Slot Width (Span)	4.7	Inches
Height from NWL to Weir Elevation (Rise)	28.2	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	6.2	60%	0.6	33.5%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	2.4	70%	0.2	15.0%
Recreation Area	1.2	70%	0.1	7.7%
Landscape Area	1.3	0%	0.1	0.0%
Totals	**11.0**		**1.0**	**56.2%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	0.96	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	1.29	Ac-Ft
		Use Higher Value for Required Treatment Volume	**1.29**	**Ac-Ft**
		Total Treatment Provided	**1.30**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-02	EL.	86.80	84.65	82.30	77.30	74.30	70.30
	Area (Ac.)	0.81	0.64	0.46	0.21	0.08	0.01
	Vol. (Ac-Ft)	2.86	1.30	0	1.68	2.11	2.29

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	1.18	Feet
2. h2 (Head) = (Weir El - NWL El)	2.35	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	1.76	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.327	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.261	CFS
6. Use Q between Q24 and Q30 (and Closer to Q30)	0.262	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.04	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.39**	**Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	266	SF
Backslope Length	380	Feet
Assume Groundwater El (Based on project Geotechnical Report)	83.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.7	Feet
Q (groundwater inflow) = KIA	**0.001**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.05**	**Feet**

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Permanent Pool Volume Calculations **SMF-02**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	1.86	Acre-Feet
Total Permanent Pool Provided	2.11	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	0.5	100	0.00	4.200	1.000	0.46
Residential Area	6.2	77	2.99	1.970	0.469	2.88
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	2.4	80	2.50	2.208	0.526	1.24
Recreation Area	1.2	74	3.51	1.745	0.415	0.50
Landscape Area	1.3	39	15.64	0.069	0.016	0.02
Totals	**11.5**					**5.10**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**13.18**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.001	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.37**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.09**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**1.86**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**2.11**	**Acre-Feet**

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Treatment Volume and Bleeddown Calculations **SMF-03** **SMF-04**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	27.0	Ac +/-
Area at Normal Water Level	1.8	Ac +/-
Normal Water Level Elevation	81.50	MSL
Proposed Weir Elevation	83.05	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	81.50	MSL
Bleeddown Slot Width (Span) (Sized Using ICPR)	2.25	Inches
Height from NWL to Weir Elevation (Rise)	18.6	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	18.7	60%	0.7	44.5%
Collector Road	3.9	70%	0.2	10.9%
Landscape Area	2.6	0%	0.1	0.0%
Totals	**25.2**		**1.0**	**55.4%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	2.25	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	2.91	Ac-Ft
		Use Higher Value for Required Treatment Volume	**2.91**	**Ac-Ft**
		Total Treatment Provided	**3.13**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-03	EL.	85.50	83.05	81.50	77.50	73.50	69.50
	Area (Ac.)	2.04	1.63	1.37	0.75	0.38	0.16
	Vol. (Ac-Ft)	6.82	2.32	0	4.24	6.50	7.58
SMF-04	EL.	86.00	83.05	81.50	77.50	73.50	69.50
	Area (Ac.)	0.81	0.58	0.46	0.22	0.08	0.01
	Vol. (Ac-Ft)	2.86	0.81	0	1.36	1.96	2.14

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	0	SF
Backslope Length	2000	Feet
Assume Groundwater El (Based on project Geotechnical Report)	81.5	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.0	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.00**	**Feet**

Connelly & Wicker, Inc.

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Permanent Pool Volume Calculations **SMF-03 SMF-04**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	4.50	Acre-Feet
Total Permanent Pool Provided	8.46	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	1.8	100	0.00	4.200	1.000	1.83
Residential Area	18.7	77	2.99	1.970	0.469	8.76
Collector Road	3.9	80	2.50	2.208	0.526	2.07
Landscape Area	2.6	39	15.64	0.069	0.016	0.04
Totals	**27.0**					**12.70**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**32.80**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.00**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.21**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**4.50**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**8.46**	**Acre-Feet**

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Hillside Grove **SMF-05** **SMF-06** **SMF-07**

Treatment Volume and Bleeddown Calculations

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	13.5	Ac +/-
Area at Normal Water Level	2.4	Ac +/-
Normal Water Level Elevation	81.50	MSL
Proposed Weir Elevation	82.10	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	81.50	MSL
Bleeddown Slot Width (Span)	5.7	Inches
Height from NWL to Weir Elevation (Rise)	7.2	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	8.5	65%	0.8	49.5%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	2.7	0%	0.2	0.0%
Totals	**11.2**		**1.0**	**49.5%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	1.13	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	1.15	Ac-Ft
		Use Higher Value for Required Treatment Volume	**1.15**	**Ac-Ft**
		Total Treatment Provided	**1.48**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-05	EL.	84.50	82.10	81.50	77.50	73.50	69.50
	Area (Ac.)	1.19	0.85	0.76	0.24	0.05	0.00
	Vol. (Ac-Ft)	2.93	0.48	0	2.00	2.58	2.68
SMF-06	EL.	84.50	82.10	81.50	77.50	73.50	69.50
	Area (Ac.)	0.75	0.57	0.52	0.26	0.10	0.02
	Vol. (Ac-Ft)	1.91	0.33	0	1.56	2.28	2.52
SMF-07	EL.	84.50	82.10	81.50	77.50	73.50	69.50
	Area (Ac.)	1.42	1.15	1.08	0.70	0.44	0.24
	Vol. (Ac-Ft)	3.75	0.67	0	3.56	5.84	7.20

Calculate Q for Bleedown Slot for Treatment Volume

Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.

1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.30	Feet
2. h2 (Head) = (Weir El - NWL El)	0.60	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.45	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf)	0.372	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf)	0.298	CFS
6. Use Q between Q24 and Q30	0.371	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.38	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.47**	**Feet**

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Connelly & Wicker, Inc.

Hillside Grove **SMF-05 SMF-06 SMF-07**

Permanent Pool Volume Calculations

Wet Detention SMF Data Summary		
Total Permanent Pool Required	2.28	Acre-Feet
Total Permanent Pool Provided	10.70	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	2.4	100	0.00	4.200	1.000	2.36
Residential Area	8.5	77	2.99	1.970	0.469	3.99
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	2.7	39	15.64	0.069	0.016	0.04
Totals	**13.5**					**6.39**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**16.52**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.11**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.11**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**2.28**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**10.70**	**Acre-Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	75	SF
Backslope Length	50	Feet
Assume Groundwater El (Based on project Geotechnical Report)	83.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	1.5	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow

Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2

H = [Q / (C * Le)] ^ 2/3 **0.00** **Feet**

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Connelly & Wicker, Inc.

Hillside Grove	SMF-08	SMF-09	SMF-10	SMF-11

Treatment Volume and Bleeddown Calculations

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	20.6	Ac +/-
Area at Normal Water Level	2.8	Ac +/-
Normal Water Level Elevation	83.00	MSL
Proposed Weir Elevation	84.15	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	83.00	MSL
Bleeddown Slot Width (Span)	5.3	Inches
Height from NWL to Weir Elevation (Rise)	13.8	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	10.9	80%	0.6	48.8%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	3.2	70%	0.2	12.4%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	3.8	0%	0.2	0.0%
Totals	**17.8**		**1.0**	**61.3%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	1.72	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	2.28	Ac-Ft
		Use Higher Value for Required Treatment Volume	**2.28**	**Ac-Ft**
		Total Treatment Provided	**3.41**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-08	EL.	86.00	84.15	83.00	79.00	75.00	71.00
	Area (Ac.)	1.70	1.48	1.35	0.94	0.65	0.40
	Vol. (Ac-Ft)	4.58	1.63	0	4.58	7.76	9.86
SMF-09	EL.	86.00	84.15	83.00	79.00	75.00	71.00
	Area (Ac.)	0.86	0.71	0.62	0.34	0.17	0.05
	Vol. (Ac-Ft)	2.22	0.77	0	1.92	2.94	3.38
SMF-10	EL.	86.00	84.15	83.00	79.00	75.00	71.00
	Area (Ac.)	0.89	0.74	0.65	0.37	0.19	0.06
	Vol. (Ac-Ft)	2.31	0.80	0	2.04	3.16	3.66
SMF-11	EL.	86.50	84.15	83.00	79.00	75.00	71.00
	Area (Ac.)	0.33	0.22	0.16	0.02	0.00	0.00
	Vol. (Ac-Ft)	0.86	0.22	0	0.36	0.40	0.40

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.58	Feet
2. h2 (Head) = (Weir El - NWL El)	1.15	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.86	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf)	0.860	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf)	0.688	CFS
6. Use Q between Q24 and Q30 (and Closer to Q30)	0.689	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.27	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.44**	**Feet**

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Connelly & Wicker, Inc.

Hillside Grove **SMF-08 SMF-09 SMF-10 SMF-11**

Permanent Pool Volume Calculations

Wet Detention SMF Data Summary		
Total Permanent Pool Required	3.41	Acre-Feet
Total Permanent Pool Provided	14.26	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	2.8	100	0.00	4.200	1.000	2.78
Residential Area	10.9	77	2.99	1.970	0.469	5.11
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	3.2	80	2.50	2.208	0.526	1.67
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	3.8	39	15.64	0.069	0.016	0.06
Totals	**20.6**					**9.62**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**24.84**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.00**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.16**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**3.41**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**14.26**	**Acre-Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	0	SF
Backslope Length	2650	Feet
Assume Groundwater El (Based on project Geotechnical Report)	83.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.0	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow

Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2

H = [Q / (C * Le)] ^ 2/3 **0.00** **Feet**

Connelly & Wicker, Inc.

Hillside Grove

Treatment Volume and Bleeddown Calculations **SMF-12**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	2.3	Ac +/-
Area at Normal Water Level	0.6	Ac +/-
Normal Water Level Elevation	84.00	MSL
Proposed Weir Elevation	84.50	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	84.00	MSL
Bleeddown Slot Width (Span)	2.0	Inches
Height from NWL to Weir Elevation (Rise)	6.0	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	0.0	65%	0.0	0.0%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	1.6	0%	1.0	0.0%
Totals	**1.6**		**1.0**	**0.0%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	0.19	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	0.00	Ac-Ft
		Use Higher Value for Required Treatment Volume	**0.19**	**Ac-Ft**
		Total Treatment Provided	**0.32**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-12	EL.	86.00	84.50	84.00	79.00	76.00	72.00
	Area (Ac.)	0.77	0.66	0.62	0.35	0.17	0.05
	Vol. (Ac-Ft)	1.39	0.32	0	2.43	3.21	3.65

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.25	Feet
2. h2 (Head) = (Weir El - NWL El)	0.50	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.38	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.081	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.064	CFS
6. Use Q between Q24 and Q30 (and Closer to Q30)	0.065	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.09	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.16**	**Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	0	SF
Backslope Length	650	Feet
Assume Groundwater El (Based on project Geotechnical Report)	84.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.0	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.00**	**Feet**

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Hillside Grove

Permanent Pool Volume Calculations **SMF-12**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	0.23	Acre-Feet
Total Permanent Pool Provided	3.21	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	0.6	100	0.00	4.200	1.000	0.62
Residential Area	0.0	77	2.99	1.970	0.469	0.00
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	1.6	39	15.64	0.069	0.016	0.03
Totals	**2.3**					**0.65**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**1.67**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.00**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.01**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**0.23**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**3.21**	**Acre-Feet**

Hillside Grove

Treatment Volume and Bleeddown Calculations

SMF-13

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	8.1	Ac +/-
Area at Normal Water Level	1.7	Ac +/-
Normal Water Level Elevation	81.50	MSL
Proposed Weir Elevation	82.00	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	81.50	MSL
Bleeddown Slot Width (Span)	4.4	Inches
Height from NWL to Weir Elevation (Rise)	6.0	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	5.0	60%	0.8	47.0%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	1.4	0%	0.2	0.0%
Totals	**6.4**		**1.0**	**47.0%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	0.67	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	0.63	Ac-Ft
		Use Higher Value for Required Treatment Volume	**0.67**	**Ac-Ft**
		Total Treatment Provided	**0.86**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-13	EL.	84.50	82.00	81.50	76.50	73.50	69.50
	Area (Ac.)	2.22	1.77	1.68	1.01	0.51	0.11
	Vol. (Ac-Ft)	5.85	0.86	0	6.73	9.01	10.25

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.25	Feet
2. h2 (Head) = (Weir El - NWL El)	0.50	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.38	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.217	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.174	CFS
6. Use Q between Q24 and Q30	0.216	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.29	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.37**	**Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	63	SF
Backslope Length	125	Feet
Assume Groundwater El (Based on project Geotechnical Report)	82.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.5	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.00**	**Feet**

Hillside Grove

Permanent Pool Volume Calculations **SMF-13**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	1.45	Acre-Feet
Total Permanent Pool Provided	9.01	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	1.7	100	0.00	4.200	1.000	1.68
Residential Area	5.0	77	2.99	1.970	0.469	2.35
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	1.4	39	15.64	0.069	0.016	0.02
Totals	**8.1**					**4.05**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**10.47**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.09**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.07**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**1.45**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**9.01**	**Acre-Feet**

Connelly & Wicker, Inc.

Hillside Grove

Treatment Volume and Bleeddown Calculations **SMF-14**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	12.0	Ac +/-
Area at Normal Water Level	2.1	Ac +/-
Normal Water Level Elevation	81.50	MSL
Proposed Weir Elevation	82.20	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	81.50	MSL
Bleeddown Slot Width (Span)	5.0	Inches
Height from NWL to Weir Elevation (Rise)	8.4	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	8.0	65%	0.8	53.1%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	1.8	0%	0.2	0.0%
Totals	**9.9**		**1.0**	**53.1%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	1.00	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	1.09	Ac-Ft
		Use Higher Value for Required Treatment Volume	**1.09**	**Ac-Ft**
		Total Treatment Provided	**1.51**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-14	EL.	84.50	82.20	81.50	76.50	73.50	69.50
	Area (Ac.)	2.57	2.21	2.10	1.54	1.13	0.75
	Vol. (Ac-Ft)	7.01	1.51	0	9.10	13.11	16.87

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.35	Feet
2. h2 (Head) = (Weir El - NWL El)	0.70	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.53	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.380	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.304	CFS
6. Use Q between Q24 and Q30	0.379	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.31	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.42**	**Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	0	SF
Backslope Length	1290	Feet
Assume Groundwater El (Based on project Geotechnical Report)	81.5	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.0	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.00**	**Feet**

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Hillside Grove

Permanent Pool Volume Calculations **SMF-14**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	2.09	Acre-Feet
Total Permanent Pool Provided	13.11	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	2.1	100	0.00	4.200	1.000	2.10
Residential Area	8.0	77	2.99	1.970	0.469	3.77
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	1.8	39	15.64	0.069	0.016	0.03
Totals	**12.0**					**5.90**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**15.24**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.00**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.10**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**2.09**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**13.11**	**Acre-Feet**

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Connelly & Wicker, Inc.

Hillside Grove

Treatment Volume and Bleeddown Calculations **SMF-15**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	8.4	Ac +/-
Area at Normal Water Level	1.9	Ac +/-
Normal Water Level Elevation	83.00	MSL
Proposed Weir Elevation	83.55	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	82.95	MSL
Bleeddown Slot Width (Span)	4.9	Inches
Height from NWL to Weir Elevation (Rise)	6.6	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	4.9	60%	0.8	45.9%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	1.5	0%	0.2	0.0%
Totals	**6.5**		**1.0**	**45.9%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	0.70	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	0.62	Ac-Ft
		Use Higher Value for Required Treatment Volume	**0.70**	**Ac-Ft**
		Total Treatment Provided	**1.09**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-15	EL.	86.00	83.55	83.00	78.00	75.00	71.00
	Area (Ac.)	2.36	2.02	1.94	1.44	1.08	0.77
	Vol. (Ac-Ft)	6.45	1.09	0	8.45	12.23	15.93

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.27	Feet
2. h2 (Head) = (Weir El - NWL El)	0.55	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.41	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.274	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.219	CFS
6. Use Q between Q24 and Q30	0.273	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.32	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.40**	**Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	2205	SF
Backslope Length	735	Feet
Assume Groundwater El (Based on project Geotechnical Report)	86.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	3.0	Feet
Q (groundwater inflow) = KIA	**0.010**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.05**	**Feet**

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Connelly & Wicker, Inc.

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Permanent Pool Volume Calculations **SMF-15**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	1.94	Acre-Feet
Total Permanent Pool Provided	12.23	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	1.9	100	0.00	4.200	1.000	1.94
Residential Area	4.9	77	2.99	1.970	0.469	2.31
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	1.5	39	15.64	0.069	0.016	0.02
Totals	**8.4**					**4.28**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**11.05**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.010	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**3.10**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.09**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**1.94**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**12.23**	**Acre-Feet**

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Connelly & Wicker, Inc.

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Treatment Volume and Bleeddown Calculations **SMF-16**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	21.2	Ac +/-
Area at Normal Water Level	2.5	Ac +/-
Normal Water Level Elevation	83.00	MSL
Proposed Weir Elevation	84.00	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	82.95	MSL
Bleeddown Slot Width (Span)	5.5	Inches
Height from NWL to Weir Elevation (Rise)	12.0	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	16.8	65%	0.9	58.2%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	2.0	0%	0.1	0.0%
Totals	**18.7**		**1.0**	**58.2%**

Calculate Treatment Volume Required

A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	1.77	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	2.27	Ac-Ft
		Use Higher Value for Required Treatment Volume	**2.27**	**Ac-Ft**
		Total Treatment Provided	**2.58**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-16	EL.	86.00	84.00	83.00	78.00	75.00	71.00
	Area (Ac.)	3.16	2.69	2.46	1.58	0.92	0.44
	Vol. (Ac-Ft)	8.43	2.58	0	10.10	13.85	16.57

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.50	Feet
2. h2 (Head) = (Weir El - NWL El)	1.00	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	0.75	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf / Acre)	0.650	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf / Acre)	0.520	CFS
6. Use Q between Q24 and Q30	0.649	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.31	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.46**	**Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	2100	SF
Backslope Length	1050	Feet
Assume Groundwater El (Based on project Geotechnical Report)	85.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	2.0	Feet
Q (groundwater inflow) = KIA	**0.010**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.05**	**Feet**

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Connelly & Wicker, Inc.

Hillside Grove

Permanent Pool Volume Calculations **SMF-16**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	4.08	Acre-Feet
Total Permanent Pool Provided	13.85	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	2.5	100	0.00	4.200	1.000	2.46
Residential Area	16.8	77	2.99	1.970	0.469	7.87
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	2.0	39	15.64	0.069	0.016	0.03
Totals	**21.2**					**10.37**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**26.78**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.010	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**2.95**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.19**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**4.08**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**13.85**	**Acre-Feet**

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Hillside Grove **SMF-17** **SMF-18** **SMF-19**

Treatment Volume and Bleeddown Calculations

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	9.8	Ac +/-
Area at Normal Water Level	0.6	Ac +/-
Normal Water Level Elevation	82.00	MSL
Proposed Weir Elevation	83.40	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	81.90	MSL
Bleeddown Slot Width (Span)	3.4	Inches
Height from NWL to Weir Elevation (Rise)	16.8	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	7.5	65%	0.8	52.8%
Commercial Area	0.0	75%	0.0	0.0%
Collector Road	0.0	70%	0.0	0.0%
Recreation Area	0.0	50%	0.0	0.0%
Landscape Area	1.7	0%	0.2	0.0%
Totals	**9.2**		**1.0**	**52.8%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	0.82	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	1.01	Ac-Ft
		Use Higher Value for Required Treatment Volume	**1.01**	**Ac-Ft**
		Total Treatment Provided	**1.03**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-17	EL.	85.50	83.40	82.00	78.00	74.00	70.00
	Area (Ac.)	0.31	0.21	0.15	0.03	0.00	0.00
	Vol. (Ac-Ft)	0.81	0.25	0	0.36	0.42	0.42
SMF-18	EL.	85.50	83.40	82.00	78.00	74.00	70.00
	Area (Ac.)	0.28	0.19	0.13	0.13	0.00	0.00
	Vol. (Ac-Ft)	0.72	0.22	0	0.52	0.78	0.78
SMF-19	EL.	85.50	83.40	82.00	78.00	74.00	70.00
	Area (Ac.)	0.60	0.44	0.34	0.11	0.02	0.00
	Vol. (Ac-Ft)	1.65	0.55	0	0.90	1.16	1.20

Calculate Q for Bleedown Slot for Treatment Volume		
Bleeddown must be no more than half the treatment Volume in the first 24 Hours after the storm event.		
1. h1 (Avg. Head) = (Weir El - NWL El) * (0.5)	0.70	Feet
2. h2 (Head) = (Weir El - NWL El)	1.40	Feet
3. H (Adjusted Head) = (h1 + h2) * (0.5) =	1.05	Feet
4. Max Q24 = (Treat Vol / 2) (1 / 24 Hr) (1 Hr / 3600 sec) (43560 sf)	0.259	CFS
5. Min Q30 = (Treat Vol / 2) (1 / 30 Hrs) (1 Hr / 3600 sec) (43560 sf)	0.207	CFS
6. Use Q between Q24 and Q30	0.258	CFS
Le (effective) = Q(total) / (C * H ^1.5) = Q / 3.2 * Adj Head ^ 3/2	0.07	Feet
L (ends) = Le + N (0.1) H = effect Length + 2 ends * 0.1 * Adj Head	**0.28**	**Feet**

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Hillside Grove SMF-17 SMF-18 SMF-19

Permanent Pool Volume Calculations

Wet Detention SMF Data Summary		
Total Permanent Pool Required	1.78	Acre-Feet
Total Permanent Pool Provided	2.36	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	0.6	100	0.00	4.200	1.000	0.62
Residential Area	7.5	77	2.99	1.970	0.469	3.51
Commercial Area	0.0	83	2.05	2.461	0.586	0.00
Collector Road	0.0	80	2.50	2.208	0.526	0.00
Recreation Area	0.0	74	3.51	1.745	0.415	0.00
Landscape Area	1.7	39	15.64	0.069	0.016	0.03
Totals	**9.8**					**4.16**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**10.74**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.007	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**2.25**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.08**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**1.78**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**2.36**	**Acre-Feet**

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	1600	SF
Backslope Length	800	Feet
Assume Groundwater El (Based on project Geotechnical Report)	84.0	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	2.0	Feet
Q (groundwater inflow) = KIA	**0.007**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.10**	**Feet**

Connelly & Wicker, Inc.

Hillside Grove
Treatment Volume and Bleeddown Calculations **SMF-20**

Wet Detention SMF Data Summary		
Total Drainage Area to SMF	1.8	Ac +/-
Area at Normal Water Level	0.3	Ac +/-
Normal Water Level Elevation	85.50	MSL
Proposed Weir Elevation	86.05	MSL
Bleeddown Slot Elevation (adjusted for groundwater inflow)	85.50	MSL
Bleeddown Slot Width (Span) (Sized Using ICPR)	2.25	Inches
Height from NWL to Weir Elevation (Rise)	6.6	Inches

Calculate Impervious Area (excludes NWL area)

Description (DA)	Area (Ac +/-)	% IMP	Area / Total Ac	Weighted % Impervious
Residential Area	0.6	60%	0.4	24.2%
Collector Road	0.4	70%	0.3	18.2%
Landscape Area	0.5	0%	0.3	0.0%
Totals	**1.5**		**1.0**	**42.3%**

Calculate Treatment Volume Required				
A.	1.00	Inches of Runoff Times Total Drainage Area to SMF	0.15	Ac-Ft
B.	2.50	Inches times Impervious Area (Excluding NWL area)	0.14	Ac-Ft
		Use Higher Value for Required Treatment Volume	**0.15**	**Ac-Ft**
		Total Treatment Provided	**0.16**	**Ac-Ft**

Storm Water Management Facility Data		Top of Bank (Min. El.)	Proposed Weir	Normal Water Level	Grade Break	Min. Bottom	Max Bottom
SMF-20	EL.	88.50	86.05	85.50	81.50	77.50	75.50
	Area (Ac.)	0.44	0.31	0.28	0.12	0.03	0.00
	Vol. (Ac-Ft)	1.08	0.16	0	0.80	1.10	1.13

Calculate Groundwater Infiltration into SMF		
K = Permeability: for soil located near backslope of SMF	20	In / Hr
I = Assume Hydraulic Gradient (Slope of Groundwater)	1.0%	+/-
A = Area of Inflow (Backslope Length x Height of Groundwater)	0	SF
Backslope Length	418	Feet
Assume Groundwater El (Based on project Geotechnical Report)	85.5	MSL
Height of Groundwater = Groundwater El. - Normal Water El.	0.0	Feet
Q (groundwater inflow) = KIA	**0.000**	**CFS**

Adjust (Lower) Bleeddown Slot to accommodate Groundwater Inflow		
Solve for H using Weir Formula Q = C L H ^3/2, Le = effective Length of Slot, C = 3.2		
H = [Q / (C * Le)] ^ 2/3	**0.00**	**Feet**

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Connelly & Wicker, Inc.

Hillside Grove

Permanent Pool Volume Calculations **SMF-20**

Wet Detention SMF Data Summary		
Total Permanent Pool Required	0.28	Acre-Feet
Total Permanent Pool Provided	1.10	Acre-Feet

Calculate RO coef. for Permanent Pool Volume Calculation

RO = Runoff (inches) = ((P - 0.2S) ^ 2) / (P + 0.8S)

P = Rainfall (inches) = Mean Annual 24 Hour Maximum Storm Event 4.2 Inches

S = Potential maximum retention after runoff begins (inches) = (1000 / CN) - 10

Description (DA)	Area (Ac +/-)	CN	S	RO	RO coef. = RO/P	(Area) * (RO coef.)
Normal Water Level	0.3	100	0.00	4.200	1.000	0.28
Residential Area	0.6	77	2.99	1.970	0.469	0.29
Collector Road	0.4	80	2.50	2.208	0.526	0.21
Landscape Area	0.5	39	15.64	0.069	0.016	0.01
Totals	**1.8**					**0.79**

Calculate Volume of Surface Runoff during Wet Season		
Rainfall = Normal rainfall depth from June 1st to October 31 (inches)	31	Inches
V = (Area * RO coef.) * (rainfall) / (12 in/ft)	**2.04**	**Acre-Feet**

Calculate Volume of Groundwater Inflow during Wet Season:		
Estimate of Groundwater Infiltration into SMF (See calcs from previous page)	0.000	CFS
V = QT = Total CFS * 153 Days * (3600 * 24) / 43560	**0.00**	**Acre-Feet**

Average Net Daily Discharge from System		
Average Net Daily Discharge = V(Runoff + Groundwater) / 153 days	**0.01**	**Acre-Feet / Day**

Required Volume for Min. 21 Day Hydraulic Residence Time in Lieu of Littoral Zone		
Total Permanent Pool Vol. Required = (Net Daily Discharge x Residence Days)	**0.28**	**Acre-Feet**
Thus, Permanent Pool Volume provided meets requirements	**1.10**	**Acre-Feet**

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Hillside Grove

SMF and Outfall Data Summary

Data Summary - **SMF-01**		
Top El. (Min.)	87.00	MSL
Normal Water El.	84.00	MSL
Bleeddown Slot El.	84.00	MSL
Bleeddown Slot Size (width)	4.3	Inches
Proposed Weir El.	84.75	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	86.07	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	85.50	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	85.12	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	84.69	MSL

Data Summary - **SMF-02**		
Top El. (Min.)	86.80	MSL
Normal Water El.	82.30	MSL
Bleeddown Slot El.	82.25	MSL
Bleeddown Slot Size (width)	4.7	Inches
Proposed Weir El.	84.65	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	86.15	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	85.42	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.81	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.59	MSL

Data Summary - **SMF-03**		
Top El. (Min.)	85.50	MSL
Normal Water El.	81.50	MSL
Bleeddown Slot El.	81.50	MSL
Bleeddown Slot Size (width)	2.25	Inches
Proposed Weir El.	83.05	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.12	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.34	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	83.68	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.00	MSL

Data Summary - **SMF-04**		
Top El. (Min.)	86.00	MSL
Normal Water El.	81.50	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.84	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.46	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	83.69	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.00	MSL

Data Summary - **SMF-05**		
Top El. (Min.)	84.50	MSL
Normal Water El.	81.50	MSL
Bleeddown Slot El.	81.50	MSL
Bleeddown Slot Size (width)	5.7	Inches
Proposed Weir El.	82.10	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	83.20	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	82.71	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	82.42	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.05	MSL

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Connelly & Wicker, Inc.

Hillside Grove

SMF and Outfall Data Summary

Data Summary - **SMF-06**		
Top El. (Min.)	84.50	MSL
Normal Water El.	81.50	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	83.16	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	82.71	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	82.43	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.05	MSL

Data Summary - **SMF-07**		
Top El. (Min.)	84.50	MSL
Normal Water El.	81.50	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	83.54	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	82.86	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	82.46	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.06	MSL

Data Summary - **SMF-08**		
Top El. (Min.)	86.00	MSL
Normal Water El.	83.00	MSL
Bleeddown Slot El.	83.00	MSL
Bleeddown Slot Size (width)	5.3	Inches
Proposed Weir El.	84.15	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.06	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.65	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.35	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.86	MSL

Data Summary - **SMF-09**		
Top El. (Min.)	86.00	MSL
Normal Water El.	83.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.36	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.73	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.38	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.86	MSL

Data Summary - **SMF-10**		
Top El. (Min.)	86.00	MSL
Normal Water El.	83.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.41	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.74	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.38	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.87	MSL

Data Summary - **SMF-11**		
Top El. (Min.)	86.50	MSL
Normal Water El.	83.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.71	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	85.10	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.65	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.87	MSL

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Data Summary -	**SMF-12**	
Top El. (Min.)	86.00	MSL
Normal Water El.	84.00	MSL
Bleeddown Slot El.	84.00	MSL
Bleeddown Slot Size (width)	2.0	Inches
Proposed Weir El.	84.50	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	84.79	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.56	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.38	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	84.16	MSL

Data Summary -	**SMF-13**	
Top El. (Min.)	84.50	MSL
Normal Water El.	81.50	MSL
Bleeddown Slot El.	81.50	MSL
Bleeddown Slot Size (width)	4.4	Inches
Proposed Weir El.	82.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	83.02	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	82.56	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	82.27	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	81.95	MSL

Data Summary -	**SMF-14**	
Top El. (Min.)	84.50	MSL
Normal Water El.	81.50	MSL
Bleeddown Slot El.	81.50	MSL
Bleeddown Slot Size (width)	5.0	Inches
Proposed Weir El.	82.20	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	83.44	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	82.87	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	82.52	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.10	MSL

Data Summary -	**SMF-15**	
Top El. (Min.)	86.00	MSL
Normal Water El.	83.00	MSL
Bleeddown Slot El.	82.95	MSL
Bleeddown Slot Size (width)	4.9	Inches
Proposed Weir El.	83.55	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	84.37	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	83.97	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	83.73	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.43	MSL

Data Summary -	**SMF-16**	
Top El. (Min.)	86.00	MSL
Normal Water El.	83.00	MSL
Bleeddown Slot El.	82.95	MSL
Bleeddown Slot Size (width)	5.5	Inches
Proposed Weir El.	84.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.55	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.85	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	84.39	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	83.83	MSL

Connelly & Wicker, Inc.

Hillside Grove
SMF and Outfall Data Summary

Data Summary - SMF-17		
Top El. (Min.)	85.50	MSL
Normal Water El.	82.00	MSL
Bleeddown Slot El.	81.90	MSL
Bleeddown Slot Size (width)	3.4	Inches
Proposed Weir El.	83.40	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	84.49	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.04	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	83.62	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.89	MSL

Data Summary - SMF-18		
Top El. (Min.)	85.50	MSL
Normal Water El.	82.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	85.22	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.24	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	83.66	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.91	MSL

Data Summary - SMF-19		
Top El. (Min.)	85.50	MSL
Normal Water El.	82.00	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	84.95	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	84.15	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	83.67	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	82.91	MSL

Data Summary - SMF-20		
Top El. (Min.)	88.50	MSL
Normal Water El.	85.50	MSL
Bleeddown Slot El.	85.50	MSL
Bleeddown Slot Size (width)	1.5	Inches
Proposed Weir El.	86.05	MSL
100 Year Design High Water Elevation (Based on ICPR version 3.10)	88.01	MSL
25 Year Design High Water Elevation (Based on ICPR version 3.10)	86.69	MSL
10 Year Design High Water Elevation (Based on ICPR version 3.10)	86.26	MSL
Mean Annual Design High Water Elevation (Based on ICPR version 3.10)	85.93	MSL

Mean Annual Peak Discharge to Outfalls	PRE cfs +/-	POST cfs +/-
OUT-01-	16.3	12.2
OUT-02-	5.4	0.6
OUT-03-	1.0	0.0
OUT-04-	6.6	1.6

25 Year - 24 Hour Peak Discharge to Outfalls	PRE cfs +/-	POST cfs +/-
OUT-01-	83.5	38.2
OUT-02-	17.8	3.3
OUT-03-	2.4	4.5
OUT-04-	32.6	15.6

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Connelly & Wicker, Inc.

Hillside Grove

SMF and Outfall Data Summary

25 Year - 96 Hour Volume Discharge to Closed Basins	PRE	POST
Basins Discharging to Equalized Nodes OUT-01-PRE & WET-01-PRE	Runoff Volume	
Basin Name	(CF)	
PRE-01	1,053,205	
PRE-02	575,424	
PRE-14	57,659	
WET-01-PRE	408,975	
TOTAL:	**2,095,263**	
Basins Discharging to Equalized Nodes OUT-01-PST & WET-01-PST		Runoff Volume
Basin Name		(CF)
COMP-01		89,433
RY-01		266,135
RY-02		7,663
RY-03		61,522
S-08A		12,489
S-08B		12,489
S-08C		3,122
S-08D		24,977
S-08E		21,855
S-09A		83,009
SUB-02		314,372
SUB-08		84,298
SUB-09		39,966
SUB-10		93,817
SUB-11		246,105
WET-01-PST		408,975
TOTAL:		**1,770,227**
Basins Discharging to Equalized Nodes WET-02-PRE	Runoff Volume	
Basin Name	(CF)	
PRE-03	201,652	
WET-02-PRE	159,989	
TOTAL:	**361,641**	
Basins Discharging to Equalized Nodes WET-02-PST		Runoff Volume
Basin Name		(CF)
RY-04		30,327
SUB-12		42,879
WET-02-PST		159,989
TOTAL:		**233,195**
Basins Discharging to Equalized Nodes OUT-02-PRE	Runoff Volume	
Basin Name	(CF)	
PRE-05	190,904	
TOTAL:	**190,904**	
Basins Discharging to Equalized Nodes OUT-02-PST		Runoff Volume
Basin Name		(CF)
RY-04		30,327
TOTAL:		**30,327**

CONNELLY & WICKER, INC.

Average groundwater elevations at stormwater management facilities.

SMF #	Boring #/ Node #	Boring Top Elevation	Depth to Encountered Groundwater	Encountered Groundwater Elevation	Depth to Estimated Seasonal High Groundwater	Estimated Seasonal High Groundwater Elevation	Average Groundwater Elevation	NWL	NWL Height Above Average Groundwater Elevation
1	R-13	85.7	7.1	78.6	4.0	81.7	80.2		
	L-04	85.7	6.9	78.8	4.0	81.7	80.3		
	OUT-01-PST	-	-	79.5	-	83.6	81.5		
			Average:	79.0	Average:	82.3	80.7	84.0	3.3
2	R-11 (01)	84.0	4.5	79.5	2.0	82.0	80.8		
	WET-01-PST	-	-	79.4	-	83.6	81.5		
			Average:	79.4	Average:	82.8	81.1	82.3	1.2
3	P-07 (01)	84.1	9.5	74.6	7.0	77.1	75.8		
	WET-05-PST	-	-	78.5	-	81.2	79.8		
	WET-04-PST	-	-	77.5	-	81.2	79.4		
			Average:	76.9	Average:	79.8	78.3	81.5	3.2
4	L-02	87.4	9.3	78.1	6.5	80.9	79.5		
	WET-05-PST	-	-	78.5	-	81.2	79.8		
			Average:	78.3	Average:	81.1	79.7	81.5	1.8
5	P-07 (01)	84.1	9.5	74.6	7.0	77.1	75.8		
	WET-04-PST	-	-	77.5	-	81.2	79.4		
			Average:	76.0	Average:	79.1	77.6	81.5	3.9
6	R-21	84.4	7.5	76.9	5.0	79.4	78.2		
	B-23	85.6	7.0	78.6	4.5	81.1	79.9		
	WET-04-PST	-	-	77.5	-	81.2	79.4		
			Average:	77.7	Average:	80.6	79.1	81.5	2.4
7	R-26	87.1	8.0	79.1	5.5	81.6	80.3		
	WET-01-PST	-	-	79.4	-	83.6	81.5		
			Average:	79.2	Average:	82.6	80.9	81.5	0.6
8	P-02 (01)	85.0	6.0	79.0	3.5	81.5	80.3		
	OUT-01-PST	-	-	79.5	-	83.6	81.5		
			Average:	79.2	Average:	82.6	80.9	83.0	2.1
9	P-03 (01)	85.7	6.0	79.7	3.5	82.2	81.0		
	WET-01-PST	-	-	79.4	-	83.6	81.5		
			Average:	79.5	Average:	82.9	81.2	83.0	1.8
10	P-04 (01)	86.0	8.5	77.5	6.0	80.0	78.7		
	WET-01-PST	-	-	79.4	-	83.6	81.5		
			Average:	78.4	Average:	81.8	80.1	83.0	2.9
11	P-01 (01)	85.3	5.0	80.3	3.5	81.8	81.0		
	OUT-01-PST	-	-	79.5	-	83.6	81.5		
			Average:	79.9	Average:	82.7	81.3	83.0	1.7
12	R-20 (01)	85.5	9.0	76.5	6.5	79.0	77.7		
	WET-02-PST	-	-	78.5	-	83.6	81.1		
			Average:	77.5	Average:	81.3	79.4	84.0	4.6
13	P-05 (01)	85.3	6.0	79.3	3.5	81.8	80.5		
	OUT-02-PST	-	-	78.3	-	83.6	81.0		
			Average:	78.8	Average:	82.7	80.7	81.5	0.8

SMF #	Boring #/ Node #	Boring Top Elevation	Depth to Encountered Groundwater	Encountered Groundwater Elevation	Depth to Estimated Seasonal High Groundwater	Estimated Seasonal High Groundwater Elevation	Average Groundwater Elevation	NWL	NWL Height Above Average Groundwater Elevation
14	P-06 (01)	85.7	9.0	76.7	6.5	79.2	78.0		
	WET-04-PST	-	-	77.5	-	81.2	79.4		
			Average:	77.1	Average:	80.2	78.7	81.5	2.8
15	P-5 (00)	85.2	3.9	81.3	1.0	84.2	82.7		
	OUT-04-PST	-	-	78.5	-	81.8	80.2		
			Average:	79.9	Average:	83.0	81.4	83.0	1.6
16	P-08 (01)	87.6	8.0	79.6	5.5	82.1	80.8		
	WET-08-PST	-	-	78.8	-	81.8	80.3		
			Average:	79.2	Average:	81.9	80.6	83.0	2.4
17	B-47	86.0	8.0	78.0	5.5	80.5	79.3		
	OUT-04-PST	-	-	78.5	-	81.8	80.2		
			Average:	78.3	Average:	81.2	79.7	82.0	2.3
18	B-45	87.0	5.0	82.0	2.5	84.5	83.3		
	WET-07-PST	-	-	79.2	-	81.8	80.5		
			Average:	80.6	Average:	83.2	81.9	82.0	0.1
19	B-43	84.1	3.0	81.1	0.5	83.6	82.3		
	WET-07-PST	-	-	79.2	-	81.8	80.5		
			Average:	80.1	Average:	82.7	81.4	82.0	0.6

Data for the tables taken from Geotechnical Exploration by Universal Engineering Sciences
dated June 23, 2022 (UES Report No. 1885314), Topographic Survey data provided by Allen & Company.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 01**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		105	LF
T_c = Time of Concentration = d / v		0.029	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		50%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		4.6	Ac.
Q_p = Peak Runoff Rate = C I A		6.3	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		22542	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		1.7	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		2.4	Ft
$V_u = \frac{A_b * f * h_b}{43,560}$		34709	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		13.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.54	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43,560$		39168	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3,600}\right)\right)$		**38325**	**CF**
V_r * 80% =		**18034**	**CF**

Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 02**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	55	LF
T_c = Time of Concentration = d / v	0.015	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	10%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	2.5	Ac.
Q_p = Peak Runoff Rate = C I A	0.7	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	2440	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	1.3	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	1.9	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$	20857	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$	45738	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$	**33341**	**CF**
V_r * 80% =	**1952**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 03**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	52	LF
T_c = Time of Concentration = d / v	0.014	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	60%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	1.2	Ac.
Q_p = Peak Runoff Rate = C I A	2.0	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	7057	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	1.2	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	2.7	Ft
$V_u = \frac{A_b * f * h_b}{43,560}$	27113	CF
Because V_u > V_r, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43,560$	42471	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3,600}\right)\right)$	**39392**	**CF**
V_r * 80% =	**5645**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 04**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		59	LF
T_c = Time of Concentration = d / v		0.016	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		60%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		1.2	Ac.
Q_p = Peak Runoff Rate = C I A		2.0	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		7057	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		1.3	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		3.0	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$		32931	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$		45738	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$		**41629**	**CF**
V_r * 80% =		**5645**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

Notes:
1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 05**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		40	LF
T_c = Time of Concentration = d / v		0.011	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		10%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		0.3	Ac.
Q_p = Peak Runoff Rate = C I A		0.1	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		314	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		0.2	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		2.5	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$		3267	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$		5445	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$		**4455**	**CF**
V_r * 80% =		**251**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 06**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		30	LF
T_c = Time of Concentration = d / v		0.008	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		10%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		0.1	Ac.
Q_p = Peak Runoff Rate = C I A		0.0	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		108	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		0.1	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		2.3	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$		1002	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$		1815	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$		**1575**	**CF**
V_r * 80% =		**86**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 07**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	25	LF
T_c = Time of Concentration = d / v	0.007	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	10%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	0.2	Ac.
Q_p = Peak Runoff Rate = C I A	0.1	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	225	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	0.4	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	2.8	Ft
$V_u = \frac{A_b * f * h_b}{43,560}$	9862	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43,560$	14520	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3,600}\right)\right)$	**8126**	**CF**
V_r * 80% =	**180**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Buffer Width Calculation for Upland Buffer **Buffer Treatment 08**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	50	LF
T_c = Time of Concentration = d / v	0.014	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	40%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	0.8	Ac.
Q_p = Peak Runoff Rate = C I A	0.8	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	3019	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	0.6	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	1.0	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$	4879	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$	20328	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$	**18709**	**CF**
V_r * 80% =	**2415**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:
1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 09**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		124	LF
T_c = Time of Concentration = d / v		0.034	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		30%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		0.8	Ac.
Q_p = Peak Runoff Rate = C I A		0.6	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		2264	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		0.1	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		2.3	Ft
$V_u = \frac{A_b * f * h_b}{43,560}$		2405	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43,560$		4356	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3,600}\right)\right)$		**4217**	**CF**
V_r * 80% =		**1811**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

Notes:
1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 10**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	75	LF
T_c = Time of Concentration = d / v	0.021	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	40%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	0.4	Ac.
Q_p = Peak Runoff Rate = C I A	0.5	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	1686	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	0.2	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	4.2	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$	7684	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$	7623	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$	**7064**	**CF**
V_r * 80% =	**1349**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 11**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	144	LF
T_c = Time of Concentration = d / v	0.040	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	20%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	2.5	Ac.
Q_p = Peak Runoff Rate = C I A	1.3	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	4822	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	1.0	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	4.8	Ft
$V_u = \frac{A_b * f * h_b}{43,560}$	42079	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43,560$	36300	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3,600}\right)\right)$	**26822**	**CF**
V_r * 80% =	**3858**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 12**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		25	LF
T_c = Time of Concentration = d / v		0.007	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		10%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		0.1	Ac.
Q_p = Peak Runoff Rate = C I A		0.0	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = $Q_p * D$		118	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		0.1	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		4.0	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$		2788	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$		2904	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$		**2426**	**CF**
V_r * 80% =		**94**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 13**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	38	LF
T_c = Time of Concentration = d / v	0.011	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	20%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	0.1	Ac.
Q_p = Peak Runoff Rate = C I A	0.0	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	118	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	0.3	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	6.1	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$	13817	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$	9438	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$	**1543**	**CF**
V_r * 80% =	**94**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:
1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

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Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 14**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	276	LF
T_c = Time of Concentration = d / v	0.077	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	20%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	2.1	Ac.
Q_p = Peak Runoff Rate = C I A	1.1	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	4018	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	0.6	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	4.9	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$	26467	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	13.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.54	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$	14629	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$	**11667**	**CF**
V_r * 80% =	**3215**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 15**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		95	LF
T_c = Time of Concentration = d / v		0.026	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		50%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		1.9	Ac.
Q_p = Peak Runoff Rate = C I A		2.6	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		9213	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		1.1	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		1.0	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$		9322	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$		38841	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$		**35545**	**CF**
V_r * 80% =		**7370**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

Notes:

1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer **Buffer Treatment 16**		
Calculate Time of Concentration to Buffer		
s = Overland Flow Slope	2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description = Grass	1.0	Ft / Sec
d = Length of Rear Yard Area	55	LF
T_c = Time of Concentration = d / v	0.015	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event		
C = Runoff Coefficient	20%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)	2.7	In / Hr
A = Drainage Area to Buffer	0.8	Ac.
Q_p = Peak Runoff Rate = C I A	0.4	CFS
D = Rainfall Duration	1	Hr
V_r = Volume of Runoff = Q_p * D	1529	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions		
A_b = Area of the Buffer	0.4	Ac.
f = Fillable Porosity	0.20	
h_b = Height of ground above the ground water table	0.8	Ft
$V_u = \frac{A_b * f * h_b}{43{,}560}$	2548	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions		
Calculate Infiltration		
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)	20.0	In / Hr
FS = Factor of Safety	2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$	0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43{,}560$	14157	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3{,}600}\right)\right)$	**12371**	**CF**
V_r * 80% =	**1223**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.		

Notes:
1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

Connelly & Wicker, Inc.

Hillside Grove

Buffer Treatment Calculation - Infiltration Method **Rear Yard Area and Roof**

Buffer Width Calculation for Upland Buffer	**Buffer Treatment 17**		
Calculate Time of Concentration to Buffer			
s = Overland Flow Slope		2.00%	Ft / Ft
v = Velocity of Overland Flow ; Land Description =	Grass	1.0	Ft / Sec
d = Length of Rear Yard Area		55	LF
T_c = Time of Concentration = d / v		0.015	Hr
Calculate Peak Runoff from the 3-Year, 1-Hour Rainfall Event			
C = Runoff Coefficient		20%	Runoff
I = Rainfall Intensity (Taken from FDOT IDF Curve For Zone 7: Lake County)		2.7	In / Hr
A = Drainage Area to Buffer		0.8	Ac.
Q_p = Peak Runoff Rate = C I A		0.5	CFS
D = Rainfall Duration		1	Hr
V_r = Volume of Runoff = Q_p * D		1627	CF
Verify if Entire Volume is Infiltrated under Vertical Unsaturated Flow Conditions			
A_b = Area of the Buffer		0.4	Ac.
f = Fillable Porosity		0.20	
h_b = Height of ground above the ground water table		5.1	Ft
$V_u = \frac{A_b * f * h_b}{43,560}$		15995	CF
Because $V_u > V_r$, then infiltration will occur entirely under vertical unsaturated flow conditions			
Calculate Infiltration			
K = Permeability Avg. (From Table 8, Lake County Soils Survey, Oct 1975)		20.0	In / Hr
FS = Factor of Safety		2.0	
$I_d = Design\ Infiltration\ Rate = \frac{K}{FS * 12}$		0.83	Ft / Hr
$Q_{ip} = Peak\ Infiltration\ Flow\ Rate = I_d * A_b * 43,560$		13068	CF / Hr
$V_i = Volume\ of\ Runoff\ Infiltrated = Q_{ip}\left(D + T_c - \left(\frac{T_c * Q_{ip}}{Q * 3,600}\right)\right)$		**11664**	**CF**
V_r * 80% =		**1302**	**CF**
Because the volume infiltrated (Vi) is greater than the required 80% of the runoff volume (Vr), the design is adequate for treatment purposes.			

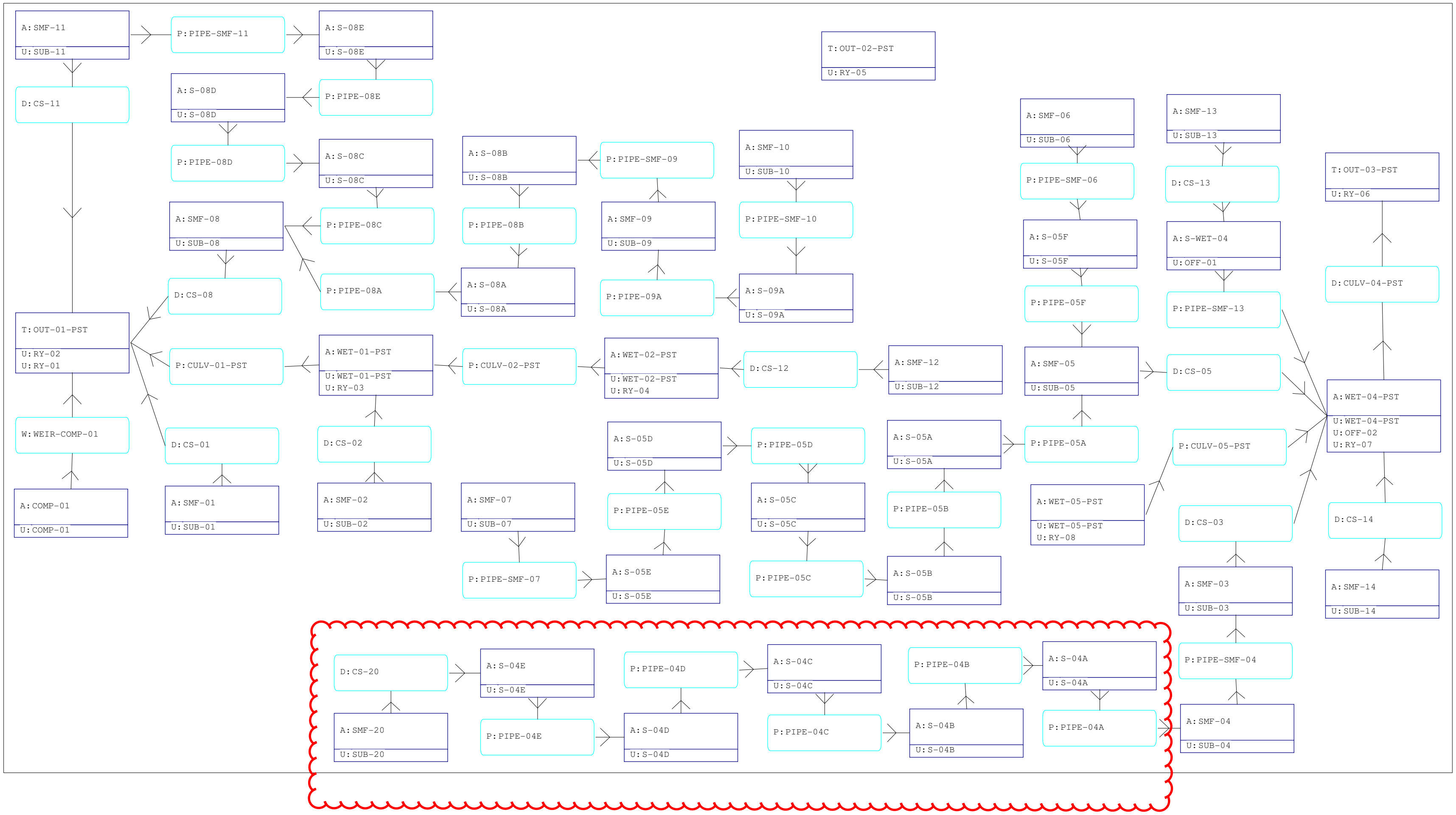
Notes:
1. Formula Taken from St. Johns River Water Management District Handbook - Buffer Width Calculations Based on Infiltration.

NODAL DIAGRAM | POST-DEVELOPMENT DRAINAGE

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench

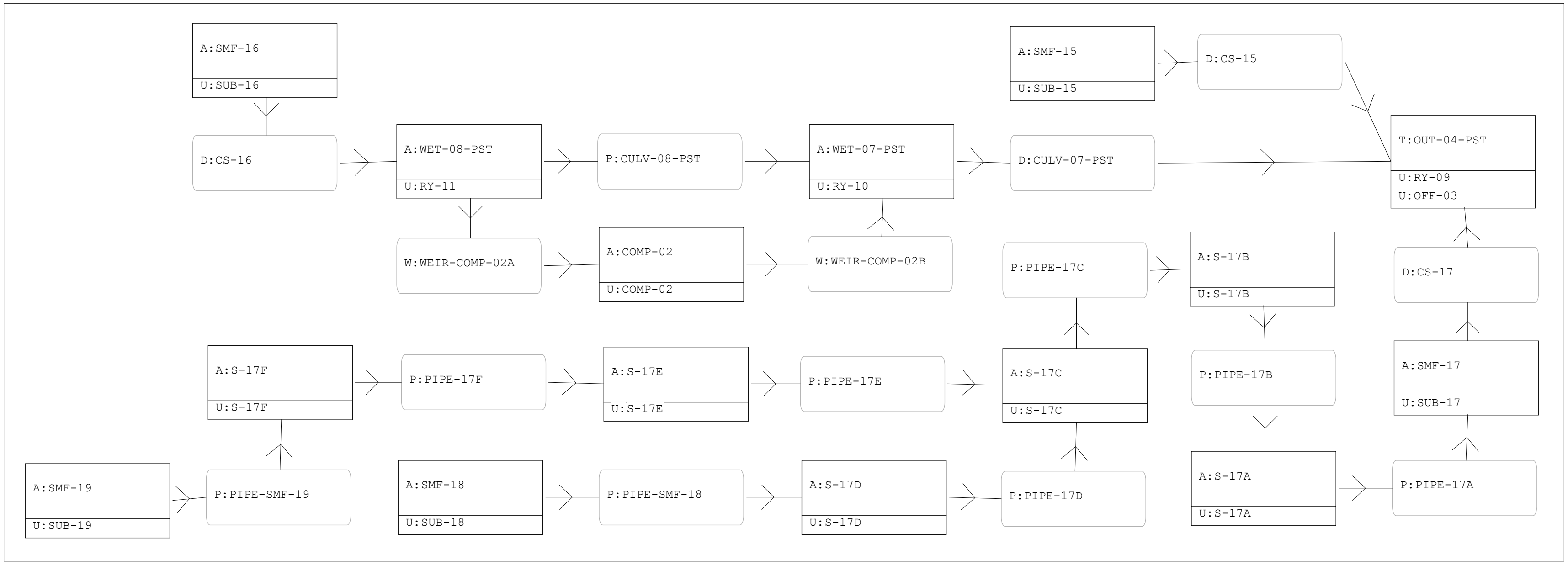


NODAL DIAGRAM | POST-DEVELOPMENT DRAINAGE

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



NODE MAXIMUM CONDITIONS REPORT | POST-DEVELOPMENT DRAINAGE

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
COMP-01	POST	HYDRA-010	13.01	81.60	0.00	0.0031	105414	12.00	9.56	12.01	4.79
COMP-02	POST	HYDRA-010	48.00	79.15	0.00	0.0001	94042	12.00	12.13	0.00	0.00
OUT-01-PST	POST	HYDRA-010	13.00	81.60	0.00	0.0027	214	12.00	25.62	0.00	0.00
OUT-02-PST	POST	HYDRA-010	13.00	81.60	0.00	0.0040	0	12.08	1.96	0.00	0.00
OUT-03-PST	POST	HYDRA-010	13.00	79.20	0.00	0.0035	0	43.95	1.46	0.00	0.00
OUT-04-PST	POST	HYDRA-010	13.00	80.00	0.00	0.0019	0	13.09	5.61	0.00	0.00
S-04A	POST	HYDRA-010	13.29	83.77	0.00	0.0353	139	12.02	58.91	12.02	58.78
S-04B	POST	HYDRA-010	13.09	83.71	0.00	-0.0251	164	12.01	55.11	12.02	54.95
S-04C	POST	HYDRA-010	12.09	84.02	0.00	0.0280	169	12.01	53.60	12.01	53.42
S-04D	POST	HYDRA-010	12.08	84.74	0.00	-0.0121	135	12.00	39.11	12.01	38.91
S-04E	POST	HYDRA-010	12.08	85.18	0.00	0.0066	126	12.00	28.80	12.00	28.42
S-05A	POST	HYDRA-010	14.21	82.43	0.00	-0.0039	128	12.08	6.92	12.08	6.87
S-05B	POST	HYDRA-010	14.19	82.43	0.00	0.0024	128	12.08	4.35	12.08	4.30
S-05C	POST	HYDRA-010	14.18	82.44	0.00	0.0019	131	12.94	1.65	12.94	1.65
S-05D	POST	HYDRA-010	14.18	82.45	0.00	0.0017	124	12.98	1.55	12.98	1.55
S-05E	POST	HYDRA-010	14.18	82.45	0.00	-0.0013	123	13.01	1.37	13.01	1.37
S-05F	POST	HYDRA-010	14.26	82.43	0.00	-0.0005	122	12.00	2.30	12.00	2.25
S-08A	POST	HYDRA-010	13.84	84.36	0.00	-0.0068	119	12.08	2.35	6.52	2.05
S-08B	POST	HYDRA-010	13.92	84.37	0.00	0.0053	119	14.63	1.95	14.63	1.95
S-08C	POST	HYDRA-010	13.70	84.35	0.00	-0.0071	141	12.19	16.92	12.19	16.87
S-08D	POST	HYDRA-010	12.47	84.38	0.00	-0.0041	151	12.19	16.76	12.19	16.71
S-08E	POST	HYDRA-010	12.35	84.53	0.00	-0.0049	139	12.21	15.12	12.22	15.08
S-09A	POST	HYDRA-010	14.07	84.38	0.00	0.0021	125	12.08	6.10	12.08	6.04
S-17A	POST	HYDRA-010	13.03	83.64	0.00	-0.0055	125	12.35	6.07	12.08	5.85
S-17B	POST	HYDRA-010	13.01	83.65	0.00	0.0082	122	12.08	4.69	15.50	5.50
S-17C	POST	HYDRA-010	13.03	83.65	0.00	-0.0068	133	12.80	4.80	0.00	0.00
S-17D	POST	HYDRA-010	13.03	83.66	0.00	0.0025	122	12.50	1.00	12.67	3.00
S-17E	POST	HYDRA-010	13.03	83.67	0.00	0.0024	126	13.31	0.94	15.58	1.88
S-17F	POST	HYDRA-010	13.03	83.67	0.00	-0.0022	122	12.93	0.97	13.33	0.48
S-WET-04	POST	HYDRA-010	43.90	80.01	0.00	-0.0049	125	13.90	2.02	13.91	2.02
SMF-01	POST	HYDRA-010	13.28	85.12	0.00	0.0003	99962	12.17	37.40	13.28	4.96
SMF-02	POST	HYDRA-010	12.87	84.81	0.00	0.0007	31975	12.17	28.82	12.87	6.14
SMF-03	POST	HYDRA-010	13.41	83.68	0.00	0.0006	75596	12.09	52.34	13.41	8.83
SMF-04	POST	HYDRA-010	13.35	83.69	0.00	0.0008	29240	12.08	69.01	12.11	45.97
SMF-05	POST	HYDRA-010	14.25	82.42	0.00	0.0003	38887	12.08	13.76	14.25	2.86
SMF-06	POST	HYDRA-010	14.32	82.43	0.00	0.0002	25752	12.08	3.49	15.92	0.33
SMF-07	POST	HYDRA-010	14.21	82.46	0.00	0.0003	51782	12.08	13.53	13.06	1.17
SMF-08	POST	HYDRA-010	13.76	84.35	0.00	0.0003	65669	12.08	27.12	13.76	3.86
SMF-09	POST	HYDRA-010	14.06	84.38	0.00	0.0003	31818	12.08	9.89	14.70	1.87
SMF-10	POST	HYDRA-010	14.08	84.38	0.00	0.0003	33129	12.08	10.09	6.77	1.59
SMF-11	POST	HYDRA-010	12.33	84.65	0.00	0.0007	10468	12.17	22.23	12.29	19.18
SMF-12	POST	HYDRA-010	20.11	84.38	0.00	0.0001	28262	12.08	3.23	20.11	0.14
SMF-13	POST	HYDRA-010	13.92	82.27	0.00	0.0002	79197	12.17	20.09	13.92	1.96
SMF-14	POST	HYDRA-010	14.06	82.52	0.00	0.0003	98418	12.08	32.82	14.06	2.86
SMF-15	POST	HYDRA-010	14.05	83.73	0.00	0.0002	88957	12.17	21.05	14.05	1.95
SMF-16	POST	HYDRA-010	13.70	84.39	0.00	0.0003	121311	12.17	52.17	13.70	6.02
SMF-17	POST	HYDRA-010	13.02	83.62	0.00	0.0006	9773	12.08	8.03	13.02	3.48
SMF-18	POST	HYDRA-010	13.02	83.66	0.00	0.0006	8776	12.08	2.07	12.52	0.55
SMF-19	POST	HYDRA-010	13.02	83.67	0.00	0.0004	20226	12.17	2.48	27.75	0.82
SMF-20	POST	HYDRA-010	12.78	86.26	0.00	0.0003	13955	12.08	4.50	12.78	0.83
WET-01-PST	POST	HYDRA-010	18.71	81.48	0.00	0.0002	312444	12.00	52.58	22.55	6.00
WET-02-PST	POST	HYDRA-010	18.92	81.49	0.00	0.0002	137158	12.00	22.58	24.18	1.53
WET-04-PST	POST	HYDRA-010	43.95	80.01	0.00	0.0002	496882	12.00	71.53	43.95	1.46
WET-05-PST	POST	HYDRA-010	43.93	80.01	0.00	0.0001	117731	12.00	18.91	13.23	1.02
WET-07-PST	POST	HYDRA-010	25.00	78.84	0.00	0.0000	173274	12.08	5.20	0.00	0.00
WET-08-PST	POST	HYDRA-010	46.78	80.03	0.00	0.0000	193038	13.58	6.24	46.78	0.44
COMP-01	POST	HYDRA-025	13.01	82.60	0.00	0.0039	114125	12.00	14.56	12.01	7.02
COMP-02	POST	HYDRA-025	28.26	80.05	0.00	0.0002	109307	12.00	18.80	28.26	1.48
OUT-01-PST	POST	HYDRA-025	13.00	82.60	0.00	0.0040	63	12.01	38.17	0.00	0.00
OUT-02-PST	POST	HYDRA-025	13.00	82.60	0.00	0.0053	0	12.08	3.31	0.00	0.00
OUT-03-PST	POST	HYDRA-025	13.00	80.20	0.00	0.0047	0	26.27	4.45	0.00	0.00
OUT-04-PST	POST	HYDRA-025	13.00	80.60	0.00	0.0027	0	12.38	15.62	0.00	0.00

NODE MAXIMUM CONDITIONS REPORT | POST-DEVELOPMENT DRAINAGE

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
S-04A	POST	HYDRA-025	12.30	84.63	0.00	0.0354	139	12.01	81.80	12.02	81.62
S-04B	POST	HYDRA-025	12.09	84.95	0.00	-0.0251	164	12.01	76.23	12.01	76.00
S-04C	POST	HYDRA-025	12.09	85.72	0.00	0.0281	169	12.01	74.01	12.01	73.74
S-04D	POST	HYDRA-025	12.08	87.02	0.00	-0.0121	135	12.00	52.85	12.01	52.50
S-04E	POST	HYDRA-025	12.02	87.85	0.00	0.0066	126	12.00	37.73	12.00	37.17
S-05A	POST	HYDRA-025	12.65	82.74	0.00	-0.0034	128	12.08	10.33	12.08	10.26
S-05B	POST	HYDRA-025	12.64	82.75	0.00	-0.0020	128	12.08	6.49	12.08	6.42
S-05C	POST	HYDRA-025	12.80	82.79	0.00	0.0018	131	13.05	2.87	13.05	2.87
S-05D	POST	HYDRA-025	13.09	82.82	0.00	-0.0023	124	13.07	2.72	13.07	2.72
S-05E	POST	HYDRA-025	13.10	82.84	0.00	0.0022	123	13.25	2.50	13.25	2.50
S-05F	POST	HYDRA-025	13.48	82.71	0.00	-0.0051	122	12.00	3.81	12.00	3.75
S-08A	POST	HYDRA-025	12.91	84.67	0.00	0.0021	119	13.99	4.25	13.99	4.25
S-08B	POST	HYDRA-025	12.99	84.69	0.00	-0.0036	119	13.99	4.10	13.99	4.11
S-08C	POST	HYDRA-025	12.68	84.67	0.00	0.0053	141	12.09	19.49	12.09	19.42
S-08D	POST	HYDRA-025	12.36	84.79	0.00	0.0052	151	12.09	19.12	12.10	19.04
S-08E	POST	HYDRA-025	12.31	84.97	0.00	-0.0044	139	12.17	16.28	12.18	16.23
S-09A	POST	HYDRA-025	13.23	84.74	0.00	-0.0037	125	12.08	8.49	12.08	8.42
S-17A	POST	HYDRA-025	12.34	84.15	0.00	0.0050	125	12.08	10.15	12.09	10.05
S-17B	POST	HYDRA-025	12.33	84.20	0.00	-0.0082	122	12.26	12.25	12.08	8.15
S-17C	POST	HYDRA-025	12.34	84.21	0.00	0.0071	133	12.87	5.03	16.33	7.20
S-17D	POST	HYDRA-025	12.35	84.22	0.00	-0.0035	122	12.48	3.30	12.53	3.38
S-17E	POST	HYDRA-025	12.35	84.18	0.00	-0.0035	126	13.08	3.14	13.09	3.15
S-17F	POST	HYDRA-025	12.71	84.15	0.00	0.0038	122	13.25	2.43	13.25	2.44
S-WET-04	POST	HYDRA-025	26.08	80.62	0.00	-0.0049	125	12.98	4.96	12.99	4.95
SMF-01	POST	HYDRA-025	12.86	85.50	0.00	0.0004	102819	12.17	54.09	12.86	12.04
SMF-02	POST	HYDRA-025	12.55	85.42	0.00	0.0010	33925	12.08	42.54	12.55	18.20
SMF-03	POST	HYDRA-025	12.80	84.34	0.00	0.0007	80457	12.10	70.90	12.80	23.23
SMF-04	POST	HYDRA-025	12.48	84.46	0.00	0.0011	31840	12.05	96.21	12.13	62.36
SMF-05	POST	HYDRA-025	13.41	82.71	0.00	0.0004	40645	12.08	21.04	13.41	5.83
SMF-06	POST	HYDRA-025	13.58	82.71	0.00	0.0003	26713	12.08	5.06	14.89	0.67
SMF-07	POST	HYDRA-025	13.16	82.86	0.00	0.0004	53787	12.08	19.22	13.83	2.28
SMF-08	POST	HYDRA-025	12.85	84.65	0.00	0.0004	67209	12.08	33.73	12.85	8.59
SMF-09	POST	HYDRA-025	13.22	84.73	0.00	0.0004	33030	12.08	13.84	14.04	3.97
SMF-10	POST	HYDRA-025	13.25	84.74	0.00	0.0004	34374	12.08	14.20	14.25	1.86
SMF-11	POST	HYDRA-025	12.29	85.10	0.00	0.0008	11423	12.17	31.83	12.26	28.86
SMF-12	POST	HYDRA-025	15.27	84.56	0.00	0.0002	28844	12.08	5.67	15.27	0.39
SMF-13	POST	HYDRA-025	13.04	82.56	0.00	0.0003	81453	12.08	29.99	13.04	4.76
SMF-14	POST	HYDRA-025	13.07	82.87	0.00	0.0004	100839	12.08	47.72	13.07	6.71
SMF-15	POST	HYDRA-025	12.97	83.97	0.00	0.0003	90452	12.08	31.08	12.97	5.34
SMF-16	POST	HYDRA-025	12.98	84.85	0.00	0.0005	125992	12.17	76.21	12.98	15.17
SMF-17	POST	HYDRA-025	12.37	84.04	0.00	0.0008	10611	12.08	13.31	12.37	10.46
SMF-18	POST	HYDRA-025	12.39	84.24	0.00	0.0008	9852	12.08	3.41	12.50	2.66
SMF-19	POST	HYDRA-025	12.75	84.15	0.00	0.0006	21783	12.17	3.81	13.25	2.18
SMF-20	POST	HYDRA-025	12.38	86.69	0.00	0.0006	14952	12.08	6.79	12.42	3.51
WET-01-PST	POST	HYDRA-025	17.25	82.44	0.00	0.0003	380400	12.00	68.82	22.54	9.37
WET-02-PST	POST	HYDRA-025	18.69	82.43	0.00	0.0003	141281	12.00	31.27	23.71	2.29
WET-04-PST	POST	HYDRA-025	26.27	80.62	0.00	0.0003	521007	12.00	100.71	26.27	4.45
WET-05-PST	POST	HYDRA-025	26.27	80.62	0.00	0.0002	120330	12.00	27.08	12.52	1.73
WET-07-PST	POST	HYDRA-025	48.00	79.29	0.00	0.0000	210471	12.08	8.39	0.00	0.00
WET-08-PST	POST	HYDRA-025	21.78	80.10	0.00	0.0001	196742	12.95	15.68	21.78	3.17
COMP-01	POST	HYDRA-100	13.01	83.60	0.00	0.0047	120225	12.00	22.77	12.00	12.21
COMP-02	POST	HYDRA-100	48.00	80.27	0.00	0.0003	111223	12.00	29.87	16.77	11.43
OUT-01-PST	POST	HYDRA-100	13.00	83.60	0.00	0.0053	12	12.08	77.29	0.00	0.00
OUT-02-PST	POST	HYDRA-100	13.00	83.60	0.00	0.0065	0	12.08	5.64	0.00	0.00
OUT-03-PST	POST	HYDRA-100	13.00	81.20	0.00	0.0060	0	24.00	12.44	0.00	0.00
OUT-04-PST	POST	HYDRA-100	13.00	81.20	0.00	0.0035	0	12.33	32.62	0.00	0.00
S-04A	POST	HYDRA-100	12.10	86.67	0.00	0.0352	139	12.02	119.08	12.02	118.81
S-04B	POST	HYDRA-100	12.09	87.44	0.00	-0.0251	164	12.02	110.63	12.02	110.29
S-04C	POST	HYDRA-100	12.08	89.08	0.00	0.0287	169	12.01	107.27	12.02	106.86
S-04D	POST	HYDRA-100	12.03	91.86	0.00	-0.0121	135	12.00	75.33	12.01	74.71
S-04E	POST	HYDRA-100	12.02	93.53	0.00	0.0067	126	12.00	52.65	12.00	51.59
S-05A	POST	HYDRA-100	12.46	83.30	0.00	-0.0039	128	12.08	16.14	12.08	16.05

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
S-05B	POST	HYDRA-100	12.47	83.34	0.00	0.0025	128	12.08	10.22	12.08	10.13
S-05C	POST	HYDRA-100	12.58	83.39	0.00	0.0028	131	13.58	4.68	13.60	4.68
S-05D	POST	HYDRA-100	12.69	83.45	0.00	-0.0059	124	13.80	4.53	13.81	4.53
S-05E	POST	HYDRA-100	12.80	83.47	0.00	-0.0070	123	13.85	4.29	13.85	4.30
S-05F	POST	HYDRA-100	12.50	83.20	0.00	-0.0037	122	12.00	6.55	12.00	6.46
S-08A	POST	HYDRA-100	12.71	85.15	0.00	0.0025	119	13.78	7.67	13.78	7.67
S-08B	POST	HYDRA-100	12.78	85.23	0.00	-0.0036	119	13.78	7.47	13.78	7.47
S-08C	POST	HYDRA-100	12.46	85.12	0.00	0.0051	141	12.08	21.82	12.08	21.74
S-08D	POST	HYDRA-100	12.31	85.36	0.00	-0.0043	151	12.08	21.25	12.08	21.16
S-08E	POST	HYDRA-100	12.28	85.57	0.00	-0.0056	139	12.18	16.99	12.18	16.95
S-09A	POST	HYDRA-100	12.94	85.40	0.00	-0.0040	125	12.08	12.15	12.08	12.06
S-17A	POST	HYDRA-100	12.24	84.94	0.00	-0.0055	125	12.08	18.74	12.09	18.71
S-17B	POST	HYDRA-100	12.24	85.14	0.00	0.0082	122	12.09	20.26	12.08	15.69
S-17C	POST	HYDRA-100	12.25	85.14	0.00	-0.0068	133	12.76	9.85	12.76	9.88
S-17D	POST	HYDRA-100	12.29	85.17	0.00	0.0025	122	12.48	6.01	12.46	6.09
S-17E	POST	HYDRA-100	12.24	85.13	0.00	-0.0051	126	13.22	5.47	13.22	5.49
S-17F	POST	HYDRA-100	12.30	85.02	0.00	0.0055	122	13.32	4.50	13.31	4.52
S-WET-04	POST	HYDRA-100	24.01	81.69	0.00	0.0015	125	12.65	11.34	12.66	11.30
SMF-01	POST	HYDRA-100	12.68	86.07	0.00	0.0005	107083	12.17	80.79	12.68	26.14
SMF-02	POST	HYDRA-100	12.40	86.15	0.00	0.0012	36256	12.08	64.82	12.40	39.73
SMF-03	POST	HYDRA-100	12.65	85.12	0.00	0.0008	86114	12.11	99.38	12.65	56.05
SMF-04	POST	HYDRA-100	12.36	85.84	0.00	0.0015	36514	12.04	141.36	12.16	88.18
SMF-05	POST	HYDRA-100	12.54	83.20	0.00	0.0005	43722	12.08	33.51	12.54	12.68
SMF-06	POST	HYDRA-100	13.05	83.16	0.00	0.0003	28205	12.08	7.55	13.87	1.39
SMF-07	POST	HYDRA-100	13.05	83.54	0.00	0.0005	57112	12.08	28.23	14.25	4.03
SMF-08	POST	HYDRA-100	12.66	85.06	0.00	0.0005	69282	12.08	44.07	12.65	17.17
SMF-09	POST	HYDRA-100	12.96	85.36	0.00	0.0005	35249	12.08	19.96	13.78	7.27
SMF-10	POST	HYDRA-100	12.96	85.41	0.00	0.0006	36700	12.08	20.68	13.83	3.46
SMF-11	POST	HYDRA-100	12.27	85.71	0.00	0.0008	12700	12.17	47.11	12.26	43.26
SMF-12	POST	HYDRA-100	12.82	84.79	0.00	0.0003	29585	12.08	9.96	12.82	1.81
SMF-13	POST	HYDRA-100	12.79	83.02	0.00	0.0004	85092	12.08	46.35	12.73	10.66
SMF-14	POST	HYDRA-100	12.79	83.44	0.00	0.0005	104710	12.08	71.60	12.79	15.01
SMF-15	POST	HYDRA-100	12.71	84.37	0.00	0.0004	92852	12.08	47.35	12.71	12.98
SMF-16	POST	HYDRA-100	12.77	85.55	0.00	0.0007	133075	12.17	114.87	12.77	34.03
SMF-17	POST	HYDRA-100	12.28	84.49	0.00	0.0006	11508	12.09	23.75	12.28	20.84
SMF-18	POST	HYDRA-100	12.35	85.22	0.00	0.0011	11680	12.08	5.70	12.50	5.06
SMF-19	POST	HYDRA-100	12.70	84.95	0.00	0.0007	24368	12.17	6.01	13.33	4.15
SMF-20	POST	HYDRA-100	12.46	88.01	0.00	0.0010	18033	12.08	10.53	13.17	5.82
WET-01-PST	POST	HYDRA-100	16.87	83.41	0.00	0.0003	434514	12.00	106.32	23.59	12.74
WET-02-PST	POST	HYDRA-100	18.68	83.40	0.00	0.0003	149037	12.00	45.20	24.08	3.03
WET-04-PST	POST	HYDRA-100	24.12	81.68	0.00	0.0003	553501	12.00	166.05	24.09	12.37
WET-05-PST	POST	HYDRA-100	24.12	81.68	0.00	0.0003	124928	12.00	40.70	12.02	1.44
WET-07-PST	POST	HYDRA-100	48.00	80.27	0.00	0.0001	319392	12.08	13.78	0.00	0.00
WET-08-PST	POST	HYDRA-100	48.00	80.27	0.00	0.0003	205637	12.73	35.16	15.76	12.44
COMP-01	POST	HYDRA-MEAN	13.03	80.60	0.00	0.0010	98445	12.00	4.05	12.03	1.68
COMP-02	POST	HYDRA-MEAN	24.50	78.74	0.00	0.0000	90339	12.00	4.88	0.00	0.00
OUT-01-PST	POST	HYDRA-MEAN	13.00	80.60	0.00	0.0014	213	12.01	12.16	0.00	0.00
OUT-02-PST	POST	HYDRA-MEAN	13.00	80.60	0.00	0.0027	0	12.08	0.60	0.00	0.00
OUT-03-PST	POST	HYDRA-MEAN	13.00	78.20	0.00	0.0022	0	19.50	0.01	0.00	0.00
OUT-04-PST	POST	HYDRA-MEAN	13.00	79.40	0.00	0.0012	0	12.08	1.55	0.00	0.00
S-04A	POST	HYDRA-MEAN	23.50	83.05	0.00	0.0357	139	12.08	28.10	10.77	31.71
S-04B	POST	HYDRA-MEAN	23.50	82.96	0.00	-0.0251	164	12.08	26.19	12.08	26.12
S-04C	POST	HYDRA-MEAN	23.50	83.03	0.00	0.0280	169	12.02	25.44	12.02	25.36
S-04D	POST	HYDRA-MEAN	22.50	83.00	0.00	-0.0121	135	12.00	18.63	12.01	18.56
S-04E	POST	HYDRA-MEAN	22.50	83.02	0.00	0.0068	126	12.00	13.76	12.00	13.64
S-05A	POST	HYDRA-MEAN	20.17	82.05	0.00	-0.0039	128	12.08	3.53	12.08	3.26
S-05B	POST	HYDRA-MEAN	20.16	82.05	0.00	0.0024	128	12.08	1.53	12.68	3.04
S-05C	POST	HYDRA-MEAN	20.16	82.05	0.00	-0.0013	131	12.36	1.20	12.57	0.59
S-05D	POST	HYDRA-MEAN	20.17	82.06	0.00	0.0017	124	0.00	0.00	12.86	1.12
S-05E	POST	HYDRA-MEAN	20.18	82.06	0.00	-0.0013	123	12.57	0.89	0.00	0.00
S-05F	POST	HYDRA-MEAN	20.20	82.05	0.00	-0.0005	122	12.00	0.78	12.00	0.76
S-08A	POST	HYDRA-MEAN	18.72	83.86	0.00	-0.0018	119	15.50	1.70	18.27	0.86

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NODE MAXIMUM CONDITIONS REPORT | POST-DEVELOPMENT DRAINAGE

                                               Max Time       Max   Warning Max Delta  Max Surf  Max Time       Max  Max Time       Max
           Name          Group     Simulation     Stage     Stage     Stage     Stage      Area    Inflow    Inflow   Outflow   Outflow
                                                    hrs        ft        ft        ft       ft2       hrs       cfs       hrs       cfs

          S-08B           POST     HYDRA-MEAN     18.63     83.87      0.00   -0.0036       119     18.27      0.83      7.05      1.68
          S-08C           POST     HYDRA-MEAN     18.74     83.86      0.00   -0.0043       141     12.26     10.35     12.26     10.32
          S-08D           POST     HYDRA-MEAN     18.74     83.87      0.00    0.0052       151     12.26     10.28     12.26     10.25
          S-08E           POST     HYDRA-MEAN     18.74     83.86      0.00   -0.0044       139     12.28      9.50     12.28      9.47
          S-09A           POST     HYDRA-MEAN     18.64     83.87      0.00   -0.0037       125     12.08      3.18     12.08      3.15
          S-17A           POST     HYDRA-MEAN     15.51     82.90      0.00    0.0050       125      9.84      0.00     12.08      2.81
          S-17B           POST     HYDRA-MEAN     15.50     82.89      0.00   -0.0082       122     11.96      7.19      0.00      0.00
          S-17C           POST     HYDRA-MEAN     15.51     82.92      0.00    0.0071       133      9.84      0.00     18.00      6.82
          S-17D           POST     HYDRA-MEAN     15.52     82.90      0.00   -0.0026       122     17.75      0.88      0.00      0.00
          S-17E           POST     HYDRA-MEAN     15.51     82.91      0.00   -0.0019       126     16.90      1.78      0.00      0.00
          S-17F           POST     HYDRA-MEAN     15.53     82.91      0.00    0.0013       122      9.84      0.00     24.55      1.74
       S-WET-04           POST     HYDRA-MEAN     48.00     79.21      0.00    0.0015       125     22.50      0.36     22.50      0.36
         SMF-01           POST     HYDRA-MEAN     18.90     84.69      0.00    0.0001     96721     12.17     18.14     18.90      0.77
         SMF-02           POST     HYDRA-MEAN     13.37     83.59      0.00    0.0002     28065     12.17     13.58     13.37      1.87
         SMF-03           POST     HYDRA-MEAN     23.55     83.00      0.00    0.0002     70610     12.09     26.26     23.55      1.10
         SMF-04           POST     HYDRA-MEAN     23.55     83.00      0.00    0.0005     26891     12.32     33.94     12.10     22.85
         SMF-05           POST     HYDRA-MEAN     20.20     82.05      0.00    0.0001     36533     12.08      6.03     20.20      0.62
         SMF-06           POST     HYDRA-MEAN     20.23     82.05      0.00    0.0001     24488     12.08      1.69     30.53      0.23
         SMF-07           POST     HYDRA-MEAN     20.20     82.06      0.00    0.0001     49813     12.08      6.87     24.50      0.76
         SMF-08           POST     HYDRA-MEAN     18.74     83.86      0.00    0.0001     63189     12.15     13.95     18.74      1.30
         SMF-09           POST     HYDRA-MEAN     18.64     83.86      0.00    0.0001     30033     12.08      5.14     24.78      0.83
         SMF-10           POST     HYDRA-MEAN     18.64     83.87      0.00    0.0001     31339     12.08      5.23      0.00      0.00
         SMF-11           POST     HYDRA-MEAN     18.75     83.87      0.00    0.0002      8820     12.17     11.06     12.29      8.82
         SMF-12           POST     HYDRA-MEAN     24.05     84.16      0.00    0.0000     27522     12.17      0.88     24.05      0.04
         SMF-13           POST     HYDRA-MEAN     20.45     81.95      0.00    0.0001     76705     12.17      9.11     20.45      0.35
         SMF-14           POST     HYDRA-MEAN     19.98     82.10      0.00    0.0001     95551     12.08     15.71     19.98      0.62
         SMF-15           POST     HYDRA-MEAN     20.44     83.43      0.00    0.0001     87123     12.17      9.92     20.44      0.37
         SMF-16           POST     HYDRA-MEAN     19.82     83.83      0.00    0.0001    115599     12.17     24.68     19.82      1.11
         SMF-17           POST     HYDRA-MEAN     15.52     82.89      0.00    0.0002      8324     12.08      3.78     15.52      0.77
         SMF-18           POST     HYDRA-MEAN     15.53     82.91      0.00    0.0002      7365     12.17      0.71     24.50      0.87
         SMF-19           POST     HYDRA-MEAN     15.56     82.91      0.00    0.0002     17768     12.17      1.02      0.00      0.00
         SMF-20           POST     HYDRA-MEAN     16.62     85.93      0.00    0.0001     13187     12.08      1.96     16.62      0.11
     WET-01-PST           POST     HYDRA-MEAN     22.36     80.52      0.00    0.0001    234702     12.00     31.34     24.14      2.08
     WET-02-PST           POST     HYDRA-MEAN     22.56     80.52      0.00    0.0001    126699     12.00     12.36     26.79      0.54
     WET-04-PST           POST     HYDRA-MEAN     48.00     79.21      0.00    0.0001    413880     12.00     40.85      0.00      0.00
     WET-05-PST           POST     HYDRA-MEAN     48.00     79.21      0.00    0.0000    114257     12.00     10.00     17.51      0.37
     WET-07-PST           POST     HYDRA-MEAN     25.00     78.76      0.00    0.0000    168143     12.08      1.86      0.00      0.00
     WET-08-PST           POST     HYDRA-MEAN     48.00     79.30      0.00    0.0000    170316     18.50      1.15      0.00      0.00
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LINK MAXIMUM CONDITIONS REPORT | POST-DEVELOPMENT DRAINAGE

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
CS-01	POST	HYDRA-010	13.28	4.96	0.001	13.28	85.12	13.00	81.60
CS-02	POST	HYDRA-010	12.87	6.14	0.002	12.87	84.81	18.71	81.48
CS-03	POST	HYDRA-010	13.41	8.83	0.003	13.41	83.68	43.95	80.01
CS-05	POST	HYDRA-010	14.25	2.86	0.001	14.25	82.42	43.95	80.01
CS-08	POST	HYDRA-010	13.76	3.86	0.001	13.76	84.35	13.00	81.60
CS-11	POST	HYDRA-010	12.33	5.66	0.007	12.33	84.65	13.00	81.60
CS-12	POST	HYDRA-010	20.11	0.14	0.000	20.11	84.38	18.92	81.49
CS-13	POST	HYDRA-010	13.92	1.96	0.000	13.92	82.27	43.90	80.01
CS-14	POST	HYDRA-010	14.06	2.86	0.001	14.06	82.52	43.95	80.01
CS-15	POST	HYDRA-010	14.05	1.95	0.000	14.05	83.73	13.00	80.00
CS-16	POST	HYDRA-010	13.70	6.02	0.001	13.70	84.39	46.78	80.03
CS-17	POST	HYDRA-010	13.02	3.48	0.002	13.02	83.62	13.00	80.00
CS-20	POST	HYDRA-010	12.78	0.83	0.000	12.78	86.26	12.08	85.18
CULV-01-PST	POST	HYDRA-010	22.55	6.00	0.098	18.71	81.48	13.00	81.60
CULV-02-PST	POST	HYDRA-010	24.18	1.53	0.046	18.92	81.49	18.71	81.48
CULV-04-PST	POST	HYDRA-010	43.95	1.46	0.000	43.95	80.01	13.00	79.20
CULV-05-PST	POST	HYDRA-010	13.23	1.02	0.043	43.93	80.01	43.95	80.01
CULV-07-PST	POST	HYDRA-010	0.00	0.00	0.000	25.00	78.84	13.00	80.00
CULV-08-PST	POST	HYDRA-010	0.00	0.00	0.000	46.78	80.03	25.00	78.84
PIPE-04A	POST	HYDRA-010	12.02	58.78	15.344	13.29	83.77	13.35	83.69
PIPE-04B	POST	HYDRA-010	12.02	54.95	-26.037	13.09	83.71	13.29	83.77
PIPE-04C	POST	HYDRA-010	12.01	53.42	14.677	12.09	84.02	13.09	83.71
PIPE-04D	POST	HYDRA-010	12.01	38.91	4.970	12.08	84.74	12.09	84.02
PIPE-04E	POST	HYDRA-010	12.00	28.42	5.354	12.08	85.18	12.08	84.74
PIPE-05A	POST	HYDRA-010	12.08	6.87	-1.642	14.21	82.43	14.25	82.42
PIPE-05B	POST	HYDRA-010	12.08	4.30	1.735	14.19	82.43	14.21	82.43
PIPE-05C	POST	HYDRA-010	12.94	1.65	-0.863	14.18	82.44	14.19	82.43
PIPE-05D	POST	HYDRA-010	12.98	1.55	0.536	14.18	82.45	14.18	82.44
PIPE-05E	POST	HYDRA-010	13.01	1.37	-0.677	14.18	82.45	14.18	82.45
PIPE-05F	POST	HYDRA-010	12.00	2.25	-0.384	14.26	82.43	14.25	82.42
PIPE-08A	POST	HYDRA-010	6.52	2.05	1.328	13.84	84.36	13.76	84.35
PIPE-08B	POST	HYDRA-010	14.63	1.95	2.462	13.92	84.37	13.84	84.36
PIPE-08C	POST	HYDRA-010	12.19	16.87	-3.998	13.70	84.35	13.76	84.35
PIPE-08D	POST	HYDRA-010	12.19	16.71	-3.453	12.47	84.38	13.70	84.35
PIPE-08E	POST	HYDRA-010	12.22	15.08	2.756	12.35	84.53	12.47	84.38
PIPE-09A	POST	HYDRA-010	12.08	6.04	-0.849	14.07	84.38	14.06	84.38
PIPE-17A	POST	HYDRA-010	12.08	5.85	-1.217	13.03	83.64	13.02	83.62
PIPE-17B	POST	HYDRA-010	15.50	5.50	2.364	13.01	83.65	13.03	83.64
PIPE-17C	POST	HYDRA-010	0.00	0.00	-3.220	13.03	83.65	13.01	83.65
PIPE-17D	POST	HYDRA-010	12.67	3.00	-1.803	13.03	83.66	13.03	83.65
PIPE-17E	POST	HYDRA-010	15.58	1.88	0.715	13.03	83.67	13.03	83.65
PIPE-17F	POST	HYDRA-010	13.33	0.48	-1.073	13.03	83.67	13.03	83.67
PIPE-SMF-04	POST	HYDRA-010	12.11	45.97	-1.323	13.35	83.69	13.41	83.68
PIPE-SMF-06	POST	HYDRA-010	15.92	0.33	0.163	14.32	82.43	14.26	82.43
PIPE-SMF-07	POST	HYDRA-010	13.06	1.17	0.265	14.21	82.46	14.18	82.45
PIPE-SMF-09	POST	HYDRA-010	14.70	1.87	-0.838	14.06	84.38	13.92	84.37
PIPE-SMF-10	POST	HYDRA-010	6.77	1.59	-1.045	14.08	84.38	14.07	84.38
PIPE-SMF-11	POST	HYDRA-010	12.25	13.75	3.387	12.33	84.65	12.35	84.53
PIPE-SMF-13	POST	HYDRA-010	13.91	2.02	-0.342	43.90	80.01	43.95	80.01
PIPE-SMF-18	POST	HYDRA-010	12.52	0.55	-0.398	13.02	83.66	13.03	83.66
PIPE-SMF-19	POST	HYDRA-010	27.75	0.82	0.628	13.02	83.67	13.03	83.67
WEIR-COMP-01	POST	HYDRA-010	12.01	4.79	1.044	13.01	81.60	13.00	81.60
WEIR-COMP-02A	POST	HYDRA-010	46.78	0.44	0.000	46.78	80.03	48.00	79.15
WEIR-COMP-02B	POST	HYDRA-010	0.00	0.00	0.000	48.00	79.15	25.00	78.84
CS-01	POST	HYDRA-025	12.86	12.04	0.004	12.86	85.50	13.00	82.60
CS-02	POST	HYDRA-025	12.55	18.20	0.009	12.55	85.42	17.25	82.44
CS-03	POST	HYDRA-025	12.80	23.23	0.009	12.80	84.34	26.27	80.62
CS-05	POST	HYDRA-025	13.41	5.83	0.003	13.41	82.71	26.27	80.62
CS-08	POST	HYDRA-025	12.85	8.59	0.003	12.85	84.65	13.00	82.60
CS-11	POST	HYDRA-025	12.29	14.86	0.013	12.29	85.10	13.00	82.60
CS-12	POST	HYDRA-025	15.27	0.39	0.000	15.27	84.56	18.69	82.43
CS-13	POST	HYDRA-025	13.04	4.76	0.002	13.04	82.56	26.08	80.62
CS-14	POST	HYDRA-025	13.07	6.71	0.002	13.07	82.87	26.27	80.62
CS-15	POST	HYDRA-025	12.97	5.34	0.002	12.97	83.97	13.00	80.60
CS-16	POST	HYDRA-025	12.98	15.17	0.005	12.98	84.85	21.78	80.10
CS-17	POST	HYDRA-025	12.37	10.46	0.010	12.37	84.04	13.00	80.60
CS-20	POST	HYDRA-025	12.42	3.51	0.041	12.38	86.69	12.02	87.85
CULV-01-PST	POST	HYDRA-025	22.54	9.37	0.136	17.25	82.44	13.00	82.60
CULV-02-PST	POST	HYDRA-025	23.71	2.29	0.444	18.69	82.43	17.25	82.44
CULV-04-PST	POST	HYDRA-025	26.27	4.45	0.001	26.27	80.62	13.00	80.20
CULV-05-PST	POST	HYDRA-025	12.52	1.73	-0.058	26.27	80.62	26.27	80.62
CULV-07-PST	POST	HYDRA-025	0.00	0.00	0.000	48.00	79.29	13.00	80.60
CULV-08-PST	POST	HYDRA-025	0.00	0.00	0.000	21.78	80.10	48.00	79.29
PIPE-04A	POST	HYDRA-025	12.02	81.62	15.344	12.30	84.63	12.48	84.46
PIPE-04B	POST	HYDRA-025	12.01	76.00	-26.037	12.09	84.95	12.30	84.63
PIPE-04C	POST	HYDRA-025	12.01	73.74	14.677	12.09	85.72	12.09	84.95
PIPE-04D	POST	HYDRA-025	12.01	52.50	4.956	12.08	87.02	12.09	85.72
PIPE-04E	POST	HYDRA-025	12.00	37.17	5.354	12.02	87.85	12.08	87.02
PIPE-05A	POST	HYDRA-025	12.08	10.26	1.002	12.65	82.74	13.41	82.71
PIPE-05B	POST	HYDRA-025	12.08	6.42	-1.763	12.64	82.75	12.65	82.74
PIPE-05C	POST	HYDRA-025	13.05	2.87	0.512	12.80	82.79	12.64	82.75
PIPE-05D	POST	HYDRA-025	13.07	2.72	-0.626	13.09	82.82	12.80	82.79
PIPE-05E	POST	HYDRA-025	13.25	2.50	1.685	13.10	82.84	13.09	82.82
PIPE-05F	POST	HYDRA-025	12.00	3.75	0.975	13.48	82.71	13.41	82.71
PIPE-08A	POST	HYDRA-025	13.99	4.25	-0.606	12.91	84.67	12.85	84.65
PIPE-08B	POST	HYDRA-025	13.99	4.11	1.012	12.99	84.69	12.91	84.67

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
PIPE-08C	POST	HYDRA-025	12.09	19.42	-3.691	12.68	84.67	12.85	84.65
PIPE-08D	POST	HYDRA-025	12.10	19.04	3.409	12.36	84.79	12.68	84.67
PIPE-08E	POST	HYDRA-025	12.18	16.23	3.414	12.31	84.97	12.36	84.79
PIPE-09A	POST	HYDRA-025	12.08	8.42	-1.229	13.23	84.74	13.22	84.73
PIPE-17A	POST	HYDRA-025	12.09	10.05	1.813	12.34	84.15	12.37	84.04
PIPE-17B	POST	HYDRA-025	12.08	8.15	-3.414	12.33	84.20	12.34	84.15
PIPE-17C	POST	HYDRA-025	16.33	7.20	4.535	12.34	84.21	12.33	84.20
PIPE-17D	POST	HYDRA-025	12.53	3.38	-1.804	12.35	84.22	12.34	84.21
PIPE-17E	POST	HYDRA-025	13.09	3.15	-1.017	12.35	84.18	12.34	84.21
PIPE-17F	POST	HYDRA-025	13.25	2.44	1.395	12.71	84.15	12.35	84.18
PIPE-SMF-04	POST	HYDRA-025	12.13	62.36	-1.323	12.48	84.46	12.80	84.34
PIPE-SMF-06	POST	HYDRA-025	14.89	0.67	0.697	13.58	82.71	13.48	82.71
PIPE-SMF-07	POST	HYDRA-025	13.83	2.28	-0.580	13.16	82.86	13.10	82.84
PIPE-SMF-09	POST	HYDRA-025	14.04	3.97	-0.713	13.22	84.73	12.99	84.69
PIPE-SMF-10	POST	HYDRA-025	14.25	1.86	-1.193	13.25	84.74	13.23	84.74
PIPE-SMF-11	POST	HYDRA-025	12.21	14.21	2.550	12.29	85.10	12.31	84.97
PIPE-SMF-13	POST	HYDRA-025	12.99	4.95	-0.341	26.08	80.62	26.27	80.62
PIPE-SMF-18	POST	HYDRA-025	12.50	2.66	0.683	12.39	84.24	12.35	84.22
PIPE-SMF-19	POST	HYDRA-025	13.25	2.18	-0.788	12.75	84.15	12.71	84.15
WEIR-COMP-01	POST	HYDRA-025	12.01	7.02	2.150	13.01	82.60	13.00	82.60
WEIR-COMP-02A	POST	HYDRA-025	21.78	3.17	0.000	21.78	80.10	28.26	80.05
WEIR-COMP-02B	POST	HYDRA-025	28.26	1.48	0.000	28.26	80.05	48.00	79.29
CS-01	POST	HYDRA-100	12.68	26.14	0.012	12.68	86.07	13.00	83.60
CS-02	POST	HYDRA-100	12.40	39.73	0.023	12.40	86.15	16.87	83.41
CS-03	POST	HYDRA-100	12.65	56.05	0.028	12.65	85.12	24.12	81.68
CS-05	POST	HYDRA-100	12.54	12.68	0.006	12.54	83.20	24.12	81.68
CS-08	POST	HYDRA-100	12.65	17.17	0.007	12.66	85.06	13.00	83.60
CS-11	POST	HYDRA-100	12.27	29.12	0.019	12.27	85.71	13.00	83.60
CS-12	POST	HYDRA-100	12.82	1.81	0.001	12.82	84.79	18.68	83.40
CS-13	POST	HYDRA-100	12.73	10.66	0.005	12.79	83.02	24.01	81.69
CS-14	POST	HYDRA-100	12.79	15.01	0.007	12.79	83.44	24.12	81.68
CS-15	POST	HYDRA-100	12.71	12.98	0.006	12.71	84.37	13.00	81.20
CS-16	POST	HYDRA-100	12.77	34.03	0.017	12.77	85.55	48.00	80.27
CS-17	POST	HYDRA-100	12.28	20.84	0.014	12.28	84.49	13.00	81.20
CS-20	POST	HYDRA-100	13.17	5.82	0.105	12.46	88.01	12.02	93.53
CULV-01-PST	POST	HYDRA-100	23.59	12.74	0.148	16.87	83.41	13.00	83.60
CULV-02-PST	POST	HYDRA-100	24.08	3.03	0.746	18.68	83.40	16.87	83.41
CULV-04-PST	POST	HYDRA-100	24.09	12.37	0.003	24.12	81.68	13.00	81.20
CULV-05-PST	POST	HYDRA-100	12.02	1.44	-0.062	24.12	81.68	24.12	81.68
CULV-07-PST	POST	HYDRA-100	0.00	0.00	-0.000	48.00	80.27	13.00	81.20
CULV-08-PST	POST	HYDRA-100	15.76	0.01	0.000	48.00	80.27	48.00	80.27
PIPE-04A	POST	HYDRA-100	12.02	118.81	15.344	12.10	86.67	12.36	85.84
PIPE-04B	POST	HYDRA-100	12.02	110.29	-26.038	12.09	87.44	12.10	86.67
PIPE-04C	POST	HYDRA-100	12.02	106.86	14.677	12.08	89.08	12.09	87.44
PIPE-04D	POST	HYDRA-100	12.01	74.71	4.962	12.03	91.86	12.08	89.08
PIPE-04E	POST	HYDRA-100	12.00	51.59	5.354	12.02	93.53	12.03	91.86
PIPE-05A	POST	HYDRA-100	12.08	16.05	-1.642	12.46	83.30	12.54	83.20
PIPE-05B	POST	HYDRA-100	12.08	10.13	1.735	12.47	83.34	12.46	83.30
PIPE-05C	POST	HYDRA-100	13.60	4.68	1.029	12.58	83.39	12.47	83.34
PIPE-05D	POST	HYDRA-100	13.81	4.53	-1.008	12.69	83.45	12.58	83.39
PIPE-05E	POST	HYDRA-100	13.85	4.30	1.742	12.80	83.47	12.69	83.45
PIPE-05F	POST	HYDRA-100	12.00	6.46	1.421	12.50	83.20	12.54	83.20
PIPE-08A	POST	HYDRA-100	13.78	7.67	-0.614	12.71	85.15	12.66	85.06
PIPE-08B	POST	HYDRA-100	13.78	7.47	1.016	12.78	85.23	12.71	85.15
PIPE-08C	POST	HYDRA-100	12.08	21.74	-3.891	12.46	85.12	12.66	85.06
PIPE-08D	POST	HYDRA-100	12.08	21.16	-3.653	12.31	85.36	12.46	85.12
PIPE-08E	POST	HYDRA-100	12.18	16.95	3.435	12.28	85.57	12.31	85.36
PIPE-09A	POST	HYDRA-100	12.08	12.06	-1.194	12.94	85.40	12.96	85.36
PIPE-17A	POST	HYDRA-100	12.09	18.71	-1.217	12.24	84.94	12.28	84.49
PIPE-17B	POST	HYDRA-100	12.08	15.69	2.362	12.24	85.14	12.24	84.94
PIPE-17C	POST	HYDRA-100	12.76	9.88	3.965	12.25	85.14	12.24	85.14
PIPE-17D	POST	HYDRA-100	12.46	6.09	1.270	12.29	85.17	12.25	85.14
PIPE-17E	POST	HYDRA-100	13.22	5.49	-0.986	12.24	85.13	12.25	85.14
PIPE-17F	POST	HYDRA-100	13.31	4.52	1.658	12.30	85.02	12.24	85.13
PIPE-SMF-04	POST	HYDRA-100	12.16	88.18	-1.323	12.36	85.84	12.65	85.12
PIPE-SMF-06	POST	HYDRA-100	13.87	1.39	0.163	13.05	83.16	12.50	83.20
PIPE-SMF-07	POST	HYDRA-100	14.25	4.03	1.267	13.05	83.54	12.80	83.47
PIPE-SMF-09	POST	HYDRA-100	13.78	7.27	-0.707	12.96	85.36	12.78	85.23
PIPE-SMF-10	POST	HYDRA-100	13.83	3.46	1.354	12.96	85.41	12.94	85.40
PIPE-SMF-11	POST	HYDRA-100	12.25	14.17	3.945	12.27	85.71	12.28	85.57
PIPE-SMF-13	POST	HYDRA-100	12.66	11.30	0.244	24.01	81.69	24.12	81.68
PIPE-SMF-18	POST	HYDRA-100	12.50	5.06	-0.594	12.35	85.22	12.29	85.17
PIPE-SMF-19	POST	HYDRA-100	13.33	4.15	-0.838	12.70	84.95	12.30	85.02
WEIR-COMP-01	POST	HYDRA-100	12.00	12.21	3.610	13.01	83.60	13.00	83.60
WEIR-COMP-02A	POST	HYDRA-100	15.76	12.43	0.002	48.00	80.27	48.00	80.27
WEIR-COMP-02B	POST	HYDRA-100	16.77	11.43	0.003	48.00	80.27	48.00	80.27
CS-01	POST	HYDRA-MEAN	18.90	0.77	0.000	18.90	84.69	13.00	80.60
CS-02	POST	HYDRA-MEAN	13.37	1.87	0.000	13.37	83.59	22.36	80.52
CS-03	POST	HYDRA-MEAN	23.55	1.10	0.000	23.55	83.00	48.00	79.21
CS-05	POST	HYDRA-MEAN	20.20	0.62	0.000	20.20	82.05	48.00	79.21
CS-08	POST	HYDRA-MEAN	18.74	1.30	0.000	18.74	83.86	13.00	80.60
CS-11	POST	HYDRA-MEAN	0.00	0.00	0.000	18.75	83.87	13.00	80.60
CS-12	POST	HYDRA-MEAN	24.05	0.04	0.000	24.05	84.16	22.56	80.52
CS-13	POST	HYDRA-MEAN	20.45	0.35	0.000	20.45	81.95	48.00	79.21
CS-14	POST	HYDRA-MEAN	19.98	0.62	0.000	19.98	82.10	48.00	79.21
CS-15	POST	HYDRA-MEAN	20.44	0.37	0.000	20.44	83.43	13.00	79.40

LINK MAXIMUM CONDITIONS REPORT | POST-DEVELOPMENT DRAINAGE

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
CS-16	POST	HYDRA-MEAN	19.82	1.11	0.000	19.82	83.83	48.00	79.30
CS-17	POST	HYDRA-MEAN	15.52	0.77	0.000	15.52	82.89	13.00	79.40
CS-20	POST	HYDRA-MEAN	16.62	0.11	0.000	16.62	85.93	22.50	83.02
CULV-01-PST	POST	HYDRA-MEAN	24.14	2.08	0.033	22.36	80.52	13.00	80.60
CULV-02-PST	POST	HYDRA-MEAN	26.79	0.54	0.040	22.56	80.52	22.36	80.52
CULV-04-PST	POST	HYDRA-MEAN	0.00	0.00	0.000	48.00	79.21	13.00	78.20
CULV-05-PST	POST	HYDRA-MEAN	17.51	0.37	-0.006	48.00	79.21	48.00	79.21
CULV-07-PST	POST	HYDRA-MEAN	0.00	0.00	0.000	25.00	78.76	13.00	79.40
CULV-08-PST	POST	HYDRA-MEAN	0.00	0.00	0.000	48.00	79.30	25.00	78.76
PIPE-04A	POST	HYDRA-MEAN	10.77	31.71	15.344	23.50	83.05	23.55	83.00
PIPE-04B	POST	HYDRA-MEAN	12.08	26.12	-26.038	23.50	82.96	23.50	83.05
PIPE-04C	POST	HYDRA-MEAN	12.02	25.36	14.677	23.50	83.03	23.50	82.96
PIPE-04D	POST	HYDRA-MEAN	12.01	18.56	5.013	22.50	83.00	23.50	83.03
PIPE-04E	POST	HYDRA-MEAN	12.00	13.64	5.354	22.50	83.02	22.50	83.00
PIPE-05A	POST	HYDRA-MEAN	12.08	3.26	-1.642	20.17	82.05	20.20	82.05
PIPE-05B	POST	HYDRA-MEAN	12.68	3.04	1.735	20.16	82.05	20.17	82.05
PIPE-05C	POST	HYDRA-MEAN	12.57	0.59	-0.798	20.16	82.05	20.16	82.05
PIPE-05D	POST	HYDRA-MEAN	12.86	1.12	0.536	20.17	82.06	20.16	82.05
PIPE-05E	POST	HYDRA-MEAN	0.00	0.00	-0.677	20.18	82.06	20.17	82.06
PIPE-05F	POST	HYDRA-MEAN	12.00	0.76	-0.384	20.20	82.05	20.20	82.05
PIPE-08A	POST	HYDRA-MEAN	18.27	0.86	-0.833	18.72	83.86	18.74	83.86
PIPE-08B	POST	HYDRA-MEAN	7.05	1.68	1.012	18.63	83.87	18.72	83.86
PIPE-08C	POST	HYDRA-MEAN	12.26	10.32	-3.695	18.74	83.86	18.74	83.86
PIPE-08D	POST	HYDRA-MEAN	12.26	10.25	3.408	18.74	83.87	18.74	83.86
PIPE-08E	POST	HYDRA-MEAN	12.28	9.47	-3.028	18.74	83.86	18.74	83.87
PIPE-09A	POST	HYDRA-MEAN	12.08	3.15	1.188	18.64	83.87	18.64	83.86
PIPE-17A	POST	HYDRA-MEAN	12.08	2.81	1.813	15.51	82.90	15.52	82.89
PIPE-17B	POST	HYDRA-MEAN	0.00	0.00	-3.414	15.50	82.89	15.51	82.90
PIPE-17C	POST	HYDRA-MEAN	18.00	6.82	4.534	15.51	82.92	15.50	82.89
PIPE-17D	POST	HYDRA-MEAN	0.00	0.00	-1.804	15.52	82.90	15.51	82.92
PIPE-17E	POST	HYDRA-MEAN	0.00	0.00	-1.017	15.51	82.91	15.51	82.92
PIPE-17F	POST	HYDRA-MEAN	24.55	1.74	1.117	15.53	82.91	15.51	82.91
PIPE-SMF-04	POST	HYDRA-MEAN	12.10	22.85	-1.323	23.55	83.00	23.55	83.00
PIPE-SMF-06	POST	HYDRA-MEAN	30.53	0.23	0.163	20.23	82.05	20.20	82.05
PIPE-SMF-07	POST	HYDRA-MEAN	24.50	0.76	0.265	20.20	82.06	20.18	82.06
PIPE-SMF-09	POST	HYDRA-MEAN	24.78	0.83	-0.838	18.64	83.86	18.63	83.87
PIPE-SMF-10	POST	HYDRA-MEAN	0.00	0.00	-1.193	18.64	83.87	18.64	83.87
PIPE-SMF-11	POST	HYDRA-MEAN	12.29	8.82	2.541	18.75	83.87	18.74	83.86
PIPE-SMF-13	POST	HYDRA-MEAN	22.50	0.36	0.240	48.00	79.21	48.00	79.21
PIPE-SMF-18	POST	HYDRA-MEAN	24.50	0.87	0.683	15.53	82.91	15.52	82.90
PIPE-SMF-19	POST	HYDRA-MEAN	0.00	0.00	-0.397	15.56	82.91	15.53	82.91
WEIR-COMP-01	POST	HYDRA-MEAN	12.03	1.68	0.221	13.03	80.60	13.00	80.60
WEIR-COMP-02A	POST	HYDRA-MEAN	0.00	0.00	0.000	48.00	79.30	24.50	78.74
WEIR-COMP-02B	POST	HYDRA-MEAN	0.00	0.00	0.000	24.50	78.74	25.00	78.76

BLEEDDOWN REPORT | POST-DEVELOPMENT DRAINAGE
(SMF-03 AND SMF-04)

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-000	SMF-03	POST	0.00	83.05	0.00	71010	0.00	1.16	0.000	0.000
HYDRA-000	SMF-03	POST	1.00	83.01	0.00	70747	1.17	1.12	0.048	0.094
HYDRA-000	SMF-03	POST	2.00	82.98	0.00	70490	1.16	1.08	0.145	0.185
HYDRA-000	SMF-03	POST	3.00	82.94	0.00	70239	1.15	1.04	0.240	0.272
HYDRA-000	SMF-03	POST	4.00	82.91	0.00	69993	1.15	1.01	0.335	0.357
HYDRA-000	SMF-03	POST	5.00	82.88	0.00	69753	1.14	0.97	0.430	0.439
HYDRA-000	SMF-03	POST	6.00	82.85	0.00	69518	1.13	0.94	0.524	0.517
HYDRA-000	SMF-03	POST	7.00	82.81	0.00	69290	1.12	0.90	0.617	0.593
HYDRA-000	SMF-03	POST	8.00	82.78	0.00	69067	1.12	0.87	0.709	0.667
HYDRA-000	SMF-03	POST	9.00	82.75	0.00	68851	1.11	0.84	0.802	0.738
HYDRA-000	SMF-03	POST	10.00	82.73	0.00	68640	1.10	0.81	0.893	0.806
HYDRA-000	SMF-03	POST	11.00	82.70	0.00	68435	1.10	0.79	0.984	0.872
HYDRA-000	SMF-03	POST	12.00	82.67	0.00	68235	1.09	0.76	1.075	0.936
HYDRA-000	SMF-03	POST	13.00	82.64	0.00	68041	1.09	0.73	1.165	0.998
HYDRA-000	SMF-03	POST	14.00	82.62	0.00	67852	1.08	0.71	1.255	1.057
HYDRA-000	SMF-03	POST	15.00	82.59	0.00	67669	1.08	0.68	1.344	1.115
HYDRA-000	SMF-03	POST	16.00	82.57	0.00	67491	1.07	0.66	1.433	1.171
HYDRA-000	SMF-03	POST	17.00	82.54	0.00	67318	1.07	0.64	1.521	1.224
HYDRA-000	SMF-03	POST	18.00	82.52	0.00	67150	1.06	0.62	1.609	1.276
HYDRA-000	SMF-03	POST	19.00	82.50	0.00	66986	1.06	0.60	1.697	1.327
HYDRA-000	SMF-03	POST	20.00	82.48	0.00	66827	1.06	0.58	1.784	1.375
HYDRA-000	SMF-03	POST	21.00	82.46	0.00	66673	1.05	0.56	1.871	1.423
HYDRA-000	SMF-03	POST	22.00	82.44	0.00	66523	1.05	0.54	1.958	1.468
HYDRA-000	SMF-03	POST	23.00	82.42	0.00	66377	1.04	0.53	2.045	1.512
HYDRA-000	SMF-03	POST	24.00	82.40	0.00	66236	1.04	0.51	2.131	1.555
HYDRA-000	SMF-03	POST	25.00	82.38	0.00	66098	1.04	0.49	2.217	1.596
HYDRA-000	SMF-03	POST	25.17	82.37	0.00	66075	1.04	0.49	2.231	1.603
HYDRA-000	SMF-03	POST	25.33	82.37	0.00	66053	1.04	0.49	2.245	1.610
HYDRA-000	SMF-03	POST	25.50	82.37	0.00	66031	1.04	0.48	2.260	1.617
HYDRA-000	SMF-03	POST	25.67	82.36	0.00	66008	1.04	0.48	2.274	1.623
HYDRA-000	SMF-03	POST	25.83	82.36	0.00	65986	1.04	0.48	2.288	1.630
HYDRA-000	SMF-03	POST	26.00	82.36	0.00	65964	1.03	0.48	2.302	1.636
HYDRA-000	SMF-03	POST	26.17	82.36	0.00	65942	1.03	0.47	2.317	1.643
HYDRA-000	SMF-03	POST	26.33	82.35	0.00	65920	1.03	0.47	2.331	1.650
HYDRA-000	SMF-03	POST	26.50	82.35	0.00	65899	1.03	0.47	2.345	1.656
HYDRA-000	SMF-03	POST	26.67	82.35	0.00	65877	1.03	0.47	2.359	1.662
HYDRA-000	SMF-03	POST	26.83	82.34	0.00	65856	1.03	0.46	2.374	1.669
HYDRA-000	SMF-03	POST	27.00	82.34	0.00	65834	1.03	0.46	2.388	1.675
HYDRA-000	SMF-03	POST	27.17	82.34	0.00	65813	1.03	0.46	2.402	1.682
HYDRA-000	SMF-03	POST	27.33	82.33	0.00	65792	1.03	0.46	2.416	1.688
HYDRA-000	SMF-03	POST	27.50	82.33	0.00	65770	1.03	0.46	2.430	1.694
HYDRA-000	SMF-03	POST	27.67	82.33	0.00	65749	1.03	0.45	2.445	1.700
HYDRA-000	SMF-03	POST	27.83	82.33	0.00	65728	1.03	0.45	2.459	1.707
HYDRA-000	SMF-03	POST	28.00	82.32	0.00	65708	1.03	0.45	2.473	1.713
HYDRA-000	SMF-03	POST	28.17	82.32	0.00	65687	1.03	0.45	2.487	1.719
HYDRA-000	SMF-03	POST	28.33	82.32	0.00	65666	1.03	0.44	2.501	1.725
HYDRA-000	SMF-03	POST	28.50	82.31	0.00	65646	1.03	0.44	2.515	1.731
HYDRA-000	SMF-03	POST	28.67	82.31	0.00	65625	1.03	0.44	2.530	1.737
HYDRA-000	SMF-03	POST	28.83	82.31	0.00	65605	1.03	0.44	2.544	1.743
HYDRA-000	SMF-03	POST	29.00	82.31	0.00	65585	1.03	0.43	2.558	1.749
HYDRA-000	SMF-03	POST	29.17	82.30	0.00	65565	1.03	0.43	2.572	1.755
HYDRA-000	SMF-03	POST	29.33	82.30	0.00	65544	1.03	0.43	2.586	1.761
HYDRA-000	SMF-03	POST	29.50	82.30	0.00	65524	1.02	0.43	2.600	1.767
HYDRA-000	SMF-03	POST	29.67	82.30	0.00	65505	1.02	0.43	2.614	1.773
HYDRA-000	SMF-03	POST	29.83	82.29	0.00	65485	1.02	0.42	2.628	1.779
HYDRA-000	SMF-04	POST	0.00	83.05	0.00	27077	0.00	0.00	0.000	0.000
HYDRA-000	SMF-04	POST	1.00	83.01	0.00	26956	-22.71	1.17	-0.939	0.048
HYDRA-000	SMF-04	POST	2.00	82.98	0.00	26836	-22.73	1.16	-2.816	0.145
HYDRA-000	SMF-04	POST	3.00	82.94	0.00	26720	-22.74	1.15	-4.695	0.240
HYDRA-000	SMF-04	POST	4.00	82.91	0.00	26605	-22.75	1.15	-6.575	0.335
HYDRA-000	SMF-04	POST	5.00	82.88	0.00	26494	-22.77	1.14	-8.456	0.430
HYDRA-000	SMF-04	POST	6.00	82.85	0.00	26385	-22.77	1.13	-10.338	0.524
HYDRA-000	SMF-04	POST	7.00	82.81	0.00	26279	-22.78	1.12	-12.221	0.617
HYDRA-000	SMF-04	POST	8.00	82.78	0.00	26176	-22.79	1.12	-14.104	0.709
HYDRA-000	SMF-04	POST	9.00	82.75	0.00	26075	-22.80	1.11	-15.988	0.802
HYDRA-000	SMF-04	POST	10.00	82.73	0.00	25977	-22.80	1.10	-17.872	0.893
HYDRA-000	SMF-04	POST	11.00	82.70	0.00	25882	-22.81	1.10	-19.757	0.984
HYDRA-000	SMF-04	POST	12.00	82.67	0.00	25789	-22.81	1.09	-21.642	1.075
HYDRA-000	SMF-04	POST	13.00	82.64	0.00	25699	-22.82	1.09	-23.527	1.165
HYDRA-000	SMF-04	POST	14.00	82.62	0.00	25611	-22.82	1.08	-25.413	1.255
HYDRA-000	SMF-04	POST	15.00	82.59	0.00	25526	-22.82	1.08	-27.299	1.344
HYDRA-000	SMF-04	POST	16.00	82.57	0.00	25444	-22.83	1.07	-29.186	1.433
HYDRA-000	SMF-04	POST	17.00	82.54	0.00	25363	-22.83	1.07	-31.073	1.521
HYDRA-000	SMF-04	POST	18.00	82.52	0.00	25285	-22.83	1.06	-32.959	1.609
HYDRA-000	SMF-04	POST	19.00	82.50	0.00	25209	-22.84	1.06	-34.846	1.697
HYDRA-000	SMF-04	POST	20.00	82.48	0.00	25135	-22.84	1.06	-36.734	1.784
HYDRA-000	SMF-04	POST	21.00	82.46	0.00	25064	-22.84	1.05	-38.621	1.871
HYDRA-000	SMF-04	POST	22.00	82.44	0.00	24994	-22.84	1.05	-40.509	1.958
HYDRA-000	SMF-04	POST	23.00	82.42	0.00	24926	-22.84	1.04	-42.397	2.045
HYDRA-000	SMF-04	POST	24.00	82.40	0.00	24861	-22.84	1.04	-44.285	2.131
HYDRA-000	SMF-04	POST	25.00	82.38	0.00	24797	-22.85	1.04	-46.173	2.217
HYDRA-000	SMF-04	POST	25.17	82.37	0.00	24786	-22.85	1.04	-46.487	2.231
HYDRA-000	SMF-04	POST	25.33	82.37	0.00	24776	-22.85	1.04	-46.802	2.245
HYDRA-000	SMF-04	POST	25.50	82.37	0.00	24765	-22.85	1.04	-47.117	2.260

1/2 Treatment Volume

```
     Simulation            Node          Group        Time       Stage   Warning    Surface      Total      Total      Total      Total
                                                                           Stage       Area     Inflow    Outflow     Vol In    Vol Out
                                                       hrs          ft        ft        ft2        cfs        cfs         af         af

      HYDRA-000          SMF-04           POST       25.67       82.36      0.00      24755     -22.85       1.04    -47.431      2.274
      HYDRA-000          SMF-04           POST       25.83       82.36      0.00      24745     -22.85       1.04    -47.746      2.288
      HYDRA-000          SMF-04           POST       26.00       82.36      0.00      24735     -22.85       1.03    -48.061      2.302
      HYDRA-000          SMF-04           POST       26.17       82.36      0.00      24724     -22.85       1.03    -48.375      2.317
      HYDRA-000          SMF-04           POST       26.33       82.35      0.00      24714     -22.85       1.03    -48.690      2.331
      HYDRA-000          SMF-04           POST       26.50       82.35      0.00      24704     -22.85       1.03    -49.005      2.345
      HYDRA-000          SMF-04           POST       26.67       82.35      0.00      24694     -22.85       1.03    -49.319      2.359
      HYDRA-000          SMF-04           POST       26.83       82.34      0.00      24684     -22.85       1.03    -49.634      2.374
      HYDRA-000          SMF-04           POST       27.00       82.34      0.00      24674     -22.85       1.03    -49.949      2.388
      HYDRA-000          SMF-04           POST       27.17       82.34      0.00      24664     -22.85       1.03    -50.264      2.402
      HYDRA-000          SMF-04           POST       27.33       82.33      0.00      24654     -22.85       1.03    -50.578      2.416
      HYDRA-000          SMF-04           POST       27.50       82.33      0.00      24645     -22.85       1.03    -50.893      2.430
      HYDRA-000          SMF-04           POST       27.67       82.33      0.00      24635     -22.85       1.03    -51.208      2.445
      HYDRA-000          SMF-04           POST       27.83       82.33      0.00      24625     -22.85       1.03    -51.523      2.459
      HYDRA-000          SMF-04           POST       28.00       82.32      0.00      24615     -22.85       1.03    -51.837      2.473
      HYDRA-000          SMF-04           POST       28.17       82.32      0.00      24606     -22.85       1.03    -52.152      2.487
      HYDRA-000          SMF-04           POST       28.33       82.32      0.00      24596     -22.85       1.03    -52.467      2.501
      HYDRA-000          SMF-04           POST       28.50       82.31      0.00      24587     -22.85       1.03    -52.781      2.515
      HYDRA-000          SMF-04           POST       28.67       82.31      0.00      24577     -22.85       1.03    -53.096      2.530
      HYDRA-000          SMF-04           POST       28.83       82.31      0.00      24568     -22.85       1.03    -53.411      2.544
      HYDRA-000          SMF-04           POST       29.00       82.31      0.00      24558     -22.85       1.03    -53.726      2.558
      HYDRA-000          SMF-04           POST       29.17       82.30      0.00      24549     -22.85       1.03    -54.040      2.572
      HYDRA-000          SMF-04           POST       29.33       82.30      0.00      24540     -22.85       1.03    -54.355      2.586
      HYDRA-000          SMF-04           POST       29.50       82.30      0.00      24530     -22.85       1.02    -54.670      2.600
      HYDRA-000          SMF-04           POST       29.67       82.30      0.00      24521     -22.85       1.02    -54.985      2.614
      HYDRA-000          SMF-04           POST       29.83       82.29      0.00      24512     -22.85       1.02    -55.299      2.628
```

1/2
Treatment
Volume

```
             Basin Name: COMP-01
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: COMP-01
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 3.600
   Vol of Unit Hyd (in): 1.001
           Curve Number: 68.000
              DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 5.86
     Runoff Volume (in): 6.844
    Runoff Volume (ft3): 89433


--------------------------------------------------------------------------------

             Basin Name: RY-01
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: OUT-01-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 10.500
   Vol of Unit Hyd (in): 1.001
           Curve Number: 69.000
              DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 17.37
     Runoff Volume (in): 6.982
    Runoff Volume (ft3): 266135


--------------------------------------------------------------------------------

             Basin Name: RY-02
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: OUT-01-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 0.600
   Vol of Unit Hyd (in): 1.000
           Curve Number: 45.000
              DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 0.53
     Runoff Volume (in): 3.518
    Runoff Volume (ft3): 7663


--------------------------------------------------------------------------------

             Basin Name: RY-03
             Group Name: POST
```

```
             Simulation: HYDRO-025-96
              Node Name: WET-01-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.47
    Comp Time Inc (min): 1.47
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 11.00
       Time Shift (hrs): 0.00
              Area (ac): 3.300
   Vol of Unit Hyd (in): 1.000
           Curve Number: 56.000
               DCIA (%): 0.000

         Time Max (hrs): 48.01
         Flow Max (cfs): 4.20
     Runoff Volume (in): 5.136
    Runoff Volume (ft3): 61522


--------------------------------------------------------------------------------

             Basin Name: RY-04
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: WET-02-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.47
    Comp Time Inc (min): 1.47
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 11.00
       Time Shift (hrs): 0.00
              Area (ac): 1.500
   Vol of Unit Hyd (in): 1.000
           Curve Number: 59.000
               DCIA (%): 0.000

         Time Max (hrs): 48.01
         Flow Max (cfs): 2.05
     Runoff Volume (in): 5.570
    Runoff Volume (ft3): 30327


--------------------------------------------------------------------------------

             Basin Name: RY-05
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: OUT-02-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 2.00
    Comp Time Inc (min): 2.00
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 15.00
       Time Shift (hrs): 0.00
              Area (ac): 1.200
   Vol of Unit Hyd (in): 1.000
           Curve Number: 58.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 1.59
     Runoff Volume (in): 5.426
    Runoff Volume (ft3): 23634


--------------------------------------------------------------------------------

             Basin Name: S-08A
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: S-08A
```

```
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 0.400
   Vol of Unit Hyd (in): 1.000
           Curve Number: 81.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 0.76
     Runoff Volume (in): 8.601
    Runoff Volume (ft3): 12489


--------------------------------------------------------------------------------

             Basin Name: S-08B
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: S-08B
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 0.400
   Vol of Unit Hyd (in): 1.000
           Curve Number: 81.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 0.76
     Runoff Volume (in): 8.601
    Runoff Volume (ft3): 12489


--------------------------------------------------------------------------------

             Basin Name: S-08C
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: S-08C
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 0.100
   Vol of Unit Hyd (in): 1.000
           Curve Number: 81.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 0.19
     Runoff Volume (in): 8.601
    Runoff Volume (ft3): 3122


--------------------------------------------------------------------------------

             Basin Name: S-08D
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: S-08D
             Basin Type: SCS Unit Hydrograph
```

```
        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 0.800
   Vol of Unit Hyd (in): 1.000
           Curve Number: 81.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 1.52
     Runoff Volume (in): 8.601
    Runoff Volume (ft3): 24977


--------------------------------------------------------------------------------

             Basin Name: S-08E
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: S-08E
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 0.700
   Vol of Unit Hyd (in): 1.000
           Curve Number: 81.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 1.33
     Runoff Volume (in): 8.601
    Runoff Volume (ft3): 21855


--------------------------------------------------------------------------------

             Basin Name: S-09A
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: S-09A
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 2.00
    Comp Time Inc (min): 2.00
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 15.00
       Time Shift (hrs): 0.00
              Area (ac): 2.700
   Vol of Unit Hyd (in): 1.000
           Curve Number: 80.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 5.08
     Runoff Volume (in): 8.469
    Runoff Volume (ft3): 83009


--------------------------------------------------------------------------------

             Basin Name: SUB-02
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: SMF-02
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
```

```
    Spec Time Inc (min): 2.93
    Comp Time Inc (min): 2.93
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 22.00
       Time Shift (hrs): 0.00
              Area (ac): 11.500
   Vol of Unit Hyd (in): 1.000
           Curve Number: 73.000
               DCIA (%): 0.000

         Time Max (hrs): 48.01
         Flow Max (cfs): 19.81
     Runoff Volume (in): 7.531
    Runoff Volume (ft3): 314372


--------------------------------------------------------------------------------

             Basin Name: SUB-08
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: SMF-08
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 2.00
    Comp Time Inc (min): 2.00
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 15.00
       Time Shift (hrs): 0.00
              Area (ac): 2.700
   Vol of Unit Hyd (in): 1.000
           Curve Number: 81.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 5.13
     Runoff Volume (in): 8.601
    Runoff Volume (ft3): 84298


--------------------------------------------------------------------------------

             Basin Name: SUB-09
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: SMF-09
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 3.07
    Comp Time Inc (min): 3.07
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 23.00
       Time Shift (hrs): 0.00
              Area (ac): 1.300
   Vol of Unit Hyd (in): 1.000
           Curve Number: 80.000
               DCIA (%): 0.000

         Time Max (hrs): 47.99
         Flow Max (cfs): 2.43
     Runoff Volume (in): 8.469
    Runoff Volume (ft3): 39966


--------------------------------------------------------------------------------

             Basin Name: SUB-10
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: SMF-10
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 2.27
    Comp Time Inc (min): 2.27
```

```
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 17.00
       Time Shift (hrs): 0.00
              Area (ac): 3.100
   Vol of Unit Hyd (in): 1.000
           Curve Number: 79.000
              DCIA (%): 0.000

         Time Max (hrs): 47.98
         Flow Max (cfs): 5.76
     Runoff Volume (in): 8.337
    Runoff Volume (ft3): 93817


--------------------------------------------------------------------------------

             Basin Name: SUB-11
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: SMF-11
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 3.60
    Comp Time Inc (min): 3.60
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 27.00
       Time Shift (hrs): 0.00
              Area (ac): 8.400
   Vol of Unit Hyd (in): 1.000
           Curve Number: 77.000
              DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 15.10
     Runoff Volume (in): 8.071
    Runoff Volume (ft3): 246105


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             Basin Name: SUB-12
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: SMF-12
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 2.27
    Comp Time Inc (min): 2.27
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 17.00
       Time Shift (hrs): 0.00
              Area (ac): 2.300
   Vol of Unit Hyd (in): 1.000
           Curve Number: 56.000
              DCIA (%): 0.000

         Time Max (hrs): 48.01
         Flow Max (cfs): 2.88
     Runoff Volume (in): 5.136
    Runoff Volume (ft3): 42879


--------------------------------------------------------------------------------

             Basin Name: WET-01-PST
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: WET-01-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
```

```
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 11.400
   Vol of Unit Hyd (in): 1.000
           Curve Number: 91.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 23.18
     Runoff Volume (in): 9.883
    Runoff Volume (ft3): 408975


--------------------------------------------------------------------------------

             Basin Name: WET-02-PST
             Group Name: POST
             Simulation: HYDRO-025-96
              Node Name: WET-02-PST
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh484
          Peaking Fator: 484.0
    Spec Time Inc (min): 1.33
    Comp Time Inc (min): 1.33
          Rainfall File: Flmod
   Rainfall Amount (in): 11.000
   Storm Duration (hrs): 96.00
                 Status: Onsite
     Time of Conc (min): 10.00
       Time Shift (hrs): 0.00
              Area (ac): 4.700
   Vol of Unit Hyd (in): 1.000
           Curve Number: 87.000
               DCIA (%): 0.000

         Time Max (hrs): 48.00
         Flow Max (cfs): 9.36
     Runoff Volume (in): 9.377
    Runoff Volume (ft3): 159989
```

```
NODE TIME SERIES REPORT | POST-DEVELOPMENT DRAINAGE
(SMF-01, SMF-02, SMF-08 THRU SMF-11, SMF-12)

     Simulation           Node          Group      Time      Stage  Warning   Surface     Total     Total     Total     Total
                                                                      Stage      Area    Inflow   Outflow    Vol In   Vol Out
                                                    hrs         ft       ft       ft2       cfs       cfs        af        af
-----------------------------------------------------------------------------------------------------------------------------
   HYDRA-025-96         SMF-01           POST      0.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      0.18      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      0.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      0.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      0.68      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      0.85      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      1.02      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      1.18      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      1.35      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      1.52      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      1.68      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      1.85      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      2.02      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      2.18      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      2.35      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      2.52      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      2.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      2.83      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      3.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      3.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      3.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      3.51      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      3.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      3.83      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      4.01      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      4.18      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      4.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      4.51      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      4.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      4.84      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      5.01      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      5.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      5.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      5.51      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      5.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      5.84      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      6.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      6.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      6.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      6.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      6.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      6.83      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      7.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      7.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      7.33      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      7.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      7.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      7.84      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      8.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      8.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      8.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      8.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      8.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      8.84      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      9.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      9.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      9.33      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      9.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      9.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST      9.83      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.25      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.33      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.42      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.59      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.75      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.83      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     10.92      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.08      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.17      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.25      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.34      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.42      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.50      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.58      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.67      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.75      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.84      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     11.92      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     12.00      84.00     0.00     91476      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-01           POST     12.08      84.00     0.00     91476      0.00      0.00     0.000     0.000
```

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-01	POST	12.17	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.25	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.33	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.42	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.50	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.58	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.67	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.75	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.84	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	12.92	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.00	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.08	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.17	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.25	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.33	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.42	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.50	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.58	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.67	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.75	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.83	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	13.92	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.00	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.08	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.17	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.25	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.33	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.42	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.50	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.58	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.67	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.75	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.83	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	14.92	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.00	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.08	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.17	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.25	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.33	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.42	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.50	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.58	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.67	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.75	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.83	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	15.92	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.00	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.08	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.17	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.25	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.33	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.42	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.50	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.58	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.67	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.75	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.83	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	16.92	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	17.00	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	17.25	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	17.50	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	17.75	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	18.00	84.00	0.00	91476	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	18.25	84.00	0.00	91477	0.01	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	18.50	84.00	0.00	91477	0.01	0.00	0.000	0.000
HYDRA-025-96	SMF-01	POST	18.75	84.00	0.00	91478	0.02	0.00	0.001	0.000
HYDRA-025-96	SMF-01	POST	19.00	84.00	0.00	91480	0.02	0.00	0.001	0.000
HYDRA-025-96	SMF-01	POST	19.25	84.00	0.00	91481	0.03	0.00	0.001	0.000
HYDRA-025-96	SMF-01	POST	19.50	84.00	0.00	91483	0.03	0.00	0.002	0.000
HYDRA-025-96	SMF-01	POST	19.75	84.00	0.00	91486	0.03	0.00	0.003	0.000
HYDRA-025-96	SMF-01	POST	20.00	84.00	0.00	91488	0.04	0.00	0.003	0.000
HYDRA-025-96	SMF-01	POST	20.25	84.00	0.00	91491	0.04	0.00	0.004	0.000
HYDRA-025-96	SMF-01	POST	20.50	84.00	0.00	91495	0.05	0.00	0.005	0.000
HYDRA-025-96	SMF-01	POST	20.75	84.00	0.00	91499	0.05	0.00	0.006	0.000
HYDRA-025-96	SMF-01	POST	21.00	84.00	0.00	91503	0.06	0.00	0.008	0.000
HYDRA-025-96	SMF-01	POST	21.25	84.00	0.00	91508	0.06	0.00	0.009	0.000
HYDRA-025-96	SMF-01	POST	21.50	84.00	0.00	91512	0.07	0.00	0.010	0.000
HYDRA-025-96	SMF-01	POST	21.75	84.01	0.00	91518	0.07	0.00	0.012	0.000
HYDRA-025-96	SMF-01	POST	22.00	84.01	0.00	91523	0.08	0.00	0.013	0.000
HYDRA-025-96	SMF-01	POST	22.25	84.01	0.00	91529	0.08	0.00	0.015	0.000
HYDRA-025-96	SMF-01	POST	22.50	84.01	0.00	91535	0.09	0.00	0.017	0.000
HYDRA-025-96	SMF-01	POST	22.75	84.01	0.00	91542	0.09	0.00	0.018	0.000
HYDRA-025-96	SMF-01	POST	23.00	84.01	0.00	91549	0.10	0.00	0.020	0.000
HYDRA-025-96	SMF-01	POST	23.25	84.01	0.00	91556	0.10	0.00	0.022	0.000
HYDRA-025-96	SMF-01	POST	23.50	84.01	0.00	91563	0.10	0.00	0.024	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-01	POST	23.75	84.01	0.00	91571	0.11	0.00	0.027	0.000
HYDRA-025-96	SMF-01	POST	24.00	84.01	0.00	91579	0.11	0.00	0.029	0.000
HYDRA-025-96	SMF-01	POST	24.25	84.01	0.00	91587	0.12	0.00	0.031	0.000
HYDRA-025-96	SMF-01	POST	24.50	84.02	0.00	91597	0.14	0.00	0.034	0.000
HYDRA-025-96	SMF-01	POST	24.75	84.02	0.00	91607	0.15	0.00	0.037	0.000
HYDRA-025-96	SMF-01	POST	25.00	84.02	0.00	91618	0.15	0.00	0.040	0.000
HYDRA-025-96	SMF-01	POST	25.25	84.02	0.00	91629	0.16	0.00	0.043	0.001
HYDRA-025-96	SMF-01	POST	25.50	84.02	0.00	91641	0.16	0.00	0.046	0.001
HYDRA-025-96	SMF-01	POST	25.75	84.02	0.00	91652	0.17	0.00	0.050	0.001
HYDRA-025-96	SMF-01	POST	26.00	84.02	0.00	91665	0.17	0.01	0.053	0.001
HYDRA-025-96	SMF-01	POST	26.25	84.03	0.00	91677	0.18	0.01	0.057	0.001
HYDRA-025-96	SMF-01	POST	26.50	84.03	0.00	91690	0.18	0.01	0.061	0.001
HYDRA-025-96	SMF-01	POST	26.75	84.03	0.00	91703	0.19	0.01	0.064	0.001
HYDRA-025-96	SMF-01	POST	27.00	84.03	0.00	91717	0.19	0.01	0.068	0.001
HYDRA-025-96	SMF-01	POST	27.25	84.03	0.00	91730	0.20	0.01	0.072	0.002
HYDRA-025-96	SMF-01	POST	27.50	84.04	0.00	91744	0.20	0.01	0.077	0.002
HYDRA-025-96	SMF-01	POST	27.75	84.04	0.00	91759	0.21	0.01	0.081	0.002
HYDRA-025-96	SMF-01	POST	28.00	84.04	0.00	91774	0.21	0.01	0.085	0.002
HYDRA-025-96	SMF-01	POST	28.25	84.04	0.00	91789	0.23	0.01	0.090	0.002
HYDRA-025-96	SMF-01	POST	28.50	84.04	0.00	91806	0.25	0.01	0.094	0.003
HYDRA-025-96	SMF-01	POST	28.75	84.05	0.00	91824	0.26	0.01	0.100	0.003
HYDRA-025-96	SMF-01	POST	29.00	84.05	0.00	91842	0.26	0.01	0.105	0.003
HYDRA-025-96	SMF-01	POST	29.25	84.05	0.00	91860	0.27	0.02	0.111	0.003
HYDRA-025-96	SMF-01	POST	29.50	84.05	0.00	91879	0.28	0.02	0.116	0.004
HYDRA-025-96	SMF-01	POST	29.75	84.06	0.00	91899	0.28	0.02	0.122	0.004
HYDRA-025-96	SMF-01	POST	30.00	84.06	0.00	91918	0.29	0.02	0.128	0.004
HYDRA-025-96	SMF-01	POST	31.00	84.07	0.00	92000	0.31	0.02	0.152	0.006
HYDRA-025-96	SMF-01	POST	32.00	84.08	0.00	92086	0.33	0.03	0.179	0.009
HYDRA-025-96	SMF-01	POST	33.00	84.09	0.00	92184	0.41	0.04	0.209	0.011
HYDRA-025-96	SMF-01	POST	34.00	84.11	0.00	92296	0.43	0.05	0.244	0.015
HYDRA-025-96	SMF-01	POST	35.00	84.13	0.00	92421	0.52	0.06	0.283	0.019
HYDRA-025-96	SMF-01	POST	36.00	84.14	0.00	92560	0.55	0.07	0.328	0.025
HYDRA-025-96	SMF-01	POST	37.00	84.16	0.00	92709	0.62	0.09	0.376	0.031
HYDRA-025-96	SMF-01	POST	38.00	84.18	0.00	92866	0.65	0.11	0.429	0.039
HYDRA-025-96	SMF-01	POST	39.00	84.21	0.00	93044	0.80	0.13	0.489	0.049
HYDRA-025-96	SMF-01	POST	40.00	84.23	0.00	93241	0.83	0.15	0.556	0.060
HYDRA-025-96	SMF-01	POST	41.00	84.26	0.00	93473	1.09	0.18	0.635	0.074
HYDRA-025-96	SMF-01	POST	42.00	84.30	0.00	93739	1.14	0.22	0.728	0.091
HYDRA-025-96	SMF-01	POST	43.00	84.34	0.00	94054	1.52	0.27	0.837	0.111
HYDRA-025-96	SMF-01	POST	44.00	84.39	0.00	94417	1.59	0.32	0.966	0.135
HYDRA-025-96	SMF-01	POST	45.00	84.44	0.00	94794	1.75	0.39	1.104	0.165
HYDRA-025-96	SMF-01	POST	46.00	84.52	0.00	95435	3.61	0.51	1.325	0.202
HYDRA-025-96	SMF-01	POST	47.00	84.82	0.00	97654	13.58	1.25	2.035	0.274
HYDRA-025-96	SMF-01	POST	48.00	85.36	0.00	101714	25.22	9.04	3.638	0.699
HYDRA-025-96	SMF-01	POST	49.00	85.56	0.00	103245	10.85	13.27	5.129	1.621
HYDRA-025-96	SMF-01	POST	50.00	85.42	0.00	102185	5.00	10.28	5.784	2.594
HYDRA-025-96	SMF-01	POST	51.00	85.25	0.00	100950	3.01	7.15	6.115	3.314
HYDRA-025-96	SMF-01	POST	52.00	85.14	0.00	100050	2.44	5.14	6.340	3.822
HYDRA-025-96	SMF-01	POST	53.00	85.05	0.00	99435	2.02	3.92	6.525	4.197
HYDRA-025-96	SMF-01	POST	54.00	85.00	0.00	99025	2.02	3.19	6.692	4.490
HYDRA-025-96	SMF-01	POST	55.00	84.96	0.00	98717	1.59	2.68	6.841	4.733
HYDRA-025-96	SMF-01	POST	56.00	84.93	0.00	98474	1.60	2.31	6.973	4.939
HYDRA-025-96	SMF-01	POST	57.00	84.90	0.00	98286	1.38	2.04	7.096	5.118
HYDRA-025-96	SMF-01	POST	58.00	84.88	0.00	98135	1.38	1.83	7.210	5.278
HYDRA-025-96	SMF-01	POST	59.00	84.86	0.00	98005	1.17	1.66	7.315	5.422
HYDRA-025-96	SMF-01	POST	60.00	84.85	0.00	97890	1.17	1.52	7.412	5.554
HYDRA-025-96	SMF-01	POST	61.00	84.84	0.00	97798	1.10	1.41	7.506	5.674
HYDRA-025-96	SMF-01	POST	62.00	84.83	0.00	97724	1.10	1.33	7.596	5.788
HYDRA-025-96	SMF-01	POST	63.00	84.82	0.00	97650	0.95	1.25	7.681	5.894
HYDRA-025-96	SMF-01	POST	64.00	84.81	0.00	97578	0.95	1.18	7.760	5.994
HYDRA-025-96	SMF-01	POST	65.00	84.80	0.00	97514	0.88	1.12	7.835	6.089
HYDRA-025-96	SMF-01	POST	66.00	84.79	0.00	97455	0.88	1.07	7.908	6.179
HYDRA-025-96	SMF-01	POST	67.00	84.78	0.00	97400	0.81	1.02	7.978	6.265
HYDRA-025-96	SMF-01	POST	68.00	84.78	0.00	97347	0.81	0.98	8.045	6.348
HYDRA-025-96	SMF-01	POST	69.00	84.77	0.00	97303	0.81	0.95	8.112	6.428
HYDRA-025-96	SMF-01	POST	70.00	84.77	0.00	97268	0.81	0.93	8.179	6.505
HYDRA-025-96	SMF-01	POST	71.00	84.76	0.00	97218	0.66	0.90	8.239	6.581
HYDRA-025-96	SMF-01	POST	72.00	84.75	0.00	97156	0.66	0.87	8.294	6.654
HYDRA-025-96	SMF-01	POST	73.00	84.75	0.00	97111	0.74	0.86	8.352	6.726
HYDRA-025-96	SMF-01	POST	74.00	84.74	0.00	97078	0.74	0.85	8.413	6.796
HYDRA-025-96	SMF-01	POST	75.00	84.74	0.00	97026	0.59	0.84	8.468	6.866
HYDRA-025-96	SMF-01	POST	76.00	84.73	0.00	96959	0.59	0.83	8.517	6.935
HYDRA-025-96	SMF-01	POST	77.00	84.72	0.00	96905	0.67	0.81	8.569	7.003
HYDRA-025-96	SMF-01	POST	78.00	84.71	0.00	96865	0.67	0.80	8.624	7.070
HYDRA-025-96	SMF-01	POST	79.00	84.71	0.00	96818	0.59	0.79	8.676	7.136
HYDRA-025-96	SMF-01	POST	80.00	84.70	0.00	96763	0.59	0.78	8.725	7.201
HYDRA-025-96	SMF-01	POST	81.00	84.69	0.00	96701	0.52	0.77	8.771	7.265
HYDRA-025-96	SMF-01	POST	82.00	84.68	0.00	96633	0.52	0.75	8.814	7.327
HYDRA-025-96	SMF-01	POST	83.00	84.67	0.00	96570	0.52	0.74	8.857	7.389
HYDRA-025-96	SMF-01	POST	84.00	84.67	0.00	96510	0.52	0.73	8.899	7.450
HYDRA-025-96	SMF-01	POST	85.00	84.66	0.00	96453	0.52	0.71	8.942	7.509
HYDRA-025-96	SMF-01	POST	86.00	84.65	0.00	96400	0.52	0.70	8.985	7.568
HYDRA-025-96	SMF-01	POST	87.00	84.65	0.00	96350	0.52	0.69	9.028	7.625
HYDRA-025-96	SMF-01	POST	88.00	84.64	0.00	96303	0.52	0.68	9.071	7.682
HYDRA-025-96	SMF-01	POST	89.00	84.63	0.00	96259	0.52	0.67	9.114	7.738

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     Simulation           Node          Group      Time     Stage   Warning   Surface     Total     Total     Total     Total
                                                                      Stage      Area    Inflow   Outflow    Vol In   Vol Out
                                                    hrs        ft        ft       ft2       cfs       cfs        af        af

   HYDRA-025-96         SMF-01           POST     90.00     84.63      0.00     96217      0.52      0.66     9.157     7.793
   HYDRA-025-96         SMF-01           POST     91.00     84.62      0.00     96168      0.45      0.65     9.197     7.847
   HYDRA-025-96         SMF-01           POST     92.00     84.61      0.00     96111      0.45      0.64     9.234     7.901
   HYDRA-025-96         SMF-01           POST     93.00     84.61      0.00     96058      0.45      0.63     9.271     7.954
   HYDRA-025-96         SMF-01           POST     94.00     84.60      0.00     96007      0.45      0.62     9.308     8.005
   HYDRA-025-96         SMF-01           POST     95.00     84.59      0.00     95949      0.37      0.61     9.342     8.056
   HYDRA-025-96         SMF-01           POST     96.00     84.58      0.00     95884      0.00      0.59     9.357     8.106
   HYDRA-025-96         SMF-01           POST     96.00     84.58      0.00     95884      0.00      0.59     9.357     8.106

   HYDRA-025-96         SMF-02           POST      0.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      0.18     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      0.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      0.50     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      0.68     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      0.85     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      1.02     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      1.18     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      1.35     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      1.52     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      1.68     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      1.85     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      2.02     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      2.18     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      2.35     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      2.52     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      2.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      2.83     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      3.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      3.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      3.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      3.51     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      3.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      3.83     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      4.01     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      4.18     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      4.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      4.51     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      4.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      4.84     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      5.01     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      5.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      5.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      5.51     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      5.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      5.84     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      6.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      6.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      6.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      6.50     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      6.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      6.83     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      7.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      7.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      7.33     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      7.50     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      7.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      7.84     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      8.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      8.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      8.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      8.50     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      8.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      8.84     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      9.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      9.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      9.33     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      9.50     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      9.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST      9.83     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.25     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.33     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.42     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.50     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.59     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.67     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.75     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.83     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     10.92     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     11.00     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     11.08     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     11.17     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     11.25     82.30      0.00     23958      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-02           POST     11.34     82.30      0.00     23958      0.00      0.00     0.000     0.000
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NODE TIME SERIES REPORT | POST-DEVELOPMENT DRAINAGE
(SMF-01, SMF-02, SMF-08 THRU SMF-11, SMF-12)

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-02	POST	11.42	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	11.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	11.58	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	11.67	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	11.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	11.84	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	11.92	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.08	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.17	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.33	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.42	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.58	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.67	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.84	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	12.92	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.08	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.17	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.33	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.42	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.58	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.67	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.83	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	13.92	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.08	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.17	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.33	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.42	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.58	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.67	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.83	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	14.92	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.08	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.17	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.33	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.42	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.58	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.67	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.83	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	15.92	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.08	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.17	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.33	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.42	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.58	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.67	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.83	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	16.92	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	17.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	17.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	17.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	17.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	18.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	18.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	18.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	18.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	19.00	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	19.25	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	19.50	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	19.75	82.30	0.00	23958	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	20.00	82.30	0.00	23959	0.01	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	20.25	82.30	0.00	23960	0.01	0.00	0.000	0.000
HYDRA-025-96	SMF-02	POST	20.50	82.30	0.00	23962	0.02	0.00	0.001	0.000
HYDRA-025-96	SMF-02	POST	20.75	82.30	0.00	23964	0.02	0.00	0.001	0.000
HYDRA-025-96	SMF-02	POST	21.00	82.30	0.00	23967	0.02	0.00	0.002	0.000
HYDRA-025-96	SMF-02	POST	21.25	82.30	0.00	23970	0.03	0.00	0.002	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-02	POST	21.50	82.30	0.00	23973	0.03	0.00	0.003	0.000
HYDRA-025-96	SMF-02	POST	21.75	82.31	0.00	23977	0.03	0.00	0.003	0.000
HYDRA-025-96	SMF-02	POST	22.00	82.31	0.00	23981	0.04	0.00	0.004	0.000
HYDRA-025-96	SMF-02	POST	22.25	82.31	0.00	23985	0.04	0.00	0.005	0.000
HYDRA-025-96	SMF-02	POST	22.50	82.31	0.00	23990	0.04	0.00	0.006	0.000
HYDRA-025-96	SMF-02	POST	22.75	82.31	0.00	23996	0.05	0.00	0.007	0.000
HYDRA-025-96	SMF-02	POST	23.00	82.31	0.00	24001	0.05	0.00	0.008	0.000
HYDRA-025-96	SMF-02	POST	23.25	82.32	0.00	24007	0.05	0.00	0.009	0.000
HYDRA-025-96	SMF-02	POST	23.50	82.32	0.00	24014	0.06	0.00	0.010	0.000
HYDRA-025-96	SMF-02	POST	23.75	82.32	0.00	24020	0.06	0.00	0.011	0.000
HYDRA-025-96	SMF-02	POST	24.00	82.32	0.00	24027	0.06	0.00	0.012	0.000
HYDRA-025-96	SMF-02	POST	24.25	82.32	0.00	24035	0.07	0.00	0.014	0.000
HYDRA-025-96	SMF-02	POST	24.50	82.33	0.00	24044	0.08	0.01	0.015	0.001
HYDRA-025-96	SMF-02	POST	24.75	82.33	0.00	24053	0.09	0.01	0.017	0.001
HYDRA-025-96	SMF-02	POST	25.00	82.33	0.00	24063	0.09	0.01	0.019	0.001
HYDRA-025-96	SMF-02	POST	25.25	82.34	0.00	24073	0.09	0.01	0.021	0.001
HYDRA-025-96	SMF-02	POST	25.50	82.34	0.00	24083	0.10	0.01	0.023	0.001
HYDRA-025-96	SMF-02	POST	25.75	82.34	0.00	24094	0.10	0.01	0.025	0.001
HYDRA-025-96	SMF-02	POST	26.00	82.35	0.00	24105	0.11	0.01	0.027	0.002
HYDRA-025-96	SMF-02	POST	26.25	82.35	0.00	24117	0.11	0.01	0.029	0.002
HYDRA-025-96	SMF-02	POST	26.50	82.35	0.00	24128	0.12	0.02	0.032	0.002
HYDRA-025-96	SMF-02	POST	26.75	82.36	0.00	24140	0.12	0.02	0.034	0.003
HYDRA-025-96	SMF-02	POST	27.00	82.36	0.00	24152	0.12	0.02	0.037	0.003
HYDRA-025-96	SMF-02	POST	27.25	82.36	0.00	24165	0.13	0.02	0.039	0.003
HYDRA-025-96	SMF-02	POST	27.50	82.37	0.00	24178	0.13	0.02	0.042	0.004
HYDRA-025-96	SMF-02	POST	27.75	82.37	0.00	24190	0.13	0.03	0.045	0.004
HYDRA-025-96	SMF-02	POST	28.00	82.38	0.00	24204	0.14	0.03	0.047	0.005
HYDRA-025-96	SMF-02	POST	28.25	82.38	0.00	24217	0.15	0.03	0.050	0.006
HYDRA-025-96	SMF-02	POST	28.50	82.39	0.00	24232	0.16	0.03	0.054	0.006
HYDRA-025-96	SMF-02	POST	28.75	82.39	0.00	24248	0.17	0.04	0.057	0.007
HYDRA-025-96	SMF-02	POST	29.00	82.40	0.00	24265	0.18	0.04	0.061	0.008
HYDRA-025-96	SMF-02	POST	29.25	82.40	0.00	24281	0.18	0.04	0.064	0.008
HYDRA-025-96	SMF-02	POST	29.50	82.41	0.00	24298	0.19	0.04	0.068	0.009
HYDRA-025-96	SMF-02	POST	29.75	82.41	0.00	24314	0.19	0.05	0.072	0.010
HYDRA-025-96	SMF-02	POST	30.00	82.42	0.00	24331	0.19	0.05	0.076	0.011
HYDRA-025-96	SMF-02	POST	31.00	82.44	0.00	24399	0.21	0.07	0.093	0.016
HYDRA-025-96	SMF-02	POST	32.00	82.46	0.00	24468	0.23	0.08	0.111	0.022
HYDRA-025-96	SMF-02	POST	33.00	82.48	0.00	24546	0.29	0.10	0.132	0.030
HYDRA-025-96	SMF-02	POST	34.00	82.51	0.00	24632	0.31	0.12	0.157	0.039
HYDRA-025-96	SMF-02	POST	35.00	82.54	0.00	24727	0.37	0.15	0.185	0.050
HYDRA-025-96	SMF-02	POST	36.00	82.57	0.00	24829	0.40	0.18	0.217	0.064
HYDRA-025-96	SMF-02	POST	37.00	82.60	0.00	24932	0.45	0.22	0.252	0.081
HYDRA-025-96	SMF-02	POST	38.00	82.64	0.00	25036	0.47	0.25	0.290	0.100
HYDRA-025-96	SMF-02	POST	39.00	82.67	0.00	25154	0.58	0.29	0.333	0.122
HYDRA-025-96	SMF-02	POST	40.00	82.71	0.00	25283	0.61	0.34	0.383	0.149
HYDRA-025-96	SMF-02	POST	41.00	82.76	0.00	25437	0.81	0.40	0.441	0.179
HYDRA-025-96	SMF-02	POST	42.00	82.82	0.00	25611	0.85	0.48	0.510	0.216
HYDRA-025-96	SMF-02	POST	43.00	82.88	0.00	25823	1.14	0.57	0.592	0.259
HYDRA-025-96	SMF-02	POST	44.00	82.96	0.00	26062	1.19	0.68	0.688	0.311
HYDRA-025-96	SMF-02	POST	45.00	83.03	0.00	26290	1.33	0.80	0.793	0.372
HYDRA-025-96	SMF-02	POST	46.00	83.18	0.00	26777	2.73	1.06	0.960	0.449
HYDRA-025-96	SMF-02	POST	47.00	83.84	0.00	28864	10.53	2.44	1.508	0.594
HYDRA-025-96	SMF-02	POST	48.00	85.06	0.00	32783	19.80	10.32	2.762	1.121
HYDRA-025-96	SMF-02	POST	49.00	85.15	0.00	33047	8.52	11.98	3.932	2.042
HYDRA-025-96	SMF-02	POST	50.00	84.84	0.00	32072	3.93	6.55	4.446	2.808
HYDRA-025-96	SMF-02	POST	51.00	84.61	0.00	31322	2.37	4.48	4.707	3.264
HYDRA-025-96	SMF-02	POST	52.00	84.37	0.00	30582	1.93	3.82	4.885	3.607
HYDRA-025-96	SMF-02	POST	53.00	84.16	0.00	29909	1.60	3.26	5.031	3.899
HYDRA-025-96	SMF-02	POST	54.00	83.99	0.00	29357	1.60	2.81	5.163	4.150
HYDRA-025-96	SMF-02	POST	55.00	83.84	0.00	28883	1.26	2.45	5.281	4.368
HYDRA-025-96	SMF-02	POST	56.00	83.71	0.00	28470	1.26	2.15	5.385	4.558
HYDRA-025-96	SMF-02	POST	57.00	83.60	0.00	28126	1.09	1.91	5.482	4.725
HYDRA-025-96	SMF-02	POST	58.00	83.51	0.00	27834	1.09	1.71	5.573	4.875
HYDRA-025-96	SMF-02	POST	59.00	83.43	0.00	27578	0.92	1.54	5.656	5.009
HYDRA-025-96	SMF-02	POST	60.00	83.36	0.00	27350	0.93	1.40	5.733	5.131
HYDRA-025-96	SMF-02	POST	61.00	83.30	0.00	27162	0.87	1.29	5.807	5.242
HYDRA-025-96	SMF-02	POST	62.00	83.25	0.00	27006	0.87	1.19	5.879	5.344
HYDRA-025-96	SMF-02	POST	63.00	83.21	0.00	26861	0.75	1.11	5.946	5.439
HYDRA-025-96	SMF-02	POST	64.00	83.17	0.00	26726	0.76	1.03	6.008	5.528
HYDRA-025-96	SMF-02	POST	65.00	83.13	0.00	26609	0.70	0.97	6.068	5.611
HYDRA-025-96	SMF-02	POST	66.00	83.10	0.00	26505	0.70	0.91	6.126	5.688
HYDRA-025-96	SMF-02	POST	67.00	83.07	0.00	26411	0.64	0.86	6.181	5.761
HYDRA-025-96	SMF-02	POST	68.00	83.04	0.00	26325	0.64	0.82	6.234	5.831
HYDRA-025-96	SMF-02	POST	69.00	83.02	0.00	26257	0.64	0.78	6.288	5.897
HYDRA-025-96	SMF-02	POST	70.00	83.00	0.00	26202	0.64	0.75	6.341	5.960
HYDRA-025-96	SMF-02	POST	71.00	82.98	0.00	26135	0.53	0.72	6.389	6.021
HYDRA-025-96	SMF-02	POST	72.00	82.96	0.00	26058	0.53	0.68	6.432	6.079
HYDRA-025-96	SMF-02	POST	73.00	82.94	0.00	26008	0.59	0.66	6.478	6.134
HYDRA-025-96	SMF-02	POST	74.00	82.93	0.00	25980	0.59	0.64	6.527	6.188
HYDRA-025-96	SMF-02	POST	75.00	82.92	0.00	25932	0.47	0.62	6.570	6.241
HYDRA-025-96	SMF-02	POST	76.00	82.90	0.00	25871	0.47	0.59	6.609	6.291
HYDRA-025-96	SMF-02	POST	77.00	82.89	0.00	25833	0.53	0.58	6.650	6.339
HYDRA-025-96	SMF-02	POST	78.00	82.88	0.00	25814	0.53	0.57	6.694	6.386
HYDRA-025-96	SMF-02	POST	79.00	82.87	0.00	25787	0.47	0.55	6.735	6.433
HYDRA-025-96	SMF-02	POST	80.00	82.86	0.00	25753	0.47	0.54	6.774	6.478

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-02	POST	81.00	82.85	0.00	25713	0.41	0.52	6.811	6.522
HYDRA-025-96	SMF-02	POST	82.00	82.84	0.00	25668	0.41	0.50	6.845	6.564
HYDRA-025-96	SMF-02	POST	83.00	82.82	0.00	25632	0.41	0.49	6.879	6.605
HYDRA-025-96	SMF-02	POST	84.00	82.81	0.00	25602	0.41	0.47	6.913	6.644
HYDRA-025-96	SMF-02	POST	85.00	82.81	0.00	25578	0.41	0.46	6.947	6.683
HYDRA-025-96	SMF-02	POST	86.00	82.80	0.00	25558	0.41	0.45	6.981	6.721
HYDRA-025-96	SMF-02	POST	87.00	82.80	0.00	25541	0.41	0.45	7.015	6.758
HYDRA-025-96	SMF-02	POST	88.00	82.79	0.00	25527	0.41	0.44	7.049	6.795
HYDRA-025-96	SMF-02	POST	89.00	82.79	0.00	25516	0.41	0.44	7.084	6.831
HYDRA-025-96	SMF-02	POST	90.00	82.78	0.00	25507	0.41	0.43	7.118	6.867
HYDRA-025-96	SMF-02	POST	91.00	82.78	0.00	25487	0.36	0.42	7.150	6.902
HYDRA-025-96	SMF-02	POST	92.00	82.77	0.00	25459	0.36	0.41	7.179	6.937
HYDRA-025-96	SMF-02	POST	93.00	82.76	0.00	25435	0.35	0.40	7.208	6.970
HYDRA-025-96	SMF-02	POST	94.00	82.76	0.00	25415	0.35	0.39	7.238	7.003
HYDRA-025-96	SMF-02	POST	95.00	82.75	0.00	25386	0.30	0.38	7.264	7.035
HYDRA-025-96	SMF-02	POST	96.00	82.74	0.00	25350	0.00	0.37	7.277	7.066
HYDRA-025-96	SMF-02	POST	96.00	82.74	0.00	25350	0.00	0.37	7.277	7.066
HYDRA-025-96	SMF-08	POST	0.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	0.18	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	0.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	0.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	0.68	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	0.85	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	1.02	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	1.18	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	1.35	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	1.52	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	1.68	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	1.85	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	2.02	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	2.18	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	2.35	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	2.52	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	2.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	2.83	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	3.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	3.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	3.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	3.51	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	3.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	3.83	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	4.01	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	4.18	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	4.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	4.51	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	4.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	4.84	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	5.01	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	5.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	5.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	5.51	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	5.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	5.84	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	6.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	6.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	6.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	6.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	6.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	6.83	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	7.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	7.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	7.33	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	7.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	7.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	7.84	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	8.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	8.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	8.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	8.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	8.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	8.84	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	9.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	9.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	9.33	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	9.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	9.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	9.83	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.25	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.33	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.42	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.59	83.00	0.00	58819	0.00	0.00	0.000	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-08	POST	10.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.75	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.83	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	10.92	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.08	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.25	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.34	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.42	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.58	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.75	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.84	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	11.92	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.08	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.17	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.25	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.33	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.42	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.50	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.58	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.67	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.75	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.84	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	12.92	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	13.00	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	13.08	83.00	0.00	58819	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-08	POST	13.17	83.00	0.00	126	7.28	0.00	0.025	0.000
HYDRA-025-96	SMF-08	POST	13.25	83.00	0.00	126	7.40	0.00	0.075	0.000
HYDRA-025-96	SMF-08	POST	13.33	83.00	0.00	126	7.44	0.00	0.127	0.000
HYDRA-025-96	SMF-08	POST	13.42	83.00	0.00	126	7.46	0.00	0.178	0.000
HYDRA-025-96	SMF-08	POST	13.50	83.00	0.00	126	7.47	0.00	0.229	0.000
HYDRA-025-96	SMF-08	POST	13.58	83.00	0.00	126	7.48	0.00	0.281	0.000
HYDRA-025-96	SMF-08	POST	13.67	83.00	0.00	126	7.49	0.00	0.332	0.000
HYDRA-025-96	SMF-08	POST	13.75	83.00	0.00	126	7.49	0.00	0.384	0.000
HYDRA-025-96	SMF-08	POST	13.83	83.00	0.00	126	7.49	0.00	0.435	0.000
HYDRA-025-96	SMF-08	POST	13.92	83.00	0.00	126	7.49	0.00	0.487	0.000
HYDRA-025-96	SMF-08	POST	14.00	83.00	0.00	126	7.50	0.00	0.539	0.000
HYDRA-025-96	SMF-08	POST	14.08	83.00	0.00	126	7.50	0.00	0.590	0.000
HYDRA-025-96	SMF-08	POST	14.17	83.00	0.00	126	7.50	0.00	0.642	0.000
HYDRA-025-96	SMF-08	POST	14.25	83.00	0.00	126	7.50	0.00	0.694	0.000
HYDRA-025-96	SMF-08	POST	14.33	83.00	0.00	126	7.50	0.00	0.745	0.000
HYDRA-025-96	SMF-08	POST	14.42	83.00	0.00	126	7.50	0.00	0.797	0.000
HYDRA-025-96	SMF-08	POST	14.50	83.00	0.00	126	7.50	0.00	0.849	0.000
HYDRA-025-96	SMF-08	POST	14.58	83.00	0.00	126	7.50	0.00	0.900	0.000
HYDRA-025-96	SMF-08	POST	14.67	83.00	0.00	126	7.50	0.00	0.952	0.000
HYDRA-025-96	SMF-08	POST	14.75	83.00	0.00	126	7.50	0.00	1.004	0.000
HYDRA-025-96	SMF-08	POST	14.83	83.00	0.00	126	7.50	0.00	1.055	0.000
HYDRA-025-96	SMF-08	POST	14.92	83.00	0.00	126	7.50	0.00	1.107	0.000
HYDRA-025-96	SMF-08	POST	15.00	83.00	0.00	126	7.50	0.00	1.159	0.000
HYDRA-025-96	SMF-08	POST	15.08	83.00	0.00	126	7.50	0.00	1.210	0.000
HYDRA-025-96	SMF-08	POST	15.17	83.00	0.00	126	7.50	0.00	1.262	0.000
HYDRA-025-96	SMF-08	POST	15.25	83.00	0.00	126	7.50	0.00	1.314	0.000
HYDRA-025-96	SMF-08	POST	15.33	83.00	0.00	126	7.51	0.00	1.365	0.000
HYDRA-025-96	SMF-08	POST	15.42	83.00	0.00	126	7.51	0.00	1.417	0.000
HYDRA-025-96	SMF-08	POST	15.50	83.00	0.00	126	7.51	0.00	1.469	0.000
HYDRA-025-96	SMF-08	POST	15.58	83.00	0.00	126	7.51	0.00	1.520	0.000
HYDRA-025-96	SMF-08	POST	15.67	83.00	0.00	126	7.51	0.00	1.572	0.000
HYDRA-025-96	SMF-08	POST	15.75	83.00	0.00	126	7.51	0.00	1.624	0.000
HYDRA-025-96	SMF-08	POST	15.83	83.00	0.00	126	7.51	0.00	1.675	0.000
HYDRA-025-96	SMF-08	POST	15.92	83.00	0.00	126	7.51	0.00	1.727	0.000
HYDRA-025-96	SMF-08	POST	16.00	83.00	0.00	126	7.51	0.00	1.779	0.000
HYDRA-025-96	SMF-08	POST	16.08	83.00	0.00	126	7.51	0.00	1.831	0.000
HYDRA-025-96	SMF-08	POST	16.17	83.00	0.00	126	7.51	0.00	1.882	0.000
HYDRA-025-96	SMF-08	POST	16.25	83.00	0.00	126	7.51	0.00	1.934	0.000
HYDRA-025-96	SMF-08	POST	16.33	83.00	0.00	126	7.52	0.00	1.986	0.000
HYDRA-025-96	SMF-08	POST	16.42	83.00	0.00	126	7.52	0.00	2.038	0.000
HYDRA-025-96	SMF-08	POST	16.50	83.00	0.00	126	7.52	0.00	2.089	0.000
HYDRA-025-96	SMF-08	POST	16.58	83.00	0.00	126	7.52	0.00	2.141	0.000
HYDRA-025-96	SMF-08	POST	16.67	83.00	0.00	126	7.52	0.00	2.193	0.000
HYDRA-025-96	SMF-08	POST	16.75	83.00	0.00	126	7.52	0.00	2.245	0.000
HYDRA-025-96	SMF-08	POST	16.83	83.00	0.00	126	7.52	0.00	2.297	0.000
HYDRA-025-96	SMF-08	POST	16.92	83.00	0.00	126	7.52	0.00	2.348	0.000
HYDRA-025-96	SMF-08	POST	17.00	83.00	0.00	126	7.52	0.00	2.400	0.000
HYDRA-025-96	SMF-08	POST	17.25	83.00	0.00	126	7.53	0.00	2.556	0.000
HYDRA-025-96	SMF-08	POST	17.50	83.00	0.00	126	7.53	0.00	2.711	0.000
HYDRA-025-96	SMF-08	POST	17.75	83.00	0.00	58838	4.59	0.00	2.836	0.000
HYDRA-025-96	SMF-08	POST	18.00	83.00	0.00	58844	4.55	0.00	2.931	0.000
HYDRA-025-96	SMF-08	POST	18.25	83.01	0.00	58848	4.55	0.00	3.025	0.000
HYDRA-025-96	SMF-08	POST	18.50	83.01	0.00	58852	4.55	0.00	3.119	0.000
HYDRA-025-96	SMF-08	POST	18.75	83.01	0.00	58856	4.55	0.00	3.213	0.000
HYDRA-025-96	SMF-08	POST	19.00	83.01	0.00	58861	4.56	0.00	3.307	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-08	POST	19.25	83.01	0.00	58865	4.56	0.00	3.401	0.000
HYDRA-025-96	SMF-08	POST	19.50	83.01	0.00	58870	4.56	0.00	3.496	0.000
HYDRA-025-96	SMF-08	POST	19.75	83.01	0.00	58875	4.57	0.00	3.590	0.000
HYDRA-025-96	SMF-08	POST	20.00	83.01	0.00	58881	4.57	0.00	3.684	0.000
HYDRA-025-96	SMF-08	POST	20.25	83.01	0.00	58887	4.58	0.00	3.779	0.000
HYDRA-025-96	SMF-08	POST	20.50	83.01	0.00	58893	4.58	0.00	3.873	0.000
HYDRA-025-96	SMF-08	POST	20.75	83.02	0.00	58899	4.58	0.00	3.968	0.000
HYDRA-025-96	SMF-08	POST	21.00	83.02	0.00	58906	4.59	0.00	4.063	0.000
HYDRA-025-96	SMF-08	POST	21.25	83.02	0.00	58913	4.59	0.00	4.158	0.001
HYDRA-025-96	SMF-08	POST	21.50	83.02	0.00	58920	4.60	0.00	4.252	0.001
HYDRA-025-96	SMF-08	POST	21.75	83.02	0.00	58928	4.60	0.01	4.347	0.001
HYDRA-025-96	SMF-08	POST	22.00	83.02	0.00	58936	4.60	0.01	4.443	0.001
HYDRA-025-96	SMF-08	POST	22.25	83.02	0.00	58944	4.61	0.01	4.538	0.001
HYDRA-025-96	SMF-08	POST	22.50	83.03	0.00	58952	4.61	0.01	4.633	0.001
HYDRA-025-96	SMF-08	POST	22.75	83.03	0.00	58960	4.61	0.01	4.728	0.001
HYDRA-025-96	SMF-08	POST	23.00	83.03	0.00	58969	4.62	0.01	4.823	0.001
HYDRA-025-96	SMF-08	POST	23.25	83.03	0.00	58978	4.62	0.01	4.919	0.002
HYDRA-025-96	SMF-08	POST	23.50	83.03	0.00	58987	4.62	0.01	5.014	0.002
HYDRA-025-96	SMF-08	POST	23.75	83.03	0.00	58996	4.62	0.01	5.110	0.002
HYDRA-025-96	SMF-08	POST	24.00	83.04	0.00	59005	4.63	0.01	5.205	0.002
HYDRA-025-96	SMF-08	POST	24.25	83.04	0.00	59015	4.64	0.01	5.301	0.002
HYDRA-025-96	SMF-08	POST	24.50	83.04	0.00	59026	4.66	0.01	5.397	0.003
HYDRA-025-96	SMF-08	POST	24.75	83.04	0.00	59038	4.66	0.01	5.493	0.003
HYDRA-025-96	SMF-08	POST	25.00	83.05	0.00	59050	4.66	0.02	5.590	0.003
HYDRA-025-96	SMF-08	POST	25.25	83.05	0.00	59062	4.67	0.02	5.686	0.004
HYDRA-025-96	SMF-08	POST	25.50	83.05	0.00	59075	4.67	0.02	5.783	0.004
HYDRA-025-96	SMF-08	POST	25.75	83.05	0.00	59087	4.68	0.02	5.879	0.004
HYDRA-025-96	SMF-08	POST	26.00	83.06	0.00	59100	4.68	0.02	5.976	0.005
HYDRA-025-96	SMF-08	POST	26.25	83.06	0.00	59114	4.69	0.02	6.073	0.005
HYDRA-025-96	SMF-08	POST	26.50	83.06	0.00	59127	4.69	0.02	6.170	0.006
HYDRA-025-96	SMF-08	POST	26.75	83.06	0.00	59140	4.69	0.03	6.267	0.006
HYDRA-025-96	SMF-08	POST	27.00	83.07	0.00	59154	4.70	0.03	6.364	0.007
HYDRA-025-96	SMF-08	POST	27.25	83.07	0.00	59168	4.70	0.03	6.461	0.007
HYDRA-025-96	SMF-08	POST	27.50	83.07	0.00	59182	4.71	0.03	6.558	0.008
HYDRA-025-96	SMF-08	POST	27.75	83.07	0.00	59197	4.71	0.03	6.655	0.009
HYDRA-025-96	SMF-08	POST	28.00	83.08	0.00	59211	4.71	0.03	6.752	0.009
HYDRA-025-96	SMF-08	POST	28.25	83.08	0.00	59226	4.73	0.04	6.850	0.010
HYDRA-025-96	SMF-08	POST	28.50	83.08	0.00	59243	4.75	0.04	6.948	0.011
HYDRA-025-96	SMF-08	POST	28.75	83.09	0.00	59260	4.76	0.04	7.046	0.012
HYDRA-025-96	SMF-08	POST	29.00	83.09	0.00	59278	4.76	0.04	7.144	0.013
HYDRA-025-96	SMF-08	POST	29.25	83.09	0.00	59296	4.76	0.05	7.243	0.014
HYDRA-025-96	SMF-08	POST	29.50	83.10	0.00	59314	4.77	0.05	7.341	0.015
HYDRA-025-96	SMF-08	POST	29.75	83.10	0.00	59332	4.77	0.05	7.440	0.016
HYDRA-025-96	SMF-08	POST	30.00	83.10	0.00	59350	4.78	0.05	7.539	0.017
HYDRA-025-96	SMF-08	POST	31.00	83.12	0.00	59425	4.80	0.07	7.934	0.022
HYDRA-025-96	SMF-08	POST	32.00	83.13	0.00	59502	4.82	0.08	8.332	0.028
HYDRA-025-96	SMF-08	POST	33.00	83.15	0.00	59590	4.88	0.10	8.732	0.035
HYDRA-025-96	SMF-08	POST	34.00	83.17	0.00	59687	4.91	0.11	9.137	0.044
HYDRA-025-96	SMF-08	POST	35.00	83.19	0.00	59794	4.98	0.14	9.545	0.054
HYDRA-025-96	SMF-08	POST	36.00	83.22	0.00	59912	5.01	0.16	9.958	0.067
HYDRA-025-96	SMF-08	POST	37.00	83.24	0.00	60036	5.06	0.19	10.374	0.081
HYDRA-025-96	SMF-08	POST	38.00	83.26	0.00	60165	5.09	0.22	10.794	0.098
HYDRA-025-96	SMF-08	POST	39.00	83.29	0.00	60310	5.20	0.26	11.219	0.118
HYDRA-025-96	SMF-08	POST	40.00	83.32	0.00	60469	5.23	0.30	11.650	0.141
HYDRA-025-96	SMF-08	POST	41.00	83.36	0.00	60654	5.40	0.35	12.089	0.168
HYDRA-025-96	SMF-08	POST	42.00	83.40	0.00	60864	5.44	0.42	12.537	0.200
HYDRA-025-96	SMF-08	POST	43.00	83.45	0.00	61111	5.65	0.49	12.995	0.238
HYDRA-025-96	SMF-08	POST	44.00	83.51	0.00	61393	5.70	0.59	13.464	0.282
HYDRA-025-96	SMF-08	POST	45.00	83.56	0.00	61682	5.78	0.69	13.939	0.335
HYDRA-025-96	SMF-08	POST	46.00	83.66	0.00	62180	4.12	0.87	14.348	0.399
HYDRA-025-96	SMF-08	POST	47.00	83.98	0.00	63818	10.49	1.59	14.951	0.501
HYDRA-025-96	SMF-08	POST	48.00	84.55	0.00	66706	16.86	6.86	16.082	0.850
HYDRA-025-96	SMF-08	POST	49.00	84.73	0.00	67604	11.54	10.07	17.255	1.550
HYDRA-025-96	SMF-08	POST	50.00	84.62	0.00	67063	9.03	8.07	18.106	2.299
HYDRA-025-96	SMF-08	POST	51.00	84.52	0.00	66541	7.92	6.33	18.806	2.894
HYDRA-025-96	SMF-08	POST	52.00	84.44	0.00	66154	7.40	5.16	19.439	3.369
HYDRA-025-96	SMF-08	POST	53.00	84.38	0.00	65842	6.78	4.31	20.025	3.761
HYDRA-025-96	SMF-08	POST	54.00	84.33	0.00	65598	6.46	3.68	20.573	4.091
HYDRA-025-96	SMF-08	POST	55.00	84.29	0.00	65394	5.98	3.20	21.087	4.376
HYDRA-025-96	SMF-08	POST	56.00	84.26	0.00	65228	5.82	2.85	21.574	4.626
HYDRA-025-96	SMF-08	POST	57.00	84.24	0.00	65097	5.60	2.60	22.046	4.851
HYDRA-025-96	SMF-08	POST	58.00	84.21	0.00	64990	5.52	2.41	22.506	5.058
HYDRA-025-96	SMF-08	POST	59.00	84.20	0.00	64896	5.33	2.27	22.954	5.251
HYDRA-025-96	SMF-08	POST	60.00	84.18	0.00	64812	5.28	2.15	23.393	5.434
HYDRA-025-96	SMF-08	POST	61.00	84.17	0.00	64742	5.21	2.07	23.826	5.608
HYDRA-025-96	SMF-08	POST	62.00	84.15	0.00	64680	5.19	2.02	24.256	5.777
HYDRA-025-96	SMF-08	POST	63.00	84.14	0.00	64613	5.10	1.98	24.681	5.942
HYDRA-025-96	SMF-08	POST	64.00	84.13	0.00	64540	5.08	1.94	25.102	6.104
HYDRA-025-96	SMF-08	POST	65.00	84.11	0.00	64465	5.03	1.90	25.520	6.263
HYDRA-025-96	SMF-08	POST	66.00	84.10	0.00	64387	5.01	1.87	25.935	6.419
HYDRA-025-96	SMF-08	POST	67.00	84.08	0.00	64308	4.96	1.83	26.347	6.572
HYDRA-025-96	SMF-08	POST	68.00	84.06	0.00	64226	4.94	1.79	26.756	6.721
HYDRA-025-96	SMF-08	POST	69.00	84.05	0.00	64150	4.92	1.75	27.163	6.867
HYDRA-025-96	SMF-08	POST	70.00	84.04	0.00	64079	4.90	1.71	27.569	7.010
HYDRA-025-96	SMF-08	POST	71.00	84.02	0.00	63998	4.81	1.67	27.971	7.150

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-08	POST	72.00	84.00	0.00	63908	4.79	1.63	28.367	7.287
HYDRA-025-96	SMF-08	POST	73.00	83.99	0.00	63830	4.81	1.59	28.764	7.420
HYDRA-025-96	SMF-08	POST	74.00	83.97	0.00	63759	5.38	1.56	29.185	7.550
HYDRA-025-96	SMF-08	POST	75.00	83.96	0.00	63689	4.72	1.53	29.602	7.677
HYDRA-025-96	SMF-08	POST	76.00	83.94	0.00	63603	5.13	1.49	30.009	7.802
HYDRA-025-96	SMF-08	POST	77.00	83.93	0.00	63526	5.31	1.45	30.441	7.923
HYDRA-025-96	SMF-08	POST	78.00	83.91	0.00	63466	4.77	1.42	30.857	8.042
HYDRA-025-96	SMF-08	POST	79.00	83.90	0.00	63398	4.83	1.39	31.254	8.158
HYDRA-025-96	SMF-08	POST	80.00	83.89	0.00	63329	5.27	1.36	31.671	8.272
HYDRA-025-96	SMF-08	POST	81.00	83.87	0.00	63258	5.22	1.33	32.104	8.383
HYDRA-025-96	SMF-08	POST	82.00	83.86	0.00	63183	5.21	1.29	32.535	8.491
HYDRA-025-96	SMF-08	POST	83.00	83.84	0.00	63113	5.21	1.26	32.966	8.597
HYDRA-025-96	SMF-08	POST	84.00	83.83	0.00	63048	5.18	1.24	33.395	8.700
HYDRA-025-96	SMF-08	POST	85.00	83.82	0.00	62984	4.74	1.21	33.805	8.801
HYDRA-025-96	SMF-08	POST	86.00	83.81	0.00	62927	4.67	1.18	34.193	8.900
HYDRA-025-96	SMF-08	POST	87.00	83.80	0.00	62867	5.18	1.16	34.600	8.997
HYDRA-025-96	SMF-08	POST	88.00	83.79	0.00	62815	5.18	1.13	35.028	9.091
HYDRA-025-96	SMF-08	POST	89.00	83.78	0.00	62765	5.18	1.11	35.456	9.184
HYDRA-025-96	SMF-08	POST	90.00	83.77	0.00	62719	5.18	1.09	35.885	9.275
HYDRA-025-96	SMF-08	POST	91.00	83.76	0.00	62668	5.13	1.07	36.311	9.365
HYDRA-025-96	SMF-08	POST	92.00	83.75	0.00	62612	5.13	1.05	36.736	9.452
HYDRA-025-96	SMF-08	POST	93.00	83.74	0.00	62560	5.13	1.03	37.160	9.538
HYDRA-025-96	SMF-08	POST	94.00	83.73	0.00	62510	5.13	1.01	37.584	9.622
HYDRA-025-96	SMF-08	POST	95.00	83.72	0.00	62455	5.08	0.98	38.006	9.705
HYDRA-025-96	SMF-08	POST	96.00	83.70	0.00	62396	5.00	0.96	38.422	9.785
HYDRA-025-96	SMF-08	POST	96.00	83.70	0.00	62396	5.00	0.96	38.422	9.785
HYDRA-025-96	SMF-09	POST	0.00	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	0.18	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	0.34	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	0.50	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	0.68	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	0.85	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	1.02	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	1.18	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	1.35	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	1.52	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	1.68	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	1.85	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	2.02	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	2.18	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	2.35	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	2.52	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	2.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	2.83	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	3.00	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	3.17	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	3.34	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	3.51	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	3.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	3.83	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	4.01	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	4.18	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	4.34	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	4.51	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	4.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	4.84	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	5.01	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	5.17	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	5.34	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	5.51	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	5.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	5.84	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	6.00	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	6.17	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	6.34	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	6.50	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	6.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	6.83	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	7.00	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	7.17	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	7.33	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	7.50	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	7.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	7.84	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	8.00	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	8.17	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	8.34	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	8.50	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	8.67	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	8.84	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	9.00	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	9.17	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	9.33	83.00	0.00	27019	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-09	POST	9.50	83.00	0.00	27019	0.00	0.00	0.000	0.000

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NODE TIME SERIES REPORT | POST-DEVELOPMENT DRAINAGE
(SMF-01, SMF-02, SMF-08 THRU SMF-11, SMF-12)

      Simulation             Node            Group         Time        Stage  Warning    Surface      Total      Total      Total      Total
                                                                               Stage       Area     Inflow    Outflow     Vol In    Vol Out
                                                            hrs           ft       ft        ft2        cfs        cfs         af         af
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    HYDRA-025-96          SMF-09              POST        9.67        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST        9.83        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.00        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.17        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.25        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.33        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.42        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.50        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.59        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.67        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.75        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.83        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       10.92        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.00        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.08        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.17        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.25        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.34        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.42        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.50        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.58        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.67        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.75        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.84        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       11.92        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.00        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.08        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.17        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.25        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.33        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.42        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.50        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.58        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.67        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.75        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.84        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       12.92        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       13.00        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       13.08        83.00     0.00      27019       0.00       0.00      0.000      0.000
    HYDRA-025-96          SMF-09              POST       13.17        83.00     0.00      27023      -1.48       0.69     -0.005      0.002
    HYDRA-025-96          SMF-09              POST       13.25        83.00     0.00      27025      -1.46       0.75     -0.015      0.007
    HYDRA-025-96          SMF-09              POST       13.33        83.00     0.00      27026      -1.44       0.78     -0.025      0.013
    HYDRA-025-96          SMF-09              POST       13.42        83.00     0.00      27026      -1.43       0.80     -0.035      0.018
    HYDRA-025-96          SMF-09              POST       13.50        83.00     0.00      27027      -1.42       0.81     -0.045      0.024
    HYDRA-025-96          SMF-09              POST       13.58        83.00     0.00      27027      -1.42       0.82     -0.055      0.029
    HYDRA-025-96          SMF-09              POST       13.67        83.00     0.00      27027      -1.42       0.82     -0.064      0.035
    HYDRA-025-96          SMF-09              POST       13.75        83.00     0.00      27027      -1.41       0.83     -0.074      0.041
    HYDRA-025-96          SMF-09              POST       13.83        83.00     0.00      27027      -1.41       0.83     -0.084      0.046
    HYDRA-025-96          SMF-09              POST       13.92        83.00     0.00      27027      -1.41       0.83     -0.094      0.052
    HYDRA-025-96          SMF-09              POST       14.00        83.00     0.00      27027      -1.41       0.83     -0.103      0.058
    HYDRA-025-96          SMF-09              POST       14.08        83.00     0.00      27027      -1.41       0.83     -0.113      0.063
    HYDRA-025-96          SMF-09              POST       14.17        83.00     0.00      27027      -1.41       0.83     -0.123      0.069
    HYDRA-025-96          SMF-09              POST       14.25        83.00     0.00      27028      -1.41       0.83     -0.132      0.075
    HYDRA-025-96          SMF-09              POST       14.33        83.00     0.00      27028      -1.41       0.83     -0.142      0.081
    HYDRA-025-96          SMF-09              POST       14.42        83.00     0.00      27028      -1.41       0.83     -0.152      0.086
    HYDRA-025-96          SMF-09              POST       14.50        83.00     0.00      27028      -1.41       0.83     -0.162      0.092
    HYDRA-025-96          SMF-09              POST       14.58        83.00     0.00      27028      -1.41       0.83     -0.171      0.098
    HYDRA-025-96          SMF-09              POST       14.67        83.00     0.00      27028      -1.41       0.83     -0.181      0.103
    HYDRA-025-96          SMF-09              POST       14.75        83.00     0.00      27028      -1.41       0.83     -0.191      0.109
    HYDRA-025-96          SMF-09              POST       14.83        83.00     0.00      27029      -1.41       0.83     -0.200      0.115
    HYDRA-025-96          SMF-09              POST       14.92        83.00     0.00      27029      -1.41       0.83     -0.210      0.121
    HYDRA-025-96          SMF-09              POST       15.00        83.00     0.00      27029      -1.41       0.83     -0.220      0.126
    HYDRA-025-96          SMF-09              POST       15.08        83.00     0.00      27029      -1.41       0.83     -0.230      0.132
    HYDRA-025-96          SMF-09              POST       15.17        83.00     0.00      27029      -1.41       0.83     -0.239      0.138
    HYDRA-025-96          SMF-09              POST       15.25        83.00     0.00      27030      -1.41       0.83     -0.249      0.143
    HYDRA-025-96          SMF-09              POST       15.33        83.00     0.00      27030      -1.41       0.83     -0.259      0.149
    HYDRA-025-96          SMF-09              POST       15.42        83.00     0.00      27030      -1.41       0.83     -0.268      0.155
    HYDRA-025-96          SMF-09              POST       15.50        83.00     0.00      27031      -1.41       0.83     -0.278      0.160
    HYDRA-025-96          SMF-09              POST       15.58        83.00     0.00      27031      -1.41       0.83     -0.288      0.166
    HYDRA-025-96          SMF-09              POST       15.67        83.00     0.00      27031      -1.41       0.83     -0.297      0.172
    HYDRA-025-96          SMF-09              POST       15.75        83.00     0.00      27031      -1.41       0.83     -0.307      0.178
    HYDRA-025-96          SMF-09              POST       15.83        83.00     0.00      27032      -1.41       0.83     -0.317      0.183
    HYDRA-025-96          SMF-09              POST       15.92        83.00     0.00      27032      -1.41       0.83     -0.326      0.189
    HYDRA-025-96          SMF-09              POST       16.00        83.00     0.00      27033      -1.40       0.83     -0.336      0.195
    HYDRA-025-96          SMF-09              POST       16.08        83.00     0.00      27033      -1.40       0.83     -0.346      0.200
    HYDRA-025-96          SMF-09              POST       16.17        83.00     0.00      27033      -1.40       0.83     -0.355      0.206
    HYDRA-025-96          SMF-09              POST       16.25        83.00     0.00      27034      -1.40       0.83     -0.365      0.212
    HYDRA-025-96          SMF-09              POST       16.33        83.00     0.00      27034      -1.40       0.83     -0.375      0.217
    HYDRA-025-96          SMF-09              POST       16.42        83.00     0.00      27035      -1.40       0.83     -0.384      0.223
    HYDRA-025-96          SMF-09              POST       16.50        83.00     0.00      27035      -1.40       0.83     -0.394      0.229
    HYDRA-025-96          SMF-09              POST       16.58        83.00     0.00      27036      -1.40       0.83     -0.404      0.235
    HYDRA-025-96          SMF-09              POST       16.67        83.01     0.00      27037      -1.40       0.83     -0.413      0.240
    HYDRA-025-96          SMF-09              POST       16.75        83.01     0.00      27037      -1.40       0.83     -0.423      0.246
    HYDRA-025-96          SMF-09              POST       16.83        83.01     0.00      27038      -1.40       0.83     -0.433      0.252
    HYDRA-025-96          SMF-09              POST       16.92        83.01     0.00      27039      -1.40       0.82     -0.442      0.257
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Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-09	POST	17.00	83.01	0.00	27039	-1.40	0.82	-0.452	0.263
HYDRA-025-96	SMF-09	POST	17.25	83.01	0.00	27041	-1.40	0.82	-0.481	0.280
HYDRA-025-96	SMF-09	POST	17.50	83.01	0.00	27044	-1.40	0.82	-0.510	0.297
HYDRA-025-96	SMF-09	POST	17.75	83.00	0.00	27036	-1.36	0.84	-0.538	0.314
HYDRA-025-96	SMF-09	POST	18.00	83.01	0.00	27037	-1.38	0.80	-0.567	0.331
HYDRA-025-96	SMF-09	POST	18.25	83.01	0.00	27039	-1.39	0.78	-0.595	0.347
HYDRA-025-96	SMF-09	POST	18.50	83.01	0.00	27042	-1.39	0.78	-0.624	0.364
HYDRA-025-96	SMF-09	POST	18.75	83.01	0.00	27044	-1.39	0.78	-0.653	0.380
HYDRA-025-96	SMF-09	POST	19.00	83.01	0.00	27047	-1.39	0.78	-0.681	0.396
HYDRA-025-96	SMF-09	POST	19.25	83.01	0.00	27051	-1.39	0.78	-0.710	0.412
HYDRA-025-96	SMF-09	POST	19.50	83.01	0.00	27054	-1.39	0.78	-0.739	0.428
HYDRA-025-96	SMF-09	POST	19.75	83.01	0.00	27058	-1.39	0.78	-0.768	0.444
HYDRA-025-96	SMF-09	POST	20.00	83.01	0.00	27061	-1.39	0.78	-0.796	0.460
HYDRA-025-96	SMF-09	POST	20.25	83.01	0.00	27065	-1.38	0.78	-0.825	0.476
HYDRA-025-96	SMF-09	POST	20.50	83.01	0.00	27069	-1.38	0.78	-0.853	0.492
HYDRA-025-96	SMF-09	POST	20.75	83.02	0.00	27074	-1.38	0.77	-0.882	0.508
HYDRA-025-96	SMF-09	POST	21.00	83.02	0.00	27078	-1.38	0.77	-0.910	0.524
HYDRA-025-96	SMF-09	POST	21.25	83.02	0.00	27083	-1.38	0.77	-0.939	0.540
HYDRA-025-96	SMF-09	POST	21.50	83.02	0.00	27088	-1.38	0.77	-0.967	0.556
HYDRA-025-96	SMF-09	POST	21.75	83.02	0.00	27093	-1.38	0.77	-0.996	0.572
HYDRA-025-96	SMF-09	POST	22.00	83.02	0.00	27099	-1.38	0.77	-1.024	0.588
HYDRA-025-96	SMF-09	POST	22.25	83.02	0.00	27104	-1.38	0.77	-1.053	0.604
HYDRA-025-96	SMF-09	POST	22.50	83.03	0.00	27110	-1.38	0.77	-1.081	0.620
HYDRA-025-96	SMF-09	POST	22.75	83.03	0.00	27115	-1.37	0.77	-1.110	0.636
HYDRA-025-96	SMF-09	POST	23.00	83.03	0.00	27121	-1.37	0.77	-1.138	0.652
HYDRA-025-96	SMF-09	POST	23.25	83.03	0.00	27127	-1.37	0.77	-1.167	0.668
HYDRA-025-96	SMF-09	POST	23.50	83.03	0.00	27133	-1.37	0.77	-1.195	0.684
HYDRA-025-96	SMF-09	POST	23.75	83.03	0.00	27140	-1.37	0.77	-1.223	0.699
HYDRA-025-96	SMF-09	POST	24.00	83.04	0.00	27146	-1.37	0.77	-1.252	0.715
HYDRA-025-96	SMF-09	POST	24.25	83.04	0.00	27153	-1.36	0.77	-1.280	0.731
HYDRA-025-96	SMF-09	POST	24.50	83.04	0.00	27161	-1.36	0.77	-1.308	0.747
HYDRA-025-96	SMF-09	POST	24.75	83.04	0.00	27168	-1.36	0.76	-1.336	0.763
HYDRA-025-96	SMF-09	POST	25.00	83.05	0.00	27177	-1.36	0.76	-1.364	0.779
HYDRA-025-96	SMF-09	POST	25.25	83.05	0.00	27185	-1.36	0.76	-1.392	0.794
HYDRA-025-96	SMF-09	POST	25.50	83.05	0.00	27194	-1.36	0.76	-1.420	0.810
HYDRA-025-96	SMF-09	POST	25.75	83.05	0.00	27202	-1.36	0.76	-1.448	0.826
HYDRA-025-96	SMF-09	POST	26.00	83.06	0.00	27211	-1.35	0.76	-1.476	0.842
HYDRA-025-96	SMF-09	POST	26.25	83.06	0.00	27220	-1.35	0.76	-1.504	0.857
HYDRA-025-96	SMF-09	POST	26.50	83.06	0.00	27229	-1.35	0.76	-1.532	0.873
HYDRA-025-96	SMF-09	POST	26.75	83.06	0.00	27239	-1.35	0.76	-1.560	0.889
HYDRA-025-96	SMF-09	POST	27.00	83.07	0.00	27248	-1.35	0.76	-1.588	0.905
HYDRA-025-96	SMF-09	POST	27.25	83.07	0.00	27258	-1.35	0.76	-1.616	0.920
HYDRA-025-96	SMF-09	POST	27.50	83.07	0.00	27267	-1.35	0.76	-1.644	0.936
HYDRA-025-96	SMF-09	POST	27.75	83.07	0.00	27277	-1.35	0.76	-1.672	0.952
HYDRA-025-96	SMF-09	POST	28.00	83.08	0.00	27287	-1.35	0.76	-1.700	0.968
HYDRA-025-96	SMF-09	POST	28.25	83.08	0.00	27298	-1.34	0.76	-1.727	0.983
HYDRA-025-96	SMF-09	POST	28.50	83.08	0.00	27309	-1.33	0.76	-1.755	0.999
HYDRA-025-96	SMF-09	POST	28.75	83.09	0.00	27321	-1.33	0.76	-1.782	1.015
HYDRA-025-96	SMF-09	POST	29.00	83.09	0.00	27333	-1.33	0.76	-1.810	1.030
HYDRA-025-96	SMF-09	POST	29.25	83.09	0.00	27345	-1.33	0.76	-1.837	1.046
HYDRA-025-96	SMF-09	POST	29.50	83.10	0.00	27357	-1.33	0.76	-1.865	1.062
HYDRA-025-96	SMF-09	POST	29.75	83.10	0.00	27370	-1.33	0.76	-1.892	1.077
HYDRA-025-96	SMF-09	POST	30.00	83.10	0.00	27382	-1.33	0.76	-1.920	1.093
HYDRA-025-96	SMF-09	POST	31.00	83.12	0.00	27434	-1.32	0.76	-2.029	1.156
HYDRA-025-96	SMF-09	POST	32.00	83.13	0.00	27487	-1.31	0.76	-2.138	1.219
HYDRA-025-96	SMF-09	POST	33.00	83.15	0.00	27547	-1.29	0.76	-2.245	1.281
HYDRA-025-96	SMF-09	POST	34.00	83.17	0.00	27614	-1.28	0.76	-2.352	1.344
HYDRA-025-96	SMF-09	POST	35.00	83.19	0.00	27687	-1.26	0.76	-2.457	1.407
HYDRA-025-96	SMF-09	POST	36.00	83.22	0.00	27768	-1.25	0.76	-2.560	1.470
HYDRA-025-96	SMF-09	POST	37.00	83.24	0.00	27854	-1.23	0.76	-2.662	1.533
HYDRA-025-96	SMF-09	POST	38.00	83.27	0.00	27943	-1.22	0.77	-2.763	1.596
HYDRA-025-96	SMF-09	POST	39.00	83.29	0.00	28042	-1.17	0.77	-2.862	1.660
HYDRA-025-96	SMF-09	POST	40.00	83.33	0.00	28152	-1.16	0.78	-2.958	1.724
HYDRA-025-96	SMF-09	POST	41.00	83.36	0.00	28278	-1.09	0.76	-3.051	1.787
HYDRA-025-96	SMF-09	POST	42.00	83.40	0.00	28423	-1.07	0.78	-3.140	1.851
HYDRA-025-96	SMF-09	POST	43.00	83.45	0.00	28592	-0.96	0.76	-3.224	1.915
HYDRA-025-96	SMF-09	POST	44.00	83.51	0.00	28786	-0.93	0.78	-3.302	1.978
HYDRA-025-96	SMF-09	POST	45.00	83.56	0.00	28986	-0.87	0.80	-3.377	2.043
HYDRA-025-96	SMF-09	POST	46.00	83.66	0.00	29319	-0.36	0.56	-3.428	2.099
HYDRA-025-96	SMF-09	POST	47.00	83.98	0.00	30421	2.97	-1.21	-3.320	2.073
HYDRA-025-96	SMF-09	POST	48.00	84.58	0.00	32514	6.74	0.90	-2.918	2.060
HYDRA-025-96	SMF-09	POST	49.00	84.93	0.00	33732	5.02	4.44	-2.432	2.281
HYDRA-025-96	SMF-09	POST	50.00	84.88	0.00	33567	3.97	5.25	-2.061	2.681
HYDRA-025-96	SMF-09	POST	51.00	84.72	0.00	33028	3.21	4.73	-1.764	3.093
HYDRA-025-96	SMF-09	POST	52.00	84.57	0.00	32505	2.57	3.78	-1.525	3.445
HYDRA-025-96	SMF-09	POST	53.00	84.46	0.00	32102	2.00	2.89	-1.336	3.720
HYDRA-025-96	SMF-09	POST	54.00	84.38	0.00	31823	1.64	2.19	-1.186	3.930
HYDRA-025-96	SMF-09	POST	55.00	84.32	0.00	31627	1.30	1.75	-1.065	4.092
HYDRA-025-96	SMF-09	POST	56.00	84.28	0.00	31480	1.13	1.43	-0.965	4.224
HYDRA-025-96	SMF-09	POST	57.00	84.25	0.00	31373	0.99	1.23	-0.877	4.333
HYDRA-025-96	SMF-09	POST	58.00	84.23	0.00	31289	1.03	1.08	-0.794	4.429
HYDRA-025-96	SMF-09	POST	59.00	84.20	0.00	31217	-0.27	0.96	-0.763	4.513
HYDRA-025-96	SMF-09	POST	60.00	84.19	0.00	31154	-0.38	0.87	-0.789	4.589
HYDRA-025-96	SMF-09	POST	61.00	84.17	0.00	31102	-0.47	0.81	-0.825	4.659
HYDRA-025-96	SMF-09	POST	62.00	84.16	0.00	31057	-0.52	0.77	-0.866	4.725

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-09	POST	63.00	84.15	0.00	31011	-0.59	0.75	-0.912	4.788
HYDRA-025-96	SMF-09	POST	64.00	84.13	0.00	30960	-0.61	0.74	-0.961	4.849
HYDRA-025-96	SMF-09	POST	65.00	84.12	0.00	30908	-0.64	0.73	-1.013	4.910
HYDRA-025-96	SMF-09	POST	66.00	84.10	0.00	30854	-0.65	0.71	-1.066	4.970
HYDRA-025-96	SMF-09	POST	67.00	84.08	0.00	30799	-0.69	0.71	-1.122	5.028
HYDRA-025-96	SMF-09	POST	68.00	84.07	0.00	30743	-0.70	0.69	-1.179	5.086
HYDRA-025-96	SMF-09	POST	69.00	84.05	0.00	30690	-0.72	0.67	-1.238	5.142
HYDRA-025-96	SMF-09	POST	70.00	84.04	0.00	30640	-0.73	0.66	-1.297	5.197
HYDRA-025-96	SMF-09	POST	71.00	84.02	0.00	30584	-0.78	0.66	-1.360	5.252
HYDRA-025-96	SMF-09	POST	72.00	84.01	0.00	30522	-0.79	0.65	-1.425	5.305
HYDRA-025-96	SMF-09	POST	73.00	83.99	0.00	30468	-0.79	0.62	-1.490	5.358
HYDRA-025-96	SMF-09	POST	74.00	83.98	0.00	30428	-0.99	0.99	-1.564	5.425
HYDRA-025-96	SMF-09	POST	75.00	83.96	0.00	30370	-0.84	0.62	-1.640	5.491
HYDRA-025-96	SMF-09	POST	76.00	83.94	0.00	30311	-0.85	0.88	-1.709	5.554
HYDRA-025-96	SMF-09	POST	77.00	83.93	0.00	30265	-1.02	0.99	-1.787	5.631
HYDRA-025-96	SMF-09	POST	78.00	83.92	0.00	30219	-0.77	0.65	-1.861	5.698
HYDRA-025-96	SMF-09	POST	79.00	83.91	0.00	30177	-0.85	0.75	-1.928	5.756
HYDRA-025-96	SMF-09	POST	80.00	83.89	0.00	30132	-1.04	0.99	-2.006	5.828
HYDRA-025-96	SMF-09	POST	81.00	83.88	0.00	30083	-1.07	1.00	-2.093	5.910
HYDRA-025-96	SMF-09	POST	82.00	83.86	0.00	30031	-1.07	1.00	-2.181	5.993
HYDRA-025-96	SMF-09	POST	83.00	83.85	0.00	29983	-1.07	0.99	-2.269	6.075
HYDRA-025-96	SMF-09	POST	84.00	83.84	0.00	29935	-1.04	0.98	-2.356	6.156
HYDRA-025-96	SMF-09	POST	85.00	83.82	0.00	29892	-0.85	0.73	-2.434	6.227
HYDRA-025-96	SMF-09	POST	86.00	83.81	0.00	29850	-0.81	0.67	-2.503	6.285
HYDRA-025-96	SMF-09	POST	87.00	83.80	0.00	29817	-0.99	0.97	-2.578	6.353
HYDRA-025-96	SMF-09	POST	88.00	83.79	0.00	29781	-1.00	0.98	-2.660	6.433
HYDRA-025-96	SMF-09	POST	89.00	83.78	0.00	29747	-1.01	0.98	-2.743	6.514
HYDRA-025-96	SMF-09	POST	90.00	83.77	0.00	29715	-1.01	0.99	-2.826	6.596
HYDRA-025-96	SMF-09	POST	91.00	83.76	0.00	29680	-1.03	0.99	-2.911	6.677
HYDRA-025-96	SMF-09	POST	92.00	83.75	0.00	29641	-1.04	0.99	-2.997	6.759
HYDRA-025-96	SMF-09	POST	93.00	83.74	0.00	29605	-1.05	0.99	-3.083	6.841
HYDRA-025-96	SMF-09	POST	94.00	83.73	0.00	29571	-1.05	0.99	-3.170	6.923
HYDRA-025-96	SMF-09	POST	95.00	83.72	0.00	29533	-1.08	1.00	-3.258	7.005
HYDRA-025-96	SMF-09	POST	96.00	83.71	0.00	29493	-1.16	1.00	-3.350	7.088
HYDRA-025-96	SMF-09	POST	96.00	83.71	0.00	29493	-1.16	1.00	-3.350	7.088
HYDRA-025-96	SMF-10	POST	0.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	0.18	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	0.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	0.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	0.68	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	0.85	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	1.02	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	1.18	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	1.35	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	1.52	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	1.68	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	1.85	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	2.02	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	2.18	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	2.35	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	2.52	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	2.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	2.83	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	3.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	3.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	3.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	3.51	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	3.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	3.83	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	4.01	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	4.18	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	4.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	4.51	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	4.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	4.84	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	5.01	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	5.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	5.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	5.51	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	5.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	5.84	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	6.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	6.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	6.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	6.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	6.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	6.83	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	7.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	7.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	7.33	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	7.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	7.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	7.84	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	8.00	83.00	0.00	28317	0.00	0.00	0.000	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-10	POST	8.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	8.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	8.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	8.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	8.84	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	9.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	9.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	9.33	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	9.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	9.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	9.83	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.25	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.33	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.42	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.59	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.75	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.83	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	10.92	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.08	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.25	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.34	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.42	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.58	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.75	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.84	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	11.92	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.08	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.17	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.25	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.33	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.42	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.50	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.58	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.67	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.75	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.84	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	12.92	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	13.00	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	13.08	83.00	0.00	28317	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-10	POST	13.17	83.00	0.00	28320	0.00	1.35	0.000	0.005
HYDRA-025-96	SMF-10	POST	13.25	83.00	0.00	28322	0.00	1.38	0.000	0.014
HYDRA-025-96	SMF-10	POST	13.33	83.00	0.00	28323	0.00	1.39	0.000	0.023
HYDRA-025-96	SMF-10	POST	13.42	83.00	0.00	28324	0.00	1.40	0.000	0.033
HYDRA-025-96	SMF-10	POST	13.50	83.00	0.00	28325	0.00	1.41	0.000	0.043
HYDRA-025-96	SMF-10	POST	13.58	83.00	0.00	28325	0.00	1.42	0.000	0.053
HYDRA-025-96	SMF-10	POST	13.67	83.00	0.00	28325	0.00	1.42	0.000	0.062
HYDRA-025-96	SMF-10	POST	13.75	83.00	0.00	28325	0.00	1.42	0.000	0.072
HYDRA-025-96	SMF-10	POST	13.83	83.00	0.00	28325	0.00	1.42	0.000	0.082
HYDRA-025-96	SMF-10	POST	13.92	83.00	0.00	28326	0.00	1.42	0.000	0.092
HYDRA-025-96	SMF-10	POST	14.00	83.00	0.00	28326	0.00	1.42	0.000	0.101
HYDRA-025-96	SMF-10	POST	14.08	83.00	0.00	28326	0.00	1.42	0.000	0.111
HYDRA-025-96	SMF-10	POST	14.17	83.00	0.00	28326	0.00	1.42	0.000	0.121
HYDRA-025-96	SMF-10	POST	14.25	83.00	0.00	28326	0.00	1.42	0.000	0.131
HYDRA-025-96	SMF-10	POST	14.33	83.00	0.00	28326	0.00	1.42	0.000	0.141
HYDRA-025-96	SMF-10	POST	14.42	83.00	0.00	28326	0.00	1.42	0.000	0.150
HYDRA-025-96	SMF-10	POST	14.50	83.00	0.00	28326	0.00	1.42	0.000	0.160
HYDRA-025-96	SMF-10	POST	14.58	83.00	0.00	28326	0.00	1.42	0.000	0.170
HYDRA-025-96	SMF-10	POST	14.67	83.00	0.00	28327	0.00	1.42	0.000	0.180
HYDRA-025-96	SMF-10	POST	14.75	83.00	0.00	28327	0.00	1.42	0.000	0.190
HYDRA-025-96	SMF-10	POST	14.83	83.00	0.00	28327	0.00	1.42	0.000	0.199
HYDRA-025-96	SMF-10	POST	14.92	83.00	0.00	28327	0.00	1.42	0.000	0.209
HYDRA-025-96	SMF-10	POST	15.00	83.00	0.00	28327	0.00	1.42	0.000	0.219
HYDRA-025-96	SMF-10	POST	15.08	83.00	0.00	28327	0.00	1.42	0.000	0.229
HYDRA-025-96	SMF-10	POST	15.17	83.00	0.00	28328	0.00	1.42	0.000	0.238
HYDRA-025-96	SMF-10	POST	15.25	83.00	0.00	28328	0.00	1.42	0.000	0.248
HYDRA-025-96	SMF-10	POST	15.33	83.00	0.00	28328	0.00	1.42	0.000	0.258
HYDRA-025-96	SMF-10	POST	15.42	83.00	0.00	28329	0.00	1.42	0.000	0.268
HYDRA-025-96	SMF-10	POST	15.50	83.00	0.00	28329	0.00	1.42	0.000	0.277
HYDRA-025-96	SMF-10	POST	15.58	83.00	0.00	28329	0.00	1.42	0.000	0.287
HYDRA-025-96	SMF-10	POST	15.67	83.00	0.00	28329	0.00	1.42	0.000	0.297
HYDRA-025-96	SMF-10	POST	15.75	83.00	0.00	28330	0.00	1.42	0.000	0.307
HYDRA-025-96	SMF-10	POST	15.83	83.00	0.00	28330	0.00	1.42	0.000	0.317
HYDRA-025-96	SMF-10	POST	15.92	83.00	0.00	28331	0.00	1.42	0.000	0.326
HYDRA-025-96	SMF-10	POST	16.00	83.00	0.00	28331	0.01	1.42	0.000	0.336
HYDRA-025-96	SMF-10	POST	16.08	83.00	0.00	28331	0.01	1.42	0.000	0.346
HYDRA-025-96	SMF-10	POST	16.17	83.00	0.00	28332	0.01	1.42	0.000	0.356

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     Simulation            Node            Group        Time        Stage  Warning   Surface      Total      Total      Total      Total
                                                                            Stage      Area     Inflow    Outflow     Vol In    Vol Out
                                                         hrs           ft       ft       ft2        cfs        cfs         af         af
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  HYDRA-025-96         SMF-10              POST        16.25        83.00     0.00     28332       0.01       1.42      0.000      0.365
  HYDRA-025-96         SMF-10              POST        16.33        83.00     0.00     28333       0.01       1.42      0.000      0.375
  HYDRA-025-96         SMF-10              POST        16.42        83.00     0.00     28333       0.01       1.42      0.000      0.385
  HYDRA-025-96         SMF-10              POST        16.50        83.00     0.00     28334       0.01       1.42      0.001      0.395
  HYDRA-025-96         SMF-10              POST        16.58        83.00     0.00     28334       0.01       1.42      0.001      0.404
  HYDRA-025-96         SMF-10              POST        16.67        83.01     0.00     28335       0.01       1.42      0.001      0.414
  HYDRA-025-96         SMF-10              POST        16.75        83.01     0.00     28336       0.01       1.42      0.001      0.424
  HYDRA-025-96         SMF-10              POST        16.83        83.01     0.00     28336       0.01       1.42      0.001      0.434
  HYDRA-025-96         SMF-10              POST        16.92        83.01     0.00     28337       0.01       1.42      0.001      0.443
  HYDRA-025-96         SMF-10              POST        17.00        83.01     0.00     28338       0.01       1.41      0.001      0.453
  HYDRA-025-96         SMF-10              POST        17.25        83.01     0.00     28340       0.01       1.41      0.001      0.482
  HYDRA-025-96         SMF-10              POST        17.50        83.01     0.00     28342       0.01       1.41      0.001      0.512
  HYDRA-025-96         SMF-10              POST        17.75        83.01     0.00     28335       0.01       1.45      0.002      0.541
  HYDRA-025-96         SMF-10              POST        18.00        83.01     0.00     28335       0.01       1.43      0.002      0.571
  HYDRA-025-96         SMF-10              POST        18.25        83.01     0.00     28337       0.02       1.42      0.002      0.600
  HYDRA-025-96         SMF-10              POST        18.50        83.01     0.00     28340       0.02       1.42      0.003      0.630
  HYDRA-025-96         SMF-10              POST        18.75        83.01     0.00     28343       0.02       1.42      0.003      0.659
  HYDRA-025-96         SMF-10              POST        19.00        83.01     0.00     28346       0.02       1.41      0.003      0.688
  HYDRA-025-96         SMF-10              POST        19.25        83.01     0.00     28349       0.02       1.41      0.004      0.717
  HYDRA-025-96         SMF-10              POST        19.50        83.01     0.00     28352       0.02       1.41      0.004      0.746
  HYDRA-025-96         SMF-10              POST        19.75        83.01     0.00     28356       0.02       1.41      0.005      0.776
  HYDRA-025-96         SMF-10              POST        20.00        83.01     0.00     28360       0.02       1.41      0.005      0.805
  HYDRA-025-96         SMF-10              POST        20.25        83.01     0.00     28364       0.03       1.41      0.006      0.834
  HYDRA-025-96         SMF-10              POST        20.50        83.01     0.00     28368       0.03       1.41      0.006      0.863
  HYDRA-025-96         SMF-10              POST        20.75        83.02     0.00     28372       0.03       1.41      0.007      0.892
  HYDRA-025-96         SMF-10              POST        21.00        83.02     0.00     28377       0.03       1.41      0.007      0.921
  HYDRA-025-96         SMF-10              POST        21.25        83.02     0.00     28382       0.03       1.41      0.008      0.951
  HYDRA-025-96         SMF-10              POST        21.50        83.02     0.00     28387       0.03       1.41      0.008      0.980
  HYDRA-025-96         SMF-10              POST        21.75        83.02     0.00     28392       0.03       1.41      0.009      1.009
  HYDRA-025-96         SMF-10              POST        22.00        83.02     0.00     28397       0.03       1.41      0.010      1.038
  HYDRA-025-96         SMF-10              POST        22.25        83.02     0.00     28402       0.03       1.41      0.010      1.067
  HYDRA-025-96         SMF-10              POST        22.50        83.03     0.00     28408       0.03       1.41      0.011      1.096
  HYDRA-025-96         SMF-10              POST        22.75        83.03     0.00     28414       0.04       1.41      0.012      1.125
  HYDRA-025-96         SMF-10              POST        23.00        83.03     0.00     28420       0.04       1.41      0.013      1.154
  HYDRA-025-96         SMF-10              POST        23.25        83.03     0.00     28426       0.04       1.41      0.013      1.183
  HYDRA-025-96         SMF-10              POST        23.50        83.03     0.00     28432       0.04       1.41      0.014      1.212
  HYDRA-025-96         SMF-10              POST        23.75        83.03     0.00     28438       0.04       1.41      0.015      1.241
  HYDRA-025-96         SMF-10              POST        24.00        83.04     0.00     28444       0.04       1.40      0.016      1.270
  HYDRA-025-96         SMF-10              POST        24.25        83.04     0.00     28451       0.05       1.40      0.017      1.299
  HYDRA-025-96         SMF-10              POST        24.50        83.04     0.00     28459       0.05       1.40      0.018      1.328
  HYDRA-025-96         SMF-10              POST        24.75        83.04     0.00     28467       0.05       1.40      0.019      1.357
  HYDRA-025-96         SMF-10              POST        25.00        83.05     0.00     28475       0.05       1.40      0.020      1.386
  HYDRA-025-96         SMF-10              POST        25.25        83.05     0.00     28483       0.05       1.40      0.021      1.415
  HYDRA-025-96         SMF-10              POST        25.50        83.05     0.00     28492       0.05       1.40      0.022      1.444
  HYDRA-025-96         SMF-10              POST        25.75        83.05     0.00     28501       0.06       1.40      0.023      1.473
  HYDRA-025-96         SMF-10              POST        26.00        83.06     0.00     28510       0.06       1.40      0.024      1.502
  HYDRA-025-96         SMF-10              POST        26.25        83.06     0.00     28519       0.06       1.40      0.025      1.531
  HYDRA-025-96         SMF-10              POST        26.50        83.06     0.00     28528       0.06       1.40      0.027      1.560
  HYDRA-025-96         SMF-10              POST        26.75        83.06     0.00     28537       0.06       1.40      0.028      1.588
  HYDRA-025-96         SMF-10              POST        27.00        83.07     0.00     28546       0.06       1.40      0.029      1.617
  HYDRA-025-96         SMF-10              POST        27.25        83.07     0.00     28556       0.06       1.40      0.030      1.646
  HYDRA-025-96         SMF-10              POST        27.50        83.07     0.00     28566       0.06       1.40      0.032      1.675
  HYDRA-025-96         SMF-10              POST        27.75        83.07     0.00     28576       0.06       1.40      0.033      1.704
  HYDRA-025-96         SMF-10              POST        28.00        83.08     0.00     28586       0.06       1.40      0.034      1.733
  HYDRA-025-96         SMF-10              POST        28.25        83.08     0.00     28596       0.07       1.39      0.036      1.762
  HYDRA-025-96         SMF-10              POST        28.50        83.08     0.00     28607       0.08       1.39      0.037      1.790
  HYDRA-025-96         SMF-10              POST        28.75        83.09     0.00     28619       0.08       1.39      0.039      1.819
  HYDRA-025-96         SMF-10              POST        29.00        83.09     0.00     28631       0.08       1.39      0.041      1.848
  HYDRA-025-96         SMF-10              POST        29.25        83.09     0.00     28643       0.08       1.39      0.042      1.877
  HYDRA-025-96         SMF-10              POST        29.50        83.10     0.00     28656       0.08       1.39      0.044      1.905
  HYDRA-025-96         SMF-10              POST        29.75        83.10     0.00     28668       0.08       1.39      0.046      1.934
  HYDRA-025-96         SMF-10              POST        30.00        83.10     0.00     28681       0.08       1.39      0.047      1.963
  HYDRA-025-96         SMF-10              POST        31.00        83.12     0.00     28733       0.09       1.39      0.054      2.078
  HYDRA-025-96         SMF-10              POST        32.00        83.13     0.00     28786       0.09       1.39      0.062      2.193
  HYDRA-025-96         SMF-10              POST        33.00        83.15     0.00     28846       0.11       1.38      0.070      2.308
  HYDRA-025-96         SMF-10              POST        34.00        83.17     0.00     28912       0.12       1.38      0.080      2.422
  HYDRA-025-96         SMF-10              POST        35.00        83.19     0.00     28986       0.14       1.38      0.091      2.536
  HYDRA-025-96         SMF-10              POST        36.00        83.22     0.00     29067       0.15       1.38      0.103      2.650
  HYDRA-025-96         SMF-10              POST        37.00        83.24     0.00     29153       0.16       1.38      0.116      2.764
  HYDRA-025-96         SMF-10              POST        38.00        83.27     0.00     29242       0.17       1.38      0.129      2.878
  HYDRA-025-96         SMF-10              POST        39.00        83.29     0.00     29341       0.21       1.37      0.145      2.992
  HYDRA-025-96         SMF-10              POST        40.00        83.33     0.00     29451       0.21       1.37      0.162      3.105
  HYDRA-025-96         SMF-10              POST        41.00        83.36     0.00     29578       0.28       1.35      0.182      3.217
  HYDRA-025-96         SMF-10              POST        42.00        83.40     0.00     29723       0.28       1.36      0.206      3.329
  HYDRA-025-96         SMF-10              POST        43.00        83.45     0.00     29892       0.38       1.32      0.233      3.440
  HYDRA-025-96         SMF-10              POST        44.00        83.51     0.00     30087       0.39       1.33      0.265      3.550
  HYDRA-025-96         SMF-10              POST        45.00        83.57     0.00     30288       0.43       1.33      0.298      3.660
  HYDRA-025-96         SMF-10              POST        46.00        83.66     0.00     30620       0.87       1.08      0.352      3.759
  HYDRA-025-96         SMF-10              POST        47.00        83.98     0.00     31725       3.20      -1.20      0.520      3.754
  HYDRA-025-96         SMF-10              POST        48.00        84.60     0.00     33903       5.76      -0.75      0.890      3.674
  HYDRA-025-96         SMF-10              POST        49.00        84.95     0.00     35127       2.43       1.86      1.229      3.720
  HYDRA-025-96         SMF-10              POST        50.00        84.91     0.00     34958       1.12       2.51      1.375      3.900
  HYDRA-025-96         SMF-10              POST        51.00        84.74     0.00     34395       0.67       2.33      1.449      4.101
  HYDRA-025-96         SMF-10              POST        52.00        84.59     0.00     33847       0.55       1.86      1.499      4.274
  HYDRA-025-96         SMF-10              POST        53.00        84.47     0.00     33426       0.45       1.41      1.540      4.409
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Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-10	POST	54.00	84.38	0.00	33137	0.45	1.05	1.578	4.510
HYDRA-025-96	SMF-10	POST	55.00	84.33	0.00	32935	0.36	0.84	1.611	4.588
HYDRA-025-96	SMF-10	POST	56.00	84.28	0.00	32786	0.36	0.67	1.640	4.650
HYDRA-025-96	SMF-10	POST	57.00	84.25	0.00	32677	0.31	0.59	1.668	4.702
HYDRA-025-96	SMF-10	POST	58.00	84.23	0.00	32594	0.31	0.63	1.693	4.752
HYDRA-025-96	SMF-10	POST	59.00	84.21	0.00	32527	0.26	1.63	1.717	4.846
HYDRA-025-96	SMF-10	POST	60.00	84.19	0.00	32464	0.26	1.63	1.738	4.981
HYDRA-025-96	SMF-10	POST	61.00	84.18	0.00	32412	0.24	1.64	1.759	5.116
HYDRA-025-96	SMF-10	POST	62.00	84.16	0.00	32367	0.24	1.63	1.779	5.251
HYDRA-025-96	SMF-10	POST	63.00	84.15	0.00	32320	0.21	1.64	1.798	5.386
HYDRA-025-96	SMF-10	POST	64.00	84.13	0.00	32269	0.21	1.64	1.815	5.522
HYDRA-025-96	SMF-10	POST	65.00	84.12	0.00	32217	0.20	1.64	1.832	5.657
HYDRA-025-96	SMF-10	POST	66.00	84.10	0.00	32163	0.20	1.64	1.848	5.792
HYDRA-025-96	SMF-10	POST	67.00	84.09	0.00	32108	0.18	1.64	1.864	5.928
HYDRA-025-96	SMF-10	POST	68.00	84.07	0.00	32051	0.18	1.64	1.879	6.064
HYDRA-025-96	SMF-10	POST	69.00	84.06	0.00	31998	0.18	1.63	1.893	6.199
HYDRA-025-96	SMF-10	POST	70.00	84.04	0.00	31948	0.18	1.63	1.908	6.334
HYDRA-025-96	SMF-10	POST	71.00	84.03	0.00	31892	0.15	1.64	1.922	6.469
HYDRA-025-96	SMF-10	POST	72.00	84.01	0.00	31830	0.15	1.64	1.934	6.604
HYDRA-025-96	SMF-10	POST	73.00	83.99	0.00	31775	0.16	1.63	1.947	6.739
HYDRA-025-96	SMF-10	POST	74.00	83.98	0.00	31732	0.16	1.55	1.960	6.870
HYDRA-025-96	SMF-10	POST	75.00	83.96	0.00	31678	0.13	1.63	1.972	7.001
HYDRA-025-96	SMF-10	POST	76.00	83.95	0.00	31619	0.13	1.63	1.983	7.136
HYDRA-025-96	SMF-10	POST	77.00	83.93	0.00	31569	0.15	1.55	1.995	7.268
HYDRA-025-96	SMF-10	POST	78.00	83.92	0.00	31527	0.15	1.64	2.007	7.400
HYDRA-025-96	SMF-10	POST	79.00	83.91	0.00	31484	0.13	1.63	2.018	7.535
HYDRA-025-96	SMF-10	POST	80.00	83.90	0.00	31436	0.13	1.55	2.029	7.666
HYDRA-025-96	SMF-10	POST	81.00	83.88	0.00	31387	0.11	1.55	2.039	7.795
HYDRA-025-96	SMF-10	POST	82.00	83.87	0.00	31335	0.11	1.55	2.049	7.923
HYDRA-025-96	SMF-10	POST	83.00	83.85	0.00	31286	0.11	1.55	2.058	8.051
HYDRA-025-96	SMF-10	POST	84.00	83.84	0.00	31240	0.11	1.57	2.068	8.180
HYDRA-025-96	SMF-10	POST	85.00	83.83	0.00	31200	0.11	1.64	2.077	8.312
HYDRA-025-96	SMF-10	POST	86.00	83.82	0.00	31158	0.12	1.65	2.087	8.448
HYDRA-025-96	SMF-10	POST	87.00	83.80	0.00	31122	0.11	1.59	2.096	8.582
HYDRA-025-96	SMF-10	POST	88.00	83.79	0.00	31086	0.12	1.59	2.106	8.714
HYDRA-025-96	SMF-10	POST	89.00	83.78	0.00	31052	0.12	1.58	2.115	8.844
HYDRA-025-96	SMF-10	POST	90.00	83.78	0.00	31020	0.12	1.58	2.125	8.975
HYDRA-025-96	SMF-10	POST	91.00	83.77	0.00	30984	0.10	1.58	2.134	9.106
HYDRA-025-96	SMF-10	POST	92.00	83.75	0.00	30946	0.10	1.58	2.142	9.237
HYDRA-025-96	SMF-10	POST	93.00	83.74	0.00	30910	0.10	1.58	2.150	9.367
HYDRA-025-96	SMF-10	POST	94.00	83.73	0.00	30875	0.10	1.57	2.158	9.497
HYDRA-025-96	SMF-10	POST	95.00	83.72	0.00	30838	0.08	1.58	2.166	9.627
HYDRA-025-96	SMF-10	POST	96.00	83.71	0.00	30797	0.00	1.61	2.169	9.759
HYDRA-025-96	SMF-10	POST	96.00	83.71	0.00	30797	0.00	1.61	2.169	9.759
HYDRA-025-96	SMF-11	POST	0.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	0.18	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	0.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	0.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	0.68	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	0.85	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	1.02	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	1.18	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	1.35	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	1.52	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	1.68	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	1.85	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	2.02	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	2.18	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	2.35	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	2.52	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	2.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	2.83	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	3.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	3.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	3.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	3.51	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	3.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	3.83	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	4.01	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	4.18	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	4.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	4.51	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	4.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	4.84	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	5.01	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	5.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	5.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	5.51	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	5.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	5.84	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	6.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	6.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	6.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	6.50	83.00	0.00	6976	0.00	0.00	0.000	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-11	POST	6.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	6.83	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	7.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	7.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	7.33	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	7.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	7.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	7.84	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	8.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	8.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	8.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	8.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	8.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	8.84	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	9.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	9.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	9.33	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	9.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	9.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	9.83	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.25	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.33	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.42	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.59	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.75	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.83	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	10.92	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.08	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.25	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.34	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.42	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.58	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.75	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.84	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	11.92	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.08	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.17	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.25	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.33	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.42	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.50	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.58	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.67	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.75	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.84	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	12.92	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	13.00	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	13.08	83.00	0.00	6976	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-11	POST	13.17	83.00	0.00	6984	0.00	-3.10	0.000	-0.011
HYDRA-025-96	SMF-11	POST	13.25	83.00	0.00	6984	0.00	-3.07	0.000	-0.032
HYDRA-025-96	SMF-11	POST	13.33	83.00	0.00	6983	0.00	-3.07	0.000	-0.053
HYDRA-025-96	SMF-11	POST	13.42	83.00	0.00	6982	0.00	-3.08	0.000	-0.074
HYDRA-025-96	SMF-11	POST	13.50	83.00	0.00	6982	0.00	-3.08	0.000	-0.095
HYDRA-025-96	SMF-11	POST	13.58	83.00	0.00	6981	0.00	-3.08	0.000	-0.117
HYDRA-025-96	SMF-11	POST	13.67	83.00	0.00	6981	0.00	-3.08	0.000	-0.138
HYDRA-025-96	SMF-11	POST	13.75	83.00	0.00	6981	0.00	-3.08	0.000	-0.159
HYDRA-025-96	SMF-11	POST	13.83	83.00	0.00	6981	0.00	-3.08	0.000	-0.180
HYDRA-025-96	SMF-11	POST	13.92	83.00	0.00	6981	0.00	-3.08	0.000	-0.201
HYDRA-025-96	SMF-11	POST	14.00	83.00	0.00	6981	0.00	-3.08	0.000	-0.223
HYDRA-025-96	SMF-11	POST	14.08	83.00	0.00	6981	0.00	-3.08	0.000	-0.244
HYDRA-025-96	SMF-11	POST	14.17	83.00	0.00	6981	0.00	-3.08	0.000	-0.265
HYDRA-025-96	SMF-11	POST	14.25	83.00	0.00	6981	0.00	-3.08	0.000	-0.286
HYDRA-025-96	SMF-11	POST	14.33	83.00	0.00	6981	0.00	-3.08	0.000	-0.308
HYDRA-025-96	SMF-11	POST	14.42	83.00	0.00	6981	0.00	-3.08	0.000	-0.329
HYDRA-025-96	SMF-11	POST	14.50	83.00	0.00	6982	0.00	-3.08	0.000	-0.350
HYDRA-025-96	SMF-11	POST	14.58	83.00	0.00	6982	0.00	-3.08	0.000	-0.371
HYDRA-025-96	SMF-11	POST	14.67	83.00	0.00	6982	0.00	-3.08	0.000	-0.393
HYDRA-025-96	SMF-11	POST	14.75	83.00	0.00	6982	0.00	-3.08	0.000	-0.414
HYDRA-025-96	SMF-11	POST	14.83	83.00	0.00	6982	0.00	-3.08	0.000	-0.435
HYDRA-025-96	SMF-11	POST	14.92	83.00	0.00	6982	0.00	-3.08	0.000	-0.456
HYDRA-025-96	SMF-11	POST	15.00	83.00	0.00	6982	0.00	-3.08	0.000	-0.478
HYDRA-025-96	SMF-11	POST	15.08	83.00	0.00	6982	0.00	-3.08	0.000	-0.499
HYDRA-025-96	SMF-11	POST	15.17	83.00	0.00	6982	0.00	-3.08	0.000	-0.520
HYDRA-025-96	SMF-11	POST	15.25	83.00	0.00	6983	0.00	-3.08	0.000	-0.541
HYDRA-025-96	SMF-11	POST	15.33	83.00	0.00	6983	0.00	-3.08	0.000	-0.562
HYDRA-025-96	SMF-11	POST	15.42	83.00	0.00	6983	0.00	-3.08	0.000	-0.584

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-11	POST	15.50	83.00	0.00	6983	0.00	-3.08	0.000	-0.605
HYDRA-025-96	SMF-11	POST	15.58	83.00	0.00	6983	0.00	-3.08	0.000	-0.626
HYDRA-025-96	SMF-11	POST	15.67	83.00	0.00	6984	0.00	-3.08	0.000	-0.647
HYDRA-025-96	SMF-11	POST	15.75	83.00	0.00	6984	0.00	-3.08	0.000	-0.669
HYDRA-025-96	SMF-11	POST	15.83	83.00	0.00	6984	0.00	-3.09	0.000	-0.690
HYDRA-025-96	SMF-11	POST	15.92	83.00	0.00	6984	0.00	-3.09	0.000	-0.711
HYDRA-025-96	SMF-11	POST	16.00	83.00	0.00	6984	0.00	-3.09	0.000	-0.732
HYDRA-025-96	SMF-11	POST	16.08	83.00	0.00	6985	0.00	-3.09	0.000	-0.754
HYDRA-025-96	SMF-11	POST	16.17	83.00	0.00	6985	0.00	-3.09	0.000	-0.775
HYDRA-025-96	SMF-11	POST	16.25	83.00	0.00	6985	0.00	-3.09	0.000	-0.796
HYDRA-025-96	SMF-11	POST	16.33	83.00	0.00	6986	0.00	-3.09	0.000	-0.817
HYDRA-025-96	SMF-11	POST	16.42	83.00	0.00	6986	0.00	-3.09	0.000	-0.839
HYDRA-025-96	SMF-11	POST	16.50	83.00	0.00	6986	0.00	-3.09	0.000	-0.860
HYDRA-025-96	SMF-11	POST	16.58	83.01	0.00	6987	0.00	-3.08	0.000	-0.881
HYDRA-025-96	SMF-11	POST	16.67	83.01	0.00	6987	0.00	-3.08	0.000	-0.902
HYDRA-025-96	SMF-11	POST	16.75	83.01	0.00	6987	0.00	-3.08	0.000	-0.924
HYDRA-025-96	SMF-11	POST	16.83	83.01	0.00	6988	0.01	-3.08	0.000	-0.945
HYDRA-025-96	SMF-11	POST	16.92	83.01	0.00	6988	0.01	-3.08	0.000	-0.966
HYDRA-025-96	SMF-11	POST	17.00	83.01	0.00	6989	0.01	-3.08	0.000	-0.987
HYDRA-025-96	SMF-11	POST	17.25	83.01	0.00	6990	0.01	-3.08	0.000	-1.051
HYDRA-025-96	SMF-11	POST	17.50	83.01	0.00	6992	0.01	-3.08	0.001	-1.115
HYDRA-025-96	SMF-11	POST	17.75	83.00	0.00	6984	0.02	-3.06	0.001	-1.178
HYDRA-025-96	SMF-11	POST	18.00	83.01	0.00	6987	0.02	-3.05	0.001	-1.241
HYDRA-025-96	SMF-11	POST	18.25	83.01	0.00	6989	0.02	-3.05	0.002	-1.304
HYDRA-025-96	SMF-11	POST	18.50	83.01	0.00	6991	0.02	-3.05	0.002	-1.367
HYDRA-025-96	SMF-11	POST	18.75	83.01	0.00	6993	0.03	-3.05	0.003	-1.430
HYDRA-025-96	SMF-11	POST	19.00	83.01	0.00	6995	0.03	-3.04	0.003	-1.493
HYDRA-025-96	SMF-11	POST	19.25	83.01	0.00	6997	0.03	-3.04	0.004	-1.556
HYDRA-025-96	SMF-11	POST	19.50	83.01	0.00	6999	0.04	-3.04	0.005	-1.619
HYDRA-025-96	SMF-11	POST	19.75	83.01	0.00	7001	0.04	-3.04	0.005	-1.682
HYDRA-025-96	SMF-11	POST	20.00	83.01	0.00	7004	0.04	-3.03	0.006	-1.744
HYDRA-025-96	SMF-11	POST	20.25	83.01	0.00	7006	0.04	-3.03	0.007	-1.807
HYDRA-025-96	SMF-11	POST	20.50	83.02	0.00	7009	0.05	-3.03	0.008	-1.869
HYDRA-025-96	SMF-11	POST	20.75	83.02	0.00	7012	0.05	-3.02	0.009	-1.932
HYDRA-025-96	SMF-11	POST	21.00	83.02	0.00	7015	0.05	-3.02	0.010	-1.994
HYDRA-025-96	SMF-11	POST	21.25	83.02	0.00	7018	0.06	-3.02	0.011	-2.057
HYDRA-025-96	SMF-11	POST	21.50	83.02	0.00	7021	0.06	-3.02	0.013	-2.119
HYDRA-025-96	SMF-11	POST	21.75	83.02	0.00	7024	0.06	-3.01	0.014	-2.182
HYDRA-025-96	SMF-11	POST	22.00	83.02	0.00	7028	0.07	-3.01	0.015	-2.244
HYDRA-025-96	SMF-11	POST	22.25	83.03	0.00	7031	0.07	-3.01	0.016	-2.306
HYDRA-025-96	SMF-11	POST	22.50	83.03	0.00	7034	0.07	-3.01	0.018	-2.368
HYDRA-025-96	SMF-11	POST	22.75	83.03	0.00	7038	0.07	-3.00	0.019	-2.430
HYDRA-025-96	SMF-11	POST	23.00	83.03	0.00	7042	0.08	-3.00	0.021	-2.492
HYDRA-025-96	SMF-11	POST	23.25	83.03	0.00	7046	0.08	-3.00	0.023	-2.554
HYDRA-025-96	SMF-11	POST	23.50	83.03	0.00	7049	0.08	-3.00	0.024	-2.616
HYDRA-025-96	SMF-11	POST	23.75	83.04	0.00	7053	0.08	-3.00	0.026	-2.678
HYDRA-025-96	SMF-11	POST	24.00	83.04	0.00	7057	0.09	-2.99	0.028	-2.740
HYDRA-025-96	SMF-11	POST	24.25	83.04	0.00	7062	0.09	-2.99	0.030	-2.802
HYDRA-025-96	SMF-11	POST	24.50	83.04	0.00	7067	0.10	-2.98	0.032	-2.864
HYDRA-025-96	SMF-11	POST	24.75	83.05	0.00	7072	0.11	-2.97	0.034	-2.925
HYDRA-025-96	SMF-11	POST	25.00	83.05	0.00	7077	0.11	-2.97	0.036	-2.986
HYDRA-025-96	SMF-11	POST	25.25	83.05	0.00	7082	0.12	-2.97	0.038	-3.048
HYDRA-025-96	SMF-11	POST	25.50	83.05	0.00	7088	0.12	-2.96	0.041	-3.109
HYDRA-025-96	SMF-11	POST	25.75	83.06	0.00	7093	0.12	-2.96	0.043	-3.170
HYDRA-025-96	SMF-11	POST	26.00	83.06	0.00	7099	0.13	-2.96	0.046	-3.231
HYDRA-025-96	SMF-11	POST	26.25	83.06	0.00	7104	0.13	-2.96	0.048	-3.292
HYDRA-025-96	SMF-11	POST	26.50	83.06	0.00	7110	0.13	-2.95	0.051	-3.353
HYDRA-025-96	SMF-11	POST	26.75	83.07	0.00	7116	0.13	-2.95	0.054	-3.414
HYDRA-025-96	SMF-11	POST	27.00	83.07	0.00	7122	0.14	-2.95	0.057	-3.475
HYDRA-025-96	SMF-11	POST	27.25	83.07	0.00	7128	0.14	-2.94	0.060	-3.536
HYDRA-025-96	SMF-11	POST	27.50	83.07	0.00	7134	0.14	-2.94	0.062	-3.597
HYDRA-025-96	SMF-11	POST	27.75	83.08	0.00	7140	0.15	-2.94	0.065	-3.658
HYDRA-025-96	SMF-11	POST	28.00	83.08	0.00	7146	0.15	-2.94	0.068	-3.718
HYDRA-025-96	SMF-11	POST	28.25	83.08	0.00	7153	0.16	-2.93	0.072	-3.779
HYDRA-025-96	SMF-11	POST	28.50	83.09	0.00	7160	0.17	-2.92	0.075	-3.839
HYDRA-025-96	SMF-11	POST	28.75	83.09	0.00	7168	0.18	-2.91	0.079	-3.900
HYDRA-025-96	SMF-11	POST	29.00	83.09	0.00	7175	0.18	-2.90	0.082	-3.960
HYDRA-025-96	SMF-11	POST	29.25	83.10	0.00	7183	0.19	-2.90	0.086	-4.020
HYDRA-025-96	SMF-11	POST	29.50	83.10	0.00	7190	0.19	-2.90	0.090	-4.079
HYDRA-025-96	SMF-11	POST	29.75	83.10	0.00	7198	0.19	-2.89	0.094	-4.139
HYDRA-025-96	SMF-11	POST	30.00	83.11	0.00	7206	0.20	-2.89	0.098	-4.199
HYDRA-025-96	SMF-11	POST	31.00	83.12	0.00	7238	0.21	-2.88	0.115	-4.437
HYDRA-025-96	SMF-11	POST	32.00	83.14	0.00	7270	0.22	-2.87	0.133	-4.675
HYDRA-025-96	SMF-11	POST	33.00	83.16	0.00	7309	0.27	-2.82	0.153	-4.910
HYDRA-025-96	SMF-11	POST	34.00	83.18	0.00	7350	0.29	-2.80	0.176	-5.142
HYDRA-025-96	SMF-11	POST	35.00	83.20	0.00	7397	0.34	-2.74	0.202	-5.371
HYDRA-025-96	SMF-11	POST	36.00	83.22	0.00	7447	0.36	-2.72	0.231	-5.597
HYDRA-025-96	SMF-11	POST	37.00	83.25	0.00	7500	0.40	-2.68	0.263	-5.820
HYDRA-025-96	SMF-11	POST	38.00	83.27	0.00	7555	0.42	-2.66	0.296	-6.041
HYDRA-025-96	SMF-11	POST	39.00	83.30	0.00	7619	0.51	-2.57	0.335	-6.257
HYDRA-025-96	SMF-11	POST	40.00	83.34	0.00	7686	0.53	-2.54	0.378	-6.468
HYDRA-025-96	SMF-11	POST	41.00	83.38	0.00	7769	0.69	-2.36	0.428	-6.670
HYDRA-025-96	SMF-11	POST	42.00	83.42	0.00	7858	0.72	-2.32	0.486	-6.863
HYDRA-025-96	SMF-11	POST	43.00	83.47	0.00	7970	0.95	-2.03	0.556	-7.043
HYDRA-025-96	SMF-11	POST	44.00	83.53	0.00	8089	0.99	-1.96	0.636	-7.208

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-11	POST	45.00	83.58	0.00	8212	1.09	-1.82	0.722	-7.364
HYDRA-025-96	SMF-11	POST	46.00	83.67	0.00	8403	2.22	1.88	0.858	-7.361
HYDRA-025-96	SMF-11	POST	47.00	84.14	0.00	9380	8.22	6.36	1.290	-7.021
HYDRA-025-96	SMF-11	POST	48.00	84.74	0.00	10660	15.10	13.63	2.253	-6.195
HYDRA-025-96	SMF-11	POST	49.00	84.74	0.00	10659	6.55	4.05	3.148	-5.464
HYDRA-025-96	SMF-11	POST	50.00	84.60	0.00	10366	3.01	0.99	3.543	-5.256
HYDRA-025-96	SMF-11	POST	51.00	84.50	0.00	10149	1.81	-0.53	3.742	-5.237
HYDRA-025-96	SMF-11	POST	52.00	84.43	0.00	10004	1.46	-1.28	3.877	-5.312
HYDRA-025-96	SMF-11	POST	53.00	84.38	0.00	9889	1.21	-1.68	3.987	-5.434
HYDRA-025-96	SMF-11	POST	54.00	84.34	0.00	9805	1.21	-1.76	4.086	-5.576
HYDRA-025-96	SMF-11	POST	55.00	84.30	0.00	9724	0.95	-2.00	4.176	-5.731
HYDRA-025-96	SMF-11	POST	56.00	84.27	0.00	9664	0.95	-2.01	4.254	-5.897
HYDRA-025-96	SMF-11	POST	57.00	84.25	0.00	9612	0.82	-2.12	4.328	-6.068
HYDRA-025-96	SMF-11	POST	58.00	84.23	0.00	9572	0.82	-2.11	4.396	-6.243
HYDRA-025-96	SMF-11	POST	59.00	84.21	0.00	9533	0.70	-2.23	4.458	-6.422
HYDRA-025-96	SMF-11	POST	60.00	84.19	0.00	9500	0.70	-2.23	4.516	-6.606
HYDRA-025-96	SMF-11	POST	61.00	84.18	0.00	9471	0.65	-2.26	4.572	-6.792
HYDRA-025-96	SMF-11	POST	62.00	84.17	0.00	9447	0.65	-2.26	4.626	-6.978
HYDRA-025-96	SMF-11	POST	63.00	84.15	0.00	9418	0.57	-2.34	4.676	-7.168
HYDRA-025-96	SMF-11	POST	64.00	84.14	0.00	9387	0.57	-2.35	4.723	-7.362
HYDRA-025-96	SMF-11	POST	65.00	84.12	0.00	9354	0.52	-2.40	4.768	-7.558
HYDRA-025-96	SMF-11	POST	66.00	84.11	0.00	9321	0.52	-2.40	4.811	-7.756
HYDRA-025-96	SMF-11	POST	67.00	84.09	0.00	9287	0.48	-2.45	4.853	-7.957
HYDRA-025-96	SMF-11	POST	68.00	84.08	0.00	9253	0.48	-2.46	4.893	-8.160
HYDRA-025-96	SMF-11	POST	69.00	84.06	0.00	9221	0.48	-2.46	4.932	-8.364
HYDRA-025-96	SMF-11	POST	70.00	84.05	0.00	9191	0.48	-2.47	4.972	-8.567
HYDRA-025-96	SMF-11	POST	71.00	84.03	0.00	9154	0.40	-2.56	5.008	-8.775
HYDRA-025-96	SMF-11	POST	72.00	84.01	0.00	9116	0.39	-2.57	5.041	-8.986
HYDRA-025-96	SMF-11	POST	73.00	84.00	0.00	9085	0.44	-2.53	5.075	-9.197
HYDRA-025-96	SMF-11	POST	74.00	83.98	0.00	9057	0.44	-2.49	5.112	-9.404
HYDRA-025-96	SMF-11	POST	75.00	83.97	0.00	9023	0.35	-2.62	5.144	-9.615
HYDRA-025-96	SMF-11	POST	76.00	83.95	0.00	8987	0.35	-2.63	5.173	-9.832
HYDRA-025-96	SMF-11	POST	77.00	83.94	0.00	8957	0.40	-2.56	5.204	-10.046
HYDRA-025-96	SMF-11	POST	78.00	83.92	0.00	8931	0.40	-2.60	5.237	-10.260
HYDRA-025-96	SMF-11	POST	79.00	83.91	0.00	8901	0.35	-2.63	5.268	-10.476
HYDRA-025-96	SMF-11	POST	80.00	83.90	0.00	8873	0.35	-2.61	5.297	-10.692
HYDRA-025-96	SMF-11	POST	81.00	83.88	0.00	8842	0.31	-2.66	5.324	-10.910
HYDRA-025-96	SMF-11	POST	82.00	83.87	0.00	8810	0.31	-2.66	5.350	-11.130
HYDRA-025-96	SMF-11	POST	83.00	83.85	0.00	8781	0.31	-2.67	5.375	-11.350
HYDRA-025-96	SMF-11	POST	84.00	83.84	0.00	8754	0.31	-2.68	5.400	-11.571
HYDRA-025-96	SMF-11	POST	85.00	83.83	0.00	8726	0.31	-2.71	5.426	-11.794
HYDRA-025-96	SMF-11	POST	86.00	83.82	0.00	8702	0.31	-2.72	5.451	-12.018
HYDRA-025-96	SMF-11	POST	87.00	83.80	0.00	8678	0.31	-2.70	5.477	-12.242
HYDRA-025-96	SMF-11	POST	88.00	83.79	0.00	8656	0.31	-2.70	5.502	-12.464
HYDRA-025-96	SMF-11	POST	89.00	83.78	0.00	8635	0.31	-2.70	5.528	-12.687
HYDRA-025-96	SMF-11	POST	90.00	83.78	0.00	8616	0.31	-2.70	5.554	-12.910
HYDRA-025-96	SMF-11	POST	91.00	83.76	0.00	8593	0.27	-2.74	5.577	-13.135
HYDRA-025-96	SMF-11	POST	92.00	83.75	0.00	8570	0.27	-2.75	5.599	-13.362
HYDRA-025-96	SMF-11	POST	93.00	83.74	0.00	8548	0.26	-2.75	5.621	-13.589
HYDRA-025-96	SMF-11	POST	94.00	83.73	0.00	8527	0.26	-2.75	5.643	-13.817
HYDRA-025-96	SMF-11	POST	95.00	83.72	0.00	8502	0.22	-2.79	5.663	-14.046
HYDRA-025-96	SMF-11	POST	96.00	83.71	0.00	8478	0.00	-2.79	5.672	-14.276
HYDRA-025-96	SMF-11	POST	96.00	83.71	0.00	8478	0.00	-2.79	5.672	-14.276
HYDRA-025-96	SMF-12	POST	0.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	0.18	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	0.34	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	0.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	0.68	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	0.85	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	1.02	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	1.18	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	1.35	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	1.52	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	1.68	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	1.85	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	2.02	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	2.18	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	2.35	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	2.52	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	2.67	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	2.83	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	3.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	3.17	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	3.34	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	3.51	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	3.67	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	3.83	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	4.01	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	4.18	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	4.34	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	4.51	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	4.67	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	4.84	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	5.01	84.00	0.00	27007	0.00	0.00	0.000	0.000

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     Simulation           Node          Group       Time      Stage  Warning   Surface     Total     Total     Total     Total
                                                                      Stage      Area    Inflow   Outflow    Vol In   Vol Out
                                                     hrs         ft       ft       ft2       cfs       cfs        af        af

   HYDRA-025-96         SMF-12           POST      5.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      5.34      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      5.51      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      5.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      5.84      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      6.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      6.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      6.34      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      6.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      6.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      6.83      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      7.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      7.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      7.33      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      7.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      7.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      7.84      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      8.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      8.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      8.34      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      8.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      8.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      8.84      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      9.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      9.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      9.33      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      9.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      9.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST      9.83      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.25      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.33      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.42      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.59      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.75      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.83      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     10.92      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.08      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.25      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.34      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.42      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.58      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.75      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.84      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     11.92      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.08      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.25      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.33      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.42      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.58      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.75      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.84      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     12.92      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.08      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.25      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.33      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.42      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.58      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.75      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.83      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     13.92      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.00      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.08      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.17      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.25      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.33      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.42      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.50      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.58      84.00     0.00     27007      0.00      0.00     0.000     0.000
   HYDRA-025-96         SMF-12           POST     14.67      84.00     0.00     27007      0.00      0.00     0.000     0.000
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Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
HYDRA-025-96	SMF-12	POST	14.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	14.83	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	14.92	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.08	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.17	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.33	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.42	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.58	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.67	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.83	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	15.92	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.08	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.17	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.33	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.42	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.58	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.67	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.83	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	16.92	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	17.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	17.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	17.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	17.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	18.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	18.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	18.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	18.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	19.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	19.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	19.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	19.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	20.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	20.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	20.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	20.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	21.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	21.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	21.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	21.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	22.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	22.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	22.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	22.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	23.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	23.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	23.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	23.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	24.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	24.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	24.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	24.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	25.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	25.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	25.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	25.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	26.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	26.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	26.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	26.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	27.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	27.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	27.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	27.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	28.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	28.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	28.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	28.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	29.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	29.25	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	29.50	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	29.75	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	30.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	31.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	32.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	33.00	84.00	0.00	27007	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	34.00	84.00	0.00	27008	0.00	0.00	0.000	0.000
HYDRA-025-96	SMF-12	POST	35.00	84.00	0.00	27009	0.01	0.00	0.000	0.000

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NODE TIME SERIES REPORT | POST-DEVELOPMENT DRAINAGE
(SMF-01, SMF-02, SMF-08 THRU SMF-11, SMF-12)

     Simulation            Node           Group        Time       Stage   Warning    Surface      Total      Total      Total      Total
                                                                            Stage       Area     Inflow    Outflow     Vol In    Vol Out
                                                        hrs          ft        ft        ft2        cfs        cfs         af         af
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   HYDRA-025-96          SMF-12            POST       36.00       84.00      0.00      27013       0.01       0.00      0.001      0.000
   HYDRA-025-96          SMF-12            POST       37.00       84.00      0.00      27019       0.02       0.00      0.002      0.000
   HYDRA-025-96          SMF-12            POST       38.00       84.01      0.00      27027       0.02       0.00      0.004      0.000
   HYDRA-025-96          SMF-12            POST       39.00       84.01      0.00      27037       0.03       0.00      0.006      0.000
   HYDRA-025-96          SMF-12            POST       40.00       84.01      0.00      27051       0.04       0.00      0.008      0.000
   HYDRA-025-96          SMF-12            POST       41.00       84.02      0.00      27070       0.05       0.00      0.012      0.000
   HYDRA-025-96          SMF-12            POST       42.00       84.03      0.00      27094       0.06       0.00      0.017      0.000
   HYDRA-025-96          SMF-12            POST       43.00       84.04      0.00      27125       0.09       0.00      0.023      0.001
   HYDRA-025-96          SMF-12            POST       44.00       84.05      0.00      27165       0.10       0.01      0.031      0.001
   HYDRA-025-96          SMF-12            POST       45.00       84.06      0.00      27210       0.12       0.01      0.040      0.002
   HYDRA-025-96          SMF-12            POST       46.00       84.09      0.00      27292       0.28       0.02      0.057      0.003
   HYDRA-025-96          SMF-12            POST       47.00       84.19      0.00      27617       1.29       0.05      0.122      0.005
   HYDRA-025-96          SMF-12            POST       48.00       84.44      0.00      28451       2.88       0.17      0.294      0.014
   HYDRA-025-96          SMF-12            POST       49.00       84.64      0.00      29114       1.31       0.81      0.467      0.055
   HYDRA-025-96          SMF-12            POST       50.00       84.65      0.00      29146       0.61       0.86      0.547      0.124
   HYDRA-025-96          SMF-12            POST       51.00       84.62      0.00      29035       0.37       0.67      0.587      0.187
   HYDRA-025-96          SMF-12            POST       52.00       84.59      0.00      28935       0.31       0.52      0.616      0.236
   HYDRA-025-96          SMF-12            POST       53.00       84.57      0.00      28862       0.26       0.41      0.639      0.275
   HYDRA-025-96          SMF-12            POST       54.00       84.55      0.00      28812       0.26       0.35      0.660      0.306
   HYDRA-025-96          SMF-12            POST       55.00       84.54      0.00      28772       0.20       0.31      0.679      0.333
   HYDRA-025-96          SMF-12            POST       56.00       84.53      0.00      28738       0.20       0.27      0.696      0.357
   HYDRA-025-96          SMF-12            POST       57.00       84.52      0.00      28710       0.18       0.25      0.712      0.379
   HYDRA-025-96          SMF-12            POST       58.00       84.51      0.00      28685       0.18       0.23      0.726      0.399
   HYDRA-025-96          SMF-12            POST       59.00       84.51      0.00      28661       0.15       0.22      0.740      0.417
   HYDRA-025-96          SMF-12            POST       60.00       84.50      0.00      28637       0.15       0.21      0.753      0.434
   HYDRA-025-96          SMF-12            POST       61.00       84.49      0.00      28613       0.14       0.20      0.765      0.451
   HYDRA-025-96          SMF-12            POST       62.00       84.48      0.00      28590       0.14       0.20      0.777      0.468
   HYDRA-025-96          SMF-12            POST       63.00       84.48      0.00      28565       0.12       0.19      0.788      0.484
   HYDRA-025-96          SMF-12            POST       64.00       84.47      0.00      28537       0.12       0.19      0.798      0.500
   HYDRA-025-96          SMF-12            POST       65.00       84.46      0.00      28510       0.12       0.18      0.808      0.515
   HYDRA-025-96          SMF-12            POST       66.00       84.45      0.00      28484       0.12       0.18      0.817      0.530
   HYDRA-025-96          SMF-12            POST       67.00       84.44      0.00      28457       0.11       0.17      0.827      0.545
   HYDRA-025-96          SMF-12            POST       68.00       84.44      0.00      28430       0.11       0.17      0.835      0.559
   HYDRA-025-96          SMF-12            POST       69.00       84.43      0.00      28406       0.11       0.16      0.844      0.572
   HYDRA-025-96          SMF-12            POST       70.00       84.42      0.00      28383       0.11       0.16      0.853      0.586
   HYDRA-025-96          SMF-12            POST       71.00       84.41      0.00      28358       0.09       0.16      0.861      0.599
   HYDRA-025-96          SMF-12            POST       72.00       84.41      0.00      28330       0.09       0.15      0.868      0.612
   HYDRA-025-96          SMF-12            POST       73.00       84.40      0.00      28307       0.10       0.15      0.876      0.624
   HYDRA-025-96          SMF-12            POST       74.00       84.39      0.00      28287       0.10       0.14      0.884      0.636
   HYDRA-025-96          SMF-12            POST       75.00       84.39      0.00      28265       0.08       0.14      0.892      0.648
   HYDRA-025-96          SMF-12            POST       76.00       84.38      0.00      28240       0.08       0.14      0.898      0.659
   HYDRA-025-96          SMF-12            POST       77.00       84.37      0.00      28219       0.09       0.13      0.905      0.670
   HYDRA-025-96          SMF-12            POST       78.00       84.37      0.00      28202       0.09       0.13      0.912      0.681
   HYDRA-025-96          SMF-12            POST       79.00       84.36      0.00      28183       0.08       0.13      0.919      0.692
   HYDRA-025-96          SMF-12            POST       80.00       84.35      0.00      28164       0.08       0.12      0.926      0.702
   HYDRA-025-96          SMF-12            POST       81.00       84.35      0.00      28144       0.07       0.12      0.932      0.712
   HYDRA-025-96          SMF-12            POST       82.00       84.34      0.00      28124       0.07       0.12      0.938      0.722
   HYDRA-025-96          SMF-12            POST       83.00       84.34      0.00      28104       0.07       0.11      0.943      0.731
   HYDRA-025-96          SMF-12            POST       84.00       84.33      0.00      28086       0.07       0.11      0.949      0.741
   HYDRA-025-96          SMF-12            POST       85.00       84.33      0.00      28070       0.07       0.11      0.955      0.750
   HYDRA-025-96          SMF-12            POST       86.00       84.32      0.00      28054       0.07       0.11      0.961      0.759
   HYDRA-025-96          SMF-12            POST       87.00       84.32      0.00      28039       0.07       0.10      0.967      0.767
   HYDRA-025-96          SMF-12            POST       88.00       84.31      0.00      28025       0.07       0.10      0.972      0.776
   HYDRA-025-96          SMF-12            POST       89.00       84.31      0.00      28012       0.07       0.10      0.978      0.784
   HYDRA-025-96          SMF-12            POST       90.00       84.30      0.00      28000       0.07       0.10      0.984      0.793
   HYDRA-025-96          SMF-12            POST       91.00       84.30      0.00      27987       0.06       0.10      0.989      0.801
   HYDRA-025-96          SMF-12            POST       92.00       84.30      0.00      27972       0.06       0.09      0.994      0.808
   HYDRA-025-96          SMF-12            POST       93.00       84.29      0.00      27958       0.06       0.09      0.999      0.816
   HYDRA-025-96          SMF-12            POST       94.00       84.29      0.00      27945       0.06       0.09      1.004      0.824
   HYDRA-025-96          SMF-12            POST       95.00       84.28      0.00      27931       0.05       0.09      1.009      0.831
   HYDRA-025-96          SMF-12            POST       96.00       84.28      0.00      27916       0.00       0.09      1.011      0.838
   HYDRA-025-96          SMF-12            POST       96.00       84.28      0.00      27916       0.00       0.09      1.011      0.838
```

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==========================================================================================
==== Basins ==============================================================================
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         Name: COMP-01                  Node: COMP-01                Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 3.600                   Time Shift(hrs): 0.00
           Curve Number: 68.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: COMP-02                  Node: COMP-02                Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 4.900                   Time Shift(hrs): 0.00
           Curve Number: 66.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: OFF-01                   Node: S-WET-04               Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 1.200                   Time Shift(hrs): 0.00
           Curve Number: 37.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: OFF-02                   Node: WET-04-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 4.300                   Time Shift(hrs): 0.00
           Curve Number: 37.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: OFF-03                   Node: OUT-04-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 0.300                   Time Shift(hrs): 0.00
           Curve Number: 80.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: RY-01                    Node: OUT-01-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 10.500                  Time Shift(hrs): 0.00
           Curve Number: 69.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: RY-02                    Node: OUT-01-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
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               Area(ac): 0.600                    Time Shift(hrs): 0.00
           Curve Number: 45.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-03                     Node: WET-01-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 11.00
               Area(ac): 3.300                    Time Shift(hrs): 0.00
           Curve Number: 56.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-04                     Node: WET-02-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 11.00
               Area(ac): 1.500                    Time Shift(hrs): 0.00
           Curve Number: 59.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-05                     Node: OUT-02-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 15.00
               Area(ac): 1.200                    Time Shift(hrs): 0.00
           Curve Number: 58.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-06                     Node: OUT-03-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00
               Area(ac): 1.200                    Time Shift(hrs): 0.00
           Curve Number: 38.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-07                     Node: WET-04-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 15.00
               Area(ac): 4.100                    Time Shift(hrs): 0.00
           Curve Number: 50.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-08                     Node: WET-05-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 17.00
               Area(ac): 3.200                    Time Shift(hrs): 0.00
           Curve Number: 50.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: RY-09                     Node: OUT-04-PST             Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
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          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 1.300                   Time Shift(hrs): 0.00
           Curve Number: 58.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: RY-10                    Node: WET-07-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 16.00
               Area(ac): 2.700                   Time Shift(hrs): 0.00
           Curve Number: 62.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: RY-11                    Node: WET-08-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 16.00
               Area(ac): 1.400                   Time Shift(hrs): 0.00
           Curve Number: 53.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-04A                    Node: S-04A                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 1.400                   Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-04B                    Node: S-04B                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.600                   Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-04C                    Node: S-04C                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 5.200                   Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-04D                    Node: S-04D                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 3.800                   Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-04E                    Node: S-04E                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN
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        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 9.000                   Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: S-05A                    Node: S-05A                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 1.000                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: S-05B                    Node: S-05B                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 1.800                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: S-05C                    Node: S-05C                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.300                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: S-05D                    Node: S-05D                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.500                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: S-05E                    Node: S-05E                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.600                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: S-05F                    Node: S-05F                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 1.800                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


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```
         Name: S-08A                     Node: S-08A                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00
               Area(ac): 0.400                    Time Shift(hrs): 0.00
           Curve Number: 81.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: S-08B                     Node: S-08B                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00
               Area(ac): 0.400                    Time Shift(hrs): 0.00
           Curve Number: 81.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: S-08C                     Node: S-08C                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00
               Area(ac): 0.100                    Time Shift(hrs): 0.00
           Curve Number: 81.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: S-08D                     Node: S-08D                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00
               Area(ac): 0.800                    Time Shift(hrs): 0.00
           Curve Number: 81.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: S-08E                     Node: S-08E                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00
               Area(ac): 0.700                    Time Shift(hrs): 0.00
           Curve Number: 81.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: S-09A                     Node: S-09A                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 15.00
               Area(ac): 2.700                    Time Shift(hrs): 0.00
           Curve Number: 80.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



------------------------------------------------------------------------------------------------------
         Name: S-17A                     Node: S-17A                  Status: Onsite
        Group: POST                      Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                     Peaking Factor: 484.0
          Rainfall File:                      Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 15.00
               Area(ac): 0.500                    Time Shift(hrs): 0.00
           Curve Number: 71.00               Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00
```

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----------------------------------------------------------------------------------------------------
         Name: S-17B                    Node: S-17B                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 3.000                   Time Shift(hrs): 0.00
           Curve Number: 71.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-17C                    Node: S-17C                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.400                   Time Shift(hrs): 0.00
           Curve Number: 71.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-17D                    Node: S-17D                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.500                   Time Shift(hrs): 0.00
           Curve Number: 71.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-17E                    Node: S-17E                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 1.600                   Time Shift(hrs): 0.00
           Curve Number: 71.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: S-17F                    Node: S-17F                  Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 0.600                   Time Shift(hrs): 0.00
           Curve Number: 71.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-01                   Node: SMF-01                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 24.00
               Area(ac): 14.300                  Time Shift(hrs): 0.00
           Curve Number: 75.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-02                   Node: SMF-02                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 22.00
               Area(ac): 11.500                  Time Shift(hrs): 0.00
           Curve Number: 73.00          Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00
```

```
----------------------------------------------------------------------------------------------------
         Name: SUB-03                   Node: SMF-03                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 2.200                   Time Shift(hrs): 0.00
           Curve Number: 77.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-04                   Node: SMF-04                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 26.00
               Area(ac): 4.800                   Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-05                   Node: SMF-05                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 21.00
               Area(ac): 2.000                   Time Shift(hrs): 0.00
           Curve Number: 70.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-06                   Node: SMF-06                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 18.00
               Area(ac): 1.200                   Time Shift(hrs): 0.00
           Curve Number: 75.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-07                   Node: SMF-07                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 19.00
               Area(ac): 4.400                   Time Shift(hrs): 0.00
           Curve Number: 78.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-08                   Node: SMF-08                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 15.00
               Area(ac): 2.700                   Time Shift(hrs): 0.00
           Curve Number: 81.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-09                   Node: SMF-09                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 23.00
               Area(ac): 1.300                   Time Shift(hrs): 0.00
```

```
           Curve Number: 80.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-10                   Node: SMF-10                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 17.00
               Area(ac): 3.100                   Time Shift(hrs): 0.00
           Curve Number: 79.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-11                   Node: SMF-11                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 27.00
               Area(ac): 8.400                   Time Shift(hrs): 0.00
           Curve Number: 77.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-12                   Node: SMF-12                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 17.00
               Area(ac): 2.300                   Time Shift(hrs): 0.00
           Curve Number: 56.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-13                   Node: SMF-13                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 22.00
               Area(ac): 8.500                   Time Shift(hrs): 0.00
           Curve Number: 71.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-14                   Node: SMF-14                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 21.00
               Area(ac): 12.000                  Time Shift(hrs): 0.00
           Curve Number: 75.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-15                   Node: SMF-15                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 22.00
               Area(ac): 8.400                   Time Shift(hrs): 0.00
           Curve Number: 73.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: SUB-16                   Node: SMF-16                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
```

```
    Rainfall Amount(in): 0.000                 Time of Conc(min): 26.00
               Area(ac): 21.200                  Time Shift(hrs): 0.00
           Curve Number: 74.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-17                   Node: SMF-17                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 21.00
               Area(ac): 0.900                   Time Shift(hrs): 0.00
           Curve Number: 71.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-18                   Node: SMF-18                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 19.00
               Area(ac): 1.200                   Time Shift(hrs): 0.00
           Curve Number: 61.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-19                   Node: SMF-19                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 23.00
               Area(ac): 1.200                   Time Shift(hrs): 0.00
           Curve Number: 67.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: SUB-20                   Node: SMF-20                 Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 16.00
               Area(ac): 1.800                   Time Shift(hrs): 0.00
           Curve Number: 69.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: WET-01-PST               Node: WET-01-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 11.400                  Time Shift(hrs): 0.00
           Curve Number: 91.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: WET-02-PST               Node: WET-02-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 4.700                   Time Shift(hrs): 0.00
           Curve Number: 87.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


----------------------------------------------------------------------------------------------------
         Name: WET-04-PST               Node: WET-04-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN
```

```
        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 14.800                  Time Shift(hrs): 0.00
           Curve Number: 91.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



----------------------------------------------------------------------------------------------------
         Name: WET-05-PST               Node: WET-05-PST             Status: Onsite
        Group: POST                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh484                    Peaking Factor: 484.0
          Rainfall File:                     Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 10.00
               Area(ac): 3.800                   Time Shift(hrs): 0.00
           Curve Number: 89.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00



==========================================================================================
==== Nodes ===============================================================================
==========================================================================================

      Name: COMP-01            Base Flow(cfs): 0.000          Init Stage(ft): 79.500
     Group: POST                                              Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         78.000            1.60
         79.000            1.70
         80.000            2.20
         81.000            2.30
         82.000            2.50
         83.000            2.70
         84.000            2.80

------------------------------------------------------------------------------------------
      Name: COMP-02            Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: POST                                              Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         78.000            2.00
         79.000            2.10
         80.000            2.50
         81.000            2.70
         82.000            2.90
         83.000            3.10
         84.000            3.30

------------------------------------------------------------------------------------------
      Name: OUT-01-PST         Base Flow(cfs): 0.000          Init Stage(ft): 79.500
     Group: POST                                              Warn Stage(ft): 0.000
      Type: Time/Stage



      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          79.500
          96.00          79.500

------------------------------------------------------------------------------------------
      Name: OUT-02-PST         Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: POST                                              Warn Stage(ft): 0.000
      Type: Time/Stage



      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          78.500
          96.00          78.500

------------------------------------------------------------------------------------------
      Name: OUT-03-PST         Base Flow(cfs): 0.000          Init Stage(ft): 76.500
     Group: POST                                              Warn Stage(ft): 0.000
      Type: Time/Stage
```

```
      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          76.500
          48.00          76.500

-----------------------------------------------------------------------------------------
      Name: OUT-04-PST          Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          78.500
          48.00          78.500

-----------------------------------------------------------------------------------------
      Name: S-04A               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
      Name: S-04B               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
      Name: S-04C               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
      Name: S-04D               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
      Name: S-04E               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
      Name: S-05A               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
      Name: S-05B               Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


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

-----------------------------------------------------------------------------------------
```

```
      Name: S-05C              Base Flow(cfs): 0.000         Init Stage(ft): 81.500
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-05D              Base Flow(cfs): 0.000         Init Stage(ft): 81.500
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-05E              Base Flow(cfs): 0.000         Init Stage(ft): 81.500
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-05F              Base Flow(cfs): 0.000         Init Stage(ft): 81.500
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-08A              Base Flow(cfs): 0.000         Init Stage(ft): 83.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-08B              Base Flow(cfs): 0.000         Init Stage(ft): 83.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-08C              Base Flow(cfs): 0.000         Init Stage(ft): 83.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-08D              Base Flow(cfs): 0.000         Init Stage(ft): 83.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

-------------------------------------------------------------------------------------------
      Name: S-08E              Base Flow(cfs): 0.000         Init Stage(ft): 83.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area



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

```
-------------------------------------------------------------------------------------------
      Name: S-09A              Base Flow(cfs): 0.000         Init Stage(ft): 83.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-17A              Base Flow(cfs): 0.000         Init Stage(ft): 82.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-17B              Base Flow(cfs): 0.000         Init Stage(ft): 82.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-17C              Base Flow(cfs): 0.000         Init Stage(ft): 82.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-17D              Base Flow(cfs): 0.000         Init Stage(ft): 82.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-17E              Base Flow(cfs): 0.000         Init Stage(ft): 82.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-17F              Base Flow(cfs): 0.000         Init Stage(ft): 82.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: S-WET-04           Base Flow(cfs): 0.000         Init Stage(ft): 77.600
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

-------------------------------------------------------------------------------------------
      Name: SMF-01             Base Flow(cfs): 0.000         Init Stage(ft): 84.000
     Group: POST                                             Warn Stage(ft): 0.000
      Type: Stage/Area


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

```
        84.000           2.10
        87.000           2.62

------------------------------------------------------------------------------------------
      Name: SMF-02              Base Flow(cfs): 0.000          Init Stage(ft): 82.300
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        82.300           0.55
        86.800           0.88

------------------------------------------------------------------------------------------
      Name: SMF-03              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        81.500           1.37
        85.500           2.04

------------------------------------------------------------------------------------------
      Name: SMF-04              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        81.500           0.50
        86.000           0.85

------------------------------------------------------------------------------------------
      Name: SMF-05              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        81.500           0.76
        84.500           1.19

------------------------------------------------------------------------------------------
      Name: SMF-06              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        81.500           0.52
        84.500           0.75

------------------------------------------------------------------------------------------
      Name: SMF-07              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        81.500           1.08
        84.500           1.42

------------------------------------------------------------------------------------------
      Name: SMF-08              Base Flow(cfs): 0.000          Init Stage(ft): 83.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
        83.000           1.35
        86.000           1.70

------------------------------------------------------------------------------------------
      Name: SMF-09              Base Flow(cfs): 0.000          Init Stage(ft): 83.000
```

```
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         83.000            0.62
         86.000            0.86

------------------------------------------------------------------------------------------
      Name: SMF-10              Base Flow(cfs): 0.000          Init Stage(ft): 83.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         83.000            0.65
         86.000            0.89

------------------------------------------------------------------------------------------
      Name: SMF-11              Base Flow(cfs): 0.000          Init Stage(ft): 83.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         83.000            0.16
         86.500            0.33

------------------------------------------------------------------------------------------
      Name: SMF-12              Base Flow(cfs): 0.000          Init Stage(ft): 84.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         84.000            0.62
         86.000            0.77

------------------------------------------------------------------------------------------
      Name: SMF-13              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         81.500            1.68
         84.500            2.22

------------------------------------------------------------------------------------------
      Name: SMF-14              Base Flow(cfs): 0.000          Init Stage(ft): 81.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         81.500            2.10
         84.500            2.57

------------------------------------------------------------------------------------------
      Name: SMF-15              Base Flow(cfs): 0.000          Init Stage(ft): 83.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         83.000            1.94
         86.000            2.36

------------------------------------------------------------------------------------------
      Name: SMF-16              Base Flow(cfs): 0.000          Init Stage(ft): 83.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area
```

```
      Stage(ft)        Area(ac)
--------------- ---------------
         83.000            2.46
         86.000            3.16

------------------------------------------------------------------------------------------
      Name: SMF-17              Base Flow(cfs): 0.000          Init Stage(ft): 82.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         82.000            0.15
         85.500            0.31

------------------------------------------------------------------------------------------
      Name: SMF-18              Base Flow(cfs): 0.000          Init Stage(ft): 82.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         82.000            0.13
         85.500            0.28

------------------------------------------------------------------------------------------
      Name: SMF-19              Base Flow(cfs): 0.000          Init Stage(ft): 82.000
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         82.000            0.34
         85.500            0.60

------------------------------------------------------------------------------------------
      Name: SMF-20              Base Flow(cfs): 0.000          Init Stage(ft): 85.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         85.500            0.28
         88.500            0.44

------------------------------------------------------------------------------------------
      Name: WET-01-PST          Base Flow(cfs): 0.000          Init Stage(ft): 79.400
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         79.380            2.20
         80.000            4.50
         81.000            6.20
         82.000            8.20
         83.000            9.40
         84.000           10.80

------------------------------------------------------------------------------------------
      Name: WET-02-PST          Base Flow(cfs): 0.000          Init Stage(ft): 79.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area



      Stage(ft)        Area(ac)
--------------- ---------------
         78.500            1.00
         79.000            2.10
         80.000            2.70
         81.000            3.10
         82.000            3.20
         83.000            3.30
         84.000            3.60

------------------------------------------------------------------------------------------
      Name: WET-04-PST          Base Flow(cfs): 0.000          Init Stage(ft): 77.600
     Group: POST                                               Warn Stage(ft): 0.000
```

```
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         76.500            1.90
         77.000            2.00
         78.000            2.90
         79.000            9.00
         80.000           11.40
         81.000           12.30
         82.000           12.90
         83.000           13.50

------------------------------------------------------------------------------------------
      Name: WET-05-PST          Base Flow(cfs): 0.000          Init Stage(ft): 78.500
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         76.500            2.30
         77.000            2.40
         78.000            2.50
         79.000            2.60
         80.000            2.70
         81.000            2.80
         82.000            2.90
         83.000            3.10

------------------------------------------------------------------------------------------
      Name: WET-07-PST          Base Flow(cfs): 0.000          Init Stage(ft): 78.700
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         78.500            3.50
         79.000            4.20
         80.000            6.40
         81.000            9.90
         82.000           13.40
         83.000           14.40
         84.000           14.80

------------------------------------------------------------------------------------------
      Name: WET-08-PST          Base Flow(cfs): 0.000          Init Stage(ft): 78.700
     Group: POST                                               Warn Stage(ft): 0.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         78.500            3.60
         79.000            3.70
         80.000            4.40
         81.000            5.60
         82.000            5.90
         83.000            6.10
         84.000            6.40

==========================================================================================
==== Cross Sections ======================================================================
==========================================================================================

              Name: NAT-WEIR-01                  Group: POST
      Encroachment: No


    Station(ft)   Elevation(ft)     Manning's N
--------------- --------------- ---------------
          0.000          26.500        0.090000
         10.000          24.090        0.090000
         92.000          24.090        0.090000
        142.000          23.710        0.090000
        195.000          24.050        0.090000
        248.000          24.280        0.090000
        300.000          23.970        0.090000
        317.000          23.970        0.090000
        325.000          26.000        0.090000

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

```
==== Pipes =================================================================================
============================================================================================

         Name: CULV-01-PST          From Node: WET-01-PST         Length(ft): 155.00
        Group: POST                   To Node: OUT-01-PST              Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 36.00          36.00                       Entrance Loss Coef: 0.70
     Rise(in): 36.00          36.00                           Exit Loss Coef: 1.00
   Invert(ft): 79.700         79.450                          Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                        Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



------------------------------------------------------------------------------------------------------
         Name: CULV-02-PST          From Node: WET-02-PST         Length(ft): 123.00
        Group: POST                   To Node: WET-01-PST              Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 24.00          24.00                       Entrance Loss Coef: 0.70
     Rise(in): 24.00          24.00                           Exit Loss Coef: 1.00
   Invert(ft): 78.500         79.400                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                        Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



------------------------------------------------------------------------------------------------------
         Name: CULV-05-PST          From Node: WET-05-PST         Length(ft): 138.00
        Group: POST                   To Node: WET-04-PST              Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 24.00          24.00                       Entrance Loss Coef: 0.70
     Rise(in): 24.00          24.00                           Exit Loss Coef: 1.00
   Invert(ft): 78.500         77.000                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                        Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



------------------------------------------------------------------------------------------------------
         Name: CULV-08-PST          From Node: WET-08-PST         Length(ft): 21.00
        Group: POST                   To Node: WET-07-PST              Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 12.00          12.00                       Entrance Loss Coef: 0.20
     Rise(in): 12.00          12.00                           Exit Loss Coef: 0.00
   Invert(ft): 80.160         80.190                          Bend Loss Coef: 0.00
  Manning's N: 0.011000       0.011000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                        Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Projecting
```

```
Downstream FHWA Inlet Edge Description:
Circular CMP: Projecting



----------------------------------------------------------------------------------------------------
         Name: PIPE-04A           From Node: S-04A              Length(ft): 197.00
        Group: POST                 To Node: SMF-04                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 54.00          54.00                      Entrance Loss Coef: 0.00
     Rise(in): 54.00          54.00                          Exit Loss Coef: 1.00
   Invert(ft): 74.650         74.550                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-04B           From Node: S-04B              Length(ft): 34.00
        Group: POST                 To Node: S-04A                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 54.00          54.00                      Entrance Loss Coef: 0.00
     Rise(in): 54.00          54.00                          Exit Loss Coef: 0.00
   Invert(ft): 74.700         74.650                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-04C           From Node: S-04C              Length(ft): 419.00
        Group: POST                 To Node: S-04B                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 54.00          54.00                      Entrance Loss Coef: 0.00
     Rise(in): 54.00          54.00                          Exit Loss Coef: 0.00
   Invert(ft): 74.850         74.700                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-04D           From Node: S-04D              Length(ft): 114.00
        Group: POST                 To Node: S-04C                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                          Exit Loss Coef: 0.00
   Invert(ft): 76.350         76.250                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None
```

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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-04E           From Node: S-04E              Length(ft): 178.00
        Group: POST                 To Node: S-04D                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                          Exit Loss Coef: 0.00
   Invert(ft): 77.700         76.350                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-05A           From Node: S-05A              Length(ft): 138.00
        Group: POST                 To Node: SMF-05                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 30.00          30.00                      Entrance Loss Coef: 0.00
     Rise(in): 30.00          30.00                          Exit Loss Coef: 1.00
   Invert(ft): 77.650         77.500                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-05B           From Node: S-05B              Length(ft): 96.00
        Group: POST                 To Node: S-05A                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 30.00          30.00                      Entrance Loss Coef: 0.00
     Rise(in): 30.00          30.00                          Exit Loss Coef: 0.00
   Invert(ft): 77.750         77.650                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-05C           From Node: S-05C              Length(ft): 175.00
        Group: POST                 To Node: S-05B                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.450         78.250                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None
```

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

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



------------------------------------------------------------------------------------------------------
         Name: PIPE-05D            From Node: S-05D               Length(ft): 179.00
        Group: POST                  To Node: S-05C                    Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM        DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular        Circular                                 Flow: Both
     Span(in): 24.00           24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00           24.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.650          78.450                         Bend Loss Coef: 0.00
  Manning's N: 0.013000        0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000           0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000           0.000                       Stabilizer Option: None



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

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



------------------------------------------------------------------------------------------------------
         Name: PIPE-05E            From Node: S-05E               Length(ft): 36.00
        Group: POST                  To Node: S-05D                    Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM        DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular        Circular                                 Flow: Both
     Span(in): 24.00           24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00           24.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.850          78.650                         Bend Loss Coef: 0.00
  Manning's N: 0.013000        0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000           0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000           0.000                       Stabilizer Option: None



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

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



------------------------------------------------------------------------------------------------------
         Name: PIPE-05F            From Node: S-05F               Length(ft): 49.00
        Group: POST                  To Node: SMF-05                   Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM        DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular        Circular                                 Flow: Both
     Span(in): 24.00           24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00           24.00                          Exit Loss Coef: 1.00
   Invert(ft): 78.100          78.000                         Bend Loss Coef: 0.00
  Manning's N: 0.013000        0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000           0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000           0.000                       Stabilizer Option: None



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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



------------------------------------------------------------------------------------------------------
         Name: PIPE-08A            From Node: S-08A               Length(ft): 67.00
        Group: POST                  To Node: SMF-08                   Count: 1
                                                           Friction Equation: Automatic
               UPSTREAM        DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular        Circular                                 Flow: Both
     Span(in): 24.00           24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00           24.00                          Exit Loss Coef: 1.00
   Invert(ft): 79.600          79.500                         Bend Loss Coef: 0.00
```

```
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-08B           From Node: S-08B                Length(ft): 48.00
        Group: POST                 To Node: S-08A                     Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 79.650         79.600                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-08C           From Node: S-08C                Length(ft): 125.00
        Group: POST                 To Node: SMF-08                    Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                          Exit Loss Coef: 1.00
   Invert(ft): 78.600         78.500                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-08D           From Node: S-08D                Length(ft): 247.00
        Group: POST                 To Node: S-08C                     Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.750         78.600                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-08E           From Node: S-08E                Length(ft): 255.00
        Group: POST                 To Node: S-08D                     Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
```

```
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.950         78.750                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-09A            From Node: S-09A              Length(ft): 133.00
        Group: POST                  To Node: SMF-09                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 30.00          30.00                      Entrance Loss Coef: 0.00
     Rise(in): 30.00          30.00                          Exit Loss Coef: 1.00
   Invert(ft): 79.150         79.000                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-17A            From Node: S-17A              Length(ft): 151.00
        Group: POST                  To Node: SMF-17                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 30.00          30.00                      Entrance Loss Coef: 0.00
     Rise(in): 30.00          30.00                          Exit Loss Coef: 1.00
   Invert(ft): 78.150         78.000                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-17B            From Node: S-17B              Length(ft): 34.00
        Group: POST                  To Node: S-17A                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 30.00          30.00                      Entrance Loss Coef: 0.00
     Rise(in): 30.00          30.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.200         78.150                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-17C            From Node: S-17C              Length(ft): 88.00
        Group: POST                  To Node: S-17B                   Count: 1
```

```
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.300         78.200                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-17D           From Node: S-17D              Length(ft): 29.00
        Group: POST                 To Node: S-17C                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.850         78.800                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-17E           From Node: S-17E              Length(ft): 234.00
        Group: POST                 To Node: S-17C                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 79.150         78.800                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-17F           From Node: S-17F              Length(ft): 32.00
        Group: POST                 To Node: S-17E                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.00
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 79.200         79.150                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


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

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

```
----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-04         From Node: SMF-04            Length(ft): 207.00
        Group: POST                  To Node: SMF-03                 Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 54.00          54.00                      Entrance Loss Coef: 0.70
     Rise(in): 54.00          54.00                          Exit Loss Coef: 1.00
   Invert(ft): 75.600         75.500                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-06         From Node: SMF-06            Length(ft): 167.00
        Group: POST                  To Node: S-05F                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 18.00          18.00                      Entrance Loss Coef: 0.70
     Rise(in): 18.00          18.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.500         80.000                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-07         From Node: SMF-07            Length(ft): 161.00
        Group: POST                  To Node: S-05E                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.70
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.000         78.850                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-09         From Node: SMF-09            Length(ft): 67.00
        Group: POST                  To Node: S-08B                  Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.70
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 79.500         79.650                         Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

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

```
----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-10         From Node: SMF-10            Length(ft): 52.00
        Group: POST                  To Node: S-09A                  Count: 1
                                                        Friction Equation: Automatic
              UPSTREAM       DOWNSTREAM                Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                              Flow: Both
     Span(in): 30.00          30.00                    Entrance Loss Coef: 0.70
     Rise(in): 30.00          30.00                        Exit Loss Coef: 0.00
   Invert(ft): 79.000         79.150                       Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                     Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-11         From Node: SMF-11            Length(ft): 85.00
        Group: POST                  To Node: S-08E                  Count: 1
                                                        Friction Equation: Automatic
              UPSTREAM       DOWNSTREAM                Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                              Flow: Both
     Span(in): 36.00          36.00                    Entrance Loss Coef: 0.70
     Rise(in): 36.00          36.00                        Exit Loss Coef: 0.00
   Invert(ft): 78.500         78.950                       Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                     Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-13         From Node: S-WET-04          Length(ft): 234.00
        Group: POST                  To Node: WET-04-PST             Count: 1
                                                        Friction Equation: Automatic
              UPSTREAM       DOWNSTREAM                Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                              Flow: Both
     Span(in): 24.00          24.00                    Entrance Loss Coef: 0.00
     Rise(in): 24.00          24.00                        Exit Loss Coef: 1.00
   Invert(ft): 76.800         76.500                       Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                     Stabilizer Option: None


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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-18         From Node: SMF-18            Length(ft): 151.00
        Group: POST                  To Node: S-17D                  Count: 1
                                                        Friction Equation: Automatic
              UPSTREAM       DOWNSTREAM                Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                              Flow: Both
     Span(in): 24.00          24.00                    Entrance Loss Coef: 0.70
     Rise(in): 24.00          24.00                        Exit Loss Coef: 0.00
   Invert(ft): 78.500         78.850                       Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                     Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope
```

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



----------------------------------------------------------------------------------------------------
         Name: PIPE-SMF-19         From Node: SMF-19             Length(ft): 151.00
        Group: POST                  To Node: S-17F                    Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.70
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.00
   Invert(ft): 78.500         79.200                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None



Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

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



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

         Name: CS-01               From Node: SMF-01             Length(ft): 58.00
        Group: POST                  To Node: OUT-01-PST              Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                    Flow: Both
     Rise(in): 36.00          36.00                      Entrance Loss Coef: 0.700
   Invert(ft): 81.000         78.800                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-01 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 5.00                        Invert(ft): 84.000
               Rise(in): 9.00                  Control Elev(ft): 84.000

*** Weir 2 of 2 for Drop Structure CS-01 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                       Invert(ft): 84.750
               Rise(in): 999.00                Control Elev(ft): 84.750


----------------------------------------------------------------------------------------------------
         Name: CS-02               From Node: SMF-02             Length(ft): 60.00
        Group: POST                  To Node: WET-01-PST              Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 42.00          42.00                                    Flow: Both
     Rise(in): 42.00          42.00                      Entrance Loss Coef: 0.700
   Invert(ft): 78.800         77.900                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope
```

```
Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-02 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 4.80                        Invert(ft): 82.300
               Rise(in): 28.20                 Control Elev(ft): 82.300

*** Weir 2 of 2 for Drop Structure CS-02 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 66.00                       Invert(ft): 84.650
               Rise(in): 999.00                Control Elev(ft): 84.650


----------------------------------------------------------------------------------------------------
         Name: CS-03              From Node: SMF-03            Length(ft): 59.00
        Group: POST                 To Node: WET-04-PST             Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 42.00          42.00                                    Flow: Both
     Rise(in): 42.00          42.00                      Entrance Loss Coef: 0.700
   Invert(ft): 78.000         76.100                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 3 for Drop Structure CS-03 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 2.25                        Invert(ft): 81.500
               Rise(in): 18.60                 Control Elev(ft): 81.500

*** Weir 2 of 3 for Drop Structure CS-03 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 54.00                       Invert(ft): 83.050
               Rise(in): 999.00                Control Elev(ft): 83.050

*** Weir 3 of 3 for Drop Structure CS-03 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                       Invert(ft): 84.350
               Rise(in): 999.00                Control Elev(ft): 84.350


----------------------------------------------------------------------------------------------------
         Name: CS-05              From Node: SMF-05            Length(ft): 55.00
        Group: POST                 To Node: WET-04-PST             Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 30.00          30.00                                    Flow: Both
     Rise(in): 30.00          30.00                      Entrance Loss Coef: 0.700
   Invert(ft): 79.000         76.600                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
```

```
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                            Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-05 ***
                                                                                    TABLE
                  Count: 1                        Bottom Clip(in): 0.000
                   Type: Vertical: Mavis             Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 5.70                        Invert(ft): 81.500
               Rise(in): 7.20                   Control Elev(ft): 81.500

*** Weir 2 of 2 for Drop Structure CS-05 ***
                                                                                    TABLE
                  Count: 1                        Bottom Clip(in): 0.000
                   Type: Vertical: Mavis             Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 36.00                       Invert(ft): 82.100
               Rise(in): 999.00                 Control Elev(ft): 82.100


----------------------------------------------------------------------------------------------------
         Name: CS-08              From Node: SMF-08           Length(ft): 50.00
        Group: POST                 To Node: OUT-01-PST            Count: 1

               UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Circular       Circular                  Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                   Flow: Both
     Rise(in): 36.00          36.00                     Entrance Loss Coef: 0.700
   Invert(ft): 80.000         78.500                        Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                    Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                        Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                          Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-08 ***
                                                                                    TABLE
                  Count: 1                        Bottom Clip(in): 0.000
                   Type: Vertical: Mavis             Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 6.10                        Invert(ft): 83.000
               Rise(in): 13.80                  Control Elev(ft): 83.000

*** Weir 2 of 2 for Drop Structure CS-08 ***
                                                                                    TABLE
                  Count: 1                        Bottom Clip(in): 0.000
                   Type: Vertical: Mavis             Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                       Invert(ft): 84.150
               Rise(in): 999.00                 Control Elev(ft): 84.150


----------------------------------------------------------------------------------------------------
         Name: CS-11              From Node: SMF-11           Length(ft): 59.00
        Group: POST                 To Node: OUT-01-PST            Count: 1

               UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Circular       Circular                  Solution Algorithm: Most Restrictive
     Span(in): 30.00          30.00                                   Flow: Both
     Rise(in): 30.00          30.00                     Entrance Loss Coef: 0.700
   Invert(ft): 80.500         78.500                        Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                    Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                        Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                          Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope
```

```
Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 1 for Drop Structure CS-11 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                       Invert(ft): 84.150
               Rise(in): 999.00                Control Elev(ft): 84.150


----------------------------------------------------------------------------------------------------
         Name: CS-12              From Node: SMF-12            Length(ft): 57.00
        Group: POST                 To Node: WET-02-PST             Count: 1

               UPSTREAM       DOWNSTREAM                Friction Equation: Automatic
     Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
     Span(in): 15.00          15.00                                  Flow: Both
     Rise(in): 15.00          15.00                    Entrance Loss Coef: 0.700
   Invert(ft): 82.750         78.000                       Exit Loss Coef: 1.000
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-12 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 2.20                        Invert(ft): 84.000
               Rise(in): 6.00                  Control Elev(ft): 84.000

*** Weir 2 of 2 for Drop Structure CS-12 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 36.00                       Invert(ft): 84.500
               Rise(in): 999.00                Control Elev(ft): 84.500


----------------------------------------------------------------------------------------------------
         Name: CS-13              From Node: SMF-13            Length(ft): 471.00
        Group: POST                 To Node: S-WET-04               Count: 1

               UPSTREAM       DOWNSTREAM                Friction Equation: Automatic
     Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
     Span(in): 24.00          24.00                                  Flow: Both
     Rise(in): 24.00          24.00                    Entrance Loss Coef: 0.700
   Invert(ft): 79.500         76.800                       Exit Loss Coef: 0.000
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-13 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 4.40                        Invert(ft): 81.500
               Rise(in): 6.00                  Control Elev(ft): 81.500
```

```
*** Weir 2 of 2 for Drop Structure CS-13 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 36.00                       Invert(ft): 82.000
               Rise(in): 999.00                Control Elev(ft): 82.000


----------------------------------------------------------------------------------------------------
         Name: CS-14               From Node: SMF-14             Length(ft): 58.00
        Group: POST                  To Node: WET-04-PST              Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 30.00          30.00                                    Flow: Both
     Rise(in): 30.00          30.00                      Entrance Loss Coef: 0.700
   Invert(ft): 79.000         76.600                         Exit Loss Coef: 1.000
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-14 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 5.00                        Invert(ft): 81.500
               Rise(in): 8.40                  Control Elev(ft): 81.500

*** Weir 2 of 2 for Drop Structure CS-14 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 36.00                       Invert(ft): 82.200
               Rise(in): 999.00                Control Elev(ft): 82.200


----------------------------------------------------------------------------------------------------
         Name: CS-15               From Node: SMF-15             Length(ft): 116.00
        Group: POST                  To Node: OUT-04-PST              Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                    Flow: Both
     Rise(in): 36.00          36.00                      Entrance Loss Coef: 0.700
   Invert(ft): 80.000         77.500                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-15 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 4.90                        Invert(ft): 83.000
               Rise(in): 6.60                  Control Elev(ft): 83.000

*** Weir 2 of 2 for Drop Structure CS-15 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
```

```
                   Flow: Both                   Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                      Invert(ft): 83.550
               Rise(in): 999.00                Control Elev(ft): 83.550


----------------------------------------------------------------------------------------------------
         Name: CS-16               From Node: SMF-16           Length(ft): 59.00
        Group: POST                  To Node: WET-08-PST             Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                    Flow: Both
     Rise(in): 36.00          36.00                      Entrance Loss Coef: 0.700
   Invert(ft): 80.000         77.750                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-16 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 5.50                       Invert(ft): 83.000
               Rise(in): 12.00                 Control Elev(ft): 83.000

*** Weir 2 of 2 for Drop Structure CS-16 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                      Invert(ft): 84.000
               Rise(in): 999.00                Control Elev(ft): 84.000


----------------------------------------------------------------------------------------------------
         Name: CS-17               From Node: SMF-17           Length(ft): 57.00
        Group: POST                  To Node: OUT-04-PST             Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                    Flow: Both
     Rise(in): 36.00          36.00                      Entrance Loss Coef: 0.700
   Invert(ft): 79.000         77.500                         Exit Loss Coef: 1.000
  Manning's N: 0.012000       0.012000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CS-17 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 3.40                       Invert(ft): 82.000
               Rise(in): 16.80                 Control Elev(ft): 82.000

*** Weir 2 of 2 for Drop Structure CS-17 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 60.00                      Invert(ft): 83.400
               Rise(in): 999.00                Control Elev(ft): 83.400
```

```
----------------------------------------------------------------------------------------------------
         Name: CS-20               From Node: SMF-20             Length(ft): 185.00
        Group: POST                  To Node: S-04E                   Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 15.00          15.00                                    Flow: Both
     Rise(in): 15.00          15.00                      Entrance Loss Coef: 0.700
   Invert(ft): 81.250         78.500                         Exit Loss Coef: 0.000
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

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

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



*** Weir 1 of 3 for Drop Structure CS-20 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                    Weir Disc Coef: 3.200
               Geometry: Rectangular          Orifice Disc Coef: 0.600

               Span(in): 1.50                        Invert(ft): 85.500
               Rise(in): 6.60                  Control Elev(ft): 85.500

*** Weir 2 of 3 for Drop Structure CS-20 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                    Weir Disc Coef: 3.200
               Geometry: Rectangular          Orifice Disc Coef: 0.600

               Span(in): 24.00                       Invert(ft): 86.050
               Rise(in): 12.00                 Control Elev(ft): 86.050

*** Weir 3 of 3 for Drop Structure CS-20 ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Horizontal                 Top Clip(in): 0.000
                   Flow: Both                    Weir Disc Coef: 3.200
               Geometry: Rectangular          Orifice Disc Coef: 0.600

               Span(in): 24.00                       Invert(ft): 87.050
               Rise(in): 37.00                 Control Elev(ft): 87.050


----------------------------------------------------------------------------------------------------
         Name: CULV-04-PST         From Node: WET-04-PST         Length(ft): 219.00
        Group: POST                  To Node: OUT-03-PST              Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 30.00          30.00                                    Flow: Both
     Rise(in): 30.00          30.00                      Entrance Loss Coef: 0.700
   Invert(ft): 79.250         79.000                         Exit Loss Coef: 1.000
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CULV-04-PST ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                    Weir Disc Coef: 3.200
               Geometry: Rectangular          Orifice Disc Coef: 0.600

               Span(in): 24.00                       Invert(ft): 79.500
               Rise(in): 24.00                 Control Elev(ft): 79.500

*** Weir 2 of 2 for Drop Structure CULV-04-PST ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Horizontal                 Top Clip(in): 0.000
```

```
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 54.00                        Invert(ft): 81.500
               Rise(in): 36.00                  Control Elev(ft): 81.500


----------------------------------------------------------------------------------------------------
         Name: CULV-07-PST         From Node: WET-07-PST         Length(ft): 104.00
        Group: POST                  To Node: OUT-04-PST              Count: 1

               UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                    Flow: Both
     Rise(in): 36.00          36.00                      Entrance Loss Coef: 0.000
   Invert(ft): 77.650         77.500                         Exit Loss Coef: 1.000
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

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

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope



*** Weir 1 of 2 for Drop Structure CULV-07-PST ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 24.00                        Invert(ft): 80.650
               Rise(in): 24.00                  Control Elev(ft): 80.650

*** Weir 2 of 2 for Drop Structure CULV-07-PST ***
                                                                                  TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Horizontal                 Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular           Orifice Disc Coef: 0.600

               Span(in): 36.00                        Invert(ft): 82.650
               Rise(in): 54.00                  Control Elev(ft): 82.650


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

         Name: WEIR-COMP-01        From Node: COMP-01
        Group: POST                  To Node: OUT-01-PST
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 90.00
        Left Side Slope(h/v): 5.00
       Right Side Slope(h/v): 5.00
                  Invert(ft): 80.000
       Control Elevation(ft): 80.000
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 2.600
      Orifice Discharge Coef: 0.600



----------------------------------------------------------------------------------------------------
         Name: WEIR-COMP-02A       From Node: WET-08-PST
        Group: POST                  To Node: COMP-02
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 40.00
        Left Side Slope(h/v): 4.00
       Right Side Slope(h/v): 4.00
                  Invert(ft): 80.000
       Control Elevation(ft): 80.000
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 2.600
      Orifice Discharge Coef: 0.600
```

```
----------------------------------------------------------------------------------------------------
         Name: WEIR-COMP-02B       From Node: COMP-02
        Group: POST                  To Node: WET-07-PST
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 56.00
        Left Side Slope(h/v): 4.00
       Right Side Slope(h/v): 4.00
                  Invert(ft): 80.000
       Control Elevation(ft): 80.000
      Struct Opening Dim(ft): 9999.00
                                       TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 2.600
      Orifice Discharge Coef: 0.600



==========================================================================================
==== Hydrology Simulations ===============================================================
==========================================================================================

         Name: FDOT002Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 2.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 2.76

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 3.24

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 3.77

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y024H.R32
```

```
      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 4.87

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT002Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 5.36

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 2.90

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 3.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 4.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 4.72

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
```

```
         Name: FDOT005Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 6.05

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT005Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 6.63

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 3.20

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 3.90

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 4.60

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 5.56

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
```

```
----------------------------------------------------------------------------------------------------
         Name: FDOT010Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 7.44

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT010Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 7.91

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 3.72

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 4.46

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 5.28

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 6.32

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
```

```
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 8.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT025Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 10.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 4.05

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 4.96

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 5.96

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 9.84

Time(hrs)       Print Inc(min)
```

```
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 9.84

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT050Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 11.90

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y001H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 1.00
          Rainfall File: Fdot-1
    Rainfall Amount(in): 4.50

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y002H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 5.48

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y004H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 6.56

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y008H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 7.80
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y024H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 10.56

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00

----------------------------------------------------------------------------------------------------
         Name: FDOT100Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y072H.R32

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Fdot-72
    Rainfall Amount(in): 14.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
72.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-010
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRO-010.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 6.50

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-025
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRO-025.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 8.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-025-96
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRO-025-96.R32

      Override Defaults: Yes
    Storm Duration(hrs): 96.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.00

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
96.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-100
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRO-100.R32
```

```
      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.40

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

----------------------------------------------------------------------------------------------------
         Name: HYDRO-MEAN
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRO-MEAN.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 4.20

Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.00
17.000          5.00
30.000          15.00
48.000          60.00

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

         Name: FDOT002Y001H        Hydrology Sim: FDOT002Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y002H        Hydrology Sim: FDOT002Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y004H        Hydrology Sim: FDOT002Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y004H.I32
```

```
      Execute: No          Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                           Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y008H        Hydrology Sim: FDOT002Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y008H.I32

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

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                           Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y024H        Hydrology Sim: FDOT002Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y024H.I32

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

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                           Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT002Y072H        Hydrology Sim: FDOT002Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT002Y072H.I32

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

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
```

```
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y001H        Hydrology Sim: FDOT005Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y002H        Hydrology Sim: FDOT005Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y004H        Hydrology Sim: FDOT005Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
```

```
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y008H        Hydrology Sim: FDOT005Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y024H        Hydrology Sim: FDOT005Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT005Y072H        Hydrology Sim: FDOT005Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT005Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes
```

```
----------------------------------------------------------------------------------------------------
         Name: FDOT010Y001H        Hydrology Sim: FDOT010Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y002H        Hydrology Sim: FDOT010Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y004H        Hydrology Sim: FDOT010Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y008H        Hydrology Sim: FDOT010Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y008H.I32

      Execute: No          Restart: No            Patch: No
  Alternative: No
```

```
        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y024H       Hydrology Sim: FDOT010Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT010Y072H       Hydrology Sim: FDOT010Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT010Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y001H       Hydrology Sim: FDOT025Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y001H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y002H        Hydrology Sim: FDOT025Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y004H        Hydrology Sim: FDOT025Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y008H        Hydrology Sim: FDOT025Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
```

```
Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y024H        Hydrology Sim: FDOT025Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y024H.I32

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

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                           Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT025Y072H        Hydrology Sim: FDOT025Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT025Y072H.I32

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

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                           Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y001H        Hydrology Sim: FDOT050Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y001H.I32

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

        Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                      End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                           Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes

----------------------------------------------------------------------------------------------------
```

```
         Name: FDOT050Y002H        Hydrology Sim: FDOT050Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y002H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y004H        Hydrology Sim: FDOT050Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y008H        Hydrology Sim: FDOT050Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y024H        Hydrology Sim: FDOT050Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y024H.I32

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

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

```
        Start Time(hrs): 0.000                    End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT050Y072H        Hydrology Sim: FDOT050Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT050Y072H.I32

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y001H        Hydrology Sim: FDOT100Y001H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y001H.I32

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y002H        Hydrology Sim: FDOT100Y002H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y002H.I32

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
```

```
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y004H        Hydrology Sim: FDOT100Y004H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y004H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y008H        Hydrology Sim: FDOT100Y008H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y008H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y024H        Hydrology Sim: FDOT100Y024H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y024H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000

Group           Run
--------------- -----
POST            Yes
```

```
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: FDOT100Y072H        Hydrology Sim: FDOT100Y072H
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\FDOT100Y072H.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
72.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-000           Hydrology Sim:
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-000.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 30.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          60.000
30.000          10.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-010           Hydrology Sim: HYDRO-010
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-010.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages: BND-010                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-025           Hydrology Sim: HYDRO-025
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-025.I32

      Execute: Yes         Restart: No            Patch: No
```

```
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-025                  Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-025-96        Hydrology Sim: HYDRO-025-96
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-025-96.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 96.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-025                  Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
96.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-100           Hydrology Sim: HYDRO-100
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-100.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages: BND-100                  Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes


----------------------------------------------------------------------------------------------------
         Name: HYDRA-MEAN          Hydrology Sim: HYDRO-MEAN
     Filename: P:\Projects\CWI\21\21-04-0008 Preserve at Howey\Design\Calcs\Drainage\ICPR\HYDRA-MEAN.I32

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

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 48.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
```

```
        Boundary Stages: BND-MEAN                 Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
10.000          10.000
17.000          5.000
30.000          15.000
48.000          60.000

Group           Run
--------------- -----
POST            Yes
PRE             Yes


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

      Name: BND-100              Node: OUT-01-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          83.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-010              Node: OUT-01-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          81.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-025              Node: OUT-01-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          82.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-100              Node: OUT-02-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          83.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-010              Node: OUT-02-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          81.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025              Node: OUT-01-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          82.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-025              Node: OUT-02-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          82.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025              Node: OUT-02-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
```

```
         13.000          82.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN               Node: OUT-01-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          80.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN               Node: OUT-01-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          79.500
         13.000          80.600
         96.000          79.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN               Node: OUT-02-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN               Node: OUT-02-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-100                Node: OUT-03-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          81.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-100                Node: OUT-04-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          81.200
         48.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025                Node: OUT-03-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          80.200
         48.000          76.500
         96.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-025                Node: OUT-03-PST            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          80.200
         48.000          76.500
         96.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-025                Node: OUT-04-PRE            Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         48.000          78.500
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-025                Node: OUT-04-PST            Type: Stage
```

```
      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.600
         48.000          78.500
         96.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-010               Node: OUT-03-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          79.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-010               Node: OUT-04-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          80.000
         48.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-03-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          78.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-03-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          76.500
         13.000          78.200
         48.000          76.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-04-PRE           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          79.400
         48.000          78.500

----------------------------------------------------------------------------------------------------
      Name: BND-MEAN              Node: OUT-04-PST           Type: Stage

      Time(hrs)       Stage(ft)
--------------- ---------------
          0.000          78.500
         13.000          79.400
         48.000          78.500
```

Hillside Grove

STORM SEWER TABULATION SHEET

Connelly & Wicker Inc.

Project No.: 21-04-0008 County: Lake County **DESIGN : 10 Year (24 Hr) Storm** Designed By: Justin Williams, P.E.

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-1	STD.											81.60												OUT-01-PST
	MES		3.61	1.00	3.61	15.32					-	81.50			36	36	HP							10 Yr D.H.W.
												78.50												EL. = 81.60
S-2	MOD		0.00	1.00	0.00							81.77	81.60	0.03					0.09%	3.04	21.51			
To	J-2	30	3.61	1.00	3.61	15.15	0.16	5.91	3.61	0.00	87.00	82.50	81.50		36	36	HP	0.012				1.0	0.14	
S-1	INLET		3.61	1.00	3.61							79.50	78.50	1.00					3.33%	18.66	131.92			
S-3	STD.		3.61	1.00	3.61							85.12	84.00	0.03					0.09%	3.06	21.60			SMF-01
To	MES	28	0.00	0.00	0.00	15.00	0.15	5.93	3.61	21.42	-	82.50	84.00		36	36	HP	0.012				1.0	0.14	N.W.L.
S-2			3.61	1.00	3.61							79.50	81.00	-1.50					-5.36%	-23.66	-167.24			EL. = 84.00
S-4	STD.											81.48												WET-01-PST
	MES		1.35	1.00	1.35	16.20					-	81.40			42	42	HP							10 Yr D.H.W.
												77.90												EL. = 81.48
S-5	MOD		0.00	1.00	0.00							81.49	81.48	0.00					0.01%	0.82	7.93			
To	J-2	25	1.35	1.00	1.35	15.69	0.51	5.82	1.35	0.00	87.15	82.30	81.40		42	42	HP	0.012				1.0	0.01	
S-4	INLET		1.35	1.00	1.35							78.80	77.90	0.90					3.60%	21.49	206.80			
S-6	STD.		1.35	1.00	1.35							84.81	82.30	0.00					0.01%	0.84	8.08			SMF-02
To	MES	35	0.00	0.00	0.00	15.00	0.69	5.93	1.35	8.01	-	80.80	82.30		42	42	HP	0.012				1.0	0.01	NWL
S-5			1.35	1.00	1.35							77.30	78.80	-1.50					-4.29%	-23.45	-225.64			EL. = 82.30
S-7	STD.											80.01												WET-04-PST
	MES		2.22	1.00	2.22	15.72					-	79.60			42	42	HP							10 Yr D.H.W.
												76.10												EL. = 80.01
S-8	MOD		0.00	1.00	0.00							80.04	80.01	0.00					0.01%	1.37	13.15			
To	J-2	27	2.22	1.00	2.22	15.39	0.33	5.87	2.22	0.00	85.85	80.60	79.60		42	42	HP	0.012				1.0	0.03	
S-7	INLET		2.22	1.00	2.22							77.10	76.10	1.00					3.70%	21.80	209.76			
S-9	STD.		2.22	1.00	2.22							83.68	81.50	0.00					0.01%	1.38	13.28			SMF-03
To	MES	32	0.00	0.00	0.00	15.00	0.39	5.93	2.22	13.17	-	80.00	81.50		42	42	HP	0.012				1.0	0.03	NWL
S-8			2.22	1.00	2.22							76.50	78.00	-1.50					-4.69%	-24.53	-235.98			EL. = 81.50
S-10	STD.											83.68												SMF-03
	MES		1.28	1.00	1.28	22.16					-	80.00			54	54	HP							10 Yr D.H.W.
												75.50												EL. = 83.68
S-11	STD.		1.28	1.00	1.28							83.69	83.68	0.00					0.00%	0.48	7.66			SMF-04
To	MES	207	0.00	0.00	0.00	15.00	7.16	5.93	1.28	7.59	-	80.10	80.00		54	54	HP	0.012				1.0	0.00	NWL
S-10			1.28	1.00	1.28							75.60	75.50	0.10					0.05%	2.94	46.82			EL. = 81.50

Upper To Lower	Type Structure Upstream	Pipe Length (Ft)	Drainage Area (Ac +/-) C = VARIES			Tc (min.)	TL (min.)	i (In / Hr.)	Total (CA)	Q Runoff (cfs)	Top Elev.	Hydraulic Grade EL. Crown / Flowline			Pipe Size		Pipe Mat.	n	Hydraulic Gradient / Physical			C Head Loss	Minor Loss (str)	Remarks
			A	C	C*A							Up End	Dn End	Fall	Span (in.)	Rise (in.)			Slope (%)	Vel. (fps)	Q (cfs)			
S-12	STD.					15.38					-	80.01			30	30	HP							WET-04-PST
	MES		2.00	1.00	2.00							79.10												10 Yr D.H.W.
												76.60												EL. = 80.01
S-13	MOD	28	0.00	1.00	0.00	15.18	0.19	5.90	2.00	0.00	84.50	80.12	80.01	0.02	30	30	HP	0.012	0.07%	2.43	11.91	1.0	0.09	
To	J-2		2.00	1.00	2.00							80.60	79.10											
S-12	INLET		2.00	1.00	2.00							78.10	76.60	1.50					5.36%	20.95	102.85			
S-14	STD.	27	2.00	1.00	2.00	15.00	0.18	5.93	2.00	11.87	-	82.42	81.50	0.02	30	30	HP	0.012	0.07%	2.44	11.97	1.0	0.09	SMF-05
To	MES		0.00	0.00	0.00							80.00	81.50											NWL
S-13			2.00	1.00	2.00							77.50	79.00	-1.50					-5.56%	-21.34	-104.73			EL. = 81.50
S-15	STD.					15.91					-	82.42			24	24	HP							SMF-05
	MES		2.99	0.67	2.00							80.00												5 Yr D.H.W.
												78.00												EL. = 82.42
S-16	TYPE	49	1.80	0.45	0.81	15.69	0.22	5.83	2.00	4.81	84.50	82.43	82.42	0.11	24	24	HP	0.012	0.23%	3.74	11.75	0.6	0.13	
To	C		1.19	1.00	1.19							80.10	80.00											
S-15	INLET		2.99	0.67	2.00							78.10	78.00	0.10					0.20%	3.52	11.07			
S-17	STD.	167	1.19	1.00	1.19	15.00	0.69	5.93	1.19	7.06	-	82.43	82.43	0.65	18	18	HP	0.012	0.39%	4.03	7.12	1.0	0.25	SMF-06
To	MES		0.00	0.00	0.00							80.00	81.50											NWL
S-16			1.19	1.00	1.19							78.50	80.00	-1.50					-0.90%	-6.10	-10.78			EL. = 81.50
S-18	STD.					16.60					-	82.42			30	30	HP							SMF-05
	MES		8.54	0.69	5.86							80.00												10 Yr D.H.W.
												77.50												EL. = 82.42
S-19	TYPE	138	0.98	0.20	0.20	16.27	0.33	5.74	5.86	1.16	89.00	82.43	82.42	0.80	30	30	HP	0.012	0.58%	6.91	33.91	0.5	0.37	
To	E		7.56	0.75	5.66							80.15	80.00											
S-18	INLET		8.54	0.69	5.86							77.65	77.50	0.15					0.11%	2.98	14.65			
S-20	SINGLE	96	1.79	0.40	0.72	16.03	0.24	5.77	5.66	4.25	88.00	82.43	82.43	0.53	30	30	HP	0.012	0.55%	6.72	32.98	0.8	0.56	
To	CURB		5.77	0.86	4.95							80.25	80.15											
S-19	INLET		7.56	0.75	5.66							77.75	77.65	0.10					0.10%	2.92	14.34			
S-21	SINGLE	175	0.29	0.40	0.12	15.72	0.32	5.82	4.95	0.69	88.50	82.44	82.43	2.88	24	24	RCP	0.013	1.65%	9.25	29.05	0.8	1.06	
To	CURB		5.48	0.88	4.83							80.45	80.25											
S-20	INLET		5.77	0.86	4.95							78.45	78.25	0.20					0.11%	2.43	7.65			
S-22	SINGLE	179	0.52	0.40	0.21	15.39	0.33	5.87	4.83	1.23	84.50	82.45	82.44	2.86	24	24	RCP	0.013	1.60%	9.11	28.61	0.6	0.77	
To	CURB		4.96	0.93	4.62							80.65	80.45											
S-21	INLET		5.48	0.88	4.83							78.65	78.45	0.20					0.11%	2.41	7.56			
S-23	SINGLE	36	0.56	0.40	0.22	15.32	0.07	5.88	4.62	1.33	84.50	82.45	82.45	0.53	24	24	RCP	0.013	1.47%	8.73	27.43	0.6	0.71	
To	CURB		4.40	1.00	4.40							80.85	80.65											
S-22	INLET		4.96	0.93	4.62							78.85	78.65	0.20					0.56%	5.37	16.86			
S-24	STD.	161	4.40	1.00	4.40	15.00	0.32	5.93	4.40	26.11	-	82.46	82.45	1.86	24	24	HP	0.012	1.15%	8.38	26.33	1.0	1.09	SMF-07
To	MES		0.00	0.00	0.00							80.00	80.85											NWL
S-23			4.40	1.00	4.40							78.00	78.85	-0.85					-0.53%	-5.67	-17.81			EL. = 81.50

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-25	STD.											81.60												OUT-01-PST
	MES		1.99	1.00	1.99	15.50					-	81.50			36	36	HP							10 Yr D.H.W.
												78.50												EL. = 81.60
S-26	MOD		0.00	1.00	0.00							81.65	81.60	0.01					0.03%	1.67	11.82			
To	J-2	23	1.99	1.00	1.99	15.27	0.23	5.89	1.99	0.00	86.00	82.50	81.50		36	36	HP	0.012				1.0	0.04	
S-25	INLET		1.99	1.00	1.99							79.50	78.50	1.00					4.35%	21.31	150.67			
S-27	STD.		1.99	1.00	1.99							84.35	83.00	0.01					0.03%	1.68	11.91			SMF-08
To	MES	27	0.00	0.00	0.00	15.00	0.27	5.93	1.99	11.81	-	81.50	83.00		36	36	HP	0.012				1.0	0.04	NWL
S-26			1.99	1.00	1.99							78.50	80.00	-1.50					-5.56%	-24.09	-170.31			EL. = 83.00
S-28	STD.											84.35												SMF-08
	MES		2.18	0.79	1.73	16.01					-	81.50			24	24	HP							10 Yr D.H.W.
												79.50												EL. = 84.35
S-29	SINGLE		0.42	0.45	0.19							84.36	84.35	0.11					0.17%	3.23	10.16			
To	CURB	63	1.76	0.88	1.54	15.68	0.32	5.83	1.73	1.12	86.06	81.60	81.50		24	24	HP	0.012				0.5	0.08	
S-28	INLET		2.18	0.79	1.73							79.60	79.50	0.10					0.16%	3.11	9.76			
S-30	SINGLE		0.40	0.45	0.18							84.37	84.36	0.08					0.16%	2.90	9.11			
To	CURB	48	1.36	1.00	1.36	15.41	0.28	5.87	1.54	1.07	86.06	81.65	81.60		24	24	RCP	0.013				0.5	0.07	
S-29	INLET		1.76	0.88	1.54							79.65	79.60	0.05					0.10%	2.32	7.30			
S-31	STD.		1.36	1.00	1.36							84.38	84.37	0.07					0.11%	2.59	8.14			SMF-09
To	MES	63	0.00	0.00	0.00	15.00	0.41	5.93	1.36	8.07	-	81.50	81.65		24	24	HP	0.012				1.0	0.10	NWL
S-30			1.36	1.00	1.36							79.50	79.65	-0.15					-0.24%	-3.81	-11.96			EL. = 83.00
S-32	STD.											84.38												SMF-09
	MES		5.79	0.73	4.20	15.66					-	81.50			30	30	HP							5 Yr D.H.W.
												79.00												EL. = 84.38
S-33	TYPE		2.65	0.40	1.06							84.38	84.38	0.42					0.32%	5.09	24.98			
To	C	133	3.14	1.00	3.14	15.23	0.44	5.90	4.20	6.29	85.50	81.65	81.50		30	30	HP	0.012				0.8	0.32	
S-32	INLET		5.79	0.73	4.20							79.15	79.00	0.15					0.11%	3.04	14.92			
S-34	STD.		3.14	1.00	3.14							84.38	84.38	0.09					0.18%	3.83	18.79			SMF-10
To	MES	52	0.00	0.00	0.00	15.00	0.23	5.93	3.14	18.63	-	81.50	81.65		30	30	HP	0.012				1.0	0.23	NWL
S-33			3.14	1.00	3.14							79.00	79.15	-0.15					-0.29%	-4.86	-23.87			EL. = 83.00
S-35	STD.											84.35												SMF-08
	MES		2.13	0.62	1.33	30.18					-	78.35			36	36	HP							5 Yr D.H.W.
												75.35												EL. = 84.35
S-36	SINGLE		0.01	0.45	0.00							84.35	84.35	0.01					0.01%	0.86	6.06			
To	CURB	140	2.12	0.62	1.32	27.46	2.72	4.53	1.33	0.03	86.96	78.45	78.35		36	36	HP	0.012				0.6	0.01	
S-35	INLET		2.13	0.62	1.33							75.45	75.35	0.10					0.07%	2.73	19.31			
S-37	SINGLE		0.38	0.45	0.17							84.38	84.35	0.02					0.01%	0.93	6.57			
To	CURB	247	1.74	0.66	1.15	23.03	4.43	4.93	1.32	1.01	86.06	78.60	78.45		36	36	RCP	0.012				0.6	0.01	
S-36	INLET		2.12	0.62	1.32							75.60	75.45	0.15					0.06%	2.52	17.81			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-38	SINGLE	255	0.26	0.45	0.12	17.50	5.54	5.57	0.97	0.69	86.06	84.53	84.38	0.01	36	36	RCP	0.012	0.01%	0.77	5.43	0.6	0.01	
To	CURB		1.07	0.79	0.85							78.80	78.60											
S-37	INLET		1.33	0.73	0.97							75.80	75.60	0.20					0.08%	2.86	20.24			
S-39	STD.	85	0.67	1.00	0.67	15.00	2.50	5.93	0.67	3.98	-	84.65	84.53	0.00	36	36	HP	0.012	0.00%	0.57	4.01	1.0	0.00	SMF-11
To	MES		0.00	0.00	0.00							81.50	81.65											NWL
S-38			0.67	1.00	0.67							78.50	78.65	-0.15					-0.18%	-4.29	-30.35			EL. = 83.00
S-40	STD.					15.00					-	81.60			30	30	HP							OUT-01-PST
	MES		0.00	0.00	0.00							81.00												10 Yr D.H.W.
												78.50												EL. = 81.60
S-41	MOD	29	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	86.50	81.60	81.60	0.00	30	30	HP	0.012	0.00%	0.00	0.00	1.0	0.00	
To	J-2		0.00	0.00	0.00							82.00	81.00											
S-40	INLET		0.00	0.00	0.00							79.50	78.50	1.00					3.45%	16.81	82.51			
S-42	STD.	30	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	-	83.00	83.00	0.00	30	30	HP	0.012	0.00%	0.00	0.00	1.0	0.00	SMF-11
To	MES		0.00	0.00	0.00							81.50	83.00											NWL
S-41			0.00	0.00	0.00							79.00	80.50	-1.50					-5.00%	-20.24	-99.36			EL. = 83.00
S-43	STD.					15.09					-	81.49			15	15	HP							WET-02-PST
	MES		2.25	1.00	2.25							79.25												10 Yr D.H.W.
												78.00												EL. = 81.49
S-44	MOD	34	0.00	1.00	0.00	15.03	0.05	5.93	2.25	0.00	86.00	84.61	81.49	1.26	15	15	HP	0.012	3.69%	10.96	13.45	1.0	1.86	
To	E		2.25	1.00	2.25							80.75	79.25											
S-43	INLET		2.25	1.00	2.25							79.50	78.00	1.50					4.41%	11.98	14.70			
S-45	STD.	23	2.25	1.00	2.25	15.00	0.03	5.93	2.25	13.35	-	84.38	84.61	0.85	15	15	HP	0.012	3.70%	10.97	13.46	1.0	1.87	SMF-12
To	MES		0.00	0.00	0.00							82.50	84.00											NWL
S-44			2.25	1.00	2.25							81.25	82.75	-1.50					-6.52%	-14.56	-17.87			EL. = 84.00
S-46	STD.					23.51					-	80.01			24	24	HP							WET-04-PST
	MES		1.24	0.20	0.25							78.50												10 Yr D.H.W.
												76.50												EL. = 80.01
S-47	TYPE	41	0.00	0.38	0.00	21.81	1.70	5.05	0.25	0.00	85.00	80.01	80.01	0.00	24	24	HP	0.012	0.00%	0.40	1.26	0.6	0.00	
To	E		1.24	0.20	0.25							78.55	78.50											
S-46	INLET		1.24	0.20	0.25							76.55	76.50	0.05					0.12%	2.72	8.56			
S-48	TYPE	193	1.24	0.20	0.25	15.00	6.81	5.93	0.25	1.47	86.50	80.01	80.01	0.01	24	24	RCP	0.013	0.00%	0.47	1.48	0.5	0.00	
To	E		0.00	0.00	0.00							78.80	78.55											
S-47	INLET		1.24	0.20	0.25							76.80	76.55	0.25					0.13%	2.59	8.14			
S-49	MOD	378	0.00	0.20	0.00	15.00	0.00	5.93	0.00	0.00	86.00	80.01	80.01	0.00	24	24	HP	0.012	0.00%	0.00	0.00	1.0	0.00	
To	E		0.00	0.00	0.00							79.30	78.80											
S-48	INLET		0.00	0.00	0.00							77.30	76.80	0.50					0.13%	2.84	8.91			
S-50	STD.	93	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	-	82.27	81.50	0.00	24	24	HP	0.012	0.00%	0.00	0.00	1.0	0.00	SMF-13
To	MES		0.00	0.00	0.00							80.00	81.50											NWL
S-49			0.00	0.00	0.00							78.00	79.50	-1.50					-1.61%	-9.91	-31.12			EL. = 81.50

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-51	STD.					15.06					-	80.01			30	30	HP							WET-04-PST
	MES		11.95	1.00	11.95							79.10												10 Yr D.H.W.
												76.60												EL. = 80.01
S-52	MOD	27	0.00	1.00	0.00	15.03	0.03	5.93	11.95	0.00	84.50	84.00	80.01	0.70	30	30	HP	0.012	2.58%	14.55	71.44	1.0	3.29	
To	E		11.95	1.00	11.95							80.60	79.10											
S-51	INLET		11.95	1.00	11.95							78.10	76.60	1.50					5.56%	21.34	104.73			
S-53	STD.	28	11.95	1.00	11.95	15.00	0.03	5.93	11.95	70.91	-	82.52	84.00	0.72	30	30	HP	0.012	2.59%	14.57	71.50	1.0	3.29	SMF-14
To	MES		0.00	0.00	0.00							80.00	81.50											NWL
S-52			11.95	1.00	11.95							77.50	79.00	-1.50					-5.36%	-20.95	-102.85			EL. = 81.50
S-54	STD.					15.68					-	80.00			36	36	HP							OUT-04-PST
	MES		8.38	0.40	3.35							80.50												10 Yr D.H.W.
												77.50												EL. = 80.00
S-55	MOD	89	0.00	1.00	0.00	15.16	0.53	5.91	3.35	0.00	86.00	80.69	80.50	0.07	36	36	HP	0.012	0.08%	2.83	19.97	1.0	0.12	
To	J-2		8.38	0.40	3.35							83.00	80.50											
S-54	INLET		8.38	0.40	3.35							80.00	77.50	2.50					2.81%	17.13	121.10			
S-56	STD.	27	8.38	0.40	3.35	15.00	0.16	5.93	3.35	19.89	-	83.73	83.00	0.02	36	36	HP	0.012	0.08%	2.84	20.06	1.0	0.12	SMF-15
To	MES		0.00	0.00	0.00							81.50	83.00											NWL
S-55			8.38	0.40	3.35							78.50	80.00	-1.50					-5.56%	-24.09	-170.31			EL. = 83.00
S-57	STD.					15.11					-	80.03			36	36	HP							WET-08-PST
	MES		21.20	0.40	8.48							80.75												10 Yr D.H.W.
												77.75												EL. = 80.03
S-58	MOD	21	0.00	1.00	0.00	15.07	0.05	5.92	8.48	0.00	86.30	81.65	80.75	0.10	36	36	HP	0.012	0.49%	7.17	50.65	1.0	0.80	
To	J-2		21.20	0.40	8.48							81.75	80.75											
S-57	INLET		21.20	0.40	8.48							78.75	77.75	1.00					4.76%	22.31	157.68			
S-59	STD.	28	21.20	0.40	8.48	15.00	0.07	5.93	8.48	50.32	-	84.39	83.00	0.14	36	36	HP	0.012	0.49%	7.18	50.74	1.0	0.80	SMF-16
To	MES		0.00	0.00	0.00							81.50	83.00											NWL
S-58			21.20	0.40	8.48							78.50	80.00	-1.50					-5.36%	-23.66	-167.24			EL. = 83.00
S-60	STD.					16.67					-	80.00			36	36	HP							OUT-04-PST
	MES		0.56	1.00	0.56							80.50												10 Yr D.H.W.
												77.50												EL. = 80.00
S-61	MOD	17	0.00	1.00	0.00	16.05	0.61	5.77	0.56	0.00	85.50	80.50	80.50	0.00	36	36	HP	0.012	0.00%	0.46	3.26	1.0	0.00	
To	J-2		0.56	1.00	0.56							81.50	80.50											
S-60	INLET		0.56	1.00	0.56							78.50	77.50	1.00					5.88%	24.79	175.25			
S-62	STD.	30	0.56	1.00	0.56	15.00	1.05	5.93	0.56	3.32	-	83.62	82.00	0.00	36	36	HP	0.012	0.00%	0.47	3.35	1.0	0.00	SMF-17
To	MES		0.00	0.00	0.00							80.50	82.00											NWL
S-61			0.56	1.00	0.56							77.50	79.00	-1.50					-5.00%	-22.86	-161.57			EL. = 82.00

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-63	STD.					18.31					-	83.62			30	30	HP							SMF-17
	MES		8.82	0.56	4.93							80.50												10 Yr D.H.W.
												78.00												EL. = 83.62
S-64	SINGLE	151	0.51	0.40	0.20	17.86	0.45	5.52	4.93	1.21	86.50	83.64	83.62	0.57	30	30	HP	0.012	0.38%	5.58	27.41	0.6	0.29	
To	CURB		8.31	0.57	4.72							80.65	80.50											
S-63	INLET		8.82	0.56	4.93							78.15	78.00	0.15					0.10%	2.85	14.01			
S-65	SINGLE	34	3.04	0.40	1.22	17.76	0.11	5.53	4.72	7.22	86.50	83.65	83.64	0.14	30	30	RCP	0.013	0.41%	5.37	26.34	0.9	0.40	
To	CURB		5.27	0.67	3.51							80.70	80.65											
S-64	INLET		8.31	0.57	4.72							78.20	78.15	0.05					0.15%	3.20	15.73			
S-66	SINGLE	88	0.35	0.40	0.14	17.39	0.36	5.58	3.51	0.83	86.50	83.65	83.65	0.20	30	30	RCP	0.013	0.23%	4.02	19.73	0.8	0.20	
To	CURB		4.92	0.68	3.37							80.80	80.70											
S-65	INLET		5.27	0.67	3.51							78.30	78.20	0.10					0.11%	2.82	13.83			
S-67	SINGLE	29	0.45	0.40	0.18	16.14	0.20	5.76	1.34	1.07	86.50	83.66	83.65	0.03	24	24	RCP	0.013	0.12%	2.48	7.78	0.6	0.06	
To	CURB		1.16	1.00	1.16							80.85	80.80											
S-66	INLET		1.61	0.83	1.34							78.85	78.80	0.05					0.17%	2.99	9.39			
S-68	STD.	151	1.16	1.00	1.16	15.00	1.14	5.93	1.16	6.88	-	83.66	83.66	0.12	24	24	HP	0.012	0.08%	2.21	6.94	1.0	0.08	SMF-18
To	MES		0.00	0.00	0.00							80.50	80.85											NWL
S-67			1.16	1.00	1.16							78.50	78.85	-0.35					-0.23%	-3.76	-11.80			EL. = 82.00

Upper	Type	Pipe	A	C	C*A	Tc	TL	i	Total	Q Runoff	Top Elev.	Up End	Dn End	Fall	Span	Rise	Pipe Mat.	n	Slope	Vel.	Q	C Head Loss	Minor Loss	Remarks
S-69	TYPE	144	0.00	0.40	0.00	16.74	0.65	5.67	2.03	0.00	86.50	84.15	83.65	0.38	24	24	RCP	0.013	0.26%	3.69	11.59	0.6	0.13	
To	J		3.31	0.61	2.03							81.00	80.80											
S-66	MH		3.31	0.61	2.03							79.00	78.80	0.20					0.14%	2.68	8.43			
S-70	SINGLE	90	1.59	0.40	0.64	16.34	0.40	5.73	2.03	3.77	86.50	83.67	84.15	0.24	24	24	RCP	0.013	0.27%	3.73	11.70	0.7	0.15	
To	CURB		1.72	0.81	1.39							81.15	81.00											
S-69	INLET		3.31	0.61	2.03							79.15	79.00	0.15					0.17%	2.94	9.24			
S-71	SINGLE	32	0.55	0.40	0.22	16.13	0.21	5.76	1.39	1.31	86.50	83.67	83.67	0.04	24	24	RCP	0.013	0.13%	2.57	8.07	0.6	0.06	
To	CURB		1.17	1.00	1.17							81.20	81.15											
S-70	INLET		1.72	0.81	1.39							79.20	79.15	0.05					0.16%	2.85	8.94			
S-72	STD.	151	1.17	1.00	1.17	15.00	1.13	5.93	1.17	6.94	-	83.67	83.67	0.12	24	24	HP	0.012	0.08%	2.23	7.00	1.0	0.08	SMF-19
To	MES		0.00	0.00	0.00							80.50	81.20											NWL
S-71			1.17	1.00	1.17							78.50	79.20	-0.70					-0.46%	-5.31	-16.69			EL. = 82.00

Upper	Type	Pipe	A	C	C*A	Tc	TL	i	Total	Q Runoff	Top Elev.	Up End	Dn End	Fall	Span	Rise	Pipe Mat.	n	Slope	Vel.	Q	C Head Loss	Minor Loss	Remarks
S-73	STD.					15.00					-	81.60			36	36	RCP							OUT-01-PST
	MES		0.00	0.00	0.00							84.20												10 Yr D.H.W.
												81.20												EL. = 81.60
S-74	STD.	123	0.00	0.25	0.00	15.00	0.00	5.93	0.00	0.00	-	84.20	84.20	0.00	36	36	RCP	0.012	0.00%	0.00	0.00	1.0	0.00	
To	MES		0.00	0.00	0.00							84.40	84.20											
S-73			0.00	0.00	0.00							81.40	81.20	0.20					0.16%	4.12	29.14			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-75	STD.					15.21					-	81.60			36	36	RCP							OUT-01-PST
	MES		14.68	1.00	14.68							82.45												10 Yr D.H.W.
												79.45												EL. = 81.60
S-76	STD.	155	14.68	1.00	14.68	15.00	0.21	5.93	14.68	87.10	-	81.48	82.45	2.29	36	36	RCP	0.012	1.48%	12.43	87.83	1.0	2.40	
To	MES		0.00	0.00	0.00							82.70	82.45											
S-75			14.68	1.00	14.68							79.70	79.45	0.25					0.16%	4.11	29.02			
S-77	STD.					15.00					-	81.48			24	24	RCP							WET-01-PST
	MES		0.00	0.00	0.00							81.40												10 Yr D.H.W.
												79.40												EL. = 81.48
S-78	STD.	123	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	-	81.49	81.48	0.00	24	24	RCP	0.013	0.00%	0.00	0.00	1.0	0.00	
To	MES		0.00	0.00	0.00							80.50	81.40											
S-77			0.00	0.00	0.00							78.50	79.40	-0.90					-0.73%	-6.16	-19.35			
S-79	STD.					15.00					-	79.20			30	30	RCP							OUT-03-PST
	MES		0.00	0.00	0.00							80.50												10 Yr D.H.W.
												78.00												EL. = 79.20
S-80	TYPE	67	0.00	0.40	0.00	15.00	0.00	5.93	0.00	0.00	85.50	80.50	80.50	0.00	30	30	RCP	0.013	0.00%	0.00	0.00	1.0	0.00	
To	J		0.00	0.00	0.00							80.60	80.50											
S-79	MH		0.00	0.00	0.00							78.10	78.00	0.10					0.15%	3.23	15.85			
S-81	MOD	152	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	81.50	80.01	80.60	0.00	30	30	HP	0.012	0.00%	0.00	0.00	1.0	0.00	
To	E		0.00	0.00	0.00							80.75	80.60											
S-80	INLET		0.00	0.00	0.00							78.25	78.10	0.15					0.10%	2.84	13.96			
S-82	STD.					15.00					-	80.01			24	24	RCP							WET-04-PST
	MES		0.00	0.00	0.00							79.00												10 Yr D.H.W.
												77.00												EL. = 80.01
S-83	STD.	138	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	-	80.01	80.01	0.00	24	24	RCP	0.013	0.00%	0.00	0.00	1.0	0.00	
To	MES		0.00	0.00	0.00							80.50	79.00											
S-82			0.00	0.00	0.00							78.50	77.00	1.50					1.09%	7.51	23.59			
S-84	STD.					15.00					-	80.00			36	36	RCP							OUT-04-PST
	MES		0.00	0.00	0.00							80.50												10 Yr D.H.W.
												77.50												EL. = 80.00
S-85	MOD.	104	0.00	1.00	0.00	15.00	0.00	5.93	0.00	0.00	82.65	78.84	80.50	0.00	36	36	RCP	0.012	0.00%	0.00	0.00	1.0	0.00	
To	E		0.00	0.00	0.00							80.65	80.50											
S-84	INLET		0.00	0.00	0.00							77.65	77.50	0.15					0.14%	3.88	27.44			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-86	STD.											80.00												OUT-04-PST
	MES		0.00	0.00	0.00	15.00					-	80.00			30	30	RCP							10 Yr D.H.W.
												77.50												EL. = 80.00
S-87	MOD.		0.00	0.70	0.00							80.00	80.00	0.00					0.00%	0.00	0.00			
To	E	163	0.00	0.00	0.00	15.00	0.00	5.93	0.00	0.00	86.00	82.50	80.00		30	30	RCP	0.013				1.0	0.00	
S-86	INLET		0.00	0.00	0.00							80.00	77.50	2.50					1.53%	10.35	50.80			
S-100	STD.											85.12												SMF-01
	MES		3.80	0.40	1.52	26.20					-	78.25			30	30	HP							10 Yr D.H.W.
												75.75												EL. = 85.12
S-101	SINGLE		0.95	0.40	0.38							85.19	85.12	0.05					0.03%	1.50	7.38			
To	CURB	178	2.85	0.40	1.14	24.22	1.97	4.81	1.52	2.25	87.11	78.45	78.25		30	30	HP	0.012				0.7	0.02	
S-100	INLET		3.80	0.40	1.52							75.95	75.75	0.20					0.11%	3.03	14.89			
S-102	SINGLE		0.87	0.40	0.35							85.27	85.19	0.03					0.10%	1.70	2.08			
To	CURB	28	0.00	0.00	0.00	15.00	0.28	5.93	0.35	2.06	87.11	84.45	84.35		15	15	RCP	0.013				1.0	0.04	
S-101	INLET		0.87	0.40	0.35							83.20	83.10	0.10					0.36%	3.15	3.86			
S-103	TYPE		0.00	0.40	0.00							85.22	85.19	0.01					0.03%	1.24	3.89			
To	J	44	1.98	0.40	0.79	23.63	0.59	4.87	0.79	0.00	87.30	78.55	78.45		24	24	RCP	0.013				0.6	0.01	
S-101	MH		1.98	0.40	0.79							76.55	76.45	0.10					0.23%	3.43	10.78			
S-104	TYPE		0.00	0.40	0.00							85.30	85.22	0.07					0.03%	1.30	4.10			
To	J	199	1.98	0.40	0.79	21.09	2.54	5.13	0.79	0.00	88.05	78.80	78.55		24	24	RCP	0.013				0.5	0.01	
S-103	MH		1.98	0.40	0.79							76.80	76.55	0.25					0.13%	2.55	8.02			
S-105	SINGLE		0.31	0.40	0.12							85.42	85.30	0.09					0.04%	1.39	4.38			
To	CURB	250	1.67	0.40	0.67	18.10	2.99	5.49	0.79	0.74	87.43	79.15	78.80		24	24	RCP	0.013				0.8	0.02	
S-104	INLET		1.98	0.40	0.79							77.15	76.80	0.35					0.14%	2.69	8.46			
S-106	SINGLE		0.26	0.40	0.10							85.51	85.42	0.05					0.13%	2.11	3.72			
To	CURB	37	1.41	0.40	0.56	17.81	0.29	5.53	0.67	0.62	87.11	79.25	79.15		18	18	RCP	0.013				0.6	0.04	
S-105	INLET		1.67	0.40	0.67							77.75	77.65	0.10					0.27%	3.09	5.46			
S-107	SINGLE		0.51	0.40	0.20							85.54	85.51	0.01					0.04%	0.99	1.22			
To	CURB	42	0.00	0.00	0.00	15.00	0.70	5.93	0.20	1.21	87.33	84.70	84.45		15	15	RCP	0.013				1.0	0.02	
S-106	INLET		0.51	0.40	0.20							83.45	83.20	0.25					0.60%	4.06	4.98			
S-108	TYPE		0.12	0.40	0.05							85.70	85.51	0.16					0.10%	1.70	2.08			
To	J	151	0.78	0.40	0.31	16.32	1.48	5.73	0.36	0.28	88.09	82.60	81.65		15	15	RCP	0.013				0.8	0.04	
S-106	MH		0.90	0.40	0.36							81.35	80.40	0.95					0.63%	4.18	5.12			
S-109	TYPE		0.35	0.40	0.14							85.76	85.70	0.03					0.08%	1.49	1.82			
To	J	38	0.43	0.40	0.17	15.89	0.43	5.79	0.31	0.83	87.92	85.20	85.10		15	15	RCP	0.013				0.8	0.03	
S-108	MH		0.78	0.40	0.31							83.95	83.85	0.10					0.26%	2.70	3.31			
S-110	SINGLE		0.43	0.40	0.17							85.78	85.76	0.01					0.03%	0.84	1.03			
To	CURB	45	0.00	0.00	0.00	15.00	0.89	5.93	0.17	1.02	87.99	85.35	85.20		15	15	RCP	0.013				1.0	0.01	
S-109	INLET		0.43	0.40	0.17							84.10	83.95	0.15					0.33%	3.04	3.73			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	Remarks
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-111	STD.					28.09					-	85.12			24	24	HP							SMF-01
	MES		7.19	0.40	2.88							81.10												10 Yr D.H.W.
												79.10												EL. = 85.12
S-112	SINGLE	174	0.70	0.40	0.28	27.40	0.69	4.54	2.88	1.66	87.77	85.84	85.12	0.50	24	24	HP	0.012	0.29%	4.19	13.15	0.8	0.22	
To	CURB		6.49	0.40	2.60							81.35	81.10											
S-111	INLET		7.19	0.40	2.88							79.35	79.10	0.25					0.14%	2.96	9.29			
S-113	SINGLE	36	0.67	0.40	0.27	15.28	0.16	5.89	0.80	1.59	87.56	86.22	85.84	0.19	15	15	RCP	0.013	0.54%	3.85	4.73	0.8	0.18	
To	CURB		1.32	0.40	0.53							84.80	84.70											
S-112	INLET		1.99	0.40	0.80							83.55	83.45	0.10					0.28%	2.77	3.40			
S-114	SINGLE	44	1.32	0.40	0.53	15.00	0.28	5.93	0.53	3.13	87.55	86.42	86.22	0.11	15	15	RCP	0.013	0.24%	2.57	3.16	1.0	0.10	
To	CURB		0.00	0.00	0.00							84.90	84.80											
S-113	INLET		1.32	0.40	0.53							83.65	83.55	0.10					0.23%	2.51	3.08			
S-115	TYPE	97	0.00	0.40	0.00	26.79	0.61	4.59	1.80	0.00	88.15	86.04	85.84	0.13	24	24	RCP	0.013	0.14%	2.65	8.32	0.6	0.07	
To	J		4.50	0.40	1.80							81.50	81.35											
S-112	MH		4.50	0.40	1.80							79.50	79.35	0.15					0.15%	2.83	8.90			
S-116	SINGLE	289	0.54	0.40	0.22	25.03	1.76	4.74	1.80	1.28	89.10	86.52	86.04	0.42	24	24	RCP	0.013	0.14%	2.74	8.60	0.6	0.07	
To	CURB		3.96	0.40	1.58							83.65	82.70											
S-115	INLET		4.50	0.40	1.80							81.65	80.70	0.95					0.33%	4.13	12.97			
S-117	SINGLE	31	1.59	0.40	0.64	15.00	0.17	5.93	0.64	3.77	89.15	86.78	86.52	0.11	15	15	RCP	0.013	0.35%	3.10	3.81	1.0	0.15	
To	CURB		0.00	0.00	0.00							86.50	86.40											
S-116	INLET		1.59	0.40	0.64							85.25	85.15	0.10					0.32%	2.99	3.67			
S-118	TYPE	87	0.00	0.40	0.00	24.47	0.56	4.79	0.95	0.00	89.75	86.75	86.52	0.17	18	18	RCP	0.013	0.19%	2.59	4.58	0.6	0.06	
To	J		2.37	0.40	0.95							84.30	83.65											
S-116	MH		2.37	0.40	0.95							82.80	82.15	0.65					0.75%	5.14	9.08			
S-119	SINGLE	286	0.21	0.40	0.08	22.69	1.78	4.96	0.95	0.50	92.58	87.40	86.75	0.58	18	18	RCP	0.013	0.20%	2.68	4.74	0.6	0.07	
To	CURB		2.16	0.40	0.86							85.75	84.30											
S-118	INLET		2.37	0.40	0.95							84.25	82.80	1.45					0.51%	4.23	7.48			
S-120	SINGLE	54	0.06	0.40	0.02	15.00	7.69	5.93	0.02	0.14	92.63	89.85	89.85	0.00	15	15	RCP	0.013	0.00%	0.12	0.14	1.0	0.00	
To	CURB		0.00	0.00	0.00							90.00	89.85											
S-119	INLET		0.06	0.40	0.02							88.75	88.60	0.15					0.28%	2.77	3.40			
S-121	TYPE	146	0.00	0.40	0.00	18.55	0.65	5.43	0.84	0.00	93.76	88.29	87.40	0.74	15	15	RCP	0.013	0.51%	3.75	4.60	0.7	0.15	
To	J		2.10	0.40	0.84							86.10	85.75											
S-119	MH		2.10	0.40	0.84							84.85	84.50	0.35					0.24%	2.58	3.16			
S-122	12"	91	0.17	0.40	0.07	17.49	1.06	5.57	0.20	0.40	95.00	90.60	90.50	0.08	12	12	HP	0.012	0.08%	1.43	1.12	0.6	0.02	
To	YARD		0.33	0.40	0.13							92.30	90.50											
S-121	DRAIN		0.50	0.40	0.20							91.30	89.50	1.80					1.98%	6.91	5.43			
S-123	12"	150	0.33	0.40	0.13	15.00	2.49	5.93	0.13	0.78	94.80	92.38	92.30	0.06	12	12	HP	0.012	0.04%	1.01	0.79	1.0	0.02	
To	YARD		0.00	0.00	0.00							92.80	92.30											
S-122	DRAIN		0.33	0.40	0.13							91.80	91.30	0.50					0.33%	2.84	2.23			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-124	SINGLE	162	0.22	0.40	0.09	15.52	0.88	5.85	0.64	0.52	93.26	88.95	88.29	0.55	15	15	RCP	0.013	0.34%	3.08	3.78	0.7	0.10	
To	CURB		1.38	0.40	0.55							86.50	86.10											
S-121	INLET		1.60	0.40	0.64							85.25	84.85	0.40					0.25%	2.62	3.21			
S-125	SINGLE	39	0.72	0.40	0.29	15.00	0.46	5.93	0.29	1.71	93.15	90.46	90.40	0.03	15	15	RCP	0.013	0.07%	1.40	1.72	1.0	0.03	
To	CURB		0.00	0.00	0.00							90.50	90.40											
S-124	INLET		0.72	0.40	0.29							89.25	89.15	0.10					0.26%	2.67	3.27			
S-126	SINGLE	40	0.66	0.40	0.26	15.00	0.52	5.93	0.26	1.57	93.18	90.50	90.45	0.02	15	15	RCP	0.013	0.06%	1.29	1.58	1.0	0.03	
To	CURB		0.00	0.00	0.00							90.55	90.45											
S-124	INLET		0.66	0.40	0.26							89.30	89.20	0.10					0.25%	2.63	3.23			
S-200	STD.					17.86					-	84.81			24	24	HP							SMF-02
	MES		2.13	0.41	0.87							80.60												10 Yr D.H.W.
												78.60												EL. = 84.81
S-201	TYPE	36	0.00	0.45	0.00	17.48	0.39	5.57	0.87	0.00	87.05	84.85	84.81	0.01	24	24	HP	0.012	0.04%	1.55	4.88	0.6	0.02	
To	J		2.13	0.41	0.87							80.70	80.60											
S-200	MH		2.13	0.41	0.87							78.70	78.60	0.10					0.28%	4.11	12.92			
S-202	SINGLE	159	0.39	0.45	0.18	15.84	1.64	5.80	0.87	1.04	86.16	84.96	84.85	0.08	24	24	RCP	0.013	0.05%	1.62	5.09	0.7	0.03	
To	CURB		1.74	0.40	0.69							80.90	80.70											
S-201	INLET		2.13	0.41	0.87							78.90	78.70	0.20					0.13%	2.55	8.02			
S-203	SINGLE	56	0.47	0.45	0.21	15.44	0.40	5.86	0.69	1.25	86.05	85.10	84.96	0.09	18	18	RCP	0.013	0.15%	2.32	4.10	0.7	0.06	
To	CURB		1.27	0.38	0.48							83.40	83.25											
S-202	INLET		1.74	0.40	0.69							81.90	81.75	0.15					0.27%	3.08	5.44			
S-204	SINGLE	43	1.27	0.38	0.48	15.00	0.44	5.93	0.48	2.86	86.06	85.17	85.10	0.03	18	18	RCP	0.013	0.08%	1.63	2.89	1.0	0.04	
To	CURB		0.00	0.00	0.00							83.50	83.40											
S-203	INLET		1.27	0.38	0.48							82.00	81.90	0.10					0.23%	2.87	5.07			
S-205	STD.					16.81					-	84.81			24	24	HP							SMF-02
	MES		3.08	0.42	1.30							79.70												10 Yr D.H.W.
												77.70												EL. = 84.81
S-206	SINGLE	67	0.32	0.45	0.14	16.34	0.47	5.73	1.30	0.85	86.16	84.93	84.81	0.06	24	24	HP	0.012	0.09%	2.38	7.48	0.6	0.05	
To	CURB		2.76	0.42	1.15							79.80	79.70											
S-205	INLET		3.08	0.42	1.30							77.80	77.70	0.10					0.15%	3.01	9.47			
S-207	SINGLE	57	0.45	0.45	0.20	15.90	0.44	5.79	1.15	1.20	86.06	85.03	84.93	0.05	24	24	RCP	0.013	0.09%	2.14	6.73	0.7	0.05	
To	CURB		2.31	0.41	0.95							79.90	79.80											
S-206	INLET		2.76	0.42	1.15							77.90	77.80	0.10					0.18%	3.02	9.48			
S-208	SINGLE	43	1.29	0.38	0.49	15.00	0.30	5.93	0.49	2.91	86.05	85.20	85.03	0.09	15	15	RCP	0.013	0.21%	2.39	2.93	1.0	0.09	
To	CURB		0.00	0.00	0.00							83.55	83.45											
S-207	INLET		1.29	0.38	0.49							82.30	82.20	0.10					0.23%	2.54	3.12			
S-209	SINGLE	47	1.02	0.45	0.46	15.00	0.90	5.93	0.46	2.72	86.00	85.04	85.03	0.01	24	24	HP	0.012	0.01%	0.87	2.75	1.0	0.01	
To	CURB		0.00	0.00	0.00							80.00	79.90											
S-207	INLET		1.02	0.45	0.46							78.00	77.90	0.10					0.21%	3.60	11.30			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-210	STD.					25.47					-	84.81			36	36	RCP							SMF-02
	MES		5.18	0.41	2.14							79.70												10 Yr D.H.W.
												76.70												EL. = 84.81
S-211	SINGLE	108	0.02	0.45	0.01	24.24	1.22	4.81	2.14	0.05	86.77	84.86	84.81	0.02	36	36	RCP	0.012	0.02%	1.47	10.39	0.7	0.02	
To	CURB		5.16	0.41	2.13							79.80	79.70											
S-210	INLET		5.18	0.41	2.14							76.80	76.70	0.10					0.09%	3.11	21.99			
S-212	SINGLE	123	0.74	0.40	0.30	22.88	1.36	4.94	2.13	1.76	86.07	84.90	84.86	0.03	36	36	RCP	0.012	0.02%	1.50	10.63	0.6	0.02	
To	CURB		4.42	0.42	1.84							79.90	79.80											
S-211	INLET		5.16	0.41	2.13							76.90	76.80	0.10					0.08%	2.91	20.60			
S-213	SINGLE	71	0.51	0.45	0.23	15.39	0.57	5.87	0.62	1.36	86.28	85.04	84.90	0.09	18	18	RCP	0.013	0.12%	2.07	3.65	0.8	0.05	
To	CURB		0.86	0.45	0.39							83.55	83.40											
S-212	INLET		1.37	0.45	0.62							82.05	81.90	0.15					0.21%	2.73	4.83			
S-214	SINGLE	44	0.86	0.45	0.39	15.00	0.39	5.93	0.39	2.30	86.15	85.15	85.04	0.06	15	15	RCP	0.013	0.13%	1.89	2.32	1.0	0.06	
To	CURB		0.00	0.00	0.00							83.65	83.55											
S-213	INLET		0.86	0.45	0.39							82.40	82.30	0.10					0.23%	2.51	3.08			
S-215	SINGLE	44	0.54	0.40	0.22	22.29	0.59	5.00	1.22	1.28	86.05	84.93	84.90	0.01	30	30	RCP	0.013	0.02%	1.25	6.15	0.8	0.02	
To	CURB		2.51	0.40	1.00							80.00	79.90											
S-212	INLET		3.05	0.40	1.22							77.50	77.40	0.10					0.23%	3.98	19.55			
S-216	TYPE	116	0.00	0.40	0.00	20.49	1.80	5.20	1.00	0.00	86.70	84.96	84.93	0.02	30	30	RCP	0.013	0.02%	1.07	5.26	0.6	0.01	
To	J		2.51	0.40	1.00							80.45	80.00											
S-215	MH		2.51	0.40	1.00							77.95	77.50	0.45					0.39%	5.20	25.55			
S-217	SINGLE	59	0.66	0.40	0.26	19.59	0.90	5.30	1.00	1.57	86.50	84.98	84.96	0.01	30	30	RCP	0.013	0.02%	1.09	5.37	0.5	0.01	
To	CURB		1.85	0.40	0.74							80.55	80.45											
S-216	INLET		2.51	0.40	1.00							78.05	77.95	0.10					0.17%	3.44	16.89			
S-218	SINGLE	45	0.30	0.40	0.12	19.00	0.59	5.37	0.74	0.71	86.50	85.01	84.98	0.01	24	24	RCP	0.013	0.03%	1.28	4.01	0.5	0.01	
To	CURB		1.55	0.40	0.62							80.65	80.55											
S-217	INLET		1.85	0.40	0.74							78.65	78.55	0.10					0.22%	3.39	10.66			
S-219	SINGLE	260	0.76	0.40	0.30	15.30	3.70	5.89	0.62	1.80	86.00	85.09	85.01	0.07	24	24	RCP	0.013	0.03%	1.17	3.68	0.8	0.02	
To	CURB		0.79	0.40	0.32							81.00	80.65											
S-218	INLET		1.55	0.40	0.62							79.00	78.65	0.35					0.13%	2.64	8.30			
S-220	SINGLE	28	0.79	0.40	0.32	15.00	0.30	5.93	0.32	1.88	86.00	85.16	85.09	0.02	15	15	RCP	0.013	0.09%	1.54	1.89	1.0	0.04	
To	CURB		0.00	0.00	0.00							83.35	83.25											
S-219	INLET		0.79	0.40	0.32							82.10	82.00	0.10					0.36%	3.15	3.86			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-400	STD.					23.78					-	83.69			54	54	RCP							SMF-04
	MES		21.10	0.39	8.25							79.05												10 Yr D.H.W.
												74.55												EL. = 83.69
S-401	TYPE	67	0.00	0.40	0.00	23.34	0.44	4.90	8.25	0.00	89.50	83.78	83.69	0.02	54	54	RCP	0.012	0.04%	2.56	40.72	0.6	0.06	
To	J		21.10	0.39	8.25							79.10	79.05											
S-400	MH		21.10	0.39	8.25							74.60	74.55	0.05					0.07%	3.66	58.20			
S-402	SINGLE	130	1.40	0.40	0.56	22.51	0.83	4.98	8.25	3.32	89.75	83.77	83.78	0.05	54	54	RCP	0.012	0.04%	2.60	41.41	0.6	0.06	
To	CURB		19.70	0.39	7.69							79.15	79.10											
S-401	INLET		21.10	0.39	8.25							74.65	74.60	0.05					0.04%	2.63	41.78			
S-403	SINGLE	34	0.62	0.40	0.25	22.28	0.23	5.00	7.69	1.47	89.65	83.71	83.77	0.01	54	54	RCP	0.012	0.03%	2.44	38.79	0.6	0.06	
To	CURB		19.08	0.39	7.44							79.20	79.15											
S-402	INLET		19.70	0.39	7.69							74.70	74.65	0.05					0.15%	5.14	81.70			
S-404	SINGLE	419	1.14	0.40	0.46	19.49	2.79	5.31	7.44	2.71	85.60	84.02	83.71	0.15	54	54	RCP	0.012	0.04%	2.51	39.86	0.8	0.08	
To	CURB		17.94	0.39	6.98							79.35	79.20											
S-403	INLET		19.08	0.39	7.44							74.85	74.70	0.15					0.04%	2.53	40.31			
S-405	SINGLE	42	0.90	0.40	0.36	17.39	0.37	5.58	1.64	2.14	85.60	84.07	84.02	0.02	30	30	RCP	0.013	0.05%	1.88	9.21	0.5	0.03	
To	CURB		3.19	0.40	1.28							77.70	77.60											
S-404	INLET		4.09	0.40	1.64							75.20	75.10	0.10					0.24%	4.08	20.01			
S-406	SINGLE	163	0.68	0.40	0.27	15.62	1.78	5.84	1.28	1.61	84.90	84.15	84.07	0.05	30	30	RCP	0.013	0.03%	1.53	7.51	0.7	0.03	
To	CURB		2.51	0.40	1.00							78.90	78.65											
S-405	INLET		3.19	0.40	1.28							76.40	76.15	0.25					0.15%	3.27	16.06			
S-407	SINGLE	41	1.11	0.40	0.44	15.26	0.36	5.89	1.00	2.63	84.70	84.23	84.15	0.03	24	24	RCP	0.013	0.07%	1.90	5.97	0.9	0.05	
To	CURB		1.40	0.40	0.56							81.95	81.85											
S-406	INLET		2.51	0.40	1.00							79.95	79.85	0.10					0.24%	3.56	11.17			
S-408	SINGLE	42	1.40	0.40	0.56	15.00	0.26	5.93	0.56	3.32	84.70	84.46	84.23	0.11	15	15	RCP	0.013	0.27%	2.73	3.35	1.0	0.12	
To	CURB		0.00	0.00	0.00							82.05	81.95											
S-407	INLET		1.40	0.40	0.56							80.80	80.70	0.10					0.24%	2.57	3.15			
S-409	SINGLE	114	0.77	0.40	0.31	19.03	0.46	5.37	5.35	1.83	85.35	84.74	84.02	0.18	36	36	RCP	0.012	0.16%	4.10	28.95	0.6	0.16	
To	CURB		13.08	0.39	5.04							79.35	79.25											
S-404	INLET		13.85	0.39	5.35							76.35	76.25	0.10					0.09%	3.03	21.40			
S-410	SINGLE	37	1.64	0.40	0.66	15.27	0.27	5.89	1.22	3.89	85.15	84.85	84.74	0.04	24	24	RCP	0.013	0.10%	2.31	7.25	0.9	0.07	
To	CURB		1.41	0.40	0.56							82.40	82.30											
S-409	INLET		3.05	0.40	1.22							80.40	80.30	0.10					0.27%	3.74	11.76			
S-411	SINGLE	44	1.41	0.40	0.56	15.00	0.27	5.93	0.56	3.35	85.15	85.09	84.85	0.12	15	15	RCP	0.013	0.27%	2.75	3.37	1.0	0.12	
To	CURB		0.00	0.00	0.00							82.50	82.40											
S-410	INLET		1.41	0.40	0.56							81.25	81.15	0.10					0.23%	2.51	3.08			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-412	TYPE	119	0.00	0.40	0.00	15.00	0.00	5.93	0.00	0.00	89.20	85.18	85.18	0.00	15	15	RCP	0.013	0.00%	0.00	0.00	0.6	0.00	
To	J		1.06	0.00	0.00							82.30	79.75											
S-423	MH		1.06	0.00	0.00							81.05	78.50	2.55					2.14%	7.71	9.46			
S-413	MOD	66	1.06	0.00	0.00	15.00	0.00	5.93	0.00	0.00	87.05	86.26	85.18	0.00	15	15	RCP	0.013	0.00%	0.00	0.00	1.0	0.00	
To	C		0.00	0.00	0.00							82.50	82.30											
S-412	INLET		1.06	0.00	0.00							81.25	81.05	0.20					0.30%	2.90	3.56			
S-423	SINGLE	178	0.63	0.45	0.28	18.04	0.99	5.49	3.82	1.68	86.45	85.18	84.74	0.15	36	36	RCP	0.012	0.09%	2.99	21.17	0.6	0.08	
To	CURB		9.40	0.38	3.54							80.70	79.35											
S-409	INLET		10.03	0.38	3.82							77.70	76.35	1.35					0.76%	8.90	62.93			
S-424	SINGLE	45	0.53	0.45	0.24	15.00	0.65	5.93	0.24	1.42	86.20	85.22	85.18	0.02	15	15	RCP	0.013	0.05%	1.16	1.43	1.0	0.02	
To	CURB		0.00	0.00	0.00							83.35	83.20											
S-423	INLET		0.53	0.45	0.24							82.10	81.95	0.15					0.33%	3.04	3.73			
S-425	SINGLE	65	1.36	0.45	0.61	17.62	0.41	5.55	3.30	3.63	86.10	85.29	85.18	0.04	36	36	RCP	0.012	0.07%	2.61	18.46	0.6	0.06	
To	CURB		6.45	0.42	2.69							80.85	80.80											
S-423	INLET		7.81	0.42	3.30							77.85	77.80	0.05					0.08%	2.84	20.04			
S-426	SINGLE	45	1.10	0.45	0.50	15.00	0.31	5.93	0.50	2.94	86.10	85.47	85.29	0.09	15	15	RCP	0.013	0.21%	2.41	2.96	1.0	0.09	
To	CURB		0.00	0.00	0.00							83.60	83.45											
S-425	INLET		1.10	0.45	0.50							82.35	82.20	0.15					0.33%	3.04	3.73			
S-427	SINGLE	149	0.36	0.45	0.16	16.65	0.97	5.68	2.19	0.96	86.48	85.53	85.29	0.14	30	30	RCP	0.013	0.09%	2.56	12.56	1.0	0.10	
To	CURB		4.99	0.41	2.03							81.00	80.85											
S-425	INLET		5.35	0.41	2.19							78.50	78.35	0.15					0.10%	2.65	13.01			
S-428	SINGLE	45	0.67	0.38	0.25	15.00	0.60	5.93	0.25	1.51	86.48	85.58	85.53	0.03	15	15	RCP	0.013	0.06%	1.24	1.52	1.0	0.02	
To	CURB		0.00	0.00	0.00							83.85	83.70											
S-427	INLET		0.67	0.38	0.25							82.60	82.45	0.15					0.33%	3.04	3.73			
S-429	SINGLE	34	1.90	0.45	0.86	15.00	0.14	5.93	0.86	5.07	86.81	86.01	85.53	0.21	15	15	RCP	0.013	0.63%	4.17	5.12	1.0	0.27	
To	CURB		0.00	0.00	0.00							82.65	82.55											
S-427	INLET		1.90	0.45	0.86							81.40	81.30	0.10					0.29%	2.85	3.50			
S-430	SINGLE	211	0.81	0.38	0.31	15.51	1.14	5.85	0.92	1.83	90.00	86.21	85.53	0.56	18	18	RCP	0.013	0.27%	3.07	5.43	0.8	0.12	
To	CURB		1.61	0.38	0.61							83.40	81.00											
S-427	INLET		2.42	0.38	0.92							81.90	79.50	2.40					1.14%	6.34	11.20			
S-431	SINGLE	36	0.36	0.38	0.14	15.30	0.20	5.89	0.61	0.81	89.60	86.43	86.21	0.11	15	15	RCP	0.013	0.32%	2.96	3.63	0.8	0.11	
To	CURB		1.25	0.38	0.48							83.55	83.40											
S-430	INLET		1.61	0.38	0.61							82.30	82.15	0.15					0.42%	3.40	4.17			
S-432	SINGLE	42	1.25	0.38	0.48	15.00	0.30	5.93	0.48	2.82	90.19	86.59	86.43	0.08	15	15	RCP	0.013	0.19%	2.32	2.84	1.0	0.08	
To	CURB		0.00	0.00	0.00							85.30	85.15											
S-431	INLET		1.25	0.38	0.48							84.05	83.90	0.15					0.36%	3.15	3.86			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-433	STD.											83.69												SMF-04
	MES		3.83	0.43	1.66	44.17					-	80.00			30	30	HP							10 Yr D.H.W.
												77.50												EL. = 83.69
S-434	MOD		0.14	0.40	0.06							83.72	83.69	0.02					0.02%	1.22	5.98			
To	C	98	3.69	0.43	1.60	42.83	1.34	3.58	1.66	0.33	92.60	81.10	80.00		30	30	HP	0.012				0.6	0.01	
S-433	INLET		3.83	0.43	1.66							78.60	77.50	1.10					1.12%	9.59	47.08			
S-435	MOD		0.10	0.40	0.04							83.78	83.72	0.04					0.02%	1.23	6.04			
To	C	238	3.59	0.43	1.56	39.61	3.23	3.74	1.60	0.24	89.20	81.35	81.10		30	30	HP	0.012				0.5	0.01	
S-434	INLET		3.69	0.43	1.60							78.85	78.60	0.25					0.11%	2.93	14.40			
S-436	SINGLE		0.20	0.45	0.09							83.82	83.78	0.03					0.02%	1.23	6.05			
To	CURB	145	3.39	0.43	1.47	37.65	1.96	3.85	1.56	0.53	89.37	81.50	81.35		30	30	HP	0.012				0.7	0.02	
S-435	INLET		3.59	0.43	1.56							79.00	78.85	0.15					0.10%	2.91	14.29			
S-437	SINGLE		0.57	0.45	0.26							84.49	84.20	0.20					0.41%	3.38	4.15			
To	CURB	48	1.12	0.40	0.45	15.57	0.24	5.84	0.70	1.52	89.37	84.35	84.20		15	15	RCP	0.013				0.5	0.09	
S-436	INLET		1.69	0.42	0.70							83.10	82.95	0.15					0.31%	2.94	3.61			
S-438	MOD		1.12	0.40	0.45							84.67	84.49	0.11					0.15%	2.18	2.68			
To	C	75	0.00	0.00	0.00	15.00	0.57	5.93	0.45	2.66	89.20	86.20	84.35		15	15	HP	0.012				1.0	0.07	
S-437	INLET		1.12	0.40	0.45							84.95	83.10	1.85					2.47%	8.96	10.99			
S-439	SINGLE		0.18	0.45	0.08							83.84	83.82	0.01					0.01%	0.65	3.18			
To	CURB	178	1.52	0.45	0.68	33.07	4.58	4.12	0.77	0.48	87.82	81.70	81.50		30	30	RCP	0.013				0.6	0.00	
S-436	INLET		1.70	0.45	0.77							79.20	79.00	0.20					0.11%	2.80	13.75			
S-440	SINGLE		0.18	0.45	0.08							85.16	85.15	0.00					0.01%	0.39	0.48			
To	CURB	48	0.00	0.00	0.00	15.00	2.03	5.93	0.08	0.48	87.82	85.30	85.15		15	15	RCP	0.013				1.0	0.00	
S-439	INLET		0.18	0.45	0.08							84.05	83.90	0.15					0.31%	2.94	3.61			
S-441	SINGLE		0.23	0.45	0.10							83.87	83.84	0.03					0.01%	0.85	2.67			
To	CURB	199	1.11	0.45	0.50	29.17	3.90	4.40	0.60	0.61	86.87	82.00	81.70		24	24	RCP	0.013				0.6	0.01	
S-439	INLET		1.34	0.45	0.60							80.00	79.70	0.30					0.15%	2.80	8.78			
S-442	SINGLE		0.22	0.45	0.10							84.26	84.25	0.01					0.01%	0.48	0.59			
To	CURB	67	0.00	0.00	0.00	15.00	2.31	5.93	0.10	0.59	86.98	84.45	84.25		15	15	RCP	0.013				1.0	0.00	
S-441	INLET		0.22	0.45	0.10							83.20	83.00	0.20					0.30%	2.88	3.53			
S-443	SINGLE		0.04	0.45	0.02							83.88	83.87	0.00					0.01%	0.58	1.83			
To	CURB	64	0.85	0.45	0.38	27.34	1.83	4.54	0.40	0.11	86.58	82.10	82.00		24	24	RCP	0.013				0.6	0.00	
S-441	INLET		0.89	0.45	0.40							80.10	80.00	0.10					0.16%	2.85	8.94			
S-444	SINGLE		0.04	0.45	0.02							83.88	83.88	0.00					0.00%	0.09	0.11			
To	CURB	65	0.00	0.00	0.00	15.00	12.34	5.93	0.02	0.11	86.72	84.00	83.80		15	15	RCP	0.013				1.0	0.00	
S-443	INLET		0.04	0.45	0.02							82.75	82.55	0.20					0.31%	2.92	3.58			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-445	SINGLE	110	0.15	0.45	0.07	18.08	1.61	5.49	0.36	0.40	85.87	83.93	83.88	0.04	18	18	RCP	0.013	0.04%	1.14	2.02	0.6	0.01	
To	CURB		0.66	0.45	0.30							82.40	82.10											
S-443	INLET		0.81	0.45	0.36							80.90	80.60	0.30					0.27%	3.10	5.49			
S-446	SINGLE	188	0.24	0.45	0.11	15.87	2.21	5.80	0.30	0.64	85.56	84.09	83.93	0.14	15	15	RCP	0.013	0.07%	1.42	1.74	0.8	0.02	
To	CURB		0.42	0.45	0.19							82.75	82.40											
S-445	INLET		0.66	0.45	0.30							81.50	81.15	0.35					0.19%	2.27	2.79			
S-447	SINGLE	48	0.42	0.45	0.19	15.00	0.87	5.93	0.19	1.12	85.56	84.12	84.09	0.01	15	15	RCP	0.013	0.03%	0.92	1.13	1.0	0.01	
To	CURB		0.00	0.00	0.00							82.90	82.75											
S-446	INLET		0.42	0.45	0.19							81.65	81.50	0.15					0.31%	2.94	3.61			
S-800	STD.					17.77					-	84.35			15	15	HP							SMF-08
	MES		0.84	0.45	0.38							81.50												10 Yr D.H.W.
												80.25												EL. = 84.35
S-801	SINGLE	63	0.20	0.45	0.09	17.17	0.60	5.61	0.38	0.53	86.46	84.44	84.35	0.06	15	15	HP	0.012	0.09%	1.74	2.14	0.6	0.03	
To	CURB		0.64	0.45	0.29							82.05	81.50											
S-800	INLET		0.84	0.45	0.38							80.80	80.25	0.55					0.87%	5.33	6.54			
S-802	SINGLE	58	0.41	0.45	0.18	16.45	0.72	5.71	0.29	1.09	86.36	84.49	84.44	0.04	15	15	RCP	0.013	0.07%	1.35	1.66	0.6	0.02	
To	CURB		0.23	0.45	0.10							83.75	83.60											
S-801	INLET		0.64	0.45	0.29							82.50	82.35	0.15					0.26%	2.68	3.29			
S-803	SINGLE	44	0.23	0.45	0.10	15.00	1.45	5.93	0.10	0.61	86.37	84.50	84.49	0.00	15	15	RCP	0.013	0.01%	0.50	0.62	1.0	0.00	
To	CURB		0.00	0.00	0.00							83.85	83.75											
S-802	INLET		0.23	0.45	0.10							82.60	82.50	0.10					0.23%	2.51	3.08			
S-804	SINGLE	48	0.41	0.45	0.18	15.00	0.89	5.93	0.18	1.09	86.06	84.41	84.38	0.01	15	15	RCP	0.013	0.03%	0.90	1.10	1.0	0.01	
To	CURB		0.00	0.00	0.00							83.55	83.40											
S-37	INLET		0.41	0.45	0.18							82.30	82.15	0.15					0.31%	2.94	3.61			
S-805	SINGLE	48	0.40	0.45	0.18	15.00	0.91	5.93	0.18	1.07	86.06	84.56	84.53	0.01	15	15	RCP	0.013	0.03%	0.88	1.08	1.0	0.01	
To	CURB		0.00	0.00	0.00							83.55	83.40											
S-38	INLET		0.40	0.45	0.18							82.30	82.15	0.15					0.31%	2.94	3.61			

Upper	Type	Pipe	Drainage Area (Ac +/-)							Q		Hydraulic Grade EL.			Pipe Size				Hydraulic Gradient / Physical			C	Minor	
To	Structure	Length	C = VARIES			Tc	TL	i	Total	Runoff	Top	Crown / Flowline			Span	Rise	Pipe	n	Slope	Vel.	Q	Head	Loss	Remarks
Lower	Upstream	(Ft)	A	C	C*A	(min.)	(min.)	(In / Hr.)	(CA)	(cfs)	Elev.	Up End	Dn End	Fall	(in.)	(in.)	Mat.		(%)	(fps)	(cfs)	Loss	(str)	
S-806	STD. MES					28.58					-	84.35			15	15	HP							SMF-08
			0.43	0.45	0.19							81.50												10 Yr D.H.W.
												80.25												EL. = 84.35
S-807	SINGLE	92	0.09	0.45	0.04	26.49	2.09	4.61	0.19	0.24	86.44	84.37	84.35	0.02	15	15	HP	0.012	0.02%	0.73	0.90	0.6	0.01	
To	CURB		0.34	0.45	0.15							81.75	81.50											
S-806	INLET		0.43	0.45	0.19							80.50	80.25	0.25					0.27%	2.97	3.65			
S-808	SINGLE	114	0.07	0.45	0.03	23.40	3.09	4.89	0.15	0.19	86.60	84.39	84.37	0.02	15	15	RCP	0.013	0.01%	0.61	0.75	0.5	0.00	
To	CURB		0.27	0.45	0.12							82.05	81.75											
S-807	INLET		0.34	0.45	0.15							80.80	80.50	0.30					0.26%	2.70	3.31			
S-809	SINGLE	62	0.04	0.45	0.02	21.37	2.03	5.10	0.12	0.11	86.74	84.40	84.39	0.01	15	15	RCP	0.013	0.01%	0.51	0.62	0.6	0.00	
To	CURB		0.23	0.45	0.10							82.20	82.05											
S-808	INLET		0.27	0.45	0.12							80.95	80.80	0.15					0.24%	2.59	3.18			
S-810	SINGLE	100	0.09	0.45	0.04	17.82	3.55	5.52	0.10	0.24	85.55	84.41	84.40	0.01	15	15	RCP	0.013	0.01%	0.47	0.58	0.8	0.00	
To	CURB		0.14	0.45	0.06							82.45	82.20											
S-809	INLET		0.23	0.45	0.10							81.20	80.95	0.25					0.25%	2.63	3.23			
S-811	SINGLE	52	0.14	0.45	0.06	15.00	2.82	5.93	0.06	0.37	85.90	84.41	84.41	0.00	15	15	RCP	0.013	0.00%	0.31	0.38	1.0	0.00	
To	CURB		0.00	0.00	0.00							83.40	83.25											
S-810	INLET		0.14	0.45	0.06							82.15	82.00	0.15					0.29%	2.83	3.47			
S-2000	STD. MES					16.31					-	86.26			15	15	HP							SMF-20
			0.76	0.45	0.34							84.00												10 Yr D.H.W.
												82.75												EL. = 86.26
S-2001	SINGLE	65	0.20	0.45	0.09	15.65	0.66	5.83	0.34	0.53	90.60	86.33	86.26	0.05	15	15	HP	0.012	0.08%	1.64	2.01	0.5	0.02	
To	CURB		0.56	0.45	0.25							85.60	84.00											
S-2000	INLET		0.76	0.45	0.34							84.35	82.75	1.60					2.46%	8.95	10.98			
S-2002	SINGLE	48	0.56	0.45	0.25	15.00	0.65	5.93	0.25	1.50	90.60	87.85	87.80	0.03	15	15	RCP	0.013	0.05%	1.23	1.51	1.0	0.02	
To	CURB		0.00	0.00	0.00							87.95	87.80											
S-2001	INLET		0.56	0.45	0.25							86.70	86.55	0.15					0.31%	2.94	3.61			

APPENDIX

Page 1 of 6	**Issue Date: September 18, 2019**	**Effective Date: January 30, 2020**	**Case No.: 19-04-2449P**	LOMR-APP

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	**Town of Howey in the Hills Lake County Florida**	**NO PROJECT**	**HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS UPDATED TOPOGRAPHIC DATA**
	COMMUNITY NO.: 120585		
IDENTIFIER	Venezia North and South	**APPROXIMATE LATITUDE AND LONGITUDE:** 28.704, -81.778 **SOURCE:** Precision Mapping Streets **DATUM:** NAD 83	

ANNOTATED MAPPING ENCLOSURE	ANNOTATED STUDY ENCLOSURE
TYPE: FIRM* NO.: 12069C0485E DATE: December 18, 2012	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: December 18, 2012 STILLWATER ELEVATION TABLE: 8

Enclosures reflect changes to flooding sources affected by this revision.
* FIRM - Flood Insurance Rate Map

FLOODING SOURCES AND REVISED REACHES **See Page 2 for Additional Flooding Sources**

Holland Lake - Area centered approximately 2,780 feet northwest of the intersection of East Revels Road and South Palm Avenue
Unnamed Ponding Area 14 - Area centered approximately 2,130 feet west of the intersection of East Revels Road and South Palm Avenue
Unnamed Ponding Area 15 - Area centered approximately 1,410 feet northwest of the intersection of East Revels Road and South Palm Avenue
Unnamed Ponding Area 16 - Area centered approximately 1,240 feet northwest of the intersection of East Revels Road and South Palm Avenue

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Holland Lake	Zone A	Zone A	NONE	YES
Unnamed Ponding Area 14	Zone X (unshaded)	Zone A	YES	NONE
Unnamed Ponding Area 15	Zone X (unshaded)	Zone A	YES	NONE
Unnamed Ponding Area 16	Zone X (unshaded)	Zone A	YES	NONE

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/national-flood-insurance-program.

Patrick “Rick” F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCES AND REVISED REACHES

Unnamed Ponding Area 5 - Area centered approximately 950 feet west of the intersection of East Revels Road and 7th Avenue
Unnamed Ponding Area 6 - Area centered approximately 1,300 feet northwest of the intersection of East Revels Road and 7th Avenue
Unnamed Ponding Area 7 - Area centered approximately 940 feet southwest of the intersection of East Revels Road and Palm Avenue
Unnamed Ponding Area 8 - Area centered approximately 520 feet northeast of the intersection of East Revels Road and 5th Avenue
Unnamed Ponding Area 9 - Area centered approximately 1,390 feet northeast of the intersection of East Revels Road and 5th Avenue
Unnamed Ponding Area 10 - Area centered approximately 2,840 feet west of the intersection of South Florida Avenue and South Palm Avenue
Unnamed Ponding Area 11 - Area centered approximately 1,980 feet west of the intersection of South Florida Avenue and South Palm Avenue
Unnamed Ponding Area 12 - Area centered approximately 1,590 feet northwest of the intersection of South Florida Avenue and South Palm Avenue

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Unnamed Ponding Area 5	Zone X (unshaded)	Zone AE	YES	NONE
	No BFEs*	BFEs	YES	NONE
Unnamed Ponding Area 6	Zone X (unshaded)	Zone AE	YES	NONE
	No BFEs	BFEs	YES	NONE
Unnamed Ponding Area 7	No BFEs	BFEs	YES	NONE
	Zone X (unshaded)	Zone AE	YES	NONE
Unnamed Ponding Area 8	No BFEs	BFEs	YES	NONE
	Zone X (unshaded)	Zone AE	YES	NONE
Unnamed Ponding Area 9	No BFEs	BFEs	YES	NONE
	Zone X (unshaded)	Zone AE	YES	NONE
Unnamed Ponding Area 10	No BFEs	BFEs	YES	NONE
	Zone X (unshaded)	Zone AE	YES	NONE
Unnamed Ponding Area 11	No BFEs	BFEs	YES	NONE
	Zone X (unshaded)	Zone AE	YES	NONE
Unnamed Ponding Area 12	No BFEs	BFEs	YES	NONE
	Zone X (unshaded)	Zone AE	YES	NONE

* BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/national-flood-insurance-program.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

OTHER COMMUNITIES AFFECTED BY THIS REVISION

CID Number: 120421 **Name:** Lake County, Florida

AFFECTED MAP PANEL	AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT
TYPE: FIRM* NO.: 12069C0485E DATE: December 18, 2012	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: December 18, 2012 STILLWATER ELEVATION TABLE: 8

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/national-flood-insurance-program.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community’s flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

Patrick “Rick” F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Jesse Munoz
Director, Mitigation Division
Federal Emergency Management Agency, Region IV
Koger Center - Rutgers Building, 3003 Chamblee Tucker Road
Atlanta, GA 30341
(770)-220-5406

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/national-flood-insurance-program.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp

LOCAL NEWSPAPER

Name: *The Leesburg Daily Commercial*
Dates: September 25, 2019 and October 2, 2019

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/national-flood-insurance-program.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

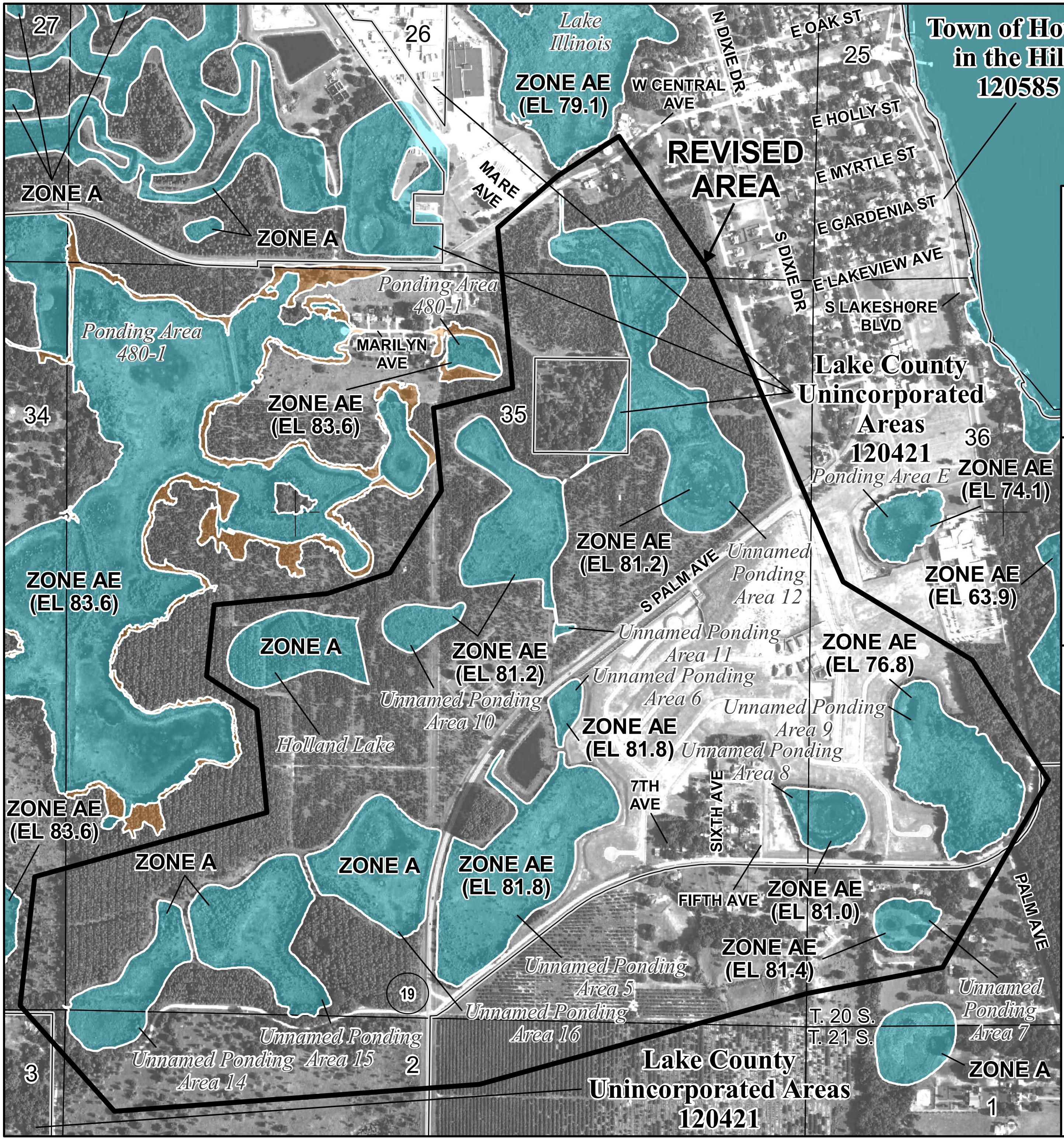
Table 8: Summary of Stillwater Elevations (continued)

Lake Name	Old Name If Changed for this FIS Report	FIRM Panel Number(s)	Community Name	Stillwater Elevations (feet NAVD88) 10-percent-annual-chance	2-percent-annual-chance	1-percent-annual-chance	0.2-percent-annual-chance
Unnamed Ponding Area 5		485	Town of Howey in the Hills	*	*	81.8	*
Unnamed Ponding Area 6		485	Town of Howey in the Hills	*	*	81.8	*
Unnamed Ponding Area 7		485	Town of Howey in the Hills	*	*	81.4	*
Unnamed Ponding Area 8		485	Town of Howey in the Hills	*	*	81.0	*
Unnamed Ponding Area 9		485	Town of Howey in the Hills	*	*	76.8	*
Unnamed Ponding Area 10		485	Town of Howey in the Hills	*	*	81.2	*
Unnamed Ponding Area 11		485	Town of Howey in the Hills	*	*	81.2	*
Unnamed Ponding Area 12		485	Town of Howey in the Hills, Lake County	*	*	81.2	*

*Data Not Available

REVISED DATA

REVISED TO
REFLECT LOMR
EFFECTIVE: January 30, 2020



SPECIAL FLOOD HAZARD AREAS

- 🟦 Without Base Flood Elevation (BFE) *Zone A,V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- ▨ Regulatory Floodway

- 🟫 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*

OTHER AREAS OF FLOOD HAZARD

- ▨ Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- ▨ Area with Reduced Flood Risk due to Levee See Notes. *Zone X*

SCALE

NOTE: BASEMAP IMAGERY DATED 2008 WAS OBTAINED FROM NAIP.

N

Map Projection:
NAD 1983 StatePlane Florida East FIPS 0901 Feet;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 Feet

0 150 300 600 Meters

FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

LAKE COUNTY, FLORIDA
and Incorporated Areas

PANEL **485** OF **750**

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
ASTATULA, TOWN OF	120581	0485	E
HOWEY IN THE HILLS, TOWN OF	120585	0485	E
LAKE COUNTY	120421	0485	E
TAVARES, CITY OF	120138	0485	E

REVISED TO
REFLECT LOMR
EFFECTIVE: January 30, 2020

VERSION NUMBER
2.1.3.0

MAP NUMBER
12069C0485E

MAP REVISED
DECEMBER 18, 2012

SOIL SURVEY OF

Lake County Area, Florida

United States Department of Agriculture
Soil Conservation Service
in cooperation with
University of Florida
Agricultural Experiment Stations

TABLE 8.—*Estimated soil properties significant in engineering*

[An asterisk in the first column indicates that at least one mapping unit in this series is made up of two or more kinds of soil. The soils in such mapping units may have different properties and limitations, and for this reason it is necessary to follow carefully the instructions for referring to other series that appear in the first column of this table. Symbol > means greater than, < means less than]

Soil series and map symbols	Depth to seasonally high water table [1]	Flood hazard [2]	Depth from surface	Classification			Percentage less than 3 inches passing sieve [3]—				Permeability	Available water capacity	Reaction	Shrink-swell potential [4]
				USDA	Unified	AASHO	No. 4 (4.7 mm.)	No. 10 (2.0 mm.)	No. 40 (0.42 mm.)	No. 200 (0.074 mm.)				
	In.		*In.*								*In./hr.*	*In./in. of soil*	*pH*	
Albany: AbB, AbD	15–40	None	0–52	Sand	SP, SP-SM	A-3, A-2-4	100	95–100	90–100	3–12	6.0–20.0	<0.05	4.5–5.5	Low.
			52–85	Sandy clay loam	SC	A-2-6	100	95–100	85–99	15–35	0.63–2.0	0.10–0.15	4.5–5.5	Low to moderate.
*Anclote: Ac, Am. For Myakka part of Am, see Myakka series.	0–10	Every year for more than 6 months.	0–46	Fine sand	SP-SM	A-3, A-2-4	100	100	70–100	5–12	6.3–20.0	0.10–0.15	6.1–8.4	Low.
			46–82	Loamy fine sand	SM, SM-SC	A-2-4, A-4	100	100	70–100	25–40	6.3–20.0	0.10–0.15	6.1–8.4	Low.
Apopka: ApB, ApD	>84	None	0–55	Sand	SP, SP-SM	A-3, A-2-4	100	100	80–95	3–12	6.3–20.0	<0.05	4.5–6.0	Low.
			55–84	Sandy clay loam	SC, SM	A-2-6, A-2-4, A-4	95–100	90–100	60–90	20–40	0.63–6.3	0.13–0.17	4.5–6.0	Low to moderate.
Astatula: AsB, AtB, AtD, AtF	>120	None	0–86	Sand	SP, SP-SM	A-3	100	100	90–99	2–7	>20.0	0.02–0.05	4.5–6.0	Low.
Brighton: Br	0	Flooded most of year.	0–63	Peat	Pt	Organic					6.3–20.0	0.45–0.50	<4.5–5.0	High.
			63–75	Coarse sand	SP, SP-SM	A-3, A-2-4	100	90–95	25–50	2–12	6.3–20.0	<0.05	<4.5–5.0	Low.
Cassia: Ca	10–40	None	0–25	Sand	SP, SP-SM	A-3	100	100	95–100	1–7	>20.0	0.02–0.05	4.5–6.0	Low.
			25–37	Sand	SM, SP-SM	A-2-4, A-3	100	100	70–100	5–20	2.0–6.3	0.10–0.15	4.5–6.0	Low.
			37–80	Sand	SP, SP-SM	A-3	100	100	95–100	2–10	6.3–20.0	0.02–0.05	4.5–6.0	Low.
Emeralda: Em	0	Every year for more than 6 months.	0–11	Fine sand	SP-SM, SM	A-2, A-3	100	100	90–99	10–25	6.3–20.0	0.10–0.15	5.1–6.5	Low.
			11–66	Sandy clay	CH, SC	A-6, A-7	100	100	90–99	45–80	0.06–0.20	0.15–0.20	6.1–8.4	High.
Eureka: Eu	0–10	Every year for 1 to 2 months.	0–8	Loamy fine sand	SM	A-2-4	100	100	90–99	13–25	6.3–20.0	0.05–0.10	4.5–5.5	Low.
			8–90	Heavy sandy clay and clay.	CH	A-7	100	100	90–99	51–80	<0.06	0.15–0.20	4.5–5.5	High.
Felda: Fd	0–10	Every year for more than 6 months.	0–25	Fine sand	SP	A-3	100	100	90–99	2–5	6.3–20.0	0.02–0.05	5.1–6.5	Low.
			25–38	Fine sandy loam	SM-SC, SC	A-2-4, A-2-6	100	100	90–99	23–35	0.63–2.0	0.10–0.15	6.6–7.8	Moderate.
			38–56	Sandy clay loam	SC	A-4, A-6	100	95–100	85–99	36–50	2.0–6.3	0.10–0.15	6.6–7.8	Moderate.
			56–60	Clay	CH	A-7	90–100	85–90	70–90	51–80	0.06–0.20	0.10–0.15	7.4–8.4	High.
Fellowship: Fe	0	Every year for more than 6 months.	0–6	Fine sandy loam	SM-SC, SM	A-4, A-2-4	100	100	90–100	25–40	0.63–2.0	0.15–0.20	4.5–5.5	Low.
			6–62	Sandy clay loam to clay.	CH	A-7-6	100	95–100	90–100	51–80	<0.06	0.10–0.15	4.5–8.4	High.
Fill land, loamy materials: Fm. No valid estimates can be made.														
*Iberia: Ib, Im. For Manatee part of Im, see Manatee series.	0	Every year for more than 6 months.	0–54	Sandy clay	CH	A-7-6	100	100	90–100	51–80	<0.06	0.10–0.15	5.6–8.4	High.
			54–60	Marl and sandy clay.	CH, SC	A-7-6, A-6	100	100	80–100	36–70	<0.06	0.10–0.15	7.4–8.4	High.
Immokalee: Is	0–10	Every year for a few days.	0–38	Sand	SP, SP-SM	A-3	100	100	80–100	2–10	6.3–20.0	0.02–0.05	4.5–5.5	Low.
			38–56	Sand	SP-SM, SM	A-2-4, A-3	100	100	80–100	5–20	0.63–2.0	0.10–0.15	4.5–5.5	Low.
			56–68	Sand	SP, SP-SM	A-3	100	100	80–100	2–10	6.3–20.0	0.02–0.05	4.5–5.5	Low.
Lake: LaB, LaD, LaE	>120	None	0–98	Sand	SP, SP-SM	A-3, A-2-4	100	100	85–99	3–12	>20.0	0.03–0.05	4.5–5.5	Low.
Lucy: LuB, LuC	>120	None	0–32	Sand	SP, SP-SM	A-3, A-2-4	100	100	85–99	3–12	6.3–20.0	0.05–0.10	4.5–6.0	Low.
			32–75	Sandy clay loam	SC	A-2-6, A-7	100	100	65–100	20–45	0.63–2.0	0.10–0.15	4.5–6.0	Low.
Manatee: Ma	0	Every year for more than 6 months.	0–10	Fine sand	SP, SP-SM	A-3, A-2-4	100	100	90–100	3–12	2.0–6.3	0.10–0.15	6.1–7.3	Low.
			10–60	Loamy fine sand to fine sandy loam.	SM, SM-SC	A-2-4, A-4	100	100	90–100	25–40	0.63–2.0	0.15–0.20	6.1–7.8	Moderate.
Montverde: Md	0	Every year for more than 6 months.	0–11	Muck	Pt	Organic					2.0–6.3	0.20–0.25	5.6–8.4	High.
			11–80	Peat	Pt	Organic					6.3–20.0	0.45–0.50	5.6–8.4	High.

TABLE 8.—*Estimated soil properties significant in engineering*—Continued

Soil series and map symbols	Depth to seasonally high water table [1]	Flood hazard [2]	Depth from surface	Classification			Percentage less than 3 inches passing sieve [3]—				Permeability	Available water capacity	Reaction	Shrink-swell potential [4]
				USDA	Unified	AASHO	No. 4 (4.7 mm.)	No. 10 (2.0 mm.)	No. 40 (0.42 mm.)	No. 200 (0.074 mm.)				
	In.		*In.*								*In./hr.*	*In./in. of soil*	*pH*	
*Myakka: Mk, MpC. For Placid part of MpC, see Placid series.	0–10	Every year for a few days.	0–20	Sand	SP, SP-SM	A-3	100	100	80–100	2–10	6. 3–20. 0	0. 02–0. 05	4. 5–6. 5	Low.
			20–56	Sand	SP-SM, SM	A-2-4, A-3	100	100	80–100	5–20	0. 63–2. 0	0. 10–0. 15	4. 5–6. 5	Low.
			56–85	Sand	SP, SP-SM	A-3	100	100	80–100	2–10	0. 63–20. 0	0. 02–0. 05	4. 5–6. 5	Low.
Ocilla: Oc	40–60	None	0–33	Sand	SP, SP-SM	A-3, A-2-4	100	95–100	95–100	3–12	6. 3–20. 0	0. 02–0. 05	4. 5–6. 5	Low.
			33–82	Sandy clay loam to sandy loam.	SC	A-2-6, A-6	100	95–100	95–100	25–40	0. 63–2. 0	0. 10–0. 15	4. 5–5. 5	Moderate.
Ocoee: Oe	0	Every year for more than 6 months.	0–38	Peat	Pt	Organic					6. 3–20. 0	0. 20–0. 30	4. 0–5. 5	High.
			38–75	Sand	SP, SP-SM	A-2-4, A-3	100	90–100	90–100	3–12	>20. 0	0. 02–0. 05	4. 0–5. 5	Low.
Oklawaha: Oh	0	Every year for about 12 months.	0–9	Muck	Pt	Organic					2. 0–6. 3	0. 20–0. 30	5. 6–8. 4	High.
			9–25	Peat	Pt	Organic					6. 3–20. 0	0. 25–0. 40	5. 6–8. 4	High.
			25–31	Sandy loam	SM-SC	A-2-4, A-4				25–40	6. 3–20. 0	0. 10–0. 15	5. 6–8. 4	Low to moderate.
			31–54	Sandy clay to clay	CH	A-7-6				51–80	<0. 06	0. 15–0. 18	5. 6–8. 4	High.
Ona: On	0–10	Every year for a few days.	0–6	Fine sand	SP, SP-SM	A-3, A-2-4	100	100	90–100	3–12	6. 3–20. 0	0. 10–0. 15	4. 0–5. 5	Low.
			6–18	Fine sand	SP-SM	A-2-4, A-3	100	100	90–100	5–12	2. 0–6. 3	0. 10–0. 15	4. 0–5. 5	Low.
			18–82	Fine sand	SP-SM	A-3, A-2-4	100	100	90–100	5–12	6. 3–20. 0	0. 02–0. 05	4. 0–5. 5	Low.
Orlando: Or	>80	None	0–30	Fine sand	SP-SM	A-2-4, A-3	100	100	90–100	5–12	6. 3–20. 0	0. 10–0. 15	4. 5–6. 5	Low.
			30–80	Fine sand	SP-SM	A-2, A-3	100	95–100	90–100	5–12	6. 3–20. 0	0. 02–0. 05	4. 5–5. 5	Low.
Paola: PaB, PaD	>80	None	0–90	Sand	SP	A-3	100	100	90–100	1–4	>20. 0	0. 02–0. 05	4. 5–5. 5	Low.
Pelham: Pd	0–10	Every year for a few days.	0–32	Sand	SP, SP-SM	A-3, A-2-4	100	100	90–100	2–12	6. 3–20. 0	0. 02–0. 05	4. 5–6. 5	Low.
			32–80	Sandy clay loam	SC	A-2-4	100	100	90–100	15–35	0. 63–20. 0	0. 10–0. 15	4. 5–5. 5	Moderate.
*Placid: PmA, Pe For Myakka part of PmA, see Myakka series.	0	Every year for about 12 months.	0–80	Sand	SP, SP-SM	A-2-4, A-3	100	100	90–100	3–12	6. 3–20. 0	0. 10–0. 15	4. 0–5. 5	Low.
Pg	0–10	Every year for a few days.	0–19	Sand	SP-SM, SP	A-2-4, A-3	100	100	90–100	3–12	6. 3–20. 0	0. 10–0. 15	4. 0–5. 5	Low.
			19–80	Sand	SP, SP-SM	A-2-4, A-3	100	100	90–100	3–12	6. 3–20. 0	0. 05–0. 10	4. 0–5. 5	Low.
Pomello: Pn	30–40	None	0–39	Sand	SP, SP-SM	A-3	100	100	75–100	1–8	>20. 0	0. 02–0. 05	4. 5–5. 5	Low.
			39–55	Sand	SM, SP-SM	A-2-4, A-3	100	100	85–100	5–20	2. 0–6. 3	0. 10–0. 15	4. 5–5. 5	Low.
			55–80	Sand	SP, SP-SM	A-3	100	100	75–100	4–10	>20. 0	0. 02–0. 05	4. 5–5. 5	Low.
Pompano: Po	0–10	Every year for a few days.	0–80	Sand	SP, SP-SM	A-3, A-2-4	100	100	80–95	4–12	6. 3–20. 0	0. 02–0. 05	4. 5–5. 5	Low.
St. Lucie: Sc	>80	None	0–80	Sand	SP	A-3	100	100	95–99	1–4	>20. 0	0. 02–0. 05	4. 5–5. 5	Low.
Swamp: Sw No valid estimates can be made.														
Tavares: Ta, Te	40–60	None	0–99	Sand	SP, SP-SM	A-3	100	100	95–100	2–7	>20. 0	0. 02–0. 05	4. 5–5. 5	Low.
Vaucluse: Va	>60	None	0–15	Sand	SP, SP-SM	A-3, A-2-4	100	100	70–100	3–12	6. 3–20. 0	0. 05–0. 10	4. 5–6. 5	Low.
			15–70	Sandy clay loam	SC	A-2-6, A-6, A-7	100	100	85–100	20–40	0. 20–0. 63	0. 10–0. 15	4. 5–6. 5	Low to moderate.

See footnotes at end of table.

See footnotes at end of table.

TABLE 8.—*Estimated soil properties significant in engineering*—Continued

Soil series and map symbols	Depth to seasonally high water table [1]	Flood hazard [2]	Depth from surface	Classification			Percentage less than 3 inches passing sieve [3]—				Permeability	Available water capacity	Reaction	Shrink-swell potential [4]
				USDA	Unified	AASHO	No. 4 (4.7 mm.)	No. 10 (2.0 mm.)	No. 40 (0.42 mm.)	No. 200 (0.074 mm.)				
	In.		*In.*								*In./hr.*	*In./in. of soil*	*pH*	
Wabasso: Wa	0–10	Every year for a few days.	0–18	Sand	SP, SP–SM	A–3	100	100	95–100	2–10	6. 3–20. 0	0. 02–0. 05	4. 5–5. 5	Low.
			18–28	Sand	SP–SM, SM	A–2–4, A–3	100	100	95–100	5–20	0. 63–2. 0	0. 10–0 15	5. 1–7. 3	Moderate.
			28–68	Sandy clay loam	SC	A–4, A–6, A–2–4, A–2–6	100	100	95–100	20–40	0. 63–2. 0	0. 10–0. 15	5. 6–8. 4	Moderate.
Wauchula: Wc	0–10	Every year for a few days.	0–22	Sand	SP, SP–SM	A–3, A–2–4	100	100	90–100	2–12	6. 3–20. 0	0. 02–0. 05	4. 5–5. 5	Low.
			22–38	Sand	SP–SM	A–2–4, A–3	100	100	90–100	5–12	0. 63–2. 0	0. 10–0. 15	4. 5–5. 5	Low.
			38–80	Sandy loam to sandy clay loam.	SC	A–2–6, A–6	100	95–100	85–100	20–40	0. 63–2. 0	0. 10–0. 15	4. 5–5. 5	Moderate.

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[1] Level expected at some period during the normal wet season.

[2] Water standing or flowing above the surface of the soil under natural conditions without artificial drainage.

[3] The estimated percentage coarse fraction greater than 3 inches is 0 in all soils but Felda fine sand. This soil has an estimated 5 percent coarse fraction greater than 3 inches at depths of 38 to 56 inches.

[4] The mucks and peats have a high potential subsidence rate.

TABLE 9.—*Engineering interpretations*

[An asterisk in the first column indicates that at least one mapping unit in this series is made up of two or more kinds of soil. The soils in such mapping units may have different properties and limitations, and for this reason it is necessary to follow carefully the instructions for referring to other series that appear in the first column of this table]

Soil series and map symbols	Suitability as source for—		Soil features adversely affecting—					
	Topsoil	Road fill	Sanitary land fill [1]	Excavated ponds	Drainage	Sprinkler irrigation	Subsurface irrigation	Ditches and canals
Albany: AbB, AbD	Poor: sand texture	Good: high water table	High water table	Rapid permeability; seasonal low water table; loose sands; unstable side slopes.	Loose erodible sands	Very low available water capacity in surface and subsurface layers.	Rapid permeability; depth to water table.	Loose erodible sands; unstable side slopes.
*Anclote: Ac, Am. For Myakka part of Am, refer to Myakka series.	Poor: sand texture	Poor: high water table	High water table	Loose sands; unstable side slopes.	Loose sand; some areas have no outlets.	Flooding	Flooding	Loose erodible sands; unstable side slopes.
Apopka: ApB, ApD	Poor: sand texture	Good	None	Depth to water table	Well drained	Very low available water capacity.	Rapid permeability in upper layers; depth to water table.	Loose erodible sands; unstable side slopes.
Astatula:								
AsB, AtB	Poor: sand texture	Good	None	Very rapid permeability; depth to water table.	Excessively drained	Very low available water capacity.	Very rapid permeability; depth to water table.	Loose erodible sands; unstable side slopes.
AtD	Poor: sand texture	Good	None	Very rapid permeability; depth to water table.	Excessively drained	Very low available water capacity; slope.	Very rapid permeability; depth to water table; slope.	Slope; loose erodible sands; unstable side slopes.
AtF	Poor: sand texture	Good	None	Very rapid permeability; depth to water table.	Excessively drained	Very low available water capacity.	Very rapid permeability; depth to water table.	Slope; loose erodible sands; unstable side slopes.
Brighton: Br	Poor: high water table	Very poor: traffic-supporting capacity; high water table.	High water table; flooding	Flooding	Inadequate outlets; rapid oxidation.	High water table; flooding.	Flooding	High organic-matter content.

See footnotes at end of table.