

Utility & StormCAD Report For

MISSION RISE PHASE 1

ASF TAP LF I LLC
3565 Piedmont Rd NE Bldg. One, #200
Atlanta, GA 30305

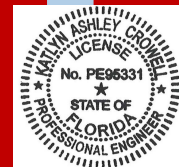


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Date: August 29, 2025

Atwell PN: 23000180

Prepared by:
Atwell, LLC
111 North Magnolia Avenue
Suite 1350
Orlando, FL 32801



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Reason: I attest to the accuracy and integrity of this
document
Date: 2025.08.27 14:15:57 -0400



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Engineer's Report Narrative



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Project Description

The following calculations have been performed in support of the construction of the proposed project, Mission Rise. The project site is located within Howey in the Hills, Florida in Lake County. The project proposes 405 Single-Family community on a +/- 240.56-acre site. The work is comprised of roadway, drainage, utilities, and sidewalks.

The project is following the PUD Development Agreement (BK 6406 PG 1267) recorded on September 30, 2024. There are wetlands on site, and the project lies within Zone AE and Zone A per FEMA FIRM Panel # 12069C0485E Dated 12/18/2012.

All elevations are based upon the vertical datum of NAVD 1988.

General Site Information

- 1) Location: The project is located at Howey in the Hills Town.
- 2) Project Area: The total proposed limit of work is 204.56 acres.
- 3) Existing Land Use: The project area is currently undeveloped with wetlands, various trees and average grass cover. There is also an existing access roadway through Revels Rd in the Southeast.
- 4) Proposed project: 405 Single-Family community with roadway, drainage, utilities, and sidewalks.
- 5) The project site mainly consists of hydrologic soil type A and A/D. Refer to the enclosed soil report for additional information.
- 6) 100-year Floodplain: FEMA map number 12069C0485E dated 12/18/2012, indicated that the site lies within Zone AE and Zone A.
- 7) Wetland Impacts: Wetlands exist onsite. Refer to the environmental report for additional information.
- 8) Project consist of three Phases. This Utility report is presenting the water line serving Phase 1 and lift station serving Phase 1 and Future Phase 2.
- 9) Force Main and Water Main will be connected to SR 19

Public Lift Station

A public lift station is proposed to be constructed onsite to support the sanitary sewer services to the community. A lift station design calculation is enclosed with this report.

Per Howey in the Hills Town Code, the average sewage flow of Single -Family is 250 GPD. Phase 1 proposes 157 units and future Phase 2 will propose 79 units. The total average daily flow is approximate 41.0 GPM.

Based on the calculation results, a Wet Well with 8 ft diameter and 6" Force Main is required. The point of connection is Town's existing force main system running along SR 19 at the project frontage.



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Water Demand and Fire Flow

The water system is modeled with Bentley WaterCAD 10.03.01.08.

Per Howey in the Hills Town Code, 1 ERU equals the Average Water Consumption of 300 GPD. This development proposes a total of 157 units in Phase 1. The total Average Daily Flow is 32.71 GPM, the Maximum Daily Flow shall be the Average Daily Flow times a factor of two, which yields 65.42 GPM. A total of 130.83 GPM is used to the peak hourly flow, using a factor of hour.

Per Howey in the Hills Code, fire flow shall meet the minimum requirements of 1,000 GPM at 20 psi residual pressure.

All elevations of junctions and hydrants are based upon existing or proposed grades.

Stormwater Pipe Collection System

1) Design Criteria:

Per Howey in the Hills code, for collector and local streets, the hydraulic gradient line of the pipe collection system shall maintain a minimum of 0.5 ft below the gutter flowline elevation during the 10-year 24-hour design storm event.

Spread (4in/hr) dimension:

- For collector street inlets shall be spaced to prevent the spread of stormwater runoff from exceeding half of a travel lane width.
- For local and subdivision streets inlets shall be spaced to prevent the spread of stormwater runoff from exceeding one inch above the crown of the road.

2) Methodology:

All new impervious areas are collected and conveyed to the proposed onsite pond for treatment and conveyance. The tailwater condition of the pipe collection system is set at the pond stage at the time of peak inflow for the 10-year 24-hour design storm event. The pipe system is modeled with StormCAD. Rational method is used to determine the flow into all onsite inlets.

Rainfall intensity per the FDOT Drainage Manual "Zone 7" for a 10-year event.

Inlets are following type per FDOT Standard Index (Inlet Type 5, Inlet Type 6, Type V and Type C).

3) Results:

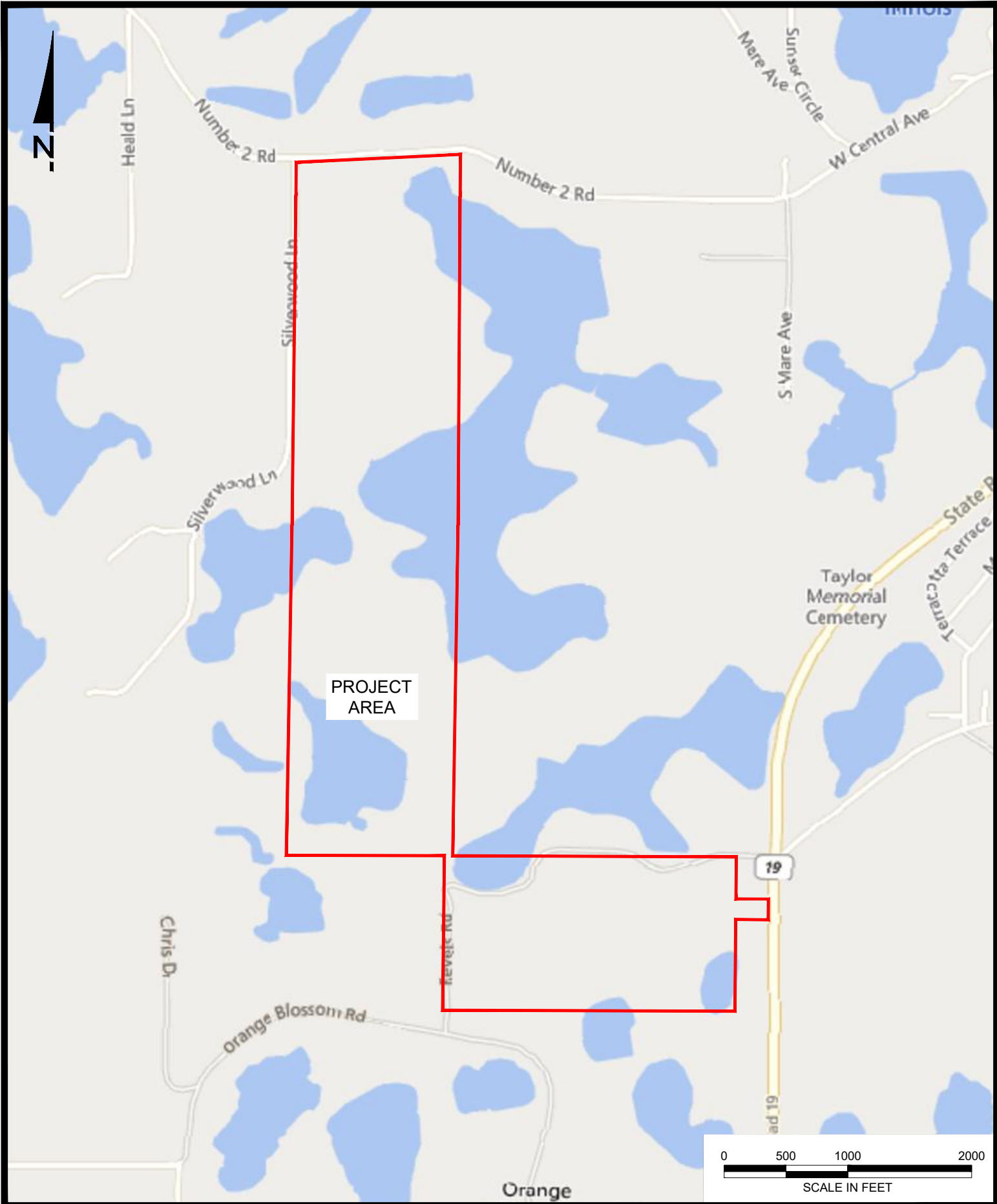
The system, as designed, adequately conveys stormwater runoff from impervious areas to the pond.

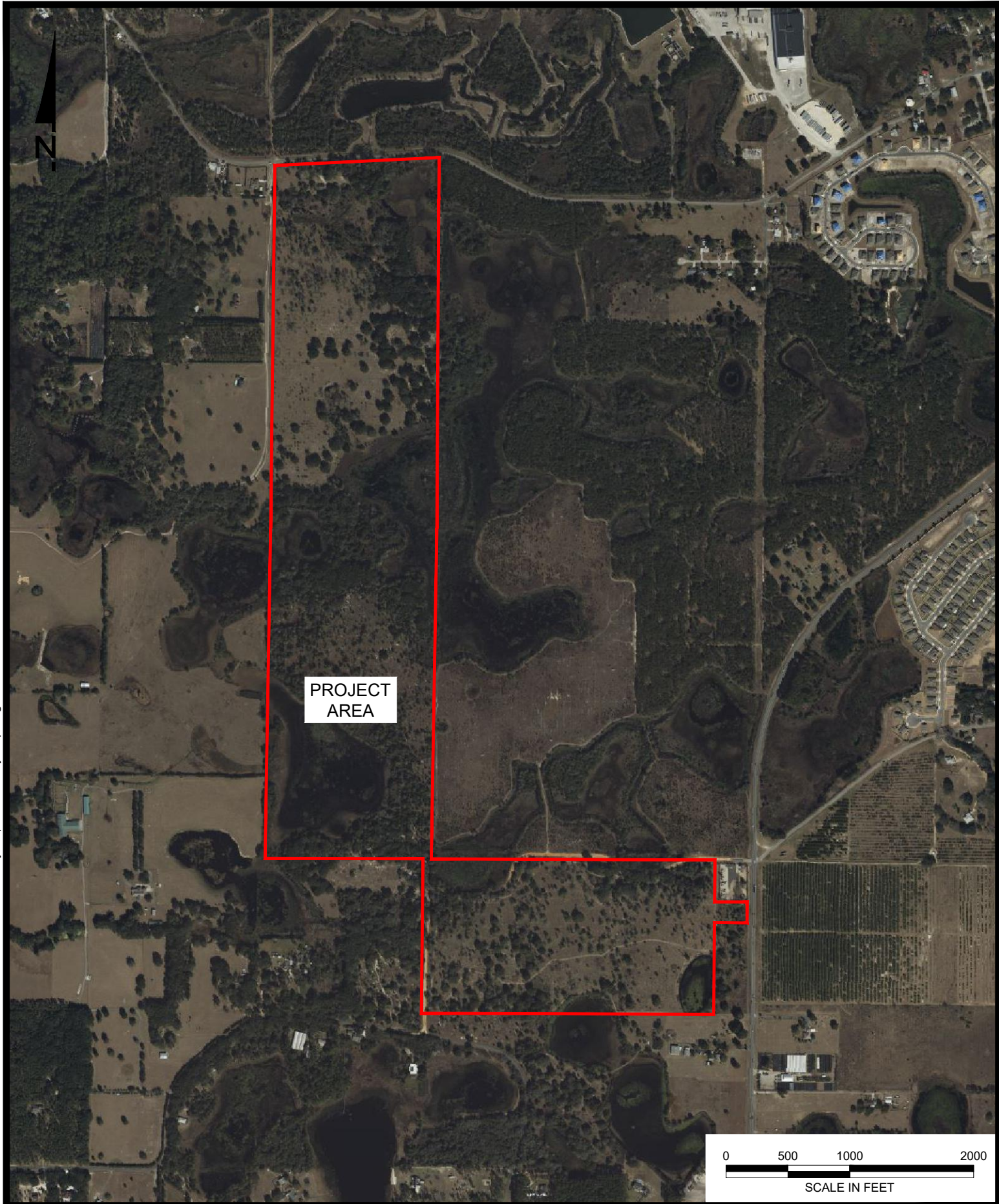


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Location/Aerial Map

K:\23000180 Mission Rise DD and PSP\DWG\Exhibit\E04-Vicinity Map\E04-Vicinity Map.dwg

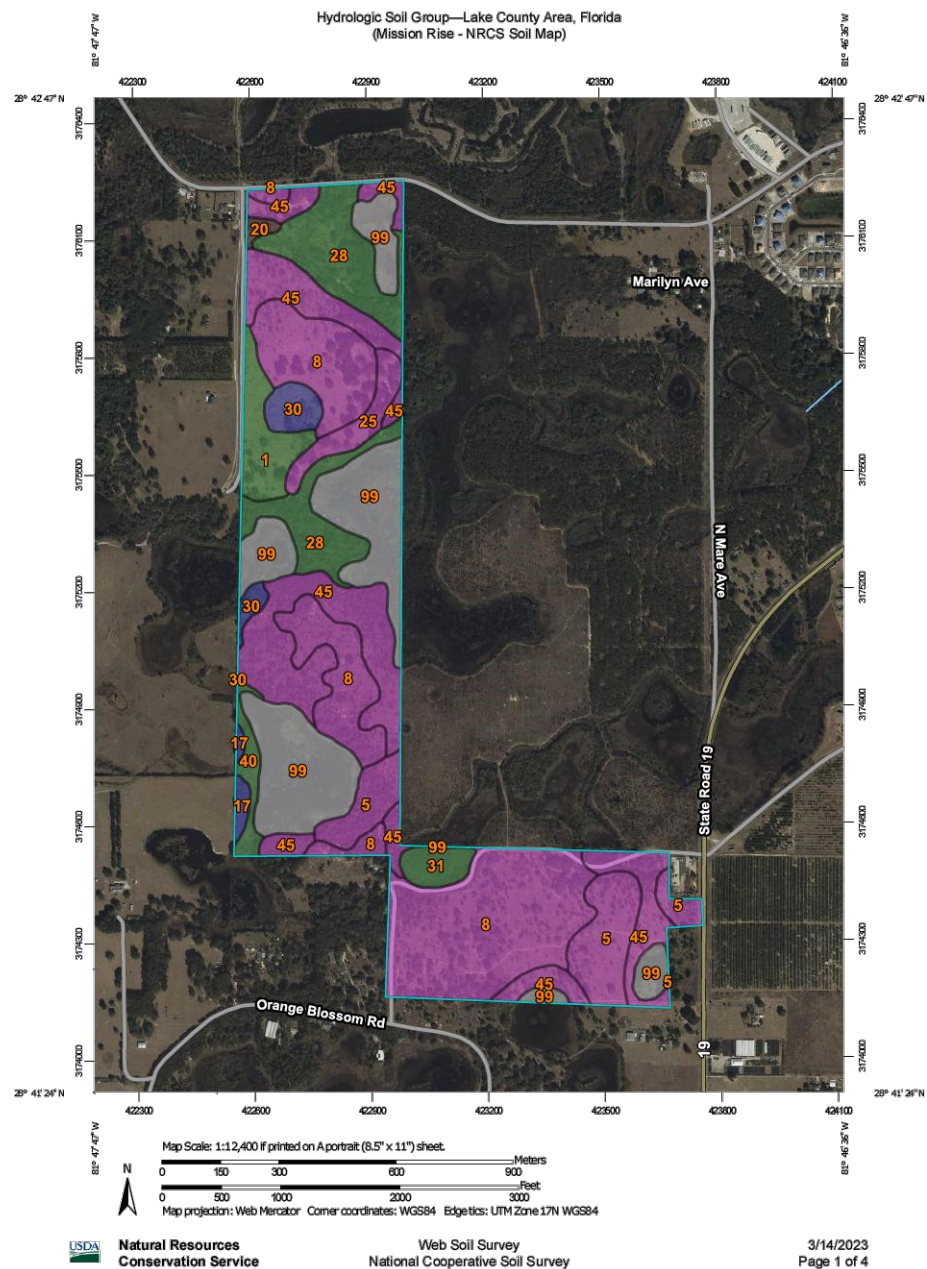






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Soils Map

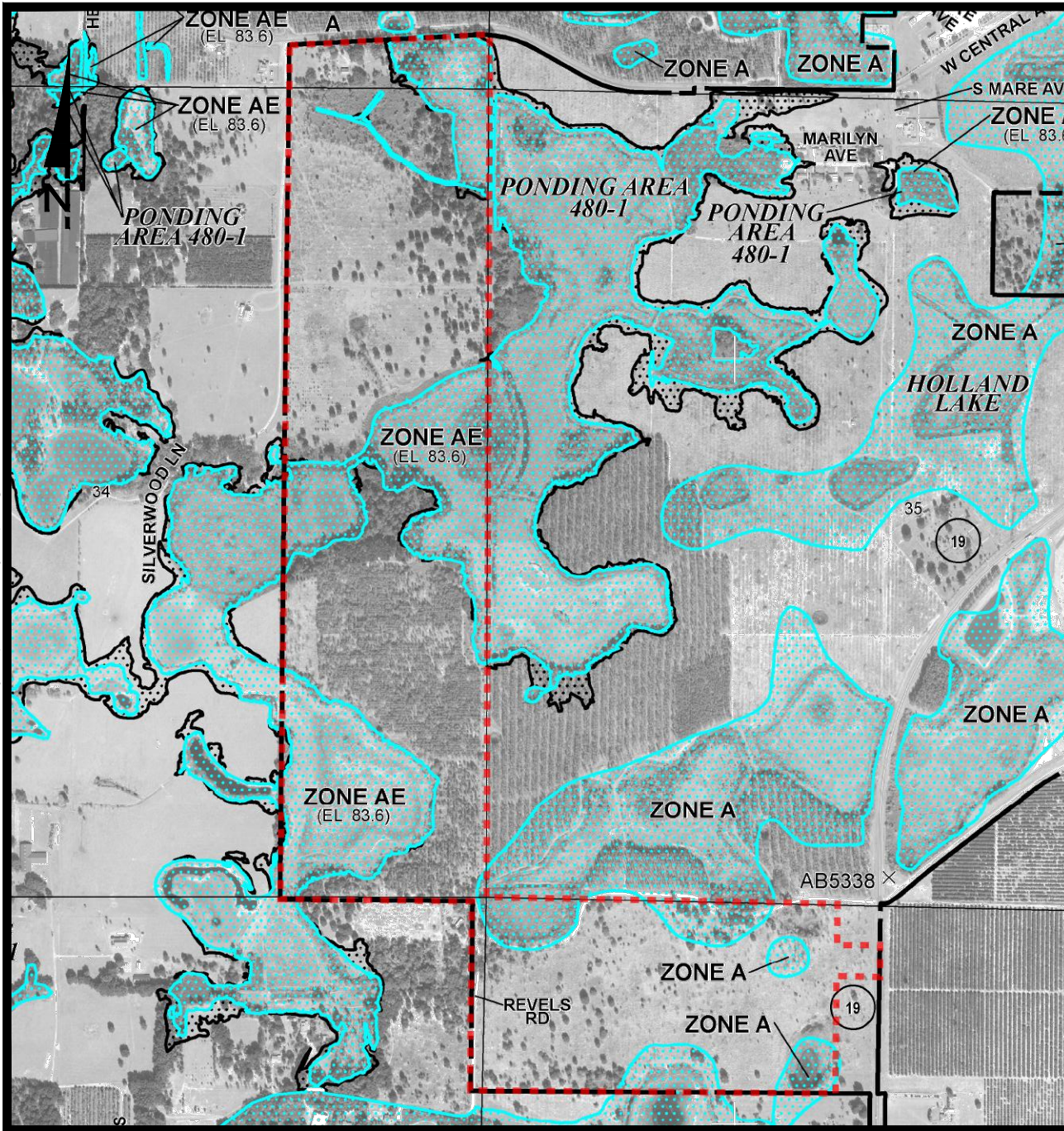


Map unit symbol	Map unit name	Rating	Acres in ACI	Percent of ACI
1	Sperr sand, 0 to 5 percent slopes	A/D	8.4	3.8%
5	Apoka sand, 0 to 5 percent slopes	A	18.6	7.9%
8	Candler sand, 0 to 5 percent slopes	A	72.3	29.1%
17	Arenia	B	1.7	0.7%
20	Immokalee sand	B/D	1.0	0.4%
25	Kendrick sand, 5 to 8 percent slopes	A	6.2	2.5%
28	Myakka-Myakka, wet, sands, 0 to 2 percent slopes	A/D	26.7	10.6%
30	Lochloosa sand	B	5.4	2.2%
31	Ocoee mucky peat	A/D	4.1	1.7%
40	Pleick and Myakka sands, depositional	A/D	3.8	1.5%
48	Terrace sand, 0 to 5 percent slopes	A	80.6	20.4%
99	Water		47.4	19.1%
Totals for Area of Interest			248.2	100.0%



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FEMA FIRM Panel Exhibit



NFIP

PANEL 0485E

FIRM

FLOOD INSURANCE RATE MAP
LAKE COUNTY,
FLORIDA
AND INCORPORATED AREAS

PANEL 485 OF 750

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
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

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
12069C0485E

MAP REVISED
DECEMBER 18, 2012

Federal Emergency Management Agency



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Force Main Calculation

COMPUTATION OF FORCE MAIN SIZE BASED ON PEAK RATE FLOW :

of Units 405
 Design Flow Rate in Pipe = **285.00** GPM x $\frac{1 \text{ Cft.}}{7.48 \text{ Gals}}$ x $\frac{1 \text{ Min.}}{60 \text{ Secs}}$ = **0.64** Cfs.

Pipe Diamter					Cross Section Area		Flow Velocity		Flow = GPM
1.	Use	4.00	Inch	Pipe	0.09	Sq.Ft	7.28	Ft/Sec.	285.000
2.	Use	6.00	Inch	Pipe	0.20	Sq.Ft	3.23	Ft/Sec.	285.000
3.	Use	8.00	Inch	Pipe	0.35	Sq.Ft	1.82	Ft/Sec.	285.000
4.	Use	10.00	Inch	Pipe	0.55	Sq.Ft	1.16	Ft/Sec.	285.000
5.	Use	12.00	Inch	Pipe	0.79	Sq.Ft	0.81	Ft/Sec.	285.000
6.	Use	16.00	Inch	Pipe	1.40	Sq.Ft	0.45	Ft/Sec.	285.000
USE 6.00 " DIAMETER FORCE MAIN									
Minimum Allowable Flow Rate =					176.24	GPM	@	2.00	Ft/Sec
Maximum Allowable Flow Rate =					440.61	GPM	@	5.00	Ft/Sec



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Lift Station Calculations

ATWELL LLC

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DESIGN OF SANITARY SEWAGE LIFT STATION 1

8

PROJECT NAME : Mission Rise
PROJECT NUMBER : 23000180

DATE : 18-Aug-24
BY : KC/ZOR

COMPUTATION OF AVERAGE DAILY FLOW (ADF), PEAK FLOW (Q_p) & FORCE MAIN SIZE :

TYPE OF DEVELOPMENT	QUANTITY	UNITS	FLOW GPD / Unit	G.P.D.	G.P.M.
Single Family (attached and detached) Phase 1	157	1 ERU per Unit	250.00	39,250	27.26
Future Single Family Phase 2	79.00	1 ERU per Unit	250.00	19,750	13.72

TOTAL ERU = 236.00 ERU'S

Actual Average Daily Flow = 59,000 GPD = 40.97 G.P.M.
For Design, Use Average Daily Flow (ADF) = Q_i = 41.00 G.P.M.

COMPUTATION OF MINIMUM PUMP CAPACITY :

To determine Required Pumping Capacity use Peak Factor = 4.00

The Required Minimum Pumping Rate = Q_{pr} = 41.00 x 4.00 = 164.00 G.P.M.

PROVIDE ACTUAL PUMP RATE = Q_p = 170.00 G.P.M.

LIFT STATION FOR : Mission Rise
PROJECT NUMBER : 23000180

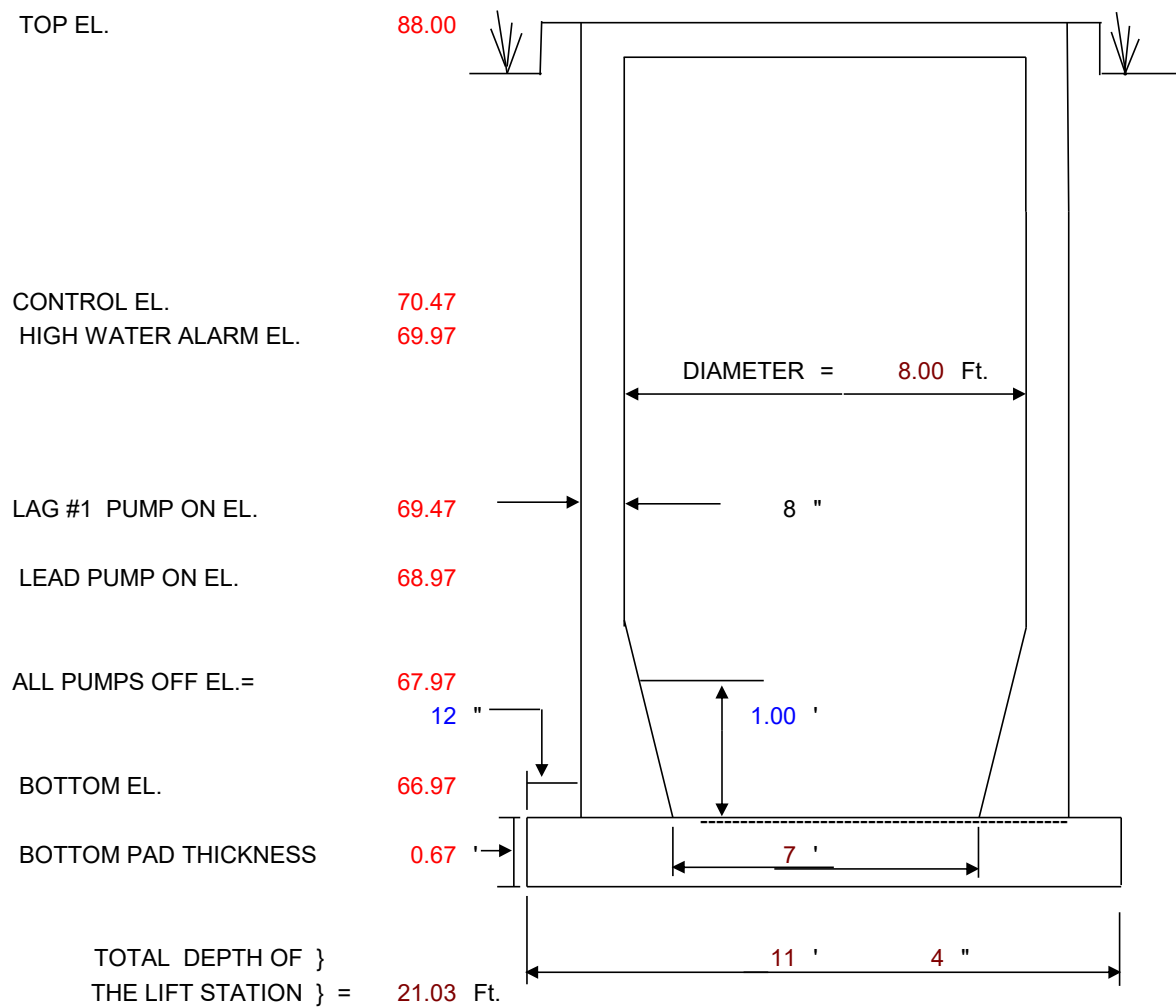
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DESIGN OF WET WELL :

Assume a Pump Cycle Time = T = 10.0 Minutes
Wetwell Storage Required = V = $((T * Q_p) - (T * Q_i)) / Q_p * Q_i$
Wetwell Storage Required = V = 311.118 Gals = 41.59 Cft

Diameter of Wet Well (Ft.)	8.00	10.00	12.00	14.00	16.00	18.00	20.00
Storage Height (Ft.)	0.83	0.53	0.37	0.27	0.21	0.16	0.13

Provide Wetwell of Internal Diameter = 8 Ft. AND Storage Height = 1.00 Ft.
Actual Storage volume provided in the Wetwell = V_a = 50.27 Cft. = 375.99 Gals.
Actual Pump Cycle Time Provided = T_p = $(V / Q_i) + (V / (Q_p - Q_i))$ Mins.
i.e. ACTUAL TOTAL TIME FOR ONE COMPLETE PUMP CYCLE = T_p = 12.09 Mins.



LIFT STATION FOR : Mission Rise
PROJECT NUMBER : 23000180

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8

CHECK STABILITY OF WET WELL

ASSUME :	Unit Weight of Soil	=	100	Lbs. Per Cu. Ft.
	Unit Weight of Concrete	=	150	Lbs. Per Cu. Ft.
WET WELL :	Thickness of Top Cover	=	8 " = 0.67	Ft.
	Thickness of Wall	=	8 " = 0.67	Ft.
	Thickness of Bottom Pad	=	8 " = 0.67	Ft.
	Height of Wet Well	=	21.03	Ft.
	Ground Water Elevation at Wet Well	=	75.00	

COMPUTATION OF SELF WEIGHT OF WET WELL :

Top Cover	:	$\pi \times (4.67)^2 \times 0.67 \times 150$	=	6842	Lbs.
Walls	:	$\pi \times 8.67 \times 0.67 \times 21.03 \times 150$	=	57253	Lbs.
Bottom Pad	:	$\pi \times (5.67)^2 \times 0.67 \times 150$	=	10088	Lbs.
Soil Over Extns.	:	$\pi \times 10.33 \times 1.00 \times 21.03 \times 100$	=	68263	Lbs.
TOTAL DOWNWARD PRESSURE				142446	Lbs.

COMPUTATION OF UPLIFT FORCE :

$$\begin{array}{l} \text{Height of water Column } \} \\ \text{Over Bottom of Wet Well } \} \end{array} = 75.00 - 66.97 + 0.67 = 8.69 \text{ Ft.}$$

UPLIFT FORCE

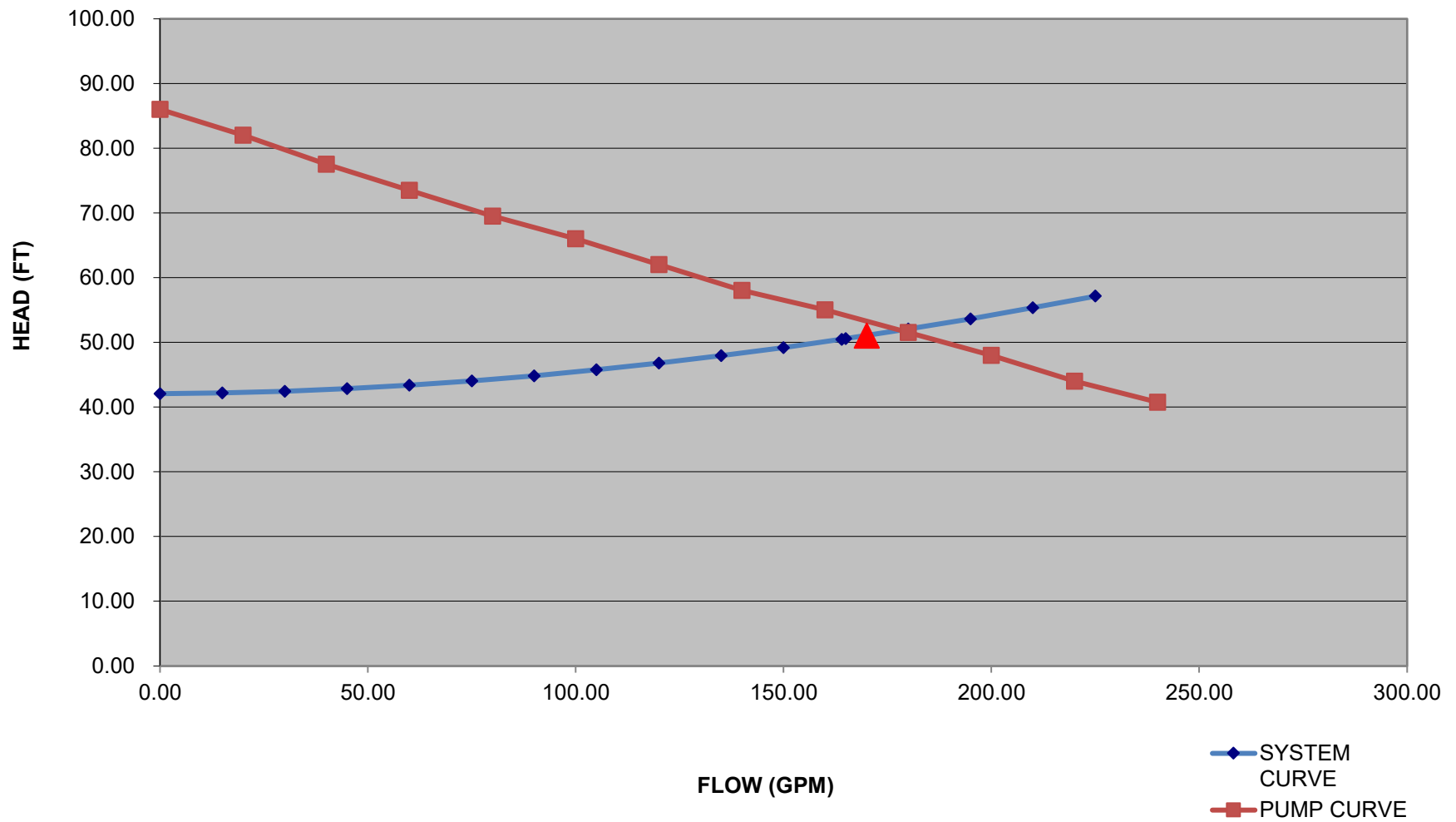
Wet Well	=	$\pi \times (4.67)^2 \times 62.4 \times 8.03$	=	34273	Lbs.
Bottom Slab	=	$\pi \times (5.67)^2 \times 62.4 \times 0.67$	=	58	Lbs.
UPLIFT FORCE	=		=	34331	Lbs.

FACTOR OF SAFETY (Allowable Minimum = 1.2) :

$$\text{FACTOR OF SAFETY} = \frac{\text{Downward Pressure}}{\text{Uplift Force}} = \frac{142446}{34331} = 4.15$$

LIFT STATION FOR : Mission Rise					Page 6 of	
PROJECT NUMBER : 23000180					8	
COMPUTATION OF STATION & LINE LOSSES AND DEVELOPMENT OF SYSTEMS CURVE						
STATIC HEAD :					FEET	
Both Pumps Off Elevation	=	67.97	TDH @ POC	=	8.03	
Maximum Elevation in Line to POC	=	102.00	TDH @ TIE IN AT	=	0.00	
Total Static Head to POC	=	34.03	Buildout 3.5 PSI			
Maximum Elevation in Line		102.00				
Total Static Head in Line	=	34.03				
WET-WELL / STATION LOSSES :						
4 "	Piping Equivalent @ C =	120	30 ' @	1.00	=	30.00
0 x 4 "	x 45 ⁰ Bends		@	3.50	=	0.00
2 x 4 "	x 90 ⁰ Bends		@	5.90	=	11.80
1 x 4 "	Gate Valve		@	2.90	=	2.90
1 x 4 "	Check Valve		@	38.00	=	38.00
1 x 4 "	Tee Branch Flow		@	12.00	=	12.00
TOTAL STATION LOSSES		4 " Pipe Equivalent @	C =	120	=	94.70
LINE LOSSES :			(From Lift Station to POC)			
4 "	Pipe Length @ C =	120	314.5 ' @	1.00	=	314.50
2 x 4 "	x 45 ⁰ Bends		@	3.50	=	7.00
0 x 4 "	x 90 ⁰ Bends		@	5.90	=	0.00
1 x 4 "	Plug Valve		@	2.90	=	2.90
1 x 4 "	Tee Branch Flow		@	12.00	=	12.00
		4 " Pipe Equivalent @	C =	120	=	336
ADDITIONAL LINE LOSSES - 1 :			(From xx to xx)			
4 "	Pipe Length @ C =	120	0 ' @	1.00	=	0.00
0 x 4 "	x 45 ⁰ Bends		@	3.50	=	0.00
0 x 4 "	x 90 ⁰ Bends		@	5.90	=	0.00
0 x 4 "	Plug Valve		@	2.90	=	0.00
0 x 4 "	Tee Branch Flow		@	12.00	=	0.00
		4 " Pipe Equivalent @	C =	120	=	0

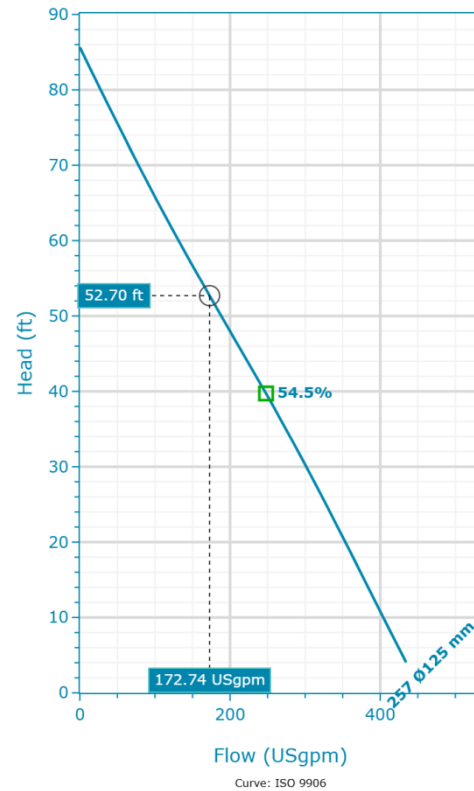
SYSTEM CURVE - ALL PUMPS ON



NP 3102 SH 3~ Adaptive 257 | Configuration Summary



Flygt's self-cleaning non-clog N-pumps feature innovative designs and functions that deliver high sustained efficiency and the most reliable operation. This makes them the most reliable choice available for a broad range of wastewater applications for tough applications such as unscreened sewage, wastewater and sludge up to an 8 percent solids concentration. Impeller material available in Hardened cast Iron, Hard Iron and Stainless Steel to fit any wastewater application.



Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances. Please consult your local Flygt representative for performance guarantees.

GENERAL

Explosion Proof	Impeller Diameter
No	125 mm
Max. Pumped Media Temp.	
104 °F	

MATERIAL AND COATING

Impeller Material	Stator Cover Material
Hard-Iron	Grey Cast Iron
Volute Material	
Grey Cast Iron	

MOTOR

Rated Voltage	Motor Efficiency Class
460 V	Standard
Coupling	Rated Power
Y	6.5 Hp

INSTALLATION

Installation Type
P - Semi-Permanent, Wet

NP 3102 SH 3~ Adaptive 257 | Product Details

Description

N 3102

Wastewater N-Technology Pump With Adaptive N® Impeller

Flygt N-pumps take on the toughest applications and get the job done. Every component is designed and manufactured to deliver sustained high efficiency. Thanks to patented N-technology with its innovative self-cleaning impeller, Flygt N-pumps deliver the highest total efficiency. They lower your energy bill and reduce unplanned maintenance costs. That adds up to total peace of mind – and big savings over the long term. Most solid objects entering the pump will pass through the impeller between the impeller vanes. If an object gets caught on the leading edge of one of the vanes, it will slide along the backswept shape towards the perimeter of the inlet. Due to the mechanical self-cleaning design, a sludge concentration up to 8% can easily be pumped.

Flexible and Modular Design

- This self-cleaning pump features innovative functions that make it the best choice for a broad range of applications. The modular hydraulic design enables you to tailor the hydraulics to meet the requirements of virtually any application.
- Replaceable wear ring in two materials, gray iron or Hard-Iron, for different operation conditions
- Hardened gray iron impeller for typical wastewater applications
- Hard-Iron impeller for abrasive and corrosive applications
- Stainless steel impeller for special applications that require duplex stainless steel
- Short shaft overhang reduces shaft deflection and increases seal and bearing life
- Motor designed for submersible use. Heat is concentrated to the stator core for improved cooling properties
- The double mechanical seal system consists of two sets of mechanical shaft seals that work independently to provide double security. Available in Tungsten carbide (WCCR) or Silicone carbide (SiC) depending on pumped media.
- Griploc mechanical face seal system secures locking to the shaft, no rubber friction, no grub screws and no shaft damage
- Motor cable SUBCAB ® specially developed for submersible use.

Product Features

- Sustained high efficiency
- Hardened cast iron, optional Duplex stainless steel and Hard-Iron impellers
- State-of-the-art wastewater pump with enhanced Adaptive N® hydraulic
- Sustained high efficiency with energy savings up to 25%
- Flexible and modular design
- Robust and reliable

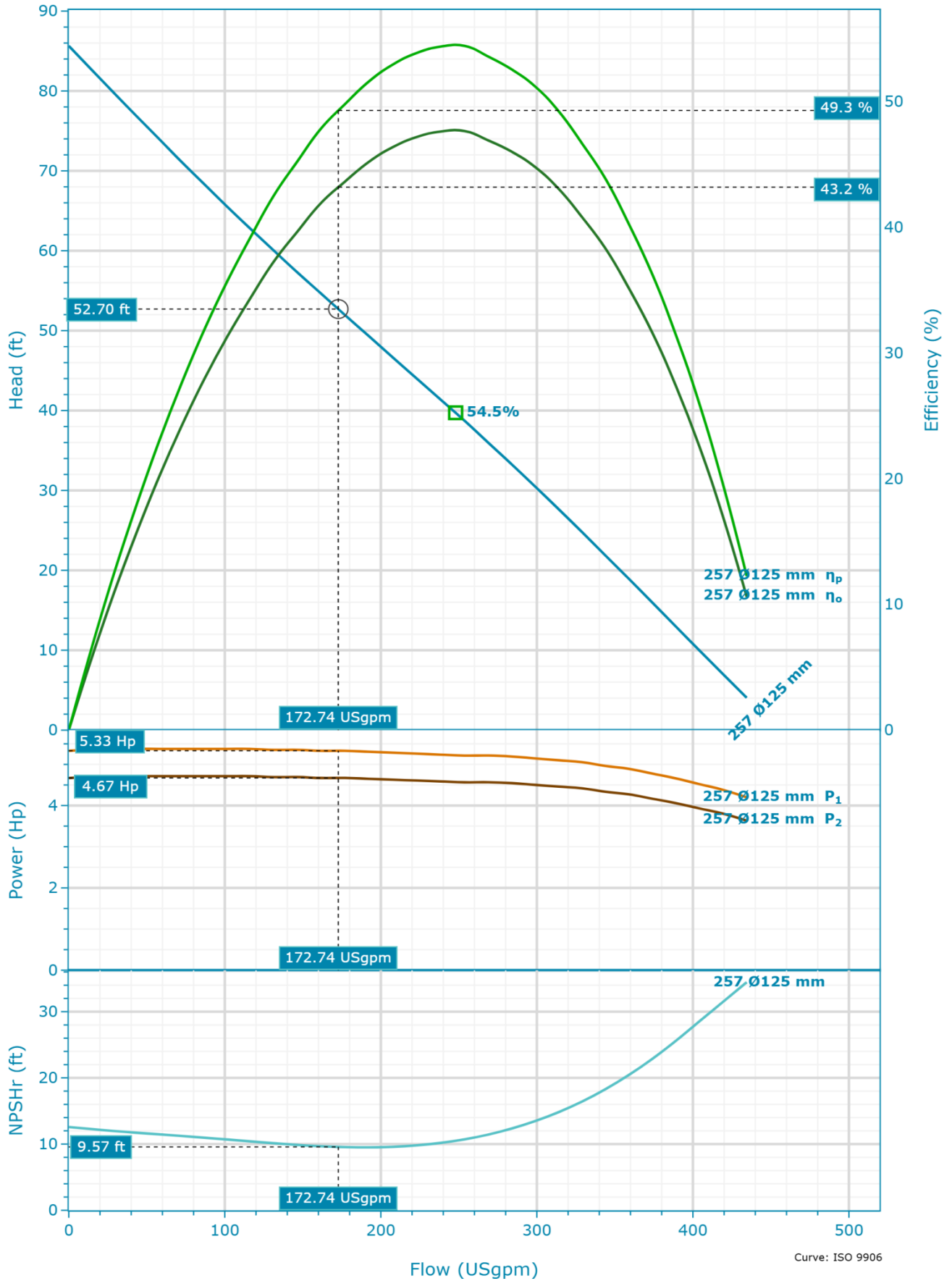
Construction Materials

Impeller Material	Volute Material	Stator Cover Material
Hard-Iron	Grey Cast Iron	Grey Cast Iron

Motor

Rated Power	Number Of Phases	Start Current Ratio	Motor Issue
6.5 Hp	3	9.51	18
Motor Denomination	Rated Motor Speed	Insulation Class	Locked Rotor Code
18-10-2AL	3,515 RPM	H	K
Motor Efficiency Class	Rated Voltage	Approval	Max starts per hour
Standard	460 V	Standard	30
Version Code	Rated Current	Total moment of inertia	Power Factor 100%
060	8 A	0.3703 ft²lbf	0.91
Frequency	Start Current	Type of duty	Power Factor 75%
60 Hz	72 A	S1	0.88
Max P2 (1x)	Starting Current, Direct Starting	Stator Variant	Power Factor 50%
4.72 Hp	72 A	62	0.82
Number Of Poles	Starting Current, Star Delta	Motor Module	Efficiency 100%
2	24 A	150	87 %
			Efficiency 75%
			87.4 %
			Efficiency 50%
			86.1 %

NP 3102 SH 3~ Adaptive 257 | Hydraulic Data & Performance Curve



Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances. Please consult your local Flygt representative for performance guarantees.

Selection

Series
N 3000
Name

Curve Code
257
Impeller Diameter

Fluid

Fluid Type
Water
Fluid Temperature

Density
62.428 lb/ft³
Dynamic Viscosity

NP 3102 SH 3~ Adaptive 257

Frequency
60 Hz

Total Flow
170.00 USgpm

Total Head
51.04 ft

Pump Flow
170.00 USgpm

Pump Head
51.04 ft

System Type
Single Pump

Operating Pumps
1

Standby Pumps
No Standby Pump

125 mm

Inlet Diameter
100 mm

Outlet Diameter
3 in

Number Of Vanes
2

39.2 °F

Specific Gravity
1

1.567212 cP

Fluid Vapor Pressure
0.118 psi

Design Point

Flow
172.74 USgpm

Head
52.7 ft

Overall Efficiency (η_o)
43.20 %

Pump Efficiency (η_p)
49.30 %

Input Power (P1)
5.33 Hp

Shaft power (P2)
4.67 Hp

NPSHR
9.57 ft

Flow To BEP Ratio
69.7 %

Design Curve

Rated Speed
60 Hz

Max Flow
434.47 USgpm

H@QMin
85.64 ft

H@QMax
4.05 ft

BEP
54.5 %

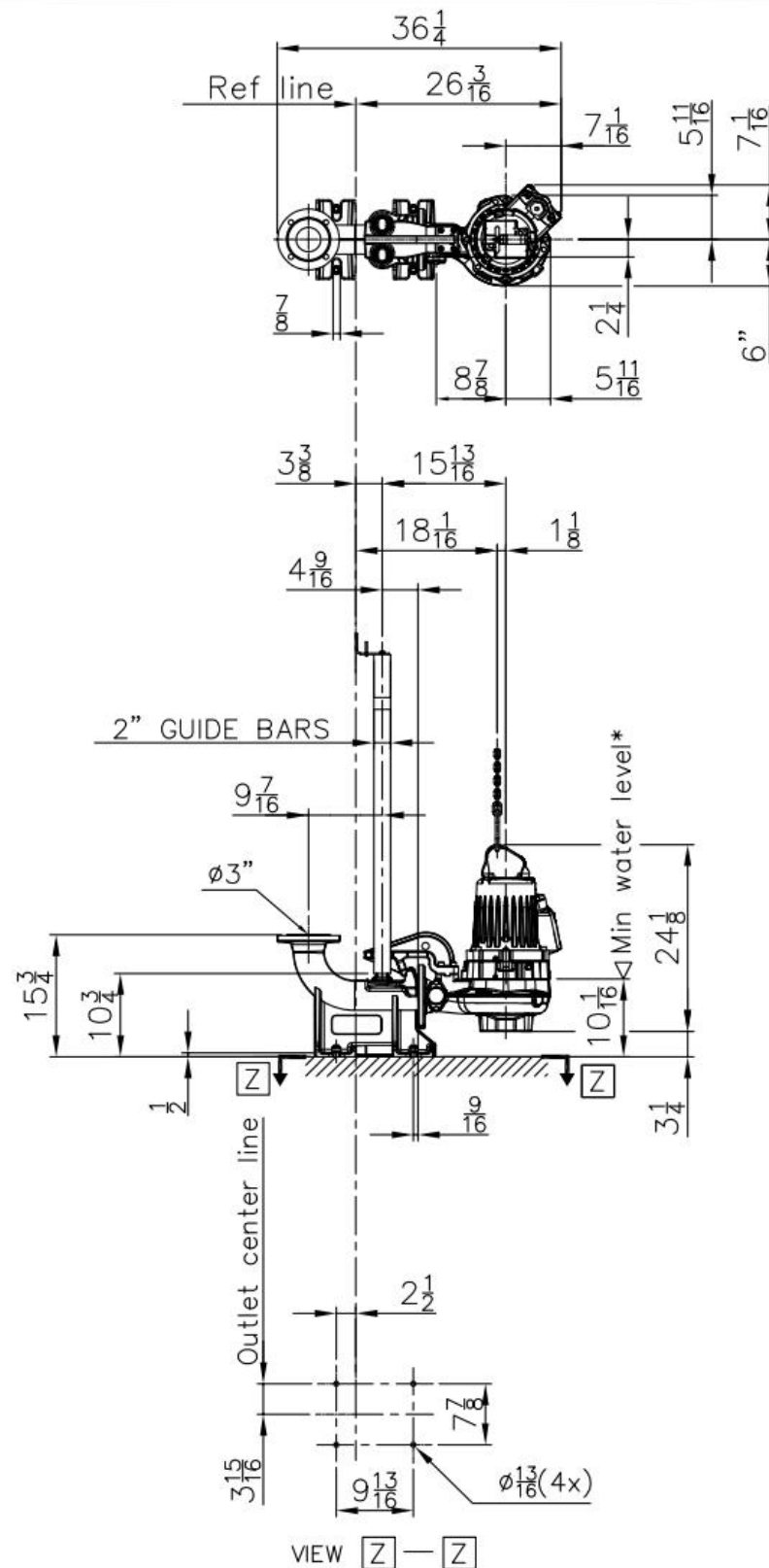
BEP Flow
247.94 USgpm

BEP Head
39.72 ft

Max P2
4.72 Hp

Specific Energy
0.000384 kWh/USgal

NP 3102 SH 3~ Adaptive 257 | Dimensional Data & Drawing



* Consult the IOM for more info.

Weight		Pump	Stand
lbs		235	80
Discharge outlet $\varnothing 3"$		Scale	Date
Pump outlet $\varnothing 3"$		1:20	250407
Pump inlet		Drawing number	Revision
Suction		5385500	14

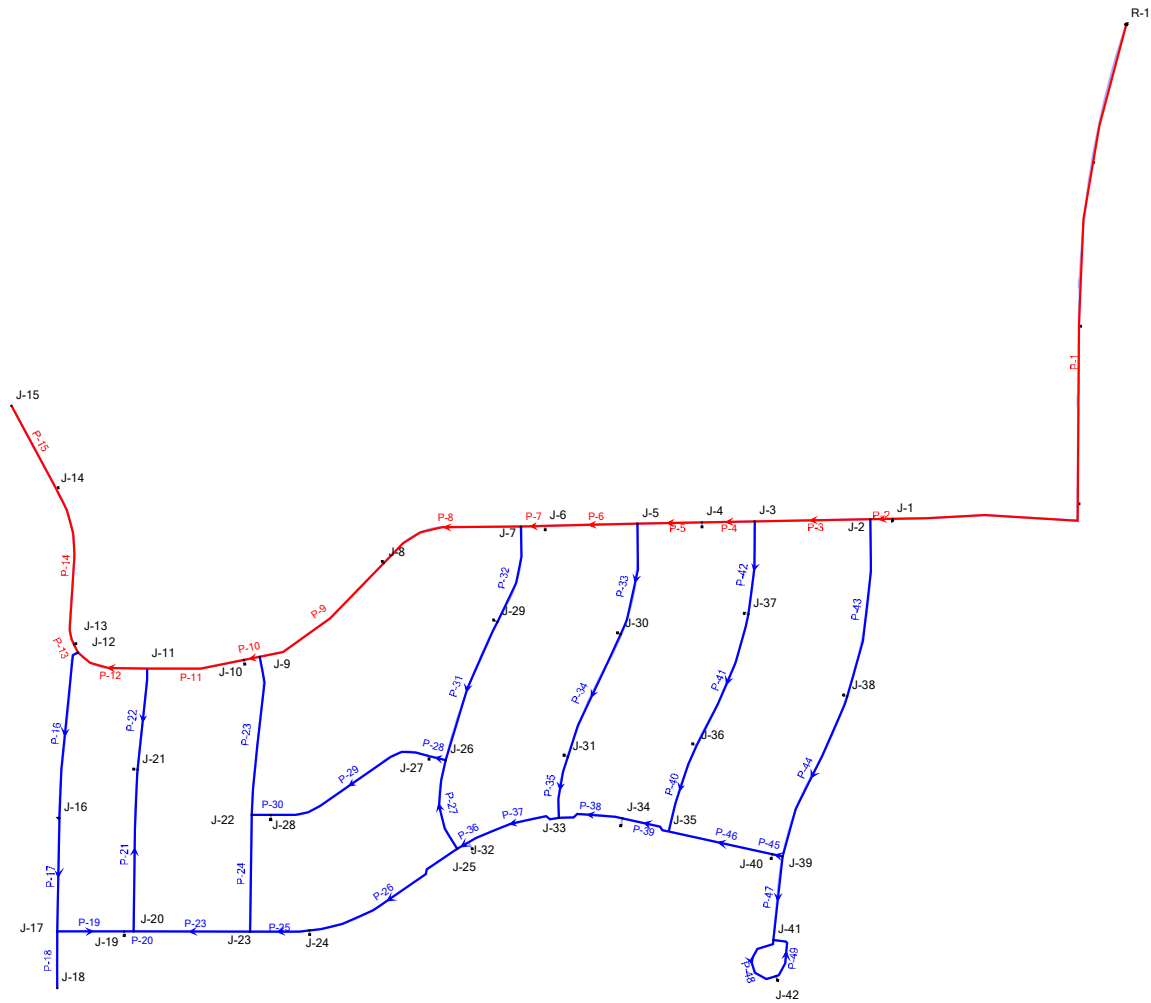
	NP	3102	SH	
	060,070,160,190,900,910,920,930			



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WaterCAD Report

Scenario: FF + MDF



FlexTable: Junction Table

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Pressure Head (ft)
J-1	89.32	1	65	150.94
J-2	88.59	0	66	151.44
J-3	87.48	0	66	151.97
J-4	89.70	1	65	149.53
J-5	90.92	0	64	148.04
J-6	94.58	3	62	144.07
J-7	94.92	0	62	143.62
J-8	92.69	0	63	145.51
J-9	93.91	0	62	143.94
J-10	94.65	3	62	143.12
J-11	98.37	0	60	139.11
J-12	94.51	0	62	142.97
J-13	94.00	0	62	143.48
J-14	86.19	0	65	151.29
J-15	88.26	0	65	149.22
J-16	100.91	0	59	136.45
J-17	93.53	0	62	143.76
J-18	91.00	0	63	146.29
J-19	97.82	2	60	139.42
J-20	98.52	0	60	138.71
J-21	108.28	1,005	55	127.54
J-22	106.51	0	57	131.40
J-23	101.39	0	59	136.44
J-24	100.72	5	59	137.26
J-25	96.95	0	61	141.44
J-26	98.13	0	61	140.22
J-27	98.55	5	60	139.73
J-28	105.80	4	57	132.17
J-29	96.30	3	62	142.15
J-30	92.53	3	63	146.41
J-31	94.23	4	63	144.68
J-32	96.60	3	61	141.88
J-33	94.28	0	63	144.62
J-34	92.15	2	64	146.97
J-35	91.27	0	64	148.02
J-36	90.05	5	65	149.28
J-37	89.57	4	65	149.83
J-38	91.06	5	64	148.67
J-39	92.84	0	63	146.64
J-40	92.89	4	63	146.55
J-41	93.94	0	63	145.54
J-42	94.00	3	63	145.48

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/ft)
P-1	1,767	R-1	J-1	12.0	PVC	150.0	0.000	1,066	3.02	0.002
P-2	57	J-1	J-2	12.0	PVC	150.0	0.000	1,064	3.02	0.004
P-3	298	J-2	J-3	12.0	PVC	150.0	0.000	887	2.52	0.002
P-4	136	J-3	J-4	12.0	PVC	150.0	0.000	789	2.24	0.002
P-5	166	J-4	J-5	12.0	PVC	150.0	0.000	788	2.23	0.002
P-6	238	J-5	J-6	12.0	PVC	150.0	0.000	730	2.07	0.001
P-7	62	J-6	J-7	12.0	PVC	150.0	0.000	728	2.06	0.002
P-8	384	J-7	J-8	12.0	PVC	150.0	0.000	610	1.73	0.001
P-9	409	J-8	J-9	12.0	PVC	150.0	0.000	610	1.73	0.001
P-10	42	J-9	J-10	12.0	PVC	150.0	0.000	686	1.95	0.002
P-11	251	J-10	J-11	12.0	PVC	150.0	0.000	683	1.94	0.001
P-12	190	J-11	J-12	12.0	PVC	150.0	0.000	108	0.31	0.000
P-13	23	J-12	J-13	12.0	PVC	150.0	0.000	0	0.00	0.000
P-14	411	J-13	J-14	12.0	PVC	150.0	0.000	0	0.00	0.000
P-15	244	J-14	J-15	12.0	PVC	150.0	0.000	0	0.00	0.000
P-16	436	J-12	J-16	8.0	PVC	150.0	0.000	108	0.69	0.000
P-17	291	J-16	J-17	8.0	PVC	150.0	0.000	108	0.69	0.000
P-18	146	J-18	J-17	8.0	PVC	150.0	0.000	0	0.00	0.000
P-19	172	J-17	J-19	8.0	PVC	150.0	0.000	108	0.69	0.000
P-20	24	J-19	J-20	8.0	PVC	150.0	0.000	106	0.67	0.000
P-21	416	J-20	J-21	8.0	PVC	150.0	0.000	430	2.74	0.003
P-22	262	J-21	J-11	8.0	PVC	150.0	0.000	-575	3.67	0.006
P-23	300	J-20	J-23	8.0	PVC	150.0	0.000	-324	2.07	0.002
P-23	409	J-22	J-9	8.0	PVC	150.0	0.000	76	0.49	0.000
P-24	300	J-22	J-23	8.0	PVC	150.0	0.000	106	0.67	0.000
P-25	153	J-23	J-24	8.0	PVC	150.0	0.000	-218	1.39	0.001
P-26	445	J-24	J-25	8.0	PVC	150.0	0.000	-223	1.42	0.001
P-27	241	J-26	J-25	8.0	PVC	150.0	0.000	-77	0.49	0.000
P-28	43	J-26	J-27	8.0	PVC	150.0	0.000	191	1.22	0.002
P-29	457	J-27	J-28	8.0	PVC	150.0	0.000	186	1.19	0.001
P-30	49	J-28	J-22	8.0	PVC	150.0	0.000	182	1.16	0.001
P-31	380	J-29	J-26	8.0	PVC	150.0	0.000	114	0.73	0.000
P-32	258	J-7	J-29	8.0	PVC	150.0	0.000	118	0.75	0.000
P-33	290	J-30	J-5	8.0	PVC	150.0	0.000	-58	0.37	0.000
P-34	345	J-31	J-30	8.0	PVC	150.0	0.000	-54	0.35	0.000
P-35	160	J-33	J-31	8.0	PVC	150.0	0.000	-51	0.32	0.000
P-36	33	J-25	J-32	8.0	PVC	150.0	0.000	-300	1.91	0.003
P-37	247	J-32	J-33	8.0	PVC	150.0	0.000	-303	1.93	0.002
P-38	168	J-33	J-34	8.0	PVC	150.0	0.000	-252	1.61	0.001
P-39	127	J-34	J-35	8.0	PVC	150.0	0.000	-254	1.62	0.001
P-40	232	J-36	J-35	8.0	PVC	150.0	0.000	89	0.57	0.000
P-41	365	J-37	J-36	8.0	PVC	150.0	0.000	94	0.60	0.000
P-42	240	J-3	J-37	8.0	PVC	150.0	0.000	98	0.63	0.000
P-43	462	J-38	J-2	8.0	PVC	150.0	0.000	-177	1.13	0.001
P-44	446	J-39	J-38	8.0	PVC	150.0	0.000	-172	1.10	0.001
P-45	27	J-40	J-39	8.0	PVC	150.0	0.000	-169	1.08	0.002
P-46	273	J-35	J-40	8.0	PVC	150.0	0.000	-165	1.05	0.001
P-47	216	J-39	J-41	8.0	PVC	150.0	0.000	2	0.02	0.000
P-48	179	J-41	J-42	8.0	PVC	150.0	0.000	5	0.03	0.000
P-49	132	J-42	J-41	8.0	PVC	150.0	0.000	2	0.01	0.000

FlexTable: Reservoir Table
FlexTable: Reservoir Table

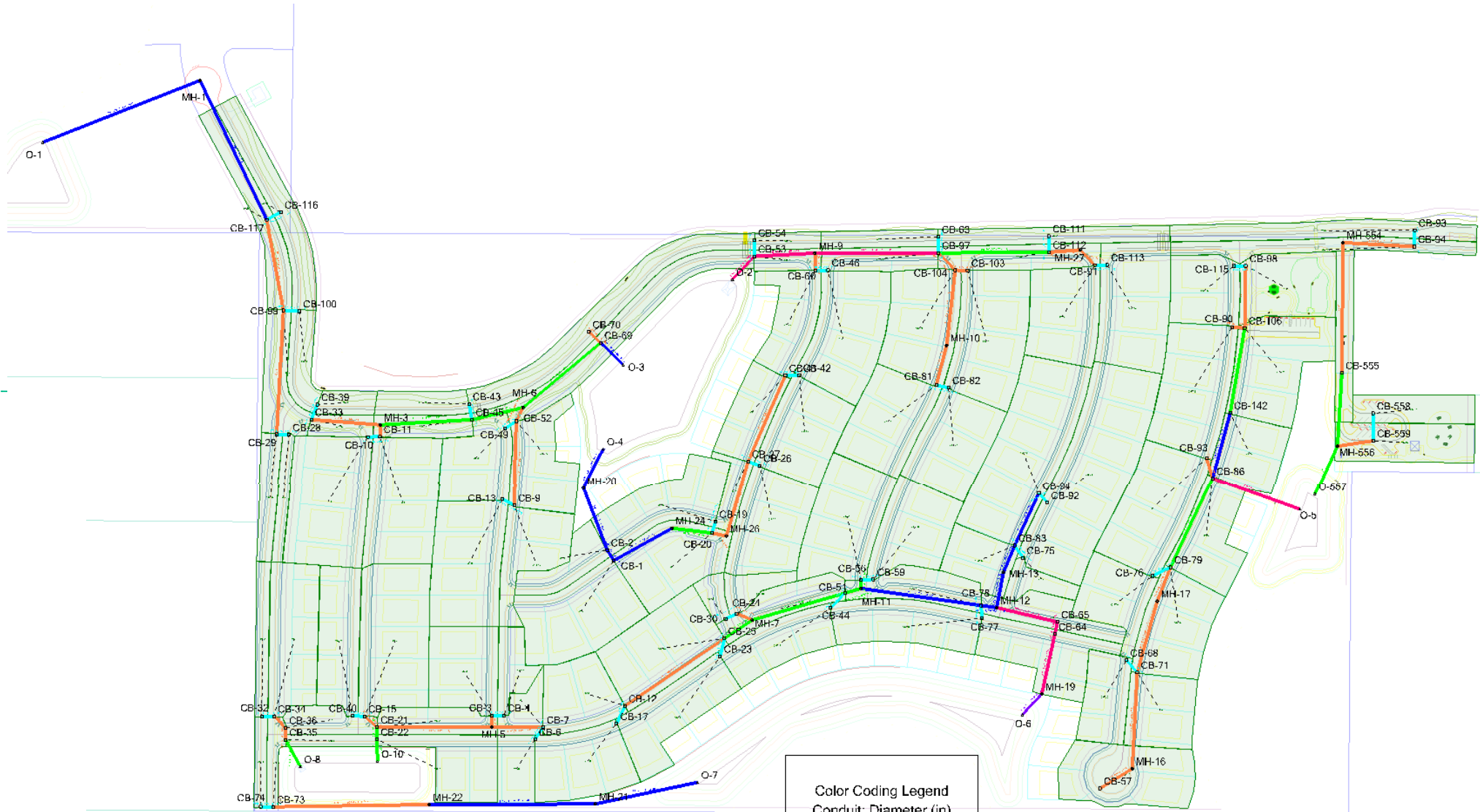
ID	Label	Elevation (ft)	Zone	Flow (Out net) (gpm)	Hydraulic Grade (ft)
189	R-1	244.45	<None>	1,066	244.45



CONSULTING. ENGINEERING. CONSTRUCTION.

StormCAD Report

Secondary Drainage Report



Color Coding Legend
Conduit: Diameter (in)

Light Blue	≤ 15.0
Orange	≤ 18.0
Green	≤ 24.0
Dark Blue	≤ 30.0
Pink	≤ 36.0
Purple	≤ 42.0
Red	Other

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-558	88.50	82.16	100.0	1.37	88.50	False	88.02	TYPE C FDOT INLET	0.013	In Sag	0.5
CB-559	88.50	81.98	100.0	2.13	88.50	False	87.99	TYPE C FDOT INLET	0.013	In Sag	0.5
CB-555	88.50	82.24	100.0	1.45	88.50	False	87.99	TYPE C FDOT INLET	0.013	In Sag	0.5
CB-92	91.27	84.10	100.0	7.38	91.27	False	90.60	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	0.7
CB-36	94.84	90.34	87.8	2.83	94.84	False	94.14	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	0.7
CB-35	94.83	90.23	100.0	0.60	94.83	False	93.89	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	0.9
CB-94	91.20	83.50	100.0	6.29	91.20	False	90.24	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.0
CB-116	88.55	83.66	100.0	2.56	88.55	False	87.35	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.2
CB-90	90.70	86.45	100.0	4.57	90.70	False	89.49	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.2
CB-117	88.55	81.16	100.0	2.07	88.55	False	87.29	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.3
CB-93	90.20	83.68	100.0	2.45	90.20	False	88.92	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.3
CB-94	90.20	83.54	100.0	2.04	90.20	False	88.87	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.3
CB-32	95.60	91.10	100.0	1.01	95.60	False	94.23	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.4
CB-106	90.82	84.84	100.0	4.00	90.82	False	89.44	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.4
CB-34	95.60	90.99	80.1	2.76	95.60	False	94.22	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.4
CB-113	92.74	87.34	92.3	3.85	92.74	False	91.18	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.6

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-42	96.10	91.80	96.8	3.18	96.10	False	94.53	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.6
CB-91	92.75	86.01	98.3	3.06	92.75	False	91.09	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.7
CB-83	91.71	83.13	100.0	1.66	91.71	False	90.03	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.7
CB-41	96.17	91.68	100.0	1.92	96.17	False	94.46	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.7
CB-75	91.93	84.25	100.0	0.79	91.93	False	90.03	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	1.9
CB-111	92.43	85.64	100.0	1.82	92.43	False	90.49	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	1.9
CB-112	92.43	84.58	100.0	3.19	92.43	False	90.46	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	2.0
CB-115	91.90	86.11	100.0	2.24	91.90	False	89.80	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.1
CB-70	90.86	86.36	100.0	3.50	90.86	False	88.73	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	2.1
CB-98	91.90	85.26	100.0	2.42	91.90	False	89.77	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.1
CB-69	90.91	85.87	100.0	4.88	90.91	False	88.69	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	2.2
CB-103	93.41	87.62	87.1	3.93	93.41	False	91.19	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.2
CB-104	93.41	86.12	91.9	3.47	93.41	False	91.15	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.3
CB-82	94.65	89.56	95.2	3.14	94.65	False	92.31	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.3

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-49	94.27	90.02	72.9	2.77	94.27	False	91.91	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.4
CB-81	94.68	88.38	95.1	3.14	94.68	False	92.25	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.4
CB-52	94.38	88.63	80.3	2.39	94.38	False	91.86	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.5
CB-100	90.38	86.00	100.0	1.17	90.38	False	87.79	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.6
CB-51	94.35	86.69	80.6	1.66	94.35	False	91.75	TYPE "V" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.6
CB-99	90.39	84.89	99.1	1.84	90.39	False	87.78	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.6
CB-40	97.50	92.99	82.4	2.33	97.50	False	94.85	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.7
CB-15	97.50	92.88	66.6	3.21	97.50	False	94.81	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.7
CB-77	92.91	85.04	98.9	2.96	92.91	False	90.19	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.7
CB-78	92.89	84.96	100.0	2.53	92.89	False	90.14	TYPE "V" GUTTER INLET\PPER FDOT INDEX #425-041	0.013	On Grade	2.8
CB-25	95.85	88.42	93.1	3.76	95.85	False	93.07	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.8
CB-59	94.09	86.56	99.2	2.89	94.09	False	91.31	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.8
CB-44	94.60	86.82	100.0	2.43	94.60	False	91.82	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.8
CB-56	94.07	86.48	93.7	3.69	94.07	False	91.26	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.8

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-23	96.03	88.54	97.4	3.22	96.03	False	93.17	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	2.9
CB-142	91.51	83.80	100.0	2.17	91.51	False	88.65	TYPE "V" GUTTER INLET\PPER FDOT INDEX #425-041	0.013	On Grade	2.9
CB-21	97.77	92.78	99.4	1.86	97.77	False	94.63	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.1
CB-26	97.30	93.05	96.2	3.26	97.30	False	93.99	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.3
CB-27	97.27	91.08	100.0	1.12	97.27	False	93.91	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.4
CB-45	95.00	88.34	97.9	2.39	95.00	False	91.62	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.4
CB-33	95.50	90.97	96.9	2.40	95.50	False	92.12	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.4
CB-43	95.02	90.89	100.0	1.06	95.02	False	91.63	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.4
CB-39	95.57	91.07	100.0	0.65	95.57	False	92.12	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.5
CB-30	96.28	89.78	97.0	1.64	96.28	False	92.78	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.5
CB-24	96.31	89.70	100.0	0.80	96.31	False	92.77	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.5
CB-13	99.48	95.23	69.9	2.94	99.48	False	95.92	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.6
CB-65	92.23	82.13	100.0	1.63	92.23	False	88.66	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	3.6
CB-7	100.50	96.13	100.0	0.89	100.50	False	96.91	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.6

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-93	92.06	84.30	91.9	3.89	92.06	False	88.44	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.6
CB-22	97.77	92.70	95.9	2.24	97.77	False	94.07	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.7
CB-68	94.37	86.37	100.0	1.91	94.37	False	90.61	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.8
CB-6	100.73	96.26	100.0	1.19	100.73	False	96.92	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.8
CB-28	95.52	91.28	100.0	0.73	95.52	False	91.64	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.9
CB-74	90.76	86.23	100.0	0.54	90.76	False	86.86	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.9
CB-86	92.29	82.34	99.8	2.73	92.29	False	88.38	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.9
CB-57	94.89	89.09	100.0	3.74	94.89	False	90.97	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	3.9
CB-4	101.58	97.09	100.0	1.10	101.58	False	97.65	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.9
CB-73	90.80	86.12	98.3	1.65	90.80	False	86.86	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.9
CB-71	94.55	86.27	100.0	2.32	94.55	False	90.58	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.0
CB-63	93.71	85.00	100.0	0.94	93.71	False	89.67	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.0
CB-97	93.71	84.23	99.0	2.95	93.71	False	89.66	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.1
CB-64	92.23	82.00	100.0	3.02	92.23	False	88.10	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	4.1

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-79	93.33	85.01	97.7	3.17	93.33	False	89.19	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.1
CB-9	99.86	94.54	86.9	2.06	99.86	False	95.61	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.2
CB-12	98.00	90.36	96.6	2.30	98.00	False	93.74	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.3
CB-76	93.50	85.28	100.0	2.24	93.50	False	89.24	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.3
CB-3	101.59	96.61	85.8	2.36	101.59	False	97.32	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.3
CB-46	94.85	89.71	67.2	2.83	94.85	False	90.47	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.4
CB-60	94.85	89.13	85.9	1.93	94.85	False	90.25	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.6
CB-17	98.45	90.49	90.7	2.77	98.45	False	93.82	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.6
CB-29	95.53	90.20	100.0	1.12	95.53	False	90.82	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.7
CB-10	99.55	92.58	63.2	3.10	99.55	False	93.82	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.7
CB-54	94.20	86.10	100.0	0.53	94.20	False	88.42	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.8
CB-11	99.55	92.50	67.4	2.86	99.55	False	93.76	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.8
CB-53	94.39	83.60	100.0	0.69	94.39	False	88.42	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.0
CB-19	98.29	89.79	88.8	2.74	98.29	False	91.86	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.4

Secondary Drainage Report
Scenario - 10 year
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Freeboard 0.5ft (ft)
CB-20	98.26	89.57	70.6	2.80	98.26	False	91.81	TYPE "V" GUTTER INLET\PPER FDOT INDEX #425-041	0.013	On Grade	6.4
CB-1	102.09	88.92	81.2	3.26	102.09	False	90.95	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	11.1
CB-2	102.07	88.86	100.0	1.36	102.07	False	90.65	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	11.4

Secondary Drainage Report

Scenario - 10 year

Conduit Table - Time: 0.00 hours

Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (Scaled) (ft)	Manning's n	Slope (Calculated) (%)	Diameter (in)	Flow (cfs)	Flow / Capacity (Design) (%)
MH-22	MH-21	84.41	83.78	357.4	0.013	2.617	30.0	2.17	3.3
MH-21	O-7	83.78	83.45	225.0	0.013	1.785	30.0	2.17	4.0
CB-73	MH-22	86.12	85.41	336.2	0.013	3.031	18.0	2.18	11.9
CB-74	CB-73	86.23	86.12	26.5	0.013	0.423	15.0	0.54	12.9
CB-29	CB-99	90.20	85.89	266.4	0.013	1.617	18.0	1.84	13.8
CB-54	CB-53	86.10	86.00	34.5	0.013	0.300	15.0	0.53	14.9
CB-28	CB-29	91.28	91.17	26.5	0.013	0.415	15.0	0.73	17.7
CB-24	MH-7	89.70	89.10	36.1	0.013	1.671	18.0	2.42	17.8
CB-44	CB-51	90.00	88.08	44.5	0.013	4.306	15.0	2.43	18.1
CB-39	CB-33	91.07	90.97	35.0	0.013	0.283	15.0	0.65	18.8
CB-75	CB-83	84.25	84.13	32.1	0.013	0.399	15.0	0.79	19.3
CB-23	CB-25	91.53	89.59	39.7	0.013	4.888	15.0	3.22	22.5
MH-556	O-557	81.75	78.80	114.3	0.013	2.579	24.0	8.20	22.6
CB-32	CB-34	91.10	90.99	26.5	0.013	0.400	15.0	1.01	24.6
CB-11	MH-3	92.50	91.25	25.3	0.013	4.934	18.0	5.93	25.4
CB-34	CB-36	90.99	90.34	34.8	0.013	1.867	18.0	3.70	25.8
CB-9	CB-52	94.54	88.63	182.9	0.013	3.232	18.0	4.99	26.4
CB-63	CB-97	85.00	84.90	34.5	0.013	0.300	15.0	0.94	26.5
CB-2	MH-20	88.86	85.32	143.7	0.013	2.464	30.0	17.93	27.9
CB-100	CB-99	86.00	85.86	34.5	0.013	0.412	15.0	1.17	28.3
CB-6	CB-7	96.26	96.13	31.5	0.013	0.412	15.0	1.19	28.7
CB-43	CB-45	90.89	90.79	34.5	0.013	0.301	15.0	1.06	30.0
CB-4	CB-3	97.09	97.01	26.5	0.013	0.302	15.0	1.10	31.0
CB-7	MH-5	96.13	95.69	110.1	0.013	0.400	18.0	2.07	31.2
CB-3	MH-5	96.61	96.34	24.9	0.013	1.069	18.0	3.44	31.6
CB-22	O-10	92.70	91.00	47.2	0.013	3.597	24.0	14.45	33.7
CB-59	CB-56	88.75	88.28	26.6	0.013	1.764	15.0	2.89	33.7
CB-86	O-5	82.34	78.80	200.3	0.013	1.764	36.0	31.25	35.3
MH-1	O-1	79.52	78.43	362.7	0.013	0.299	30.0	8.14	36.3
CB-117	MH-1	81.16	80.02	331.6	0.013	0.344	30.0	8.85	36.8
CB-99	CB-117	84.89	82.16	197.8	0.013	1.380	18.0	4.71	38.2
CB-558	CB-559	82.16	81.98	58.8	0.013	0.298	15.0	1.37	38.7
CB-64	MH-19	82.00	78.42	131.7	0.013	2.717	36.0	44.97	40.9
CB-555	MH-556	82.24	81.75	157.9	0.013	0.312	24.0	5.38	42.6
CB-111	CB-112	87.35	87.21	34.5	0.013	0.400	15.0	1.82	44.4
CB-30	CB-24	89.78	89.70	26.6	0.013	0.300	15.0	1.64	46.4
CB-35	O-8	90.23	90.00	66.0	0.013	0.399	24.0	6.98	48.9
MH-3	CB-45	90.52	89.30	197.4	0.013	0.619	24.0	8.71	49.0
CB-78	MH-12	84.96	84.36	33.6	0.013	1.753	30.0	27.21	50.1

Secondary Drainage Report

Scenario - 10 year

Conduit Table - Time: 0.00 hours

Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (Scaled) (ft)	Manning's n	Slope (Calculated) (%)	Diameter (in)	Flow (cfs)	Flow / Capacity (Design) (%)
MH-16	CB-71	88.85	87.91	207.2	0.013	0.453	18.0	3.66	51.8
CB-33	MH-3	90.97	90.52	149.0	0.013	0.302	18.0	3.02	52.3
CB-56	MH-11	87.53	87.48	18.7	0.013	0.299	24.0	6.53	52.8
CB-79	CB-86	85.01	82.82	212.9	0.013	1.013	24.0	12.12	53.2
MH-5	CB-21	95.65	93.41	247.2	0.013	0.907	18.0	5.41	54.1
CB-13	CB-9	95.23	95.03	28.5	0.013	0.701	15.0	2.94	54.4
CB-68	CB-71	86.38	86.28	35.1	0.013	0.294	15.0	1.91	54.7
CB-45	MH-6	89.30	88.33	112.8	0.013	0.860	24.0	11.83	56.4
CB-40	CB-15	92.99	92.88	26.5	0.013	0.400	15.0	2.33	57.1
CB-82	CB-81	89.56	89.37	26.8	0.013	0.708	15.0	3.14	57.7
CB-559	MH-556	81.98	81.75	78.1	0.013	0.301	18.0	3.39	58.9
CB-93	CB-94	83.68	83.54	35.0	0.013	0.400	15.0	2.45	59.9
CB-70	CB-69	86.36	86.26	34.5	0.013	0.301	18.0	3.50	60.7
CB-94	CB-83	83.50	83.13	124.9	0.013	0.300	30.0	13.63	60.7
CB-69	O-3	85.87	85.00	67.3	0.013	1.294	30.0	28.56	61.2
CB-97	MH-9	85.20	83.97	264.8	0.013	0.464	36.0	27.95	61.5
CB-76	CB-79	85.29	85.16	43.0	0.013	0.300	15.0	2.24	63.4
CB-115	CB-98	86.11	86.03	25.5	0.013	0.299	15.0	2.24	63.5
CB-60	MH-9	89.13	88.95	37.4	0.013	0.501	18.0	4.74	63.8
CB-142	CB-86	83.80	83.36	146.4	0.013	0.300	30.0	14.52	64.7
CB-57	MH-16	89.09	88.85	81.4	0.013	0.294	18.0	3.74	65.6
CB-90	CB-106	86.45	86.34	26.5	0.013	0.422	18.0	4.57	66.9
CB-93	CB-86	84.30	84.17	45.7	0.013	0.300	18.0	3.89	67.6
CB-49	CB-52	90.02	89.91	28.5	0.013	0.400	15.0	2.77	67.8
CB-17	CB-12	90.53	90.36	42.1	0.013	0.399	15.0	2.77	68.0
CB-103	CB-104	87.62	87.54	26.6	0.013	0.301	18.0	3.93	68.3
MH-13	MH-12	82.94	82.71	77.4	0.013	0.300	30.0	15.52	69.1
CB-83	MH-13	83.13	82.94	62.6	0.013	0.300	30.0	15.68	69.8
CB-46	CB-60	89.71	89.61	26.5	0.013	0.388	15.0	2.83	70.4
CB-116	CB-117	83.66	83.56	34.5	0.013	0.301	15.0	2.56	72.3
CB-113	CB-91	87.34	87.16	26.5	0.013	0.678	15.0	3.85	72.4
MH-24	CB-1	89.22	88.92	143.4	0.013	0.206	30.0	13.99	75.1
MH-20	O-4	85.32	85.00	95.7	0.013	0.334	30.0	17.82	75.2
CB-106	CB-142	84.84	83.80	184.7	0.013	0.562	24.0	12.77	75.3
MH-554	CB-555	83.03	82.24	279.6	0.013	0.282	18.0	4.30	77.1
CB-94	MH-554	83.54	83.08	153.6	0.013	0.300	18.0	4.45	77.2
CB-19	CB-20	89.79	89.71	26.3	0.013	0.300	15.0	2.74	77.4
CB-42	CB-41	91.80	91.68	29.9	0.013	0.401	15.0	3.18	77.7
CB-92	CB-94	84.10	83.50	28.3	0.013	2.124	15.0	7.38	78.4

Secondary Drainage Report

Scenario - 10 year

Conduit Table - Time: 0.00 hours

Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (Scaled) (ft)	Manning's n	Slope (Calculated) (%)	Diameter (in)	Flow (cfs)	Flow / Capacity (Design) (%)
CB-98	CB-106	85.26	84.84	133.4	0.013	0.309	18.0	4.63	79.3
CB-104	CB-97	86.12	84.89	52.2	0.013	2.355	18.0	13.09	81.2
MH-10	CB-104	87.94	87.12	162.8	0.013	0.502	18.0	6.16	82.7
CB-77	CB-78	85.04	84.96	27.3	0.013	0.301	15.0	2.96	83.6
MH-19	O-6	78.42	78.25	61.0	0.013	0.278	42.0	44.57	83.9
CB-81	MH-10	88.38	87.94	88.2	0.013	0.499	18.0	6.24	84.1
CB-1	CB-2	88.92	88.86	26.5	0.013	0.226	30.0	16.74	85.8
CB-12	CB-25	90.36	89.59	259.0	0.013	0.300	18.0	5.03	87.3
CB-10	CB-11	92.58	92.50	26.5	0.013	0.300	15.0	3.10	87.6
MH-6	CB-69	88.33	85.87	217.2	0.013	1.133	24.0	21.17	87.9
CB-41	CB-27	91.68	91.08	201.5	0.013	0.300	18.0	5.07	88.1
CB-65	CB-64	82.13	82.00	26.5	0.013	0.490	36.0	42.41	90.8
CB-26	CB-27	93.05	92.97	26.5	0.013	0.298	15.0	3.26	92.3
CB-25	MH-7	88.42	88.21	71.8	0.013	0.293	24.0	11.38	93.0
CB-36	CB-35	90.34	90.23	25.7	0.013	0.418	18.0	6.42	94.6
CB-15	CB-21	92.88	92.78	35.2	0.013	0.301	18.0	5.49	95.4
MH-17	CB-79	85.42	85.01	78.4	0.013	0.523	18.0	7.28	95.8
CB-71	MH-17	86.28	85.42	159.5	0.013	0.538	18.0	7.41	96.3
CB-53	O-2	83.67	83.50	68.7	0.013	0.247	36.0	32.09	96.7
MH-26	CB-20	89.81	89.57	32.0	0.013	0.754	18.0	8.93	97.9
CB-20	MH-24	89.57	89.22	86.4	0.013	0.405	24.0	14.10	97.9
CB-112	CB-97	85.86	85.20	238.2	0.013	0.277	24.0	11.68	98.1
MH-9	CB-53	83.97	83.67	130.4	0.013	0.230	36.0	31.41	98.2
CB-51	MH-11	87.45	87.24	36.0	0.013	0.583	24.0	16.98	98.3
MH-11	CB-78	87.24	86.40	261.0	0.013	0.322	30.0	22.91	98.5
MH-12	CB-65	82.65	82.12	134.6	0.013	0.394	36.0	41.40	98.9
MH-7	CB-51	88.21	87.45	207.7	0.013	0.366	24.0	13.55	99.0
CB-91	MH-27	86.35	86.15	45.6	0.013	0.438	18.0	6.88	99.0
MH-27	CB-112	86.15	85.86	67.1	0.013	0.432	18.0	6.84	99.0
CB-21	CB-22	92.78	92.70	26.5	0.013	0.302	24.0	12.35	99.4
CB-52	MH-6	88.63	88.33	32.6	0.013	0.919	18.0	10.02	99.5
CB-27	MH-26	91.08	89.81	169.4	0.013	0.749	18.0	9.08	99.8

Secondary Drainage Report

Scenario - 10 year

Manhole Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Rim) (ft)	Elevation (Invert in 1) (ft)	Flow (Total Out) (cfs)	Is Overflowing?	Hydraulic Grade Line (Out) (ft)	Notes
MH-1	88.10	88.10	80.02	8.14	False	87.06	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-3	98.33	98.33	91.25	8.71	False	91.80	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-5	101.34	101.34	95.69	5.41	False	96.55	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-6	93.40	93.40	88.33	21.17	False	90.59	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-7	95.64	95.64	89.10	13.55	False	92.50	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-9	95.08	95.08	83.97	31.41	False	88.70	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-10	94.44	94.44	87.94	6.16	False	91.71	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-11	93.84	93.84	87.24	22.91	False	90.95	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-12	92.70	92.70	84.36	41.40	False	89.18	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-13	92.26	92.26	82.94	15.52	False	89.71	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-16	95.27	95.27	88.85	3.66	False	90.83	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-17	93.92	93.92	85.42	7.28	False	89.57	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-19	88.00	88.00	78.42	44.57	False	86.99	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-20	99.15	99.15	85.32	17.82	False	88.18	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-21	88.43	88.43	83.78	2.17	False	86.87	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-22	91.51	91.51	85.41	2.17	False	86.87	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-24	99.97	99.97	89.22	13.99	False	91.11	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-554	91.25	91.25	83.08	4.30	False	88.46	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-26	98.13	98.13	89.81	8.93	False	92.04	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-27	92.76	92.76	86.15	6.84	False	90.75	STORM MANHOLE\PPER FDOT INDEX #425-010
MH-556	89.50	89.50	81.75	8.20	False	87.79	

Secondary Drainage Report

Scenario - 10 year

Outfall Table - Time: 0.00 hours

Label	Elevation (Invert) (ft)	Boundary Condition Type	Elevation (User Defined Tailwater) (ft)	Flow (Total Out) (cfs)
O-1	78.43	User Defined Tailwater	86.92	7.47
O-2	83.50	User Defined Tailwater	88.00	31.87
O-3	83.37	User Defined Tailwater	88.00	28.47
O-4	85.00	User Defined Tailwater	88.00	17.61
O-5	78.80	User Defined Tailwater	87.64	30.64
O-6	77.46	User Defined Tailwater	86.87	44.32
O-7	83.45	User Defined Tailwater	86.87	2.12
O-8	90.00	User Defined Tailwater	93.80	6.89
O-10	91.00	User Defined Tailwater	93.80	14.42
O-557	78.80	User Defined Tailwater	87.64	8.05

Secondary Drainage Report

Scenario - 10 year

Catchment Table - Time: 0.00 hours

ID	Label	Outflow Element	Runoff Coefficient (Rational)	Time of Concentration (min)	Scaled Area (acres)	Flow (Total Out) (cfs)
498	CM-1	CB-74	0.600	10.000	0.121	0.54
499	CM-2	CB-73	0.600	10.000	0.133	0.60
500	CM-3	CB-35	0.600	10.000	0.113	0.51
501	CM-4	CB-36	0.600	10.000	0.246	1.10
502	CM-5	CB-22	0.600	10.000	0.521	2.34
503	CM-6	CB-21	0.600	10.000	0.330	1.48
504	CM-7	CB-7	0.600	10.000	0.199	0.89
505	CM-8	CB-6	0.600	10.000	0.266	1.19
506	CM-9	CB-17	0.600	10.000	0.682	3.06
507	CM-10	CB-12	0.600	10.000	0.532	2.38
508	CM-11	CB-23	0.600	10.000	0.674	3.02
509	CM-12	CB-25	0.600	10.000	0.884	3.96
510	CM-13	CB-44	0.600	10.000	0.523	2.34
511	CM-14	CB-51	0.600	10.000	0.386	1.73
512	CM-15	CB-77	0.600	10.000	0.669	3.00
513	CM-16	CB-78	0.600	10.000	0.415	1.86
514	CM-17	CB-64	0.600	10.000	0.667	2.99
515	CM-18	CB-65	0.600	10.000	0.363	1.63
516	CM-19	CB-34	0.600	10.000	0.769	3.45
517	CM-20	CB-32	0.600	10.000	0.224	1.01
518	CM-21	CB-40	0.600	10.000	0.631	2.83
519	CM-22	CB-15	0.600	10.000	1.074	4.81
520	CM-23	CB-3	0.600	10.000	0.613	2.75
521	CM-24	CB-4	0.600	10.000	0.245	1.10
522	CM-25	CB-57	0.600	10.000	0.834	3.74
523	CM-26	CB-68	0.600	10.000	0.427	1.91
524	CM-27	CB-71	0.600	10.000	0.517	2.32
525	CM-28	CB-79	0.600	10.000	0.724	3.24
526	CM-29	CB-76	0.600	10.000	0.501	2.24
527	CM-30	CB-86	0.600	10.000	0.593	2.66
528	CM-31	CB-93	0.600	10.000	0.944	4.23
529	CM-32	CB-106	0.600	10.000	0.890	3.99
530	CM-33	CB-90	0.600	10.000	0.943	4.23
531	CM-34	CB-75	0.600	10.000	0.176	0.79
532	CM-35	CB-83	0.600	10.000	0.370	1.66
533	CM-36	CB-92	0.600	10.000	1.647	7.38
534	CM-37	CB-94	0.600	10.000	1.403	6.29
535	CM-38	CB-59	0.600	10.000	0.650	2.91
536	CM-39	CB-56	0.600	10.000	0.877	3.93
537	CM-40	CB-24	0.600	10.000	0.178	0.80

Secondary Drainage Report

Scenario - 10 year

Catchment Table - Time: 0.00 hours

ID	Label	Outflow Element	Runoff Coefficient (Rational)	Time of Concentration (min)	Scaled Area (acres)	Flow (Total Out) (cfs)
538	CM-41	CB-30	0.600	10.000	0.117	0.52
539	CM-42	CB-28	0.600	10.000	0.164	0.73
540	CM-43	CB-29	0.600	10.000	0.250	1.12
541	CM-44	CB-10	0.600	10.000	1.095	4.91
542	CM-45	CB-11	0.600	10.000	0.946	4.24
543	CM-46	CB-99	0.600	10.000	0.397	1.78
544	CM-47	CB-100	0.600	10.000	0.262	1.17
545	CM-48	CB-117	0.600	10.000	0.457	2.05
546	CM-49	CB-116	0.600	10.000	0.571	2.56
547	CM-50	CB-33	0.600	10.000	0.149	0.67
548	CM-51	CB-39	0.600	10.000	0.145	0.65
549	CM-52	CB-45	0.600	10.000	0.235	1.06
550	CM-53	CB-43	0.600	10.000	0.237	1.06
551	CM-54	CB-49	0.600	10.000	0.566	2.54
552	CM-55	CB-52	0.600	10.000	0.595	2.67
553	CM-56	CB-70	0.600	10.000	0.780	3.50
554	CM-57	CB-69	0.600	10.000	0.717	3.21
555	CM-58	CB-13	0.600	10.000	0.938	4.20
556	CM-59	CB-9	0.600	10.000	0.530	2.37
557	CM-60	CB-19	0.600	10.000	0.688	3.08
558	CM-61	CB-2	0.600	10.000	0.303	1.36
559	CM-62	CB-1	0.600	10.000	0.896	4.02
560	CM-63	CB-20	0.600	10.000	0.718	3.22
563	CM-66	CB-26	0.600	10.000	0.756	3.39
564	CM-67	CB-27	0.600	10.000	0.173	0.78
565	CM-68	CB-42	0.600	10.000	0.704	3.16
566	CM-69	CB-41	0.600	10.000	0.429	1.92
567	CM-70	CB-60	0.600	10.000	0.500	2.24
568	CM-71	CB-46	0.600	10.000	0.918	4.11
569	CM-72	CB-54	0.600	10.000	0.118	0.53
570	CM-73	CB-53	0.600	10.000	0.155	0.69
571	CM-74	CB-63	0.600	10.000	0.210	0.94
572	CM-75	CB-97	0.600	10.000	0.286	1.28
573	CM-76	CB-81	0.600	10.000	0.737	3.30
574	CM-77	CB-82	0.600	10.000	0.735	3.29
575	CM-78	CB-104	0.600	10.000	0.807	3.61
576	CM-79	CB-103	0.600	10.000	0.973	4.36
577	CM-80	CB-111	0.600	10.000	0.405	1.82
578	CM-81	CB-112	0.600	10.000	0.422	1.89
579	CM-82	CB-91	0.600	10.000	0.695	3.11

Secondary Drainage Report

Scenario - 10 year

Catchment Table - Time: 0.00 hours

ID	Label	Outflow Element	Runoff Coefficient (Rational)	Time of Concentration (min)	Scaled Area (acres)	Flow (Total Out) (cfs)
580	CM-83	CB-113	0.600	10.000	0.932	4.18
583	CM-86	CB-115	0.600	10.000	0.500	2.24
584	CM-87	CB-98	0.500	10.000	0.649	2.42
585	CM-88	CB-93	0.600	10.000	0.546	2.45
586	CM-89	CB-94	0.600	10.000	0.456	2.04
744	CM-93	CB-555	0.600	10.000	0.324	1.45
745	CM-94	CB-559	0.500	10.000	0.569	2.13
746	CM-95	CB-558	0.500	10.000	0.366	1.37
748	CM-96	CB-142	0.600	10.000	0.484	2.17

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-558	88.50	82.16	100.0	0.74	88.50	False	87.77	TYPE C FDOT INLET	0.013	In Sag	6.5
CB-559	88.50	81.98	100.0	1.15	88.50	False	87.77	TYPE C FDOT INLET	0.013	In Sag	8.1
CB-555	88.50	82.24	100.0	0.78	88.50	False	87.77	TYPE C FDOT INLET	0.013	In Sag	6.7
CB-92	91.27	84.10	100.0	3.98	91.27	False	88.18	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	10.3
CB-36	94.84	90.34	100.0	1.02	94.84	False	93.89	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.6
CB-35	94.83	90.23	100.0	0.27	94.83	False	93.83	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.0
CB-94	91.20	83.50	100.0	3.39	91.20	False	88.07	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	9.2
CB-116	88.55	83.66	100.0	1.38	88.55	False	87.07	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	4.7
CB-90	90.70	86.45	100.0	2.28	90.70	False	88.25	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	7.1
CB-117	88.55	81.16	100.0	1.11	88.55	False	87.05	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	4.0
CB-93	90.20	83.68	100.0	1.32	90.20	False	88.06	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	4.6
CB-94	90.20	83.54	100.0	1.10	90.20	False	88.04	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	4.0
CB-32	95.60	91.10	100.0	0.54	95.60	False	93.93	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.7
CB-106	90.82	84.84	100.0	2.15	90.82	False	88.24	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	11.4
CB-34	95.60	90.99	96.4	1.80	95.60	False	93.93	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.5
CB-113	92.74	87.34	100.0	2.25	92.74	False	88.99	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	10.9

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-42	96.10	91.80	100.0	1.70	96.10	False	92.54	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.6
CB-91	92.75	86.01	100.0	1.68	92.75	False	88.96	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.7
CB-83	91.71	83.13	100.0	0.90	91.71	False	88.01	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.2
CB-41	96.17	91.68	100.0	1.04	96.17	False	92.52	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.0
CB-75	91.93	84.25	100.0	0.42	91.93	False	88.01	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.4
CB-111	92.43	85.64	100.0	0.98	92.43	False	88.76	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	3.7
CB-112	92.43	84.58	100.0	1.02	92.43	False	88.75	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	3.8
CB-115	91.90	86.11	100.0	1.21	91.90	False	88.34	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.6
CB-70	90.86	86.36	100.0	1.89	90.86	False	88.24	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	5.8
CB-98	91.90	85.26	100.0	1.31	91.90	False	88.33	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.9
CB-69	90.91	85.87	100.0	1.82	90.91	False	88.23	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	5.6
CB-103	93.41	87.62	100.0	2.35	93.41	False	89.10	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	10.4
CB-104	93.41	86.12	100.0	1.95	93.41	False	89.08	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.7
CB-82	94.65	89.56	100.0	1.78	94.65	False	90.09	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.4

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-49	94.27	90.02	96.2	1.58	94.27	False	90.56	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.7
CB-81	94.68	88.38	100.0	1.78	94.68	False	89.44	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.4
CB-52	94.38	88.63	98.4	1.42	94.38	False	90.36	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.3
CB-100	90.38	86.00	100.0	0.63	90.38	False	87.20	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.6
CB-51	94.35	86.69	89.7	0.84	94.35	False	89.10	TYPE "V" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.8
CB-99	90.39	84.89	100.0	0.96	90.39	False	87.20	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.3
CB-40	97.50	92.99	97.9	1.49	97.50	False	94.27	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.6
CB-15	97.50	92.88	84.9	2.21	97.50	False	94.25	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.0
CB-77	92.91	85.04	100.0	1.62	92.91	False	88.09	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.6
CB-78	92.89	84.96	100.0	1.10	92.89	False	88.07	TYPE "V" GUTTER INLET\PPER FDOT INDEX #425-041	0.013	On Grade	8.3
CB-25	95.85	88.42	100.0	2.14	95.85	False	89.78	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	10.6
CB-59	94.09	86.56	100.0	1.57	94.09	False	89.25	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.5
CB-44	94.60	86.82	100.0	1.26	94.60	False	90.44	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.7
CB-56	94.07	86.48	100.0	2.12	94.07	False	88.91	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	10.6

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-23	96.03	88.54	100.0	1.63	96.03	False	92.04	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.6
CB-142	91.51	83.80	100.0	1.17	91.51	False	88.00	TYPE "V" GUTTER INLET\PPER FDOT INDEX #425-041	0.013	On Grade	8.5
CB-21	97.77	92.78	100.0	0.81	97.77	False	94.17	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.0
CB-26	97.30	93.05	100.0	1.83	97.30	False	93.67	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.9
CB-27	97.27	91.08	100.0	0.42	97.27	False	92.19	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.7
CB-45	95.00	88.34	100.0	0.90	95.00	False	90.47	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.7
CB-33	95.50	90.97	100.0	0.85	95.50	False	91.61	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.5
CB-43	95.02	90.89	100.0	0.57	95.02	False	91.23	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.8
CB-39	95.57	91.07	100.0	0.35	95.57	False	91.62	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.9
CB-30	96.28	89.78	100.0	0.60	96.28	False	90.18	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.7
CB-24	96.31	89.70	100.0	0.43	96.31	False	90.16	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.2
CB-13	99.48	95.23	88.2	2.00	99.48	False	95.79	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.5
CB-65	92.23	82.13	100.0	0.88	92.23	False	87.54	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	3.8
CB-7	100.50	96.13	100.0	0.48	100.50	False	96.63	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.1

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-93	92.06	84.30	100.0	2.28	92.06	False	87.94	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	10.9
CB-22	97.77	92.70	100.0	1.26	97.77	False	93.77	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.1
CB-68	94.37	86.37	100.0	1.03	94.37	False	88.69	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.1
CB-6	100.73	96.26	100.0	0.64	100.73	False	96.65	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.7
CB-28	95.52	91.28	100.0	0.40	95.52	False	91.54	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.0
CB-74	90.76	86.23	100.0	0.29	90.76	False	86.87	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	3.7
CB-86	92.29	82.34	100.0	1.43	92.29	False	87.92	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.2
CB-57	94.89	89.09	100.0	2.02	94.89	False	89.71	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	6.5
CB-4	101.58	97.09	100.0	0.59	101.58	False	97.49	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.8
CB-73	90.80	86.12	100.0	0.39	90.80	False	86.87	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.2
CB-71	94.55	86.27	100.0	1.25	94.55	False	88.68	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.7
CB-63	93.71	85.00	100.0	0.51	93.71	False	88.55	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.2
CB-97	93.71	84.23	100.0	1.01	93.71	False	88.54	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.8
CB-64	92.23	82.00	100.0	1.61	92.23	False	87.33	TYPE "6" CURB INLET\PPER FDOT INDEX #425-021	0.013	In Sag	5.6

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-79	93.33	85.01	100.0	1.75	93.33	False	88.21	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	9.9
CB-9	99.86	94.54	99.7	1.28	99.86	False	95.39	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.1
CB-12	98.00	90.36	100.0	1.29	98.00	False	91.22	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.4
CB-76	93.50	85.28	100.0	1.21	93.50	False	88.22	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.6
CB-3	101.59	96.61	99.4	1.47	101.59	False	97.15	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	6.8
CB-46	94.85	89.71	86.2	1.91	94.85	False	90.32	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.1
CB-60	94.85	89.13	99.4	1.20	94.85	False	90.01	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.7
CB-17	98.45	90.49	100.0	1.65	98.45	False	91.25	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.1
CB-29	95.53	90.20	100.0	0.60	95.53	False	90.65	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.7
CB-10	99.55	92.58	81.4	2.16	99.55	False	93.55	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.7
CB-54	94.20	86.10	100.0	0.29	94.20	False	88.15	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.4
CB-11	99.55	92.50	85.7	1.96	99.55	False	93.52	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.3
CB-53	94.39	83.60	100.0	0.37	94.39	False	88.15	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	4.9
CB-19	98.29	89.79	100.0	1.67	98.29	False	90.99	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	7.9

Secondary Drainage Report
Scenario - Spread 4in/hr
Catch Basin Table - Time: 0.00 hours

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Elevation (Rim) (ft)	Is Overflowing?	Hydraulic Grade Line (In) (ft)	Notes	Manning's n (Inlet)	Inlet Location	Spread / Top Width (ft)
CB-20	98.26	89.57	82.6	1.48	98.26	False	90.97	TYPE "V" GUTTER INLET\PPER FDOT INDEX #425-041	0.013	On Grade	8.1
CB-1	102.09	88.92	97.2	2.11	102.09	False	90.45	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	8.7
CB-2	102.07	88.86	100.0	0.73	102.07	False	90.22	TYPE "5" CURB INLET\PPER FDOT INDEX #425-021	0.013	On Grade	5.8