
STORMWATER MANAGEMENT CALCULATIONS

For

Symphony Lakes Planned Development

Pod 1

4300 Selvitz Rd
Fort Peirce, FL 34981

City of fort Peirce
St. Lucie County
SFWMD

May 2025

Mills, Short & Associates

700 22nd Place, Suite 2C & 2D
Vero Beach, FL 32960
772.226.7282

Certificate of Authorization No.: 30698

Initial Release: 2/19/2025



J. Wesley Mills, P.E. FL # 74145

TABLE OF CONTENTS

- I. Introduction
- II. Erosion and Sediment Control
- III. Stormwater System Maintenance Plan
- IV. Jurisdictional Permitting Agencies

Appendix A – FEMA Firmette Map

Appendix B – Stormwater Calculations

Appendix C – ICPR Flood Routing

Appendix D – Geotechnical Report

I. Introduction

Mills, Short & Associates has prepared this report to provide supporting documentation demonstrating that the proposed stormwater management system for the Symphony Lakes Planned Development Pod 1 project complies with state and local requirements. The system is designed to treat and attenuate stormwater runoff from the development.

The proposed development is located in the City of Fort Peirce along Selvitz Rd. A map location is included for further review of the site's location. The existing site is split into three separate parcels and has been used as agricultural pasture with a wetland located in the Northeast portion of the site. Generally, the existing site slopes from West to East, with the a ridge along Selvitz Rd .

The proposed project is broken up into 5 pods with a total development area of 122.80-acre site. Pod 1 has a proposed development area of 88.05 acres which will encompass 286 single family units with 14.10 acres acres being dedicated to wet detention ponds for stormwater runoff. The stormwater facilities will include a five wet detention ponds for treatment and attenuation. The ponds will discharge via a on-site control structure along the South property boundary. Currently the project is proposed to discharge to North St. Lucie River Water Control District (NSLRWCD) canal # 102.



Location Map



Vicinity Map

Existing Site Conditions:

The site is a vacant parcel of land that has previously been used for agricultural grazing. The site generally slopes from the West to the East with an existing ridge along Selvitz Rd. There is an existing NSLRWCD canal along the Southern boundary that conveys stormwater runoff from surrounding areas. The existing canal will not be impacted as part of this project and will remain in it's existing conditions.

Direction of flow: The site slopes from the West of the site to the East and eventually South with a grade change from

± 18.0 to ± 11.0 . The existing condition stormwater runoff discharges through an existing 12-inch PVC culvert into the NSLRWCD canal 102.

Location of Area on Site where Pre-Development stormwater collects: Stormwater collects at 3 areas of the site in the existing conditions. The existing lake in the middle of the site, a wetland in the Northeast of the project and towards the southern property line. Then dis

Seasonal High-Water Table: Seasonal High Water Table is estimated at elevation 12.00 NAVD 88.

This was determined from the geotechnical report from KSM engineering. **See Appendix E** for the report.

Flood Plain: The site is located within Flood Zone "X" (Area of Minimal Flood Hazard) FEMA Firmette map 12111C0188K dated eff.:2/19/2020.

Description of Vegetation: The site is vacant and has scattered areas pine flatwoods but mostly open grass space.

Soils: The site mostly consists of sand with a layer of silty and clayey sand with hardpan and returning to sand after. The USDA soils map classifies the site as consisting various sand with a majority being Tantile & Pomona sands.

Location of Drainage Basins: The drainage basin for pre-development is the overall development area.

SCS Curve Number: Existing 81; Post Development 79 (see calculations for details)

Proposed Drainage System:

The proposed site collects stormwater runoff from the proposed impervious surfaces through on-site drainage structures and routes via subsurface drainage pipes to a wet detention pond. A proposed control structure within the wet detention system regulates discharge to meet jurisdictional discharge requirements. The discharge location is via the control structure at the Southern property boundary, NSLRWCD Canal 102.

Direction of flow: The stormwater runoff generated by the proposed development is collected through on-site drainage structures located within the roadway. The drainage structures are terminate into the proposed wet detention system. There is a control structure located within the wet detention pond to the south that regulates the discharge flow rate.

Peak Flow Rate: The project is limited on its total discharge limit from the design requiriemtn of NSLRWCD which allows 2" over the project area from the 10 year 72 hour storm event. Pod 1 has a developed area of 88.05 acre which allows for a maximum of 14.675 ac-ft during any given 24 hour period. The project maximum designed discharge is 4.57 ac-ft per 24 hour period.

II. Erosion and Sediment Control

The project specifications require the contractor and owner to install stormwater pollution prevent devices in accordance with the construction drawings and Florida Development Manual, A Guide to Sound Land and Water Management, published by the DEP. All disturbed areas shall be fully sodded, seeded and mulched.

III. Stormwater System Maintenance Plan

The maintenance of the Stormwater Management System shall be the responsibility of the property owner. The maintenance plan applies to the newly constructed stormwater infrastructure, which will manage runoff from the improved portions of the project. The system is designed to provide water quality treatment and attenuation before discharging stormwater into the master drainage system. Symphony Lakes CDD as the owner, is responsible for maintaining the stormwater management system to ensure its proper functionality and compliance with regulatory requirements. Runoff will be directed towards the wet detention pond through site grading and on-site drainage structures, where it will be temporarily stored to treat stormwater quality. Maintenance activities, conducted at least annually, will include clearing debris from drainage structures, inspecting and repairing erosion in detention areas, and removing nuisance exotic vegetation. Detailed records of these maintenance activities will be filed for future reference and compliance reviews.

IV. Jurisdictional Permitting Agencies

1. South Florida Water Management District
2. City of Fort Pierce
3. North St. Lucie River Water Control District

Appendix A – FEMA Firemette Map

National Flood Hazard Layer FIRMette



80°21'59"W 27°23'27"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRMI PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	
	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AD, AH, VE, AR
	Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD	
	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
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes. Zone X
	Area with Flood Risk due to Levee Zone D

OTHER AREAS	
	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
	Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES	
	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall

OTHER FEATURES	
	Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature

MAP PANELS	
	Digital Data Available
	No Digital Data Available
	Unmapped

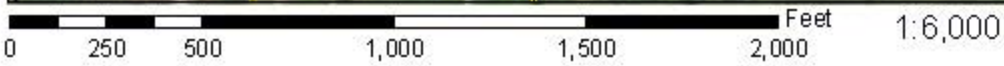


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/16/2025 at 4:23 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRMI panel number, and FIRMI effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Appendix B – Stormwater Calculations

Pre-Development Land Use Calculations
Symphony Lakes

Project Name: **Symphony Lakes**
 Project #: **24-1600**
 Engineer: **DCC**
 Date: **5/13/2025**

Engineer:
 Revision Date:

Computation Type: Land Use & Stage-Storage
 Datum: **NAVD**

Average Ground Elevation (EL_{gnd}) = **14.00** ft-NAVD
 Control Elevation (CE) = **12.00** ft-NAVD

Source: **KSM Geotechnical Report**

Site Land Use

	Green Space	Existing Lake	N/A	N/A	N/A	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	93.2%	6.8%	0.0%	0.00%	0.00%	
Total Areas (SF)	4,986,001 SF	363,167 SF	0 SF	0 SF	0 SF	5,349,168 SF
Total Areas (A _t)	114.46	8.34	0.00	0.00	0.00	122.80
Bldg. %	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
Bldg. Area (A _r)	0.00	0.00	0.00	0.00	0.00	0.00
Pervious %	100.00%	0.00%	0.00%	0.00%	0.00%	93.21%
Pervious Area (A _p)	114.46	0.00	0.00	0.00	0.00	114.46
Impervious %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Impervious Area (A _i)	0.00	0.00	0.00	0.00	0.00	0.00
Open Water %	0.00%	100.00%	0.00%	100.00%	0.00%	6.79%
Open Water Area (Ac.)	0.00	8.34	0.00	0.00	0.00	8.34

**Pre-Development Stage-Storage Calculations
Sypohny Lakes**

Storage Type: Stage-Volume
Starting Stage = 10.00
Ending Stage = 20.00
Stage Increment = 0.25

Name	Green Space	Existing	N/A	N/A
Area	114.46	8.34	0.00	0.00
Start Elev	11.00	12.00	0.00	0.00
End Elev	17.00	0.00	0.00	0.00

Stage Feet	Linear Storage	Vert Storage	Vert Storage	Vert Storage	Total Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
10.00	0.00	0.00	0.00	0.00	0.00
10.25	0.00	0.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00	0.00	0.00
10.75	0.00	0.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00	0.00	0.00
11.25	0.60	0.00	0.00	0.00	0.60
11.50	2.38	0.00	0.00	0.00	2.38
11.75	5.37	0.00	0.00	0.00	5.37
12.00	9.54	0.00	0.00	0.00	9.54
12.25	14.90	2.08	0.00	0.00	16.99
12.50	21.46	4.17	0.00	0.00	25.63
12.75	29.21	6.25	0.00	0.00	35.46
13.00	38.15	8.34	0.00	0.00	46.49
13.25	48.29	10.42	0.00	0.00	58.71
13.50	59.62	12.51	0.00	0.00	72.12
13.75	72.14	14.59	0.00	0.00	86.73
14.00	85.85	16.67	0.00	0.00	102.52
14.25	100.75	18.76	0.00	0.00	119.51
14.50	116.85	20.84	0.00	0.00	137.69
14.75	134.14	22.93	0.00	0.00	157.06
15.00	152.62	25.01	0.00	0.00	177.63
15.25	172.29	27.10	0.00	0.00	199.39
15.50	193.16	29.18	0.00	0.00	222.34
15.75	215.21	31.26	0.00	0.00	246.48
16.00	238.46	33.35	0.00	0.00	271.81
16.25	262.91	35.43	0.00	0.00	298.34
16.50	288.54	37.52	0.00	0.00	326.06
16.75	315.37	39.60	0.00	0.00	354.97
17.00	343.39	41.69	0.00	0.00	385.07
17.25	372.00	43.77	0.00	0.00	415.77
17.50	400.62	45.85	0.00	0.00	446.47
17.75	429.24	47.94	0.00	0.00	477.17
18.00	457.85	50.02	0.00	0.00	507.87
18.25	486.47	52.11	0.00	0.00	538.57
18.50	515.08	54.19	0.00	0.00	569.27
18.75	543.70	56.28	0.00	0.00	599.97
19.00	572.31	58.36	0.00	0.00	630.67
19.25	600.93	60.44	0.00	0.00	661.37
19.50	629.55	62.53	0.00	0.00	692.07
19.75	658.16	64.61	0.00	0.00	722.77
20.00	686.78	66.70	0.00	0.00	753.47

**Pre-Development Stage-Area Calculations
Sympohny Lakes**

Storage Type: Stage-Area
Starting Stage = 10.00
Ending Stage = 20.00
Stage Increment = 0.25

Name	Green Space	Existing	N/A
Area	114.46	8.34	0.00
Start Elev	11.00	12.00	0.00
End Elev	17.00	0.00	0.00

Stage	Linear	Vert	Vert	Total
Feet	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac
10.00	0.00	0.00	0.00	0.00
10.25	0.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00	0.00
10.75	0.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00	0.00
11.25	4.77	0.00	0.00	4.77
11.50	9.54	0.00	0.00	9.54
11.75	14.31	0.00	0.00	14.31
12.00	19.08	8.34	0.00	27.41
12.25	23.85	8.34	0.00	32.18
12.50	28.62	8.34	0.00	36.95
12.75	33.38	8.34	0.00	41.72
13.00	38.15	8.34	0.00	46.49
13.25	42.92	8.34	0.00	51.26
13.50	47.69	8.34	0.00	56.03
13.75	52.46	8.34	0.00	60.80
14.00	57.23	8.34	0.00	65.57
14.25	62.00	8.34	0.00	70.34
14.50	66.77	8.34	0.00	75.11
14.75	71.54	8.34	0.00	79.88
15.00	76.31	8.34	0.00	84.65
15.25	81.08	8.34	0.00	89.42
15.50	85.85	8.34	0.00	94.18
15.75	90.62	8.34	0.00	98.95
16.00	95.39	8.34	0.00	103.72
16.25	100.15	8.34	0.00	108.49
16.50	104.92	8.34	0.00	113.26
16.75	109.69	8.34	0.00	118.03
17.00	114.46	8.34	0.00	122.80
17.25	114.46	8.34	0.00	122.80
17.50	114.46	8.34	0.00	122.80
17.75	114.46	8.34	0.00	122.80
18.00	114.46	8.34	0.00	122.80
18.25	114.46	8.34	0.00	122.80
18.50	114.46	8.34	0.00	122.80
18.75	114.46	8.34	0.00	122.80
19.00	114.46	8.34	0.00	122.80
19.25	114.46	8.34	0.00	122.80
19.50	114.46	8.34	0.00	122.80
19.75	114.46	8.34	0.00	122.80
20.00	114.46	8.34	0.00	122.80

Pre-Development Stormwater Calculations
Symphony Lakes

Project: Symphony Lakes
Project #: 24-1600

Revised: _____
Engineer: DCC
Date: 5/13/2025

Land Use Table

Use	Imp. (ac)	Bldg. (ac)	Pervious (ac)	Total (ac)
Basin =	8.34	0.00	114.46	122.80
TOTAL =	8.34	0.00	114.46	122.80

Find Curve Number:

Avg. Pervious Ground El. =	14.00
Control Elev. =	12.00
Distance to Water Table =	2.00

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

Find the basin's soil classification and input below as "Soil Storage" using the above "Depth to W.T.".

Soil Type =	Flatwoods	
Max. Available Soil Storage (S_{max}) =	2.50	inches
Compaction Factor ($F_{compact}$) =	0%	
Compacted Soil Storage ($S_{compact}$) =	2.50	inches
Available Soil Storage (S_{avail}) =	2.33	inches
Curve Number (CN) =	81	

(Use 25% for developed site)
 $(S_{max})(F_{compact})$
 $(A_p)(S_{compact})/(A_t)$
 $1000 / (S_{avail} + 10)$

Notes:

1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Post-Development Land Use Calculations
Symphony Lakes

Project Name: **Symphony Lakes**
 Project #: **24-1600**
 Engineer: **DCC**
 Date: **5/13/2025**

Engineer:
 Revision Date:

Computation Type: **Land Use & Stage-Storage**
 Datum: **NAVD**

Average Ground Elevation (EL_{gmd}) = **15.55** ft-NAVD
 Control Elevation (CE) = **12.00** ft-NAVD

Source: **KSM Geotchnial Report**

Site Land Use

	Open Space	Prop. Building Pads	Prop. Concrete	Prop. Pavement	Pond Sloping	Pond Bottom	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	48.6%	31.5%	1.8%	3.76%	3.00%	11.3%	
Total Areas (SF)	2,602,101 SF	1,686,208 SF	94,732 SF	201,350 SF	160,484 SF	604,293 SF	5,349,168 SF
Total Areas (A _t)	59.74	38.71	2.17	4.62	3.68	13.87	122.80
Bldg. %	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	31.52%
Bldg. Area (A _r)	0.00	38.71	0.00	0.00	0.00	0.00	38.71
Pervious %	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	51.65%
Pervious Area (A _p)	59.74	0.00	0.00	0.00	3.68	0.00	63.42
Impervious %	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	5.54%
Impervious Area (A _i)	0.00	0.00	2.17	4.62	0.00	0.00	6.80
Open Water %	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	11.30%
Open Water Area (Ac.)	0.00	0.00	0.00	0.00	0.00	13.87	13.87

**Post-Development Stage-Storage Calculations
Symphony Lakes**

Storage Type: **Stage-Volume**
 Starting Stage = **12.00**
 Ending Stage = **17.00**
 Stage Increment = **0.25**

Name	Open Space	Prop. Building Pads	Prop. Concrete	Prop. Pavement	Pond Sloping	Pond Bottom	
Area	59.74	38.71	2.17	4.62	3.68	13.87	
Start Elev	15.00	17.00	15.33	15.25	12.00	12.00	
End Elev	16.33	0.00	16.80	16.75	15.50	0.00	
Stage Feet	Linear Storage	Vert Storage	Linear Storage	Linear Storage	Linear Storage	Vert Storage	Total Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.25	0.00	0.00	0.00	0.00	0.03	3.47	3.50
12.50	0.00	0.00	0.00	0.00	0.13	6.94	7.07
12.75	0.00	0.00	0.00	0.00	0.30	10.40	10.70
13.00	0.00	0.00	0.00	0.00	0.53	13.87	14.40
13.25	0.00	0.00	0.00	0.00	0.82	17.34	18.16
13.50	0.00	0.00	0.00	0.00	1.18	20.81	21.99
13.75	0.00	0.00	0.00	0.00	1.61	24.28	25.89
14.00	0.00	0.00	0.00	0.00	2.11	27.75	29.85
14.25	0.00	0.00	0.00	0.00	2.66	31.21	33.88
14.50	0.00	0.00	0.00	0.00	3.29	34.68	37.97
14.75	0.00	0.00	0.00	0.00	3.98	38.15	42.13
15.00	0.00	0.00	0.00	0.00	4.74	41.62	46.35
15.25	1.40	0.00	0.00	0.00	5.56	45.09	52.05
15.50	5.61	0.00	0.02	0.10	6.45	48.55	60.73
15.75	12.63	0.00	0.13	0.39	7.37	52.02	72.54
16.00	22.46	0.00	0.33	0.87	8.29	55.49	87.44
16.25	35.09	0.00	0.63	1.54	9.21	58.96	105.43
16.50	50.02	0.00	1.01	2.41	10.13	62.43	126.00
16.75	64.96	0.00	1.49	3.47	11.05	65.90	146.86
17.00	79.89	0.00	2.04	4.62	11.97	69.36	167.89

**Post-Development Stage-Area Calculations
Symphony Lakes**

Storage Type: Stage-Area
Starting Stage = 12.00
Ending Stage = 17.00
Stage Increment = 0.50

Name	Open Space	Prop. Building Pads	Prop. Concrete	Prop. Pavement	Pond Sloping	Pond Bottom
Area	59.74	38.71	2.17	4.62	3.68	13.87
Start Elev	15.00	17.00	15.33	15.25	12.00	12.00
End Elev	16.33	0.00	16.80	16.75	15.50	0.00

Stage Feet NAVD	Linear Area Ac	Vert Area Ac	Linear Area Ac	Linear Area Ac	Linear Area Ac	Vert Area Ac	Total Area Ac
12.00	0.00	0.00	0.00	0.00	0.00	13.87	13.87
12.50	0.00	0.00	0.00	0.00	0.53	13.87	14.40
13.00	0.00	0.00	0.00	0.00	1.05	13.87	14.93
13.50	0.00	0.00	0.00	0.00	1.58	13.87	15.45
14.00	0.00	0.00	0.00	0.00	2.11	13.87	15.98
14.50	0.00	0.00	0.00	0.00	2.63	13.87	16.50
15.00	0.00	0.00	0.00	0.00	3.16	13.87	17.03
15.50	22.46	0.00	0.25	0.77	3.68	13.87	41.04
16.00	44.91	0.00	0.99	2.31	3.68	13.87	65.77
16.50	59.74	0.00	1.73	3.85	3.68	13.87	82.88
17.00	59.74	38.71	2.17	4.62	3.68	13.87	122.80

Post-Development Stormwater Calculations
Symphony Lakes

Project: Symphony Lakes
Project #: 24-1600

Revised: _____
Engineer: DCC
Date: 5/13/2025

Land Use Table

<u>Use</u>	<u>Imp. (ac)</u>	<u>Bldg. (ac)</u>	<u>Pervious (ac)</u>	<u>Total (ac)</u>
Basin =	20.67	38.71	63.42	122.80
TOTAL =	20.67	38.71	63.42	122.80

Find Curve Number:

Avg. Pervious Ground El. =	15.55
Control Elev. =	12.00
Distance to Water Table =	3.55

Soil Storage Table

<u>Depth to W.T. (ft)</u>	<u>Coastal Storage (in)</u>	<u>Flatwoods Storage (in)</u>	<u>Depression Storage (in)</u>
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

Find the basin's soil classification and input below as "Soil Storage" using the above "Depth to W.T.".

Soil Type =	Flatwoods	
Max. Available Soil Storage (S_{max}) =	7.39	inches
Compaction Factor ($F_{compact}$) =	25%	(Use 25% for developed site)
Compacted Soil Storage ($S_{compact}$) =	5.55	inches
Available Soil Storage (S_{avail}) =	2.86	inches
Curve Number (CN) =	78	

$(S_{max})(F_{compact})$
 $(A_p)(S_{compact})/(A_t)$
 $1000 / (S_{avail}+10)$

Notes:

1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Post-Development Water Quality Calculations

Project: **Symphony Lakes**
 Project #: **24-1600**

Revised: _____
 Engineer: **DCC**
 Date: **13-May-25**

1-inch Over the Project Area

$$\text{(Treated Volume)} \quad 1\text{-inch} \quad * \quad 1\text{-ft}/12\text{-in} \quad * \quad \frac{122.80}{\text{PROJECT AREA}} = \frac{10.23}{\text{TREATED VOLUME}} \text{ ac-ft}$$

2.5-inches Times the Percent Impervious

$$\begin{aligned} \text{(Site Area)} \quad \frac{122.80}{\text{PROJECT AREA (AC)}} - \left(\frac{13.87}{\text{LAKES (AC)}} + \frac{38.71}{\text{ROOFS (AC)}} \right) &= \frac{70.22}{\text{SITE AREA}} \text{ ac} \\ \text{(Impervious Area)} \quad \frac{70.22}{\text{SITE AREA (AC)}} - \frac{63.42}{\text{PERVIOUS AREA (AC)}} &= \frac{6.80}{\text{IMPERVIOUS AREA}} \text{ ac} \\ \text{(% Impervious)} \quad \frac{\text{IMPERVIOUS AREA} * 100\%}{\text{SITE AREA (AC)}} &= 9.68\% \\ \text{(2.5-in * \% Imp.)} \quad 2.5\text{-inches} * \frac{9.68\%}{\text{PERCENT IMPERVIOUS}} &= \frac{0.24}{\text{INCHES TO BE TREATED}} \text{ in} \\ \text{(Treated Volume)} \quad \frac{0.24}{\text{TREATED (IN)}} * 1\text{-ft}/12\text{-in} * \frac{108.93}{\text{PROJECT AREA - LAKES (AC)}} &= \frac{2.20}{\text{TREATED VOLUME}} \text{ ac-ft} \end{aligned}$$

Required Wet Detention = **10.23** ac-ft

Required Dry Detention (75% of Wet Detention) = **7.68** ac-ft

Required Retention (50% of Wet Detention) = **5.12** ac-ft

Treatment System Type **Wet Detention**
 Treatment Volume Required = **10.23** ac-ft

Direct Discharge to OFW? **No**
 Total Treatment Volume Required = **10.23** ac-ft

Water Quality Elevation (EL_{wq}) = 12.72 ft NAVD

Estimated Required Attenuation
Symphony Lakes

Project: Symphony Lakes
Project #: 24-1600

Revised: _____
Engineer: DCC
Date: 5/13/2025

Pre-Developed Runoff

10 Year - 3 Day

$$\begin{aligned} \text{Area, A (ac)} &= 122.80 \\ \text{Soil Storage, S (inches)} &= 2.33 \\ \text{Curve Number, CN} &= 1000/(S+10) \\ &= 81 \end{aligned}$$

10 Year - 3 Day Rainfall, P (inches) = 9 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II)

$$\begin{aligned} \text{Depth of Runoff, Q (inches)} &= (P - 0.2S)^2 / (P + 0.8S) \\ &= 6.70 \end{aligned}$$

$$\begin{aligned} \text{Volume, V (AC-FT)} &= A * Q \\ &= 68.60 \end{aligned}$$

Post Developed Runoff

10 Year - 3 Day

$$\begin{aligned} \text{Area, A (ac)} &= 122.80 \\ \text{Soil Storage, S (inches)} &= 2.86 \\ \text{Curve Number, CN} &= 1000/(S+10) = \\ &= 78 \end{aligned}$$

10 Year - 3 Day Rainfall, P (inches) = 9 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II)

$$\begin{aligned} \text{Depth of Runoff, Q (inches)} &= (P - 0.2S)^2 / (P + 0.8S) \\ &= 6.29 \end{aligned}$$

$$\begin{aligned} \text{Volume, V (AC-FT)} &= A * Q \\ &= 64.37 \end{aligned}$$

10Y-3D Elevation = 15.58 ft NAVD

Estimated Required Attenuation
Symphony Lakes

Project: **Symphony Lakes**
Project #: **24-1600**

Revised: _____
Engineer: **DCC**
Date: **5/13/2025**

Pre-Developed Runoff

25 Year - 3 Day

$$\begin{aligned} \text{Area, A (ac)} &= 122.80 \\ \text{Soil Storage, S (inches)} &= 2.33 \\ \text{Curve Number, CN} &= 1000/(S+10) \\ &= 81 \end{aligned}$$

25 Year - 3 Day Rainfall, P (inches) = 11 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II)

$$\begin{aligned} \text{Depth of Runoff, Q (inches)} &= (P - 0.2S)^2 / (P + 0.8S) \\ &= 8.63 \end{aligned}$$

$$\begin{aligned} \text{Volume, V (AC-FT)} &= A * Q \\ &= 88.27 \end{aligned}$$

Post Developed Runoff

25 Year - 3 Day

$$\begin{aligned} \text{Area, A (ac)} &= 122.80 \\ \text{Soil Storage, S (inches)} &= 2.86 \\ \text{Curve Number, CN} &= 1000/(S+10) = \\ &= 78 \end{aligned}$$

25 Year - 3 Day Rainfall, P (inches) = 11 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II)

$$\begin{aligned} \text{Depth of Runoff, Q (inches)} &= (P - 0.2S)^2 / (P + 0.8S) \\ &= 8.18 \end{aligned}$$

$$\begin{aligned} \text{Volume, V (AC-FT)} &= A * Q \\ &= 83.71 \end{aligned}$$

25Y-3D Elevation = 15.94 ft NAVD

Estimated Required Attenuation
Symphony Lakes

Project: **Symphony Lakes**
Project #: **24-1600**

Revised: _____
Engineer: **DCC**
Date: **5/13/2025**

Pre-Developed Runoff

100 Year - 3 Day

Area, A (ac) = 122.80
Soil Storage, S (inches) = 2.33
Curve Number, CN = $1000/(S+10)$
= 81

.00 Year - 3 Day Rainfall, P (inches) = 14.4 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume I)

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 11.94

Volume, V (AC-FT) = A * Q
= 122.16

Post Developed Runoff

100 Year - 3 Day

Area, A (ac) = 122.80
Soil Storage, S (inches) = 2.86
Curve Number, CN = $1000/(S+10)$ =
78

.00 Year - 3 Day Rainfall, P (inches) = 14.4 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume I)

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 11.45

Volume, V (AC-FT) = A * Q
= 117.22

100Y-3D Elevation = 16.39 ft NAVD

Appendix C - ICPR Flood Routing

Node Max Conditions : Multi Item | (sim, name) [Back to Back Storm Event]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
10yr - 3 day	NSLRWCD Canal 102	0.00	0.00	9.50	0.0000	2.28	0.00	0
10yr - 3 day	Post Basin Area	0.00	0.00	14.96	0.0010	335.48	2.28	1953597

Node Max Conditions : Multi Item | (sim, name) [Pod 1 Development]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
100yr - 3day	NSLRWCD Canal 102	0.00	0.00	9.50	0.0000	8.84	0.00	0
100yr - 3day	Post Basin Area	0.00	0.00	15.50	0.0010	571.10	8.84	2911071
100yr - 3day	Pre-Basin	0.00	0.00	14.71	0.0010	304.87	0.00	5349168
10yr - 3 day	NSLRWCD Canal 102	0.00	0.00	9.50	0.0000	2.24	0.00	0
10yr - 3 day	Post Basin Area	0.00	0.00	14.91	0.0010	335.46	2.24	1876594
10yr - 3 day	Pre-Basin	0.00	0.00	14.40	0.0007	179.79	0.00	5349168
25yr - 3 day	NSLRWCD Canal 102	0.00	0.00	9.50	0.0000	2.46	0.00	0
25yr - 3 day	Post Basin Area	0.00	0.00	15.19	0.0010	423.22	2.46	2351031
25yr - 3 day	Pre-Basin	0.00	0.00	14.51	0.0008	226.36	0.00	5349168

Node Max Conditions : Multi Item | (sim, name) [Recovery]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
10yr - 3 day	NSLRWCD Canal 102	0.00	0.00	9.50	0.0000	2.24	0.00	0
10yr - 3 day	Post Basin Area	0.00	0.00	14.91	0.0010	335.46	2.24	1876594

Simple Basin: Post Basin

Scenario: Back to Back Storm Event

Node: Post Basin Area

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH323
Peaking Factor: 323.0
Area: 88.0500 ac
Curve Number: 79.0
Ia/S: 0.00
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin: Post Basin

Scenario: Pod 1 Development
Node: Post Basin Area
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH323
Peaking Factor: 323.0
Area: 88.0500 ac
Curve Number: 79.0
Ia/S: 0.00
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin: Pre-Development

Scenario: Pod 1 Development
Node: Pre-Basin
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 35.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
 Peaking Factor: 256.0
 Area: 88.0500 ac
 Curve Number: 81.0
 Ia/S: 0.00
 % Impervious: 0.00
 % DCIA: 0.00
 % Direct: 0.00
 Rainfall Name:

Comment:

Simple Basin: Post Basin

Scenario: Recovery
 Node: Post Basin Area
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 9999.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH323
 Peaking Factor: 323.0
 Area: 88.0500 ac
 Curve Number: 79.0
 Ia/S: 0.00
 % Impervious: 0.00
 % DCIA: 0.00
 % Direct: 0.00
 Rainfall Name:

Comment:

Node: NSLRWCD Canal 102

Scenario: Back to Back Storm Event
 Type: Time/Stage
 Base Flow: 0.00 cfs
 Initial Stage: 9.50 ft
 Warning Stage: 0.00 ft
 Alert Stage: 0.00 ft
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	9.50
0	0	0	999.0000	9.50

Comment:

Node: Post Basin Area

Scenario: Back to Back Storm Event
 Type: Stage/Area
 Base Flow: 0.00 cfs
 Initial Stage: 12.74 ft
 Warning Stage: 0.00 ft
 Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
12.00	0.0000	0
13.00	14.4000	627264
14.00	9.8500	429066
15.00	46.3500	2019006
16.00	87.4400	3808886
17.00	170.3500	7420446

Comment:

Node: NSLRWCD Canal 102

Scenario: Pod 1 Development
 Type: Time/Stage
 Base Flow: 0.00 cfs
 Initial Stage: 9.50 ft
 Warning Stage: 0.00 ft
 Alert Stage: 0.00 ft
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	9.50
0	0	0	999.0000	9.50

Comment:

Node: Post Basin Area

Scenario: Pod 1 Development
 Type: Stage/Area
 Base Flow: 0.00 cfs
 Initial Stage: 12.00 ft
 Warning Stage: 0.00 ft
 Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
12.00	0.0000	0
13.00	14.4000	627264
14.00	9.8500	429066
15.00	46.3500	2019006
16.00	87.4400	3808886
17.00	170.3500	7420446

Comment:

Node: Pre-Basin

Scenario: Pod 1 Development
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
14.00	122.8000	5349168

Comment:

Node: NSLRWCD Canal 102

Scenario: Recovery
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 9.50 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	9.50
0	0	0	999.0000	9.50

Comment:

Node: Post Basin Area

Scenario: Recovery
Type: Stage/Area

Base Flow: 0.00 cfs
 Initial Stage: 12.00 ft
 Warning Stage: 0.00 ft
 Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
12.00	0.0000	0
13.00	14.4000	627264
14.00	9.8500	429066
15.00	46.3500	2019006
16.00	87.4400	3808886
17.00	170.3500	7420446

Comment:

Drop Structure Link: CS-1		Upstream Pipe	Downstream Pipe
Scenario:	Back to Back Storm	Invert: 11.85 ft	Invert: 9.50 ft
	Event	Manning's N: 0.0190	Manning's N: 0.0190
From Node:	Post Basin Area	Geometry: Circular	Geometry: Circular
To Node:	NSLRWCD Canal 102	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Link Count:	1	Bottom Clip	
Pipe Flow Direction:	Both	Default: 0.00 ft	Default: 0.00 ft
Solution:	Combine	Op Table:	Op Table:
Increments:	0	Ref Node:	Ref Node:
Pipe Count:	1	Manning's N: 0.0000	Manning's N: 0.0000
Damping:	0.0000 ft	Top Clip	
Length:	524.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code:	1	Op Table:	Op Table:
Entr Loss Coef:	1.00	Ref Node:	Ref Node:
Exit Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	15.25 ft
Control Elevation:	15.25 ft
Max Depth:	3.50 ft
Max Width:	4.50 ft
Fillet:	0.00 ft
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:

Orifice Default: 0.600
Orifice Table:

Weir Comment: Overflow grate: Top

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 12.00 ft	Op Table:
Control Elevation: 12.00 ft	Ref Node:
Max Depth: 0.50 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Bleeder: Control Elevation

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 14.00 ft	Op Table:
Control Elevation: 14.00 ft	Ref Node:
Max Depth: 0.50 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Oriface: Water Quality

Drop Structure Comment:

Drop Structure Link: CS-1	Upstream Pipe	Downstream Pipe
Scenario: Pod 1 Development	Invert: 11.85 ft	Invert: 9.50 ft
From Node: Post Basin Area	Manning's N: 0.0190	Manning's N: 0.0190
To Node: NSLRWCD Canal 102	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Pipe Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 0	Op Table:	Op Table:

Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0000	Manning's N: 0.0000
Length: 524.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 1.00	Op Table:	Op Table:
Exit Loss Coef: 0.50	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 15.25 ft	Op Table:
Control Elevation: 15.25 ft	Ref Node:
Max Depth: 3.50 ft	Discharge Coefficients
Max Width: 4.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Overflow grate: Top

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 12.00 ft	Op Table:
Control Elevation: 12.00 ft	Ref Node:
Max Depth: 0.50 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Bleeder: Control Elevation

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft

Invert: 14.00 ft
 Control Elevation: 14.00 ft
 Max Depth: 0.50 ft

Op Table:
 Ref Node:
 Discharge Coefficients
 Weir Default: 3.200
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Weir Comment: Oriface: Water Quality

Drop Structure Comment:

Drop Structure Link: CS-1		Upstream Pipe	Downstream Pipe
Scenario:	Recovery	Invert: 11.85 ft	Invert: 9.50 ft
From Node:	Post Basin Area	Manning's N: 0.0190	Manning's N: 0.0190
To Node:	NSLRWCD Canal 102	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Pipe Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default: 0.00 ft	Default: 0.00 ft
Increments:	0	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0000	Manning's N: 0.0000
Length:	524.00 ft	Top Clip	
FHWA Code:	1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef:	1.00	Op Table:	Op Table:
Exit Loss Coef:	0.50	Ref Node:	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default: 0.00 ft	
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default: 0.00 ft	
Geometry Type:	Rectangular	Op Table:	
Invert:	15.25 ft	Ref Node:	
Control Elevation:	15.25 ft	Discharge Coefficients	
Max Depth:	3.50 ft	Weir Default: 3.200	
Max Width:	4.50 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default: 0.600	
		Orifice Table:	

Weir Comment: Overflow grate: Top

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 12.00 ft	Op Table:
Control Elevation: 12.00 ft	Ref Node:
Max Depth: 0.50 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Bleeder: Control Elevation

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 14.00 ft	Op Table:
Control Elevation: 14.00 ft	Ref Node:
Max Depth: 0.50 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Oriface: Water Quality

Drop Structure Comment:

Simulation: 10yr - 3 day

Scenario: Back to Back Storm Event
 Run Date/Time: 5/16/2025 11:49:25 AM
 Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	432.0000

Hydrology [sec]	Surface Hydraulics	Groundwater [sec]
-----------------	--------------------	-------------------

	[sec]		
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	240.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	240.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set:
 Extern Hydrograph Set:
 Curve Number Set:

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set:
 Roughness Set:
 Crop Coef Set:
 Fillable Porosity Set:
 Conductivity Set:
 Leakage Set:

Tolerances & Options

Time Marching: SAOR
 Max Iterations: 6
 Over-Relax Weight 0.5 dec
 Fact:
 dZ Tolerance: 0.0010 ft
 Max dZ: 1.0000 ft

 Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
 ET for Manual Basins: False
 Ia/S: 0.20 dec

 Smp/Man Basin Rain Global
 Opt:
 OF Region Rain Opt: Global

Edge Length Option: Automatic	Rainfall Name: ~SFWMD-72
Dflt Damping (2D): 0.0050 ft	Rainfall Amount: 9.00 in
Min Node Srf Area 100 ft2	Storm Duration: 72.0000 hr
(2D):	Dflt Damping (1D): 0.0050 ft
Energy Switch (2D): Energy	Min Node Srf Area 100 ft2
	(1D):
	Energy Switch (1D): Energy

Comment:

Simulation: 100yr - 3day

Scenario: Pod 1 Development
 Run Date/Time: 5/16/2025 11:49:29 AM
 Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	90.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph
Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.5 dec	Ia/S:	0.20 dec
Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain	Global
Max dZ:	1.0000 ft	Opt:	
Link Optimizer Tol:	0.0001 ft	OF Region Rain Opt:	Global
Edge Length Option:	Automatic	Rainfall Name:	~SFWMD-72
Dflt Damping (2D):	0.0050 ft	Rainfall Amount:	14.40 in
Min Node Srf Area	100 ft2	Storm Duration:	72.0000 hr
(2D):		Dflt Damping (1D):	0.0050 ft
Energy Switch (2D):	Energy	Min Node Srf Area	100 ft2
		(1D):	
		Energy Switch (1D):	Energy

Comment:

Simulation: 10yr - 3 day

Scenario: Pod 1 Development
Run Date/Time: 5/16/2025 11:49:32 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	120.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph
Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec
Fact:
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Ia/S: 0.20 dec

Smp/Man Basin Rain Global

Link Optimizer Tol: 0.0001 ft	Opt:
Edge Length Option: Automatic	OF Region Rain Opt: Global
Dflt Damping (2D): 0.0050 ft	Rainfall Name: ~SFWMD-72
Min Node Srf Area 100 ft2	Rainfall Amount: 9.00 in
(2D):	Storm Duration: 72.0000 hr
Energy Switch (2D): Energy	Dflt Damping (1D): 0.0050 ft
	Min Node Srf Area 100 ft2
	(1D):
	Energy Switch (1D): Energy

Comment:

Simulation: 25yr - 3 day

Scenario: Pod 1 Development
 Run Date/Time: 5/16/2025 11:49:34 AM
 Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	90.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph
Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.5 dec	Ia/S:	0.20 dec
Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain	Global
Max dZ:	1.0000 ft	Opt:	
Link Optimizer Tol:	0.0001 ft	OF Region Rain Opt:	Global
Edge Length Option:	Automatic	Rainfall Name:	~SFWMD-72
Dflt Damping (2D):	0.0050 ft	Rainfall Amount:	11.00 in
Min Node Srf Area	100 ft2	Storm Duration:	72.0000 hr
(2D):		Dflt Damping (1D):	0.0050 ft
Energy Switch (2D):	Energy	Min Node Srf Area	100 ft2
		(1D):	
		Energy Switch (1D):	Energy

Comment:

Simulation: 10yr - 3 day

Scenario: Recovery
Run Date/Time: 5/16/2025 11:49:37 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

Year	Month	Day	Hour [hr]
------	-------	-----	-----------

Start Time: 0 0 0 0.0000
 End Time: 0 0 0 432.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	240.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	240.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
 Extern Hydrograph Set:
 Curve Number Set:

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set:
 Roughness Set:
 Crop Coef Set:
 Fillable Porosity Set:
 Conductivity Set:
 Leakage Set:

Tolerances & Options

Time Marching: SAOR
 Max Iterations: 6
 Over-Relax Weight: 0.5 dec
 Fact:

IA Recovery Time: 24.0000 hr
 ET for Manual Basins: False
 Ia/S: 0.20 dec

dZ Tolerance: 0.0010 ft	Smp/Man Basin Rain: Global
Max dZ: 1.0000 ft	Opt: Global
Link Optimizer Tol: 0.0001 ft	OF Region Rain Opt: Global
Edge Length Option: Automatic	Rainfall Name: ~SFWMD-72
Dflt Damping (2D): 0.0050 ft	Rainfall Amount: 9.00 in
Min Node Srf Area (2D): 100 ft2	Storm Duration: 72.0000 hr
Energy Switch (2D): Energy	Dflt Damping (1D): 0.0050 ft
	Min Node Srf Area (1D): 100 ft2
	Energy Switch (1D): Energy

Comment:

Node: Post Basin Area

Scenario: Back to Back Storm Event
 Type: Stage/Area
 Base Flow: 0.00 cfs
 Initial Stage: 12.74 ft
 Warning Stage: 0.00 ft
 Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
12.00	0.0000	0
13.00	14.4000	627264
14.00	9.8500	429066
15.00	46.3500	2019006
16.00	87.4400	3808886
17.00	170.3500	7420446

Comment:

Node Max Conditions [Back to Back Storm Event]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Post Basin Area	10yr - 3 day	0.00	0.00	14.96	0.0010	335.48	2.28	1953597

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	0.0027	12.00
Recovery	10yr - 3 day	1.0027	12.00
Recovery	10yr - 3 day	2.0027	12.00
Recovery	10yr - 3 day	3.0027	12.00
Recovery	10yr - 3 day	4.0027	12.00
Recovery	10yr - 3 day	5.0027	12.00
Recovery	10yr - 3 day	6.0027	12.00
Recovery	10yr - 3 day	7.0027	12.00
Recovery	10yr - 3 day	8.0027	12.00
Recovery	10yr - 3 day	9.0027	12.00
Recovery	10yr - 3 day	10.0027	12.00
Recovery	10yr - 3 day	11.0027	12.00
Recovery	10yr - 3 day	12.0027	12.00
Recovery	10yr - 3 day	13.0027	12.00
Recovery	10yr - 3 day	14.0027	12.02
Recovery	10yr - 3 day	15.0027	12.04
Recovery	10yr - 3 day	16.0027	12.06
Recovery	10yr - 3 day	17.0027	12.09
Recovery	10yr - 3 day	18.0027	12.11
Recovery	10yr - 3 day	19.0027	12.13
Recovery	10yr - 3 day	20.0027	12.15
Recovery	10yr - 3 day	21.0027	12.17
Recovery	10yr - 3 day	22.0027	12.19
Recovery	10yr - 3 day	23.0027	12.21
Recovery	10yr - 3 day	24.0027	12.23
Recovery	10yr - 3 day	25.0027	12.26
Recovery	10yr - 3 day	26.0027	12.29
Recovery	10yr - 3 day	27.0027	12.32
Recovery	10yr - 3 day	28.0027	12.34
Recovery	10yr - 3 day	29.0027	12.37
Recovery	10yr - 3 day	30.0027	12.40
Recovery	10yr - 3 day	31.0027	12.42
Recovery	10yr - 3 day	32.0027	12.45
Recovery	10yr - 3 day	33.0027	12.47
Recovery	10yr - 3 day	34.0027	12.50
Recovery	10yr - 3 day	35.0027	12.52
Recovery	10yr - 3 day	36.0027	12.54
Recovery	10yr - 3 day	37.0027	12.57
Recovery	10yr - 3 day	38.0027	12.59
Recovery	10yr - 3 day	39.0027	12.61
Recovery	10yr - 3 day	40.0027	12.63
Recovery	10yr - 3 day	41.0027	12.65

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	42.0027	12.67
Recovery	10yr - 3 day	43.0027	12.70
Recovery	10yr - 3 day	44.0027	12.72
Recovery	10yr - 3 day	45.0027	12.74
Recovery	10yr - 3 day	46.0027	12.76
Recovery	10yr - 3 day	47.0027	12.78
Recovery	10yr - 3 day	48.0027	12.80
Recovery	10yr - 3 day	49.0027	12.82
Recovery	10yr - 3 day	50.0027	12.84
Recovery	10yr - 3 day	51.0027	12.87
Recovery	10yr - 3 day	52.0027	12.90
Recovery	10yr - 3 day	53.0027	12.93
Recovery	10yr - 3 day	54.0027	12.98
Recovery	10yr - 3 day	55.0027	13.03
Recovery	10yr - 3 day	56.0027	13.10
Recovery	10yr - 3 day	57.0027	13.18
Recovery	10yr - 3 day	58.0044	13.29
Recovery	10yr - 3 day	59.0009	13.45
Recovery	10yr - 3 day	60.0006	14.31
Recovery	10yr - 3 day	61.0036	14.67
Recovery	10yr - 3 day	62.0036	14.74
Recovery	10yr - 3 day	63.0036	14.78
Recovery	10yr - 3 day	64.0036	14.81
Recovery	10yr - 3 day	65.0036	14.83
Recovery	10yr - 3 day	66.0036	14.84
Recovery	10yr - 3 day	67.0036	14.86
Recovery	10yr - 3 day	68.0036	14.87
Recovery	10yr - 3 day	69.0036	14.88
Recovery	10yr - 3 day	70.0036	14.89
Recovery	10yr - 3 day	71.0036	14.90
Recovery	10yr - 3 day	72.0036	14.91
Recovery	10yr - 3 day	73.0036	14.91
Recovery	10yr - 3 day	74.0036	14.90
Recovery	10yr - 3 day	75.0036	14.90
Recovery	10yr - 3 day	76.0036	14.89
Recovery	10yr - 3 day	77.0036	14.89
Recovery	10yr - 3 day	78.0036	14.89
Recovery	10yr - 3 day	79.0036	14.88
Recovery	10yr - 3 day	80.0036	14.88
Recovery	10yr - 3 day	81.0036	14.87
Recovery	10yr - 3 day	82.0036	14.87
Recovery	10yr - 3 day	83.0036	14.86

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	84.0036	14.86
Recovery	10yr - 3 day	85.0036	14.86
Recovery	10yr - 3 day	86.0036	14.85
Recovery	10yr - 3 day	87.0036	14.85
Recovery	10yr - 3 day	88.0036	14.84
Recovery	10yr - 3 day	89.0036	14.84
Recovery	10yr - 3 day	90.0036	14.83
Recovery	10yr - 3 day	91.0036	14.83
Recovery	10yr - 3 day	92.0036	14.82
Recovery	10yr - 3 day	93.0036	14.82
Recovery	10yr - 3 day	94.0036	14.82
Recovery	10yr - 3 day	95.0036	14.81
Recovery	10yr - 3 day	96.0036	14.81
Recovery	10yr - 3 day	97.0036	14.80
Recovery	10yr - 3 day	98.0036	14.80
Recovery	10yr - 3 day	99.0036	14.79
Recovery	10yr - 3 day	100.0036	14.79
Recovery	10yr - 3 day	101.0036	14.78
Recovery	10yr - 3 day	102.0036	14.78
Recovery	10yr - 3 day	103.0036	14.77
Recovery	10yr - 3 day	104.0036	14.77
Recovery	10yr - 3 day	105.0036	14.77
Recovery	10yr - 3 day	106.0036	14.76
Recovery	10yr - 3 day	107.0036	14.76
Recovery	10yr - 3 day	108.0036	14.75
Recovery	10yr - 3 day	109.0036	14.75
Recovery	10yr - 3 day	110.0036	14.74
Recovery	10yr - 3 day	111.0036	14.74
Recovery	10yr - 3 day	112.0036	14.73
Recovery	10yr - 3 day	113.0036	14.73
Recovery	10yr - 3 day	114.0036	14.72
Recovery	10yr - 3 day	115.0036	14.72
Recovery	10yr - 3 day	116.0036	14.71
Recovery	10yr - 3 day	117.0036	14.71
Recovery	10yr - 3 day	118.0036	14.70
Recovery	10yr - 3 day	119.0036	14.70
Recovery	10yr - 3 day	120.0036	14.69
Recovery	10yr - 3 day	121.0036	14.69
Recovery	10yr - 3 day	122.0036	14.68
Recovery	10yr - 3 day	123.0036	14.68
Recovery	10yr - 3 day	124.0036	14.68
Recovery	10yr - 3 day	125.0036	14.67

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	126.0036	14.67
Recovery	10yr - 3 day	127.0036	14.66
Recovery	10yr - 3 day	128.0036	14.66
Recovery	10yr - 3 day	129.0036	14.65
Recovery	10yr - 3 day	130.0036	14.65
Recovery	10yr - 3 day	131.0036	14.64
Recovery	10yr - 3 day	132.0036	14.64
Recovery	10yr - 3 day	133.0036	14.63
Recovery	10yr - 3 day	134.0036	14.63
Recovery	10yr - 3 day	135.0036	14.62
Recovery	10yr - 3 day	136.0036	14.62
Recovery	10yr - 3 day	137.0036	14.61
Recovery	10yr - 3 day	138.0036	14.61
Recovery	10yr - 3 day	139.0036	14.60
Recovery	10yr - 3 day	140.0036	14.60
Recovery	10yr - 3 day	141.0036	14.59
Recovery	10yr - 3 day	142.0036	14.59
Recovery	10yr - 3 day	143.0036	14.58
Recovery	10yr - 3 day	144.0036	14.58
Recovery	10yr - 3 day	145.0036	14.57
Recovery	10yr - 3 day	146.0036	14.56
Recovery	10yr - 3 day	147.0036	14.56
Recovery	10yr - 3 day	148.0036	14.55
Recovery	10yr - 3 day	149.0036	14.55
Recovery	10yr - 3 day	150.0036	14.54
Recovery	10yr - 3 day	151.0036	14.54
Recovery	10yr - 3 day	152.0036	14.53
Recovery	10yr - 3 day	153.0036	14.53
Recovery	10yr - 3 day	154.0036	14.52
Recovery	10yr - 3 day	155.0036	14.52
Recovery	10yr - 3 day	156.0036	14.51
Recovery	10yr - 3 day	157.0036	14.51
Recovery	10yr - 3 day	158.0036	14.50
Recovery	10yr - 3 day	159.0036	14.50
Recovery	10yr - 3 day	160.0036	14.49
Recovery	10yr - 3 day	161.0036	14.49
Recovery	10yr - 3 day	162.0036	14.48
Recovery	10yr - 3 day	163.0036	14.48
Recovery	10yr - 3 day	164.0036	14.47
Recovery	10yr - 3 day	165.0036	14.47
Recovery	10yr - 3 day	166.0036	14.46
Recovery	10yr - 3 day	167.0036	14.45

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	168.0036	14.45
Recovery	10yr - 3 day	169.0036	14.44
Recovery	10yr - 3 day	170.0036	14.44
Recovery	10yr - 3 day	171.0036	14.43
Recovery	10yr - 3 day	172.0036	14.43
Recovery	10yr - 3 day	173.0036	14.42
Recovery	10yr - 3 day	174.0036	14.42
Recovery	10yr - 3 day	175.0036	14.41
Recovery	10yr - 3 day	176.0036	14.40
Recovery	10yr - 3 day	177.0036	14.40
Recovery	10yr - 3 day	178.0036	14.39
Recovery	10yr - 3 day	179.0036	14.39
Recovery	10yr - 3 day	180.0036	14.38
Recovery	10yr - 3 day	181.0036	14.38
Recovery	10yr - 3 day	182.0036	14.37
Recovery	10yr - 3 day	183.0036	14.36
Recovery	10yr - 3 day	184.0036	14.36
Recovery	10yr - 3 day	185.0036	14.35
Recovery	10yr - 3 day	186.0036	14.35
Recovery	10yr - 3 day	187.0036	14.34
Recovery	10yr - 3 day	188.0036	14.34
Recovery	10yr - 3 day	189.0036	14.33
Recovery	10yr - 3 day	190.0036	14.32
Recovery	10yr - 3 day	191.0036	14.32
Recovery	10yr - 3 day	192.0036	14.31
Recovery	10yr - 3 day	193.0036	14.31
Recovery	10yr - 3 day	194.0036	14.30
Recovery	10yr - 3 day	195.0036	14.29
Recovery	10yr - 3 day	196.0036	14.29
Recovery	10yr - 3 day	197.0036	14.28
Recovery	10yr - 3 day	198.0036	14.28
Recovery	10yr - 3 day	199.0036	14.27
Recovery	10yr - 3 day	200.0036	14.26
Recovery	10yr - 3 day	201.0036	14.26
Recovery	10yr - 3 day	202.0036	14.25
Recovery	10yr - 3 day	203.0036	14.24
Recovery	10yr - 3 day	204.0036	14.24
Recovery	10yr - 3 day	205.0036	14.23
Recovery	10yr - 3 day	206.0036	14.23
Recovery	10yr - 3 day	207.0036	14.22
Recovery	10yr - 3 day	208.0036	14.21
Recovery	10yr - 3 day	209.0036	14.21

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	210.0036	14.20
Recovery	10yr - 3 day	211.0036	14.19
Recovery	10yr - 3 day	212.0036	14.19
Recovery	10yr - 3 day	213.0036	14.18
Recovery	10yr - 3 day	214.0036	14.17
Recovery	10yr - 3 day	215.0036	14.17
Recovery	10yr - 3 day	216.0036	14.16
Recovery	10yr - 3 day	217.0036	14.15
Recovery	10yr - 3 day	218.0036	14.14
Recovery	10yr - 3 day	219.0036	14.14
Recovery	10yr - 3 day	220.0036	14.13
Recovery	10yr - 3 day	221.0036	14.12
Recovery	10yr - 3 day	222.0036	14.11
Recovery	10yr - 3 day	223.0036	14.11
Recovery	10yr - 3 day	224.0036	14.10
Recovery	10yr - 3 day	225.0036	14.09
Recovery	10yr - 3 day	226.0036	14.08
Recovery	10yr - 3 day	227.0036	14.07
Recovery	10yr - 3 day	228.0036	14.07
Recovery	10yr - 3 day	229.0036	14.06
Recovery	10yr - 3 day	230.0036	14.05
Recovery	10yr - 3 day	231.0036	14.04
Recovery	10yr - 3 day	232.0036	14.03
Recovery	10yr - 3 day	233.0036	14.02
Recovery	10yr - 3 day	234.0036	14.01
Recovery	10yr - 3 day	235.0036	14.00
Recovery	10yr - 3 day	236.0036	13.99
Recovery	10yr - 3 day	237.0036	13.98
Recovery	10yr - 3 day	238.0036	13.97
Recovery	10yr - 3 day	239.0036	13.96
Recovery	10yr - 3 day	240.0036	13.95
Recovery	10yr - 3 day	241.0036	13.94
Recovery	10yr - 3 day	242.0036	13.93
Recovery	10yr - 3 day	243.0036	13.92
Recovery	10yr - 3 day	244.0036	13.91
Recovery	10yr - 3 day	245.0036	13.90
Recovery	10yr - 3 day	246.0036	13.89
Recovery	10yr - 3 day	247.0036	13.88
Recovery	10yr - 3 day	248.0036	13.87
Recovery	10yr - 3 day	249.0036	13.86
Recovery	10yr - 3 day	250.0036	13.85
Recovery	10yr - 3 day	251.0036	13.84

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	252.0036	13.84
Recovery	10yr - 3 day	253.0036	13.83
Recovery	10yr - 3 day	254.0036	13.82
Recovery	10yr - 3 day	255.0036	13.81
Recovery	10yr - 3 day	256.0036	13.80
Recovery	10yr - 3 day	257.0036	13.79
Recovery	10yr - 3 day	258.0036	13.78
Recovery	10yr - 3 day	259.0036	13.77
Recovery	10yr - 3 day	260.0036	13.76
Recovery	10yr - 3 day	261.0036	13.76
Recovery	10yr - 3 day	262.0036	13.75
Recovery	10yr - 3 day	263.0036	13.74
Recovery	10yr - 3 day	264.0036	13.73
Recovery	10yr - 3 day	265.0036	13.72
Recovery	10yr - 3 day	266.0036	13.71
Recovery	10yr - 3 day	267.0036	13.71
Recovery	10yr - 3 day	268.0036	13.70
Recovery	10yr - 3 day	269.0036	13.69
Recovery	10yr - 3 day	270.0036	13.68
Recovery	10yr - 3 day	271.0036	13.67
Recovery	10yr - 3 day	272.0036	13.66
Recovery	10yr - 3 day	273.0036	13.66
Recovery	10yr - 3 day	274.0036	13.65
Recovery	10yr - 3 day	275.0036	13.64
Recovery	10yr - 3 day	276.0036	13.63
Recovery	10yr - 3 day	277.0036	13.62
Recovery	10yr - 3 day	278.0036	13.62
Recovery	10yr - 3 day	279.0036	13.61
Recovery	10yr - 3 day	280.0036	13.60
Recovery	10yr - 3 day	281.0036	13.59
Recovery	10yr - 3 day	282.0036	13.59
Recovery	10yr - 3 day	283.0036	13.58
Recovery	10yr - 3 day	284.0036	13.57
Recovery	10yr - 3 day	285.0036	13.56
Recovery	10yr - 3 day	286.0036	13.56
Recovery	10yr - 3 day	287.0036	13.55
Recovery	10yr - 3 day	288.0036	13.54
Recovery	10yr - 3 day	289.0036	13.53
Recovery	10yr - 3 day	290.0036	13.53
Recovery	10yr - 3 day	291.0036	13.52
Recovery	10yr - 3 day	292.0036	13.51
Recovery	10yr - 3 day	293.0036	13.50

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	294.0036	13.50
Recovery	10yr - 3 day	295.0036	13.49
Recovery	10yr - 3 day	296.0036	13.48
Recovery	10yr - 3 day	297.0036	13.48
Recovery	10yr - 3 day	298.0036	13.47
Recovery	10yr - 3 day	299.0036	13.46
Recovery	10yr - 3 day	300.0036	13.46
Recovery	10yr - 3 day	301.0036	13.45
Recovery	10yr - 3 day	302.0036	13.44
Recovery	10yr - 3 day	303.0036	13.44
Recovery	10yr - 3 day	304.0036	13.43
Recovery	10yr - 3 day	305.0036	13.42
Recovery	10yr - 3 day	306.0036	13.41
Recovery	10yr - 3 day	307.0036	13.41
Recovery	10yr - 3 day	308.0036	13.40
Recovery	10yr - 3 day	309.0036	13.40
Recovery	10yr - 3 day	310.0036	13.39
Recovery	10yr - 3 day	311.0036	13.38
Recovery	10yr - 3 day	312.0036	13.38
Recovery	10yr - 3 day	313.0036	13.37
Recovery	10yr - 3 day	314.0036	13.36
Recovery	10yr - 3 day	315.0036	13.36
Recovery	10yr - 3 day	316.0036	13.35
Recovery	10yr - 3 day	317.0036	13.34
Recovery	10yr - 3 day	318.0036	13.34
Recovery	10yr - 3 day	319.0036	13.33
Recovery	10yr - 3 day	320.0036	13.32
Recovery	10yr - 3 day	321.0036	13.32
Recovery	10yr - 3 day	322.0036	13.31
Recovery	10yr - 3 day	323.0036	13.31
Recovery	10yr - 3 day	324.0036	13.30
Recovery	10yr - 3 day	325.0036	13.29
Recovery	10yr - 3 day	326.0036	13.29
Recovery	10yr - 3 day	327.0036	13.28
Recovery	10yr - 3 day	328.0036	13.28
Recovery	10yr - 3 day	329.0036	13.27
Recovery	10yr - 3 day	330.0036	13.26
Recovery	10yr - 3 day	331.0036	13.26
Recovery	10yr - 3 day	332.0036	13.25
Recovery	10yr - 3 day	333.0036	13.25
Recovery	10yr - 3 day	334.0036	13.24
Recovery	10yr - 3 day	335.0036	13.23

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	336.0036	13.23
Recovery	10yr - 3 day	337.0036	13.22
Recovery	10yr - 3 day	338.0036	13.22
Recovery	10yr - 3 day	339.0036	13.21
Recovery	10yr - 3 day	340.0036	13.21
Recovery	10yr - 3 day	341.0036	13.20
Recovery	10yr - 3 day	342.0036	13.19
Recovery	10yr - 3 day	343.0036	13.19
Recovery	10yr - 3 day	344.0036	13.18
Recovery	10yr - 3 day	345.0036	13.18
Recovery	10yr - 3 day	346.0036	13.17
Recovery	10yr - 3 day	347.0036	13.17
Recovery	10yr - 3 day	348.0036	13.16
Recovery	10yr - 3 day	349.0036	13.16
Recovery	10yr - 3 day	350.0036	13.15
Recovery	10yr - 3 day	351.0036	13.15
Recovery	10yr - 3 day	352.0036	13.14
Recovery	10yr - 3 day	353.0036	13.13
Recovery	10yr - 3 day	354.0036	13.13
Recovery	10yr - 3 day	355.0036	13.12
Recovery	10yr - 3 day	356.0036	13.12
Recovery	10yr - 3 day	357.0036	13.11
Recovery	10yr - 3 day	358.0036	13.11
Recovery	10yr - 3 day	359.0036	13.10
Recovery	10yr - 3 day	360.0036	13.10
Recovery	10yr - 3 day	361.0036	13.09
Recovery	10yr - 3 day	362.0036	13.09
Recovery	10yr - 3 day	363.0036	13.08
Recovery	10yr - 3 day	364.0036	13.08
Recovery	10yr - 3 day	365.0036	13.07
Recovery	10yr - 3 day	366.0036	13.07
Recovery	10yr - 3 day	367.0036	13.06
Recovery	10yr - 3 day	368.0036	13.06
Recovery	10yr - 3 day	369.0036	13.05
Recovery	10yr - 3 day	370.0036	13.05
Recovery	10yr - 3 day	371.0036	13.04
Recovery	10yr - 3 day	372.0036	13.04
Recovery	10yr - 3 day	373.0036	13.03
Recovery	10yr - 3 day	374.0036	13.03
Recovery	10yr - 3 day	375.0036	13.02
Recovery	10yr - 3 day	376.0036	13.02
Recovery	10yr - 3 day	377.0036	13.01

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	378.0036	13.01
Recovery	10yr - 3 day	379.0036	13.00
Recovery	10yr - 3 day	380.0036	13.00
Recovery	10yr - 3 day	381.0036	12.99
Recovery	10yr - 3 day	382.0036	12.99
Recovery	10yr - 3 day	383.0036	12.99
Recovery	10yr - 3 day	384.0036	12.98
Recovery	10yr - 3 day	385.0036	12.98
Recovery	10yr - 3 day	386.0036	12.97
Recovery	10yr - 3 day	387.0036	12.97
Recovery	10yr - 3 day	388.0036	12.96
Recovery	10yr - 3 day	389.0036	12.96
Recovery	10yr - 3 day	390.0036	12.95
Recovery	10yr - 3 day	391.0036	12.95
Recovery	10yr - 3 day	392.0036	12.94
Recovery	10yr - 3 day	393.0036	12.94
Recovery	10yr - 3 day	394.0036	12.93
Recovery	10yr - 3 day	395.0036	12.93
Recovery	10yr - 3 day	396.0036	12.92
Recovery	10yr - 3 day	397.0036	12.92
Recovery	10yr - 3 day	398.0036	12.91
Recovery	10yr - 3 day	399.0036	12.91
Recovery	10yr - 3 day	400.0036	12.90
Recovery	10yr - 3 day	401.0036	12.90
Recovery	10yr - 3 day	402.0036	12.89
Recovery	10yr - 3 day	403.0036	12.89
Recovery	10yr - 3 day	404.0036	12.88
Recovery	10yr - 3 day	405.0036	12.88
Recovery	10yr - 3 day	406.0036	12.87
Recovery	10yr - 3 day	407.0036	12.87
Recovery	10yr - 3 day	408.0036	12.86
Recovery	10yr - 3 day	409.0036	12.86
Recovery	10yr - 3 day	410.0036	12.85
Recovery	10yr - 3 day	411.0036	12.85
Recovery	10yr - 3 day	412.0036	12.85
Recovery	10yr - 3 day	413.0036	12.84
Recovery	10yr - 3 day	414.0036	12.84
Recovery	10yr - 3 day	415.0036	12.83
Recovery	10yr - 3 day	416.0036	12.83
Recovery	10yr - 3 day	417.0036	12.82
Recovery	10yr - 3 day	418.0036	12.82
Recovery	10yr - 3 day	419.0036	12.81

Scenario	Sim	Relative Time [hrs]	Stage [ft]
Recovery	10yr - 3 day	420.0036	12.81
Recovery	10yr - 3 day	421.0036	12.80
Recovery	10yr - 3 day	422.0036	12.80
Recovery	10yr - 3 day	423.0036	12.79
Recovery	10yr - 3 day	424.0036	12.78
Recovery	10yr - 3 day	425.0036	12.78
Recovery	10yr - 3 day	426.0036	12.77
Recovery	10yr - 3 day	427.0036	12.77
Recovery	10yr - 3 day	428.0036	12.76
Recovery	10yr - 3 day	429.0036	12.76
Recovery	10yr - 3 day	430.0036	12.75
Recovery	10yr - 3 day	431.0036	12.75
Recovery	10yr - 3 day	432.0036	12.74

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]	24hr Total Inflow Volume [ac_ft]
10yr - 3 day	NSLRWCD Canal 102	0	0	
10yr - 3 day	NSLRWCD Canal 102	1	0	
10yr - 3 day	NSLRWCD Canal 102	2	0	
10yr - 3 day	NSLRWCD Canal 102	3	0	
10yr - 3 day	NSLRWCD Canal 102	4	0	
10yr - 3 day	NSLRWCD Canal 102	5	0	
10yr - 3 day	NSLRWCD Canal 102	6	0	
10yr - 3 day	NSLRWCD Canal 102	7	0	
10yr - 3 day	NSLRWCD Canal 102	8	0	
10yr - 3 day	NSLRWCD Canal 102	9	0	
10yr - 3 day	NSLRWCD Canal 102	10	0	
10yr - 3 day	NSLRWCD Canal 102	11	0	
10yr - 3 day	NSLRWCD Canal 102	12	0	
10yr - 3 day	NSLRWCD Canal 102	13	0	
10yr - 3 day	NSLRWCD Canal 102	14	0	
10yr - 3 day	NSLRWCD Canal 102	15	0	
10yr - 3 day	NSLRWCD Canal 102	16	0	
10yr - 3 day	NSLRWCD Canal 102	17	0	
10yr - 3 day	NSLRWCD Canal 102	18	0	
10yr - 3 day	NSLRWCD Canal 102	19	0.01	
10yr - 3 day	NSLRWCD Canal 102	20	0.01	
10yr - 3 day	NSLRWCD Canal 102	21	0.02	
10yr - 3 day	NSLRWCD Canal 102	22	0.02	
10yr - 3 day	NSLRWCD Canal 102	23	0.03	
10yr - 3 day	NSLRWCD Canal 102	24	0.04	
10yr - 3 day	NSLRWCD Canal 102	25	0.05	0.05
10yr - 3 day	NSLRWCD Canal 102	26	0.07	0.07
10yr - 3 day	NSLRWCD Canal 102	27	0.08	0.08
10yr - 3 day	NSLRWCD Canal 102	28	0.1	0.1
10yr - 3 day	NSLRWCD Canal 102	29	0.12	0.12
10yr - 3 day	NSLRWCD Canal 102	30	0.15	0.15
10yr - 3 day	NSLRWCD Canal 102	31	0.17	0.17
10yr - 3 day	NSLRWCD Canal 102	32	0.2	0.2
10yr - 3 day	NSLRWCD Canal 102	33	0.23	0.23
10yr - 3 day	NSLRWCD Canal 102	34	0.27	0.27
10yr - 3 day	NSLRWCD Canal 102	35	0.3	0.3
10yr - 3 day	NSLRWCD Canal 102	36	0.34	0.34
10yr - 3 day	NSLRWCD Canal 102	37	0.38	0.38
10yr - 3 day	NSLRWCD Canal 102	38	0.42	0.42
10yr - 3 day	NSLRWCD Canal 102	39	0.47	0.47
10yr - 3 day	NSLRWCD Canal 102	40	0.52	0.52
10yr - 3 day	NSLRWCD Canal 102	41	0.56	0.56

10yr - 3 day	NSLRWCD Canal 102	42	0.61	0.61
10yr - 3 day	NSLRWCD Canal 102	43	0.67	0.67
10yr - 3 day	NSLRWCD Canal 102	44	0.72	0.71
10yr - 3 day	NSLRWCD Canal 102	45	0.77	0.76
10yr - 3 day	NSLRWCD Canal 102	46	0.83	0.81
10yr - 3 day	NSLRWCD Canal 102	47	0.88	0.86
10yr - 3 day	NSLRWCD Canal 102	48	0.94	0.91
10yr - 3 day	NSLRWCD Canal 102	49	1	0.96
10yr - 3 day	NSLRWCD Canal 102	50	1.06	1.01
10yr - 3 day	NSLRWCD Canal 102	51	1.12	1.05
10yr - 3 day	NSLRWCD Canal 102	52	1.18	1.1
10yr - 3 day	NSLRWCD Canal 102	53	1.24	1.14
10yr - 3 day	NSLRWCD Canal 102	54	1.31	1.19
10yr - 3 day	NSLRWCD Canal 102	55	1.38	1.23
10yr - 3 day	NSLRWCD Canal 102	56	1.45	1.28
10yr - 3 day	NSLRWCD Canal 102	57	1.52	1.32
10yr - 3 day	NSLRWCD Canal 102	58	1.6	1.37
10yr - 3 day	NSLRWCD Canal 102	59	1.68	1.41
10yr - 3 day	NSLRWCD Canal 102	60	1.78	1.48
10yr - 3 day	NSLRWCD Canal 102	61	1.93	1.59
10yr - 3 day	NSLRWCD Canal 102	62	2.1	1.72
10yr - 3 day	NSLRWCD Canal 102	63	2.28	1.86
10yr - 3 day	NSLRWCD Canal 102	64	2.45	1.98
10yr - 3 day	NSLRWCD Canal 102	65	2.63	2.11
10yr - 3 day	NSLRWCD Canal 102	66	2.81	2.25
10yr - 3 day	NSLRWCD Canal 102	67	2.99	2.38
10yr - 3 day	NSLRWCD Canal 102	68	3.18	2.51
10yr - 3 day	NSLRWCD Canal 102	69	3.36	2.64
10yr - 3 day	NSLRWCD Canal 102	70	3.54	2.77
10yr - 3 day	NSLRWCD Canal 102	71	3.73	2.9
10yr - 3 day	NSLRWCD Canal 102	72	3.91	3.03
10yr - 3 day	NSLRWCD Canal 102	73	4.1	3.16
10yr - 3 day	NSLRWCD Canal 102	74	4.28	3.28
10yr - 3 day	NSLRWCD Canal 102	75	4.47	3.41
10yr - 3 day	NSLRWCD Canal 102	76	4.65	3.53
10yr - 3 day	NSLRWCD Canal 102	77	4.83	3.65
10yr - 3 day	NSLRWCD Canal 102	78	5.02	3.78
10yr - 3 day	NSLRWCD Canal 102	79	5.2	3.89
10yr - 3 day	NSLRWCD Canal 102	80	5.39	4.01
10yr - 3 day	NSLRWCD Canal 102	81	5.57	4.12
10yr - 3 day	NSLRWCD Canal 102	82	5.75	4.23
10yr - 3 day	NSLRWCD Canal 102	83	5.93	4.33
10yr - 3 day	NSLRWCD Canal 102	84	6.11	4.43
10yr - 3 day	NSLRWCD Canal 102	85	6.3	4.52

10yr - 3 day	NSLRWCD Canal 102	86	6.48	4.55
10yr - 3 day	NSLRWCD Canal 102	87	6.66	4.56
10yr - 3 day	NSLRWCD Canal 102	88	6.84	4.56
10yr - 3 day	NSLRWCD Canal 102	89	7.02	4.57
10yr - 3 day	NSLRWCD Canal 102	90	7.2	4.57
10yr - 3 day	NSLRWCD Canal 102	91	7.38	4.57
10yr - 3 day	NSLRWCD Canal 102	92	7.56	4.57
10yr - 3 day	NSLRWCD Canal 102	93	7.74	4.56
10yr - 3 day	NSLRWCD Canal 102	94	7.92	4.56
10yr - 3 day	NSLRWCD Canal 102	95	8.09	4.55
10yr - 3 day	NSLRWCD Canal 102	96	8.27	4.54
10yr - 3 day	NSLRWCD Canal 102	97	8.45	4.54
10yr - 3 day	NSLRWCD Canal 102	98	8.63	4.53
10yr - 3 day	NSLRWCD Canal 102	99	8.8	4.52
10yr - 3 day	NSLRWCD Canal 102	100	8.98	4.51
10yr - 3 day	NSLRWCD Canal 102	101	9.16	4.51
10yr - 3 day	NSLRWCD Canal 102	102	9.33	4.5
10yr - 3 day	NSLRWCD Canal 102	103	9.51	4.49
10yr - 3 day	NSLRWCD Canal 102	104	9.68	4.48
10yr - 3 day	NSLRWCD Canal 102	105	9.86	4.47
10yr - 3 day	NSLRWCD Canal 102	106	10.03	4.46
10yr - 3 day	NSLRWCD Canal 102	107	10.21	4.46
10yr - 3 day	NSLRWCD Canal 102	108	10.38	4.45
10yr - 3 day	NSLRWCD Canal 102	109	10.55	4.44
10yr - 3 day	NSLRWCD Canal 102	110	10.73	4.43
10yr - 3 day	NSLRWCD Canal 102	111	10.9	4.42
10yr - 3 day	NSLRWCD Canal 102	112	11.07	4.41
10yr - 3 day	NSLRWCD Canal 102	113	11.25	4.41
10yr - 3 day	NSLRWCD Canal 102	114	11.42	4.4
10yr - 3 day	NSLRWCD Canal 102	115	11.59	4.39
10yr - 3 day	NSLRWCD Canal 102	116	11.76	4.38
10yr - 3 day	NSLRWCD Canal 102	117	11.93	4.37
10yr - 3 day	NSLRWCD Canal 102	118	12.1	4.36
10yr - 3 day	NSLRWCD Canal 102	119	12.27	4.35
10yr - 3 day	NSLRWCD Canal 102	120	12.44	4.35

Appendix D – Geotechnical Report

Mills, Short and Associates
J. Wesley Mills, P.E.
700 22nd Place, Suite 2C & 2D
Vero Beach, FL 32960

October 22, 2024

**Re: Selvitz Road Project
Fort Pierce, Florida
KSM Project #: 2407653-b&p**

Dear Mr. Mills:

As requested, KSM Engineering & Testing has performed a subsurface investigation at the above referenced site. Presentation of the data gathered during the investigation, together with our geotechnical related opinions, are included in this report.

Scope of Work and Professional Service Agreement:

The scope of work and the agreement to perform a geotechnical exploration is contingent upon KSM's August 29, 2024, proposal to Mills Short and Associates, in care of Mr. Wesley Mills. The agreement was signed by Mr. Mills on September 5, 2024, and was returned to KSM thereafter.

Site Description:

Location & Physiography – The project site is located in Fort Pierce, Florida, north of Devine Road and east of Selvitz Road. At the time of drilling, the site was found to be relatively hilly. Vegetation on the site consisted mostly of moderately dense brush and many trees.

Project Description:

The following information is based, in part, on conversations with the client, our assumptions, and on our review of the provided Site plan sheet, by Cotleur & Hearing. If this document has been superseded, or if any changes have been made to this plan sheet, please contact KSM to submit the current plan sheets, so we can make any adjustments and revise this report, if and as necessary. Brief summaries of the developmental features shown on the plans are described below.

Overall Development – The site development will include the construction of a combination of single-family residence, multi-family residences and commercial buildings as well as the installation of pavement to provide vehicle parking, driving, and connection pathways into and around the property. Several lakes are proposed to be installed across the site.

Grading – The provided documents did not include existing or proposed grading plan information. For purposes of this evaluation, KSM has assumed that the rough graded building pad elevation and pavement covered areas will approximately 2 to 4 feet above the existing grade.

At the time of this report, KSM has not been furnished with design structural loading conditions, a grading plan, a foundation plan, or foundation settlement tolerances. Once finalized, this information should be provided to KSM so that we may review and provide recommendations and opinions as necessary.

The scope of our study consisted of the following tasks:

1. Performed a review of the surficial soil maps, published by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).
2. Performed soil borings within the approximate limits of the proposed stormwater retention area, building area and pavement area.
3. Measured the depth to the observed groundwater table at each boring.
4. Performed in-field Usual Open-Hole Test procedures, at selected locations within the proposed dry detention pond.
5. Reviewed the soil samples and field soil boring logs in our laboratory and assigned analytical laboratory testing to selected samples.
6. Performed the assigned analytical laboratory tests on the selected soil samples.
7. Evaluated the discovered subsurface conditions with respect to the proposed project. Prepared estimated stormwater parameters as well as opinions and recommendations for earthwork procedures, foundation design, and pavement design.
8. Prepared this report to document our findings, opinions and recommendations.

NRCS Surficial Soil Information:

Based on KSM's review of the USDA soils survey, NRCS indicates that the following USDA soil mapping units were identified within the limits of the project.

2 : Ankona and Farnton sands – The typical profile of this soil reportedly consists of layers of sand that extend to a depth of about 38 inches below grade, underlain by layers of loamy sand and sandy loam to a depth of approximately 57 inches below grade underlain by layers of sand to a depth of approximately 80 inches below grade. In its natural state, the seasonal high ground water table is approximately 6 to 18 inches below grade.

4: Arenets, 0 to 5 percent slopes – This soil group consists of soils that have been reworked and shaped by earthmoving equipment. Arenets have no orderly sequence of layers and consist primarily of sandy material and are highly variable over short distances. The groundwater table typically ranges between the depths of approximately 20 and 60 inches below existing grade.

13: Floridana sand, frequently ponded, 0 to 2 percent slopes – The typical profile of this soil reportedly consists of deposits of dark colored sand in the upper 29 inches, underlain by

deposits of dark colored sandy clay loam to a depth of 43 inches below grade, and deposits of sandy loam from 43 to 62 inches below grade. Most layers contain common fine and medium roots. The water table is at depths of less than 10 inches below the surface and depressional areas are ponded for more than 6 months during most years. Flood plains are flooded for 1 to 3 months during most years.

26: Oldsmar sand, depressional – The typical profile of this soil reportedly consists of layers of sand in the upper 42 inches, underlain by deposits of fine sandy loam to a depth of 80 inches below grade. The water table is typically found at the surface and depressional areas are ponded for more than 6 months during most years.

32: Pineda Sand, 0 to 2 percent slopes – The typical profile of this soil reportedly consists of layers of fine sand that extend to a depth of about 6.5 feet. The upper 6 inches contains many fine and medium roots. The seasonal high ground water table is typically within 10 inches of the ground surface for 1 to 6 months during most years. Depressions are ponded for 3 to 6 months during most years.

38: Riviera fine sand, 0 to 2 percent slopes – The typical profile of this soil reportedly consists of layers of fine sand, fine sandy loam and sandy clay loam that extend to a depth of about 5 feet. Layer(s) of sandy loam are commonly encountered from 2 to 4 feet below grade. The seasonal high ground water table is typically within 3 to 18 inches of the ground surface.

43: Susanna and Wauchula sands – The typical profile of this soil reportedly consists of layers of sand, loamy sand and sandy loam that extend to a depth of about 80 inches. Layer(s) of sandy loam and loamy sand are commonly encountered from 25 to 80 inches below grade. The seasonal high ground water table is typically within 6 to 18 inches of the ground surface.

44: Tantile and Pomona sands – The typical profile of this soil reportedly consists of layers of sand, loamy sand and fine sandy loam that extend to a depth of about 80 inches. Layer(s) of sandy loam and loamy sand are commonly encountered from 34 to 80 inches below grade. The seasonal high ground water table is typically within 6 to 18 inches of the ground surface.

48: Wabasso sand, 0 to 2 percent slopes – The typical profile of this soil reportedly consists of layers of fine sand that extend to a depth of about 6.5 feet. The upper 5 feet contain from many to few of fine and medium roots. The seasonal high ground water table is typically less than 10 inches of the ground surface for about 2 months during most years. Depressions are ponded for 3 to 9 months or more during most years.

Site Investigation:

Subsurface Testing – KSM's site investigation program consisted of performing the following exploration operations and field tests:

- One (1) Standard Penetration Test (SPT) boring, denoted as PB-1, terminated at an approximate depth of 30 feet below the existing ground surface.
- One (1) Usual Open Hole test, denoted as P-1, was performed at an approximate depth of 1 foot below existing grade adjacent to the borings PB-1.

- Twelve (12) Standard Penetration Test (SPT) borings, denoted as B-1 through B-12, which were terminated at approximate depths ranging from 10 to 30 feet below the existing ground surface.
- Sixteen (16) Hand Auger (HA) borings, denoted as HA-1 through HA-16, which were terminated at approximate depths of 4 to 6 feet below the existing ground surface. Static Cone Penetrometer (SCP) soundings were performed in conjunction with each aforementioned HA boring.

Soil Classification – The field soil boring logs and recovered soil samples were transported to KSM’s office from the project site. Following the completion of the field exploration activities, visual and tactile examination of the soil samples was performed under the supervision of a geotechnical engineer to identify the engineering classification of the soil samples that were obtained in the field exploration. The visual classification of the samples was performed in general accordance with the current United Soil Classification System (ASTM D 2487).

SPT Borings – The SPT boring profiles contain “N” values. These “N” values represent the number of hammer blows required to advance the split spoon sampler 12 inches. The “N” values have been empirically correlated with various soil properties and are indicative of the relative density of the soils. The “N” values were obtained by means of a safety hammer. The following table presents relative densities of cohesionless/granular soils and their corresponding ranges of SPT data.

SPT “N” Value Interpretation	
Relative Density	Safety Hammer
Very Loose	0 – 4
Loose	4 – 10
Medium Dense	10 – 30
Dense	30 – 50
Very Dense	>50

Static Cone Penetrometer	
Relative Density	Static Penetrometer Reading
Very Loose	<15
Loose	15 – 40
Medium Dense	40 – 70
Dense	>70

The records of the soils encountered, the penetration resistances, and groundwater levels are documented on the attached boring logs.

All testing was performed in general accordance with applicable ASTM Standards and/or industry standards with a standard practice of care.

Proudly Serving Florida since 1990

Analytical Laboratory Testing:

Natural Moisture Content – Testing was performed in general accordance with procedures described in ASTM D 2216.

Fines Content – Testing was performed in general accordance with procedures described in ASTM D 1140.

Organic Content Tests – Testing was performed in general accordance with procedures described in ASTM D-2974.

The following tests were performed on the soils listed below:

Analytical Laboratory Testing Results					
Boring	Sample Depth (ft)	Soil Description	Moisture %	Fines %	Organic %
HA-4	4-6	Dark Brown Slightly Silty Sand with Organics	25	5	6
HA-5	0-2	Gray Sand	13	3	-
HA-16	4-6	Gray Slightly Silty Sand	21	10	-
PB-1	0-2	Brown Sand	16	3	-
PB-1	13-15	Gray Slightly Silty Sand	26	8	-
PB-1	26-28	Gray Sand	23	4	-
B-2	18-20	Gray Slightly Silty Sand	25	8	-
B-6	2-4	Gray Slightly Silty Sand	17	10	-
B-8	0-2	Gray Sand	19	2	-
B-8	4-6	Dark Brown Slightly Silty Sand with Hardpan	21	7	-
B-11	8-10	Gray Slightly Silty Sand	21	11	-
HA-13	2-4	Gray Slightly Clayey Sand	20	9	-
HA-14	4-6	Gray Slightly Clayey Sand	19	10	-
HA-15	4-6	Gray Slightly Clayey Sand	21	9	-

Engineering Evaluation and Conclusions:

Discovered Subsurface Soil:

General Subsurface Soil Classification Summary – The following table outlines the general subsurface conditions that were encountered at the SPT and HA locations during our investigation. Refer to the attached location map and boring logs for specific information regarding our interpretation of the field boring logs.

Generalized Soil Profile	
Approximate Depth Below Grade (Feet)	Discovered Subsurface Conditions
0 to 2	Very loose to loose sand
2 to 6	Loose to medium sand, slightly silty sand, clayey sand, organically coated sand (hardpan-type soil), and slightly silty sand with hardpan
6 to 30	Loose to medium-dense sand and slightly silty sand

Groundwater Surface Depths – Following the completion of each soil boring, the groundwater contained in the borehole was allowed to attain an equilibrium level, and the approximate depth to the surface of the groundwater was measured from existing ground surface. The measured depth was recorded in the field log. The observed groundwater levels were measured at approximate depths ranging from 0.4 to 4.0 feet below existing grade.

It should be noted that fluctuations of the groundwater table will occur between and away from our boring locations as well as due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the future may be higher or lower than the levels indicated on the boring logs.

Seasonal Groundwater Fluctuation – The following table delineates the observed groundwater surface depths, together with the estimated normal wet season and normal dry season water table depths (below existing grade) for the test location. Our estimated normal seasonal groundwater levels are based on the USDA, NCRS Soil Survey, the encountered soil types within the boring profiles, and the observed groundwater levels at the time of our exploration. Our estimates do not represent the temporary rise in the water table that occurs immediately following storm events.

Water Table Observations			
Test Location (See Location Plan)	Depth (feet) Below Existing Grade		
	Observed Water Table	Estimated Wet Season Water Table	Estimated Dry Season Water Table
P-1, PB-1	1.5' Below Grade	1.2' Below Grade	4.2' Below Grade

Estimated Aquifer Parameters:

Factor of Safety – The Engineer of Record is responsible for applying the appropriate factor of safety to the estimated aquifer parameters contained within this report for use in their design.

In-Field Testing – At the test location, a Usual Condition Test was performed in general conformance with the South Florida Water Management District described procedures for the ‘Usual Open-Hole Test’ method.

In-Field Testing – Estimated Aquifer Parameters		
Test Location (See Location Plan)	Approximate Test Depth (ft)	Hydraulic Conductivity (CFS/SF- Ft Head)
P-1	1'	1.9 x 10 ⁻⁴

Laboratory Testing and Professional Judgement – Selected samples obtained from our site investigation were tested in our laboratory in general accordance with ASTM D2434.

Laboratory Testing – Estimated Aquifer Parameters			
Test Location (See Location Plan)	Stratum Depth Range (ft)	Measured Horizontal Flow Rate (in/hr)	Estimated Vertical Flow Rate (in/hr)
PB – 1	0 – 5	8.4	5.6

Vertical Flow Rates - We consider the measured permeability rate to be indicative of a saturated horizontal permeability. Experience and published references have indicated that unsaturated vertical permeability as used in some locally available groundwater models is typically 2/3 to 1/2 the saturated value.

Flow Restrictive Stratum – Based on the results of our soil borings and laboratory testing, we did not encounter a stratum which we would estimate to exhibit restrictive flow rates relative to the overlying stratum.

Hydrologic Soil Group (HSG) Classification and Estimated Fillable Porosity – The HSG classification was estimated based on our interpretation of the estimated aquifer parameters at the time of our investigation and guidance provided by the USDA National Engineering

Handbook. KSM has estimated the fillable porosity of the soils above the estimated wet season water table.

HSG and Estimated Fillable Porosity		
Location	HSG	Fillable Porosity
P-1	A/D	20%

Borrow Source Suitability Conclusions:

The contractor and civil engineer should coordinate to determine the appropriate methods for borrow source excavation and usage.

#200 Wash Results Interpretations and Classification

- Low Fines Content - Soils with low fines content (sands), which have less than 5 percent “fines”, are preferred structural fill sources because they drain freely when excavated below the water table and are not moisture sensitive. Please note that after removing the typical surface vegetation, raking of the surface soils may be necessary to remove roots, stumps, and other deleterious matter.
- Moderately Elevated Fines Content - Soils with moderately elevated fines content (slightly silty/clayey sands), which contain between 5 and 10 percent fines, can be considered as suitable structural fill. These soils typically require drying in order to avoid compaction problems especially when excavated from below the groundwater table. Additionally, these materials may need to be placed in thinner lifts in order to achieve sufficient compaction. Blending with dry, clean fine sand containing less than 5 percent fines may be considered to increase the workability of these materials.
- Higher Fines Content - In our professional experience, soils with higher fines content (slightly silty/slightly clayey and silty/clayey sands) containing in excess of 10 percent fines, and less than 25 percent fines, should be evaluated on a case-by-case basis. This soil classification tends to be moisture sensitive and therefore depending on the in-situ moisture content, fines content and plasticity of the excavated soils the amount of time and effort required to improve the workability of certain soils may be too excessive. These soils are suitable as general fill material placed at least 2 feet below structural components and final grade. However, consideration should be given to their intended applications due to their inherently poor workability and flow restrictive drainage characteristics. It is recommended to compact the material in thinner lifts to achieve sufficient compaction.

Soils containing a fines content in excess of 25% should be considered as limited use fill, due to their poor drainage characteristics, moisture retaining properties, and difficulty in achieving compaction specifications. General use for these soils are typically limited to mass grading or green areas unless prior approval by the Geotechnical Engineer of Record.

Organic Content Interpretation – Based on visual observations and limited laboratory testing, organics soils were observed in the location of HA-4. However, this material exhibits hardpan-type traits and most likely will not result in long-term settlement and are suitable to support the proposed construction.

The following table is representative of the visually and laboratory classified soils within the proposed lake test borings:

Borrow Source Suitability			
Fines %	Boring	Approximate Observed Depth (ft)	Soil Description
< 5%	PB-1	0 – 5 , 16 – 30	Gray/Brown Sand
	B-01	0 – 23	
	B-02	0 – 2, 4 – 8	
	B-03	0 – 2, 6 – 18	
	B-04	0 – 6	
5% - 10%	PB-1	5 – 16	Gray Slightly Silty Sand
	B-01	23 – 30	
	B-02	2 –4 , 8 – 30	
	B-03	2 –6 , 18 – 30	
	B-04	6 – 30	
10% - 25%	B-11	2-10	Gray Slightly Silty Sand
> 25%	-	-	-

Pavement Design Guidance:

Pavement Section Design Recommendations – Based on our evaluation, the discovered subsurface conditions appear to be suitable to support a pavement section however we anticipate that the pavement area will need to be raised to provide separation from the groundwater table. The following sections provide recommendations for pavement design considerations, pavement area site preparation, and minimum pavement sections.

KSM should be retained to provide observation and testing serviced during pertinent construction phases. The following information is a general overview for pavement design considerations and site preparation for a pavement and may not be inclusive of all final design features or specifications. Actual pavement section thickness should be provided by the design civil engineer based on traffic loads, volumes, and the life cycle requirements.

Pavement Design Considerations –

- A comprehensive pavement design is not within our area of expertise and therefore we recommend that the proposed pavement section is designed for the anticipated loads and frequencies and the desired life-cycle by an appropriate professional. Actual pavement section thickness should be provided by the Engineer of Record based on traffic loads and weights, volumes and the owners design life requirements.
- A minimum of 18 inches of separation should be maintained between the bottom of the base and the normal wet season groundwater table.
- Pavement surfaces should be sloped and designed to allow adequate drainage of surface water. Failure to achieve proper drainage may lead to saturation of the pavement subgrade and subsequent deterioration of the pavement. The implementation of periodic maintenance should slow the rate of deterioration over time.

Pavement Area Site Preparation – KSM strongly recommends that the site preparation efforts should be monitored under the direction of the KSM Geotechnical Engineer or their representative. Additionally, please refer to the “Earthwork Specifications” for additional recommendations. The following earthwork procedures are recommended:

1. Clearing and Grubbing – The proposed construction area, plus a minimum margin of five feet beyond the proposed limit of construction, where possible, should initially be prepared by removing the existing asphalt pavement and base as well as any debris and organic materials including roots and surface vegetation. Encountered stumps and root systems should be completely removed. Stump grinding as a method for stump removal is not recommended.
2. Subgrade Proof-roll and Compaction – The prepared area should then be graded level and proofrolled to compact the subgrade. Sufficient overlapping passes of the roller should be made to produce an in-place dry density that equals or exceeds 95 percent of the Modified Proctor (ASTM D-1557) maximum dry density to a depth of 2 feet below the proofrolled surface.

Areas that deflect or yield during proof-rolling operations should be delineated and reviewed by the Geotechnical Engineer or their representative. In addition, excessively wet or dry material should either be removed, remediated, or moisture conditioned and recompacted. Testing should be done to confirm that the specified level of compaction has been achieved.

3. Grading – The compacted surface should be filled to produce the desired line and grades of the building pad. Only structural fill containing less than 10% material that passing through the U.S. Standard No. 200 sieve that is cohesionless and free of debris and organic material should be used on this site. Fill should be placed in level lifts, not more than 12-inches in loose thickness, moisture conditioned and compacted to attain an in-place dry density that equals or exceeds 95 percent of the Modified Proctor (ASTM D- 1557) maximum dry density.

Each lift of compacted fill should be tested, evaluated, and reworked, as necessary, until approved by the KSM Geotechnical Engineer, or their representative, prior to placement of additional lifts.

4. Fine Grading and Subgrade Preparation for Pavement Section Installation – Immediately prior to the installation of the pavement section, the prepared surface created above shall be fine graded, moisture conditioned, and re-compacted to attain an in-place dry density that equals or exceeds 98 percent of the modified Proctor (ASTM D 1557) maximum dry density to a depth of 12-inches below the prepared surface.

The compacted pavement section subgrade should be tested, evaluated, and reworked, as necessary, until approved by the KSM Geotechnical Engineer, or their representative, prior to placement of subbase, base and/or asphalt.

Minimum Pavement Section – The following table presents the recommended minimum pavement sections.

Minimum Pavement Section			
Pavement Type	Material	Layer Thickness (in)	
		Standard Duty	Heavy Duty
Flexible	Asphalt Surface: FDOT Asphalt Type SP	1.5	2.5
	Base Course: Crushed cemented Coquina Rock or Limerock with a Minimum LBR of 100	6	8
	Stabilized Subbase: Minimum LBR of 40	12	12
Rigid	Portland Cement Concrete: Minimum 28-day compressive strength of 4,000 psi	5	6
	Stabilized Subbase: Minimum LBR of 40	12	12

Flexible Pavement Section – If proposed, we recommend a pavement section consisting of an asphaltic concrete wearing surface on a calcareous base course supported on stabilized subbase over well-compacted subgrade.

- Stabilized Subbase – We recommend the stabilized subbase contain a minimum Limerock Bearing Ratio (LBR) value of 40 (FDOT FM 5-515), is a minimum of 12-inches thick, and compacted to a minimum in-place density of 98 percent (AASHTO T-180).
- Base Course – We recommend the base course material consist of crushed cemented coquina rock or limerock, with a minimum LBR value of 100, and a minimum thickness of 6 inches for standard pavements and at least 8 inches for heavy-duty pavements. Base course installed in sections greater than 6 inches should be placed in multiple, equally thick layers, at a maximum of 6 inches in thickness, and compacted to at least 98 percent of its modified Proctor (AASHTO T-180) maximum dry density.
- Asphalt Surface – We recommend an FDOT approved asphaltic wearing surface, with a minimum thickness of 1.5 inches for standard pavement, and a minimum thickness of 2.5 inches for heavy-duty pavement. Pavement with thickness greater than 2.5 inches should be placed and compacted in multiple, equally thick sections. Care must be exercised to place the asphalt over dry, well primed base material.

Rigid Pavement Section – If proposed, we recommend a pavement section consisting of a Portland cement concrete surface, supported on stabilized subbase over well-compacted subgrade.

- Stabilized Subbase – We recommend the stabilized subbase contain a minimum LBR value of 40, is a minimum of 12-inches thick, and compacted to a minimum in-place density of 98 percent (AASHTO T-180).
- Rigid Concrete Pavement – We recommend a pavement section consisting of Portland cement concrete that is 5 to 6 inches minimum in thickness with a minimum 28-day compressive strength of 4,000 psi. Saw cuts should be performed for crack control immediately after the concrete can support the crew and equipment, typically 8 to 12 hours after the concrete is poured. Steel reinforcement within the concrete pavement, if needed, should be designed by the project civil or structural engineer.

Earthwork Specifications:

Excavation Specifications – It is recommended that the contractor design and execute all excavations to be in compliance with the most recent OSHA standards. Provisions for maintaining workman safety within excavations is the sole responsibility of the contractor. It is important for the contractor to take all necessary precautions to ensure that the foundations that support any adjacent structures are not undermined at any point during construction. If required, lateral excavation support and/or underpinning the foundations of the adjacent structures should be performed.

Temporary Dewatering – Temporary dewatering may be necessary in order to achieve excavation and compaction specifications. The actual method of dewatering should be determined by the contractor. We suggest drawing down the water table to a level that is not less than 2 feet below the bottom of excavations to avoid compaction related problems.

Compaction Testing – It is KSM’s recommendation that compaction tests in the excavations and footing trenches be conducted prior to placement of any backfill, steel, or concrete. The subgrade and each lift (12-inch max loose thickness) of fill should be tested for compaction at a frequency of no less than one test per 5,000 sf of pavement area, per lift, with a minimum of 4 tests in each area prepared. The placement and frequency of testing can be modified at the discretion of the site contractor and the onsite soils technician based on the requirements of the project as stated by the Engineer of Record. In-place density of the compacted soil can be measured using an ASTM approved method to determine percent compaction.

Preliminary Guidance Proposed Structures : Foundation Type Selection

The conclusions, opinions, and recommendations that are expressed in this section of the report are preliminary. They are intended to assist the design team in preparing development plan documents. KSM recommends that a design phase geotechnical study be performed after preliminary development plans have been created.

KSM recommends that the design geotechnical exploration include the further exploration of the structure areas not investigated during this preliminary report, and design changes that differ than what was provided in the preliminary plans. Upon request, KSM will provide a detailed scope of work and cost proposal to address these features, based on the final design documents.

Preliminary Foundation Evaluation – It is our preliminary opinion, within a reasonable margin of engineering judgement, that the soils discovered are suitable for the construction for a typical, lightly loaded residential and commercial structures (no more than 250 kips acting on any individual column and less than 5 kips per linear foot along load bearing walls). Provided that the site is properly prepared, it is KSM’s preliminary opinion that the proposed structures described above, can be supported on shallow foundation systems.

Due to the scale of the proposed structures, ***additional sitework may be required to limit total and differential settlement potential.*** Additional borings are recommended to be performed in the design level phase of this project.

Preliminary Site Preparation – The anticipated earthwork procedures that are recommended for preparation of the subgrade soils include:

- Clearing and grubbing operations, which will include, but is not limited to removing any surface vegetation, roots, stumps, and any other unsuitable surface material. Stump grinding as a means of removing the root systems is not recommended.
- Moisture conditioning, proofrolling, and compacting the exposed soils to a firm and unyielding state with a minimum in-place density of 95% (ASTM D 1557) is recommended.
- Installation of compacted structural fill that is recommended to be located within 2 feet of final grade in the locations of the proposed structure is recommended to be placed in 12-inch loose

lifts, that are compacted, and tested, to conform with local compaction specifications. Structural Fill should contain less than 10% fines, be cohesionless, and be free of debris and organics.

- It is recommended that KSM personnel perform testing on site to confirm percent compaction.
- Excavating the subgrade soils to the proposed design elevations for structures and utilities. The exposed soils at the surface should be re-compacted, if necessary, prior to the installation of the foundations and utilities.
- Depending on the time of the year when construction will take place, along with the depth of the excavations, dewatering may be necessary to achieve proper compaction.

Please note that the preliminary site preparation procedures (shown above) are subject to change following a design phase geotechnical exploration. For more precise structural area site preparation recommendations, as well as design level recommendations, we recommend performing a design level field investigation.

Closure:

Based upon our subsurface investigation at the above-mentioned project location, the reliance of the recommendations presented within this signed and sealed report is predicated on KSM representative's involvement in reviewing design plans and performing/monitoring construction testing services. Any design professional utilizing the information within this report are responsible for confirming the accuracy of the project information and assumptions stated in our report and that the soil parameters presented are adequate for the design of the proposed project. If additional parameters are required, KSM is to be notified so that our recommendations can be amended as required.

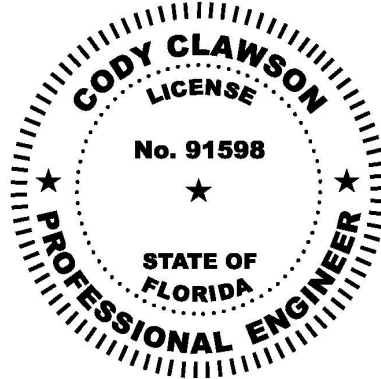
Standard of Care - This report has been prepared in accordance with generally accepted soil and engineering practices and is based on our evaluation of our geotechnical investigation and our stated understanding and assumptions of the proposed project. The procedural standards noted in this report are in reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgement. No warranties, either expressed or implied, are intended or made. This report does not reflect any variations which may occur between or away from the borings. If variations appear evident during the course of construction, it would be necessary to re-evaluate the recommendations of this project.

Limitations - Environmental conditions, wetland delineation, karst activity, water quality, and municipal requirements are not a part of this report.

KSM Engineering and Testing should be retained to perform and/or monitor Construction Testing services. If Client elects to not have KSM provide Construction Testing services, the Client shall indemnify and hold KSM and its consultants harmless from and against damages, losses, and judgments arising from claims by Client or any third parties.

We are pleased to have been of assistance to you in this phase of your project. When we may be of further service to you or should you have any questions, please feel free to contact the office.

Respectfully,



Nasir D. Feaster
Nasir D. Feaster
Geotechnical Engineer

Cody C. Clawson, P.E.
Geotechnical Engineer
Florida Lic. No. 91598

CCC/cv/NDF

Email to: wmills@millsshortassociates.com; dcurran@millsshortassociates.com



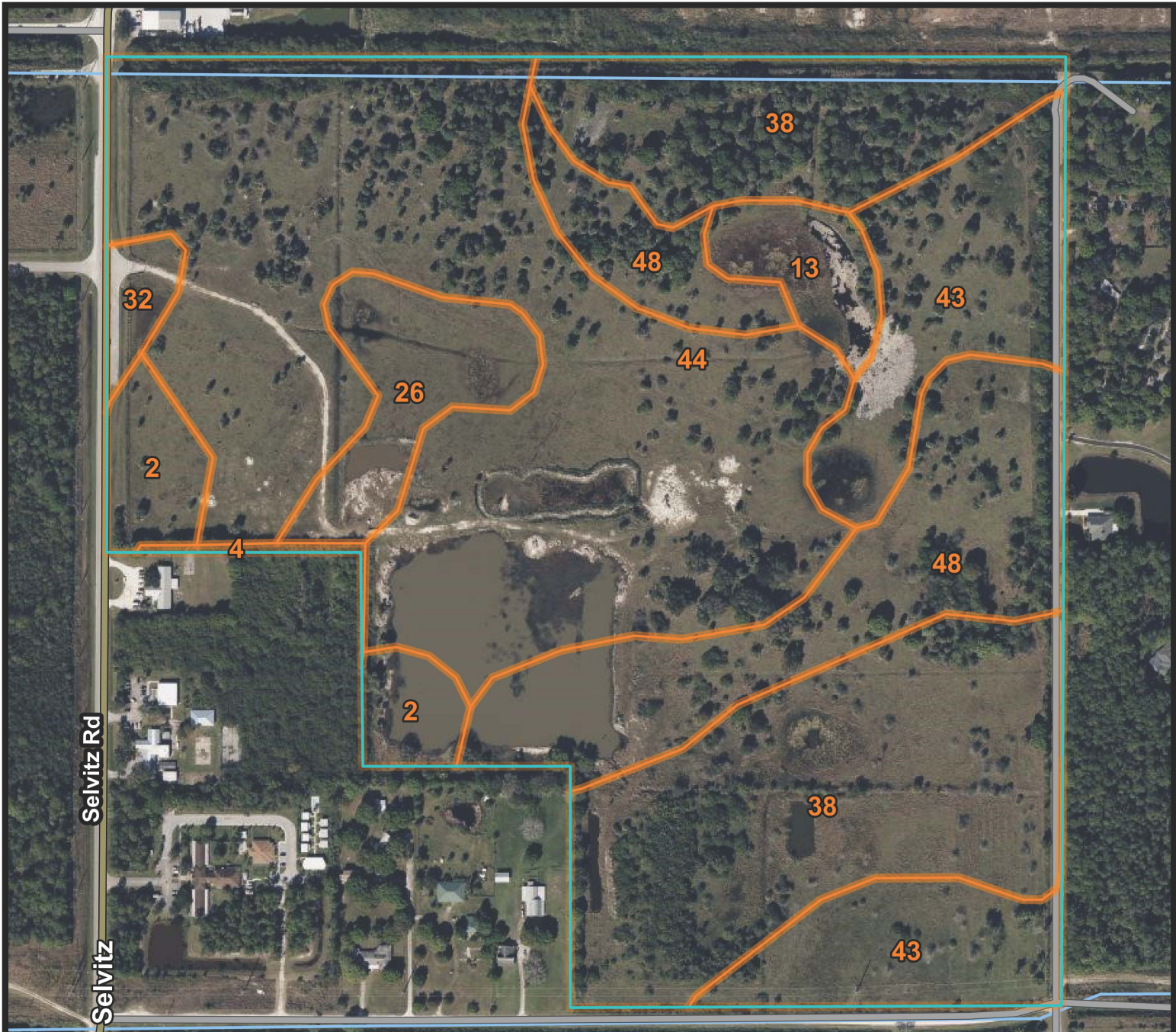
APPROXIMATE LOCATION OF SOIL TESTING

PROJECT: Selvitz Road Project, Fort Pierce, Florida

SHEET 1 OF 1
 PERMIT #: N/A
 PROJECT #: 2407653-b&p



DRAWN BY: C.V.
 DATE: 20241002
 SCALE: NOT TO SCALE



USDA SOILS SURVEY

- 2—Ankona and Farnton sands**
- 4—Arents, 0 to 5 percent slopes**
- 13—Floridana sand, frequently ponded, 0 to 2 percent slopes**
- 26—Oldsmar sand, depressional**
- 32—Pineda sand, 0 to 2 percent slopes**
- 38—Riviera fine sand, 0 to 2 percent slopes**
- 43—Susanna and Wauchula sands**
- 44—Tantile and Pomona sands**
- 48—Wabasso sand, 0 to 2 percent slopes**



PROJECT: Selvitz Road Project, Fort Pierce, Florida

SHEET 1 OF 1
 PERMIT #: N/A
 PROJECT #: 2407653-soils



DRAWN BY: C.V.
 DATE: 20241002
 SCALE: NOT TO SCALE



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER PB-1

CLIENT Mills, Short and Associates
 PROJECT NUMBER 2407653-b&p
 DATE STARTED 9/23/24 COMPLETED 9/23/24
 DRILLING CONTRACTOR _____
 DRILLING METHOD SPT Safety Hammer
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

PROJECT NAME Selvitz Road Project
 PROJECT LOCATION Fort Pierce, Florida
 GROUND ELEVATION _____
 GROUND WATER LEVELS:
 ∇ AT TIME OF DRILLING 1.5 ft

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
0 - 5		Brown Sand	SS		2-2-4 (6)			▲		
5 - 10		Gray Slightly Silty Sand	SS		6-6-8 (14)			▲		
10 - 15			SS		8-10-10 (20)			▲		
15 - 20			SS		11-11-12 (23)			▲		
20 - 25			SS		10-10-14 (24)			▲		
25 - 30		Gray Sand	SS		4-4-4 (8)			▲		
			SS		4-4-4 (8)			▲		
			SS		7-12-12 (24)			▲		
			SS		12-14-16 (30)			▲		
			SS		7-6-5 (11)			▲		
			SS		5-5-5 (10)			▲		
			SS		5-4-5 (9)			▲		
			SS		6-6-7 (13)			▲		

Bottom of borehole at 30.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-01

CLIENT Mills, Short and Associates
 PROJECT NUMBER 2407653-b&p
 DATE STARTED 9/23/24 COMPLETED 9/23/24
 DRILLING CONTRACTOR _____
 DRILLING METHOD SPT Safety Hammer
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

PROJECT NAME Selvitz Road Project
 PROJECT LOCATION Fort Pierce, Florida
 GROUND ELEVATION _____
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 1.3 ft

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
0								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		Gray Sand	X SS		1-2-2 (4)			▲			
5		Brown to Light Brown Sand	X SS		2-5-5 (10)			▲			
				X SS		12-12-10 (22)			▲		
				X SS		12-10-10 (20)			▲		
10				X SS		9-10-12 (22)			▲		
15		Gray Sand	X SS		5-5-6 (11)				▲		
20				X SS		5-6-6 (12)			▲		
25		Gray Slightly Silty Sand	X SS		7-8-8 (16)				▲		
30				X SS		9-8-7 (15)			▲		

Bottom of borehole at 30.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-02

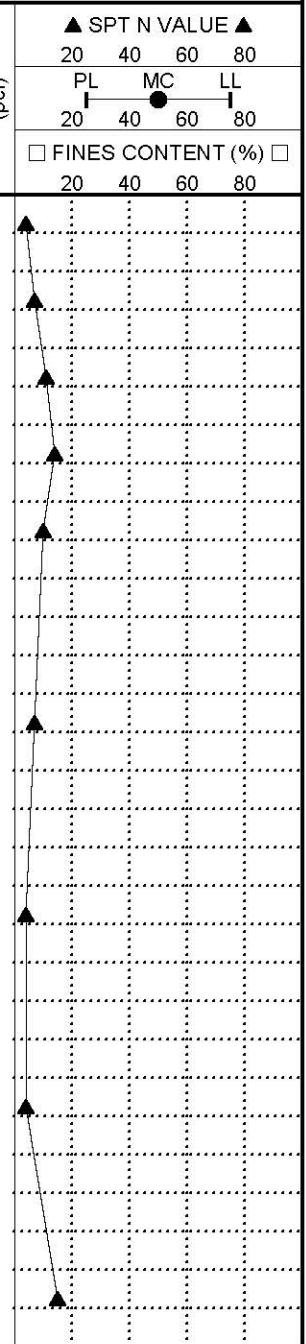
CLIENT Mills, Short and Associates
 PROJECT NUMBER 2407653-b&p
 DATE STARTED 9/20/24 COMPLETED 9/20/24
 DRILLING CONTRACTOR _____
 DRILLING METHOD SPT Safety Hammer
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

PROJECT NAME Selvitz Road Project
 PROJECT LOCATION Fort Pierce, Florida
 GROUND ELEVATION _____
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 0.6 ft

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲	
								20	40
0		▽ Gray Sand	X SS		1-2-2 (4)				
		Gray Slightly Silty Sand	X SS		2-3-4 (7)				
5		Gray Sand	X SS		7-6-5 (11)				
			X SS		6-7-7 (14)				
10		Gray Slightly Silty Sand	X SS		6-5-5 (10)				
15			X SS		5-4-3 (7)				
20			X SS		2-2-2 (4)				
25			X SS		1-2-2 (4)				
30			X SS		8-8-7 (15)				

Bottom of borehole at 30.0 feet.





KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-03

CLIENT Mills, Short and Associates
 PROJECT NUMBER 2407653-b&p
 DATE STARTED 9/20/24 COMPLETED 9/20/24
 DRILLING CONTRACTOR _____
 DRILLING METHOD SPT Safety Hammer
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

PROJECT NAME Selvitz Road Project
 PROJECT LOCATION Fort Pierce, Florida
 GROUND ELEVATION _____
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 0.4 ft

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲	
								PL	MC LL
								□ FINES CONTENT (%) □	
								20 40 60 80	20 40 60 80
0		▽ Brown Sand	X SS		1-2-2 (4)				
		Gray Slightly Silty Sand	X SS		2-2-4 (6)				
5			X SS		7-7-5 (12)				
		Gray Sand	X SS		6-6-7 (13)				
			X SS		5-5-6 (11)				
10									
			X SS		4-3-2 (5)				
15									
		Gray Slightly Silty Sand	X SS		2-1-1 (2)				
20									
			X SS		2-1-3 (4)				
25									
			X SS		7-9-8 (17)				
30									

Bottom of borehole at 30.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-04

CLIENT Mills, Short and Associates
 PROJECT NUMBER 2407653-b&p
 DATE STARTED 9/23/24 COMPLETED 9/23/24
 DRILLING CONTRACTOR _____
 DRILLING METHOD SPT Safety Hammer
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

PROJECT NAME Selvitz Road Project
 PROJECT LOCATION Fort Pierce, Florida
 GROUND ELEVATION _____
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 1.4 ft

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
0								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		Brown to Light Brown Sand	X SS		2-2-4 (6)			▲ SPT N VALUE ▲			
5			X SS		6-8-8 (16)			PL MC LL			
				X SS		10-13-11 (24)			20 40 60 80		
			Gray Slightly Silty Sand	X SS		11-12-12 (24)			□ FINES CONTENT (%) □		
10				X SS		8-8-6 (14)			20 40 60 80		
15				X SS		5-5-6 (11)			▲ SPT N VALUE ▲		
20				X SS		6-6-6 (12)			PL MC LL		
25				X SS		6-8-8 (16)			20 40 60 80		
30				X SS		5-4-5 (9)			□ FINES CONTENT (%) □		
									20 40 60 80		

Bottom of borehole at 30.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-05

CLIENT Mills, Short and Associates
 PROJECT NUMBER 2407653-b&p
 DATE STARTED 9/19/24 COMPLETED 9/19/24
 DRILLING CONTRACTOR _____
 DRILLING METHOD SPT Safety Hammer
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

PROJECT NAME Selvitz Road Project
 PROJECT LOCATION Fort Pierce, Florida
 GROUND ELEVATION _____
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 0.8 ft

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		Gray Sand	X SS		1-2-2 (4)						
		Dark Brown Sand with Some Hardpan	X SS		5-6-8 (14)						
5		Gray Slightly Silty Sand	X SS		5-7-8 (15)						
			X SS		7-8-10 (18)						
			X SS		12-12-10 (22)						
10											

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-06

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/19/24 COMPLETED 9/19/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ∇ AT TIME OF DRILLING 3.7 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80 <input type="checkbox"/> FINES CONTENT (%) <input type="checkbox"/> 20 40 60 80		
0 - 1.5		Gray Sand	X SS		1-2-2 (4)			▲		
1.5 - 5.0		Gray Slightly Silty Sand	X SS		3-4-5 (9)			▲		
5.0 - 6.5			X SS		6-7-5 (12)			▲		
6.5 - 7.5			X SS		7-8-8 (16)			▲		
7.5 - 10.0			X SS		6-5-6 (11)			▲		

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-07

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/19/24 COMPLETED 9/19/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ▽ AT TIME OF DRILLING 1.7 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		Gray Sand	X SS		1-2-3 (5)						
			X SS		5-6-5 (11)						
5		Dark Brown Sand with Some Hardpan	X SS		5-5-6 (11)						
		Gray Slightly Silty Sand	X SS		8-5-8 (13)						
			X SS		7-9-10 (19)						
10											

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-08

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/19/24 COMPLETED 9/19/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ▽ AT TIME OF DRILLING 1.5 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		Gray Sand	X SS		1-1-2 (3)						
			X SS		4-4-5 (9)						
5		Dark Brown Slightly Silty Sand with Some Hardpan	X SS		5-6-8 (14)						
		Gray Slightly Silty Sand	X SS		8-7-7 (14)						
			X SS		7-9-10 (19)						
10											

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-09

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/20/24 COMPLETED 9/20/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ▽ AT TIME OF DRILLING 0.7 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
0								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
1-2		Gray Sand	SS		1-1-2 (3)			▲ SPT N VALUE ▲			
4-5		Brown Sand	SS		4-4-5 (9)			PL MC LL			
7-8		Gray Slightly Silty Sand	SS		7-8-8 (16)			20 40 60 80			
10-10-8			SS		10-10-8 (18)			□ FINES CONTENT (%) □			
10-12-12			SS		10-12-12 (24)			20 40 60 80			

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-10

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/19/24 COMPLETED 9/19/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ▽ AT TIME OF DRILLING 2.0 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80 <input type="checkbox"/> FINES CONTENT (%) <input type="checkbox"/> 20 40 60 80		
0 - 3		Dark Gray Sand	SS		1-3-4 (7)			▲		
3 - 5		Gray Sand	SS		9-11-12 (23)			▲		
5 - 7			SS		9-8-7 (15)			▲		
7 - 9			SS		9-9-13 (22)			▲		
9 - 10		Gray Slightly Silty Sand	SS		10-10-12 (22)			▲		

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-11

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/19/24 COMPLETED 9/19/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ∇ AT TIME OF DRILLING 0.7 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
		Gray Sand	SS		1-2-2 (4)			<input type="checkbox"/> FINES CONTENT (%) <input type="checkbox"/> 20 40 60 80		
		Gray Slightly Silty Sand	SS		3-3-3 (6)			▲		
5			SS		5-6-6 (12)			▲		
			SS		6-6-6 (12)			▲		
10			SS		7-8-8 (16)			▲		

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER B-12

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/19/24 COMPLETED 9/19/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD SPT Safety Hammer ▽ AT TIME OF DRILLING 0.5 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
		▽ Gray Sand	SS		1-2-2 (4)			□ FINES CONTENT (%) □		
		Gray Slightly Silty Sand	SS		3-3-3 (6)			20 40 60 80		
5			SS		5-6-6 (12)			20 40 60 80		
		Gray Sand	SS		7-7-7 (14)			20 40 60 80		
10				SS		7-8-9 (17)			20 40 60 80	

Bottom of borehole at 10.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-01

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ∇ AT TIME OF DRILLING 3.2 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
0		Gray Sand				25		□ FINES CONTENT (%) □		
5		Dark Brown Slightly Silty Sand				30		20 40 60 80		
						35				
						35				
						40				
						45				

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-02

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ▽ AT TIME OF DRILLING 3.0 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
0		Gray Sand				25		□ FINES CONTENT (%) □		
5		Dark Brown Slightly Silty Sand				30				
						30				
						35				
						40				
						45				

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-03

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring AT TIME OF DRILLING 3.3 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
0								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
		Gray Sand				25					
						30					
						35					
						35					
						40					
5		Dark Brown Slightly Silty Sand				40					
						40					

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-04

CLIENT Mills, Short and Associates **PROJECT NAME** Selvitz Road Project
PROJECT NUMBER 2407653-b&p **PROJECT LOCATION** Fort Pierce, Florida
DATE STARTED 9/17/24 **COMPLETED** 9/17/24 **GROUND ELEVATION** _____
DRILLING CONTRACTOR _____ **GROUND WATER LEVELS:**
DRILLING METHOD Auger Boring **AT TIME OF DRILLING** 3.0 ft
LOGGED BY MC/CH
NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0											
		Gray Sand				25					
		Light Gray Sand				30					
		Dark Brown Organically Coated Sand				35					
5						35					
						40					
						45					

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-05

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ▽ AT TIME OF DRILLING 2.1 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		Gray Sand				25					
		Brown Sand				30					
		Light Brown Sand				35					
5						35					
						35					

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-06

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ∇ AT TIME OF DRILLING 2.5 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
		Gray Sand				25		□ FINES CONTENT (%) □		
		Light Gray Sand				30		20 40 60 80		
		Dark Brown Slightly Silty Sand				35		20 40 60 80		
5						40		20 40 60 80		

Bottom of borehole at 6.0 feet.

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-07

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ∇ AT TIME OF DRILLING 2.5 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
		Gray Sand				25		<input type="checkbox"/> FINES CONTENT (%) <input type="checkbox"/> 20 40 60 80		
		Light Gray Sand				30				
		Dark Brown Slightly Silty Sand				35				
5						40				

Bottom of borehole at 6.0 feet.

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-08

CLIENT Mills, Short and Associates **PROJECT NAME** Selvitz Road Project
PROJECT NUMBER 2407653-b&p **PROJECT LOCATION** Fort Pierce, Florida
DATE STARTED 9/17/24 **COMPLETED** 9/17/24 **GROUND ELEVATION** _____
DRILLING CONTRACTOR _____ **GROUND WATER LEVELS:**
DRILLING METHOD Auger Boring **AT TIME OF DRILLING** 2.6 ft
LOGGED BY MC/CH
NOTES See Attached Location Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲	
								20 40 60 80	20 40 60 80
								PL	MC LL
								20 40 60 80	20 40 60 80
								□ FINES CONTENT (%) □	
								20 40 60 80	20 40 60 80
0		Gray Sand				25			
		▽ Light Gray Sand				25			
						30			
						30			
5		Dark Brown Slightly Silty Sand				35			
						35			

Bottom of borehole at 6.0 feet.

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-09

CLIENT Mills, Short and Associates **PROJECT NAME** Selvitz Road Project
PROJECT NUMBER 2407653-b&p **PROJECT LOCATION** Fort Pierce, Florida
DATE STARTED 9/17/24 **COMPLETED** 9/17/24 **GROUND ELEVATION** _____
DRILLING CONTRACTOR _____ **GROUND WATER LEVELS:**
DRILLING METHOD Auger Boring **AT TIME OF DRILLING** 1.0 ft
LOGGED BY MC/CH
NOTES See Attached Location Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲	
								20 40 60 80	20 40 60 80
								PL	MC LL
								20 40 60 80	20 40 60 80
								□ FINES CONTENT (%) □	
								20 40 60 80	20 40 60 80
0									
		Gray Sand				25			
		Light Gray Sand				30			
						30			
						35			

Bottom of borehole at 4.0 feet.

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-10

CLIENT Mills, Short and Associates **PROJECT NAME** Selvitz Road Project
PROJECT NUMBER 2407653-b&p **PROJECT LOCATION** Fort Pierce, Florida
DATE STARTED 9/17/24 **COMPLETED** 9/17/24 **GROUND ELEVATION** _____
DRILLING CONTRACTOR _____ **GROUND WATER LEVELS:**
DRILLING METHOD Auger Boring **AT TIME OF DRILLING** 1.5 ft
LOGGED BY MC/CH
NOTES See Attached Location Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲	
								20 40 60 80	20 40 60 80
								PL	MC LL
								20 40 60 80	20 40 60 80
								□ FINES CONTENT (%) □	
								20 40 60 80	20 40 60 80
0									
		Gray Sand				25			
		Light Gray Sand				30			
						30			
						35			

Bottom of borehole at 4.0 feet.

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-12

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ▽ AT TIME OF DRILLING 4.0 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0											
		Gray Sand				25					
						35					
						35					
						40					
						45					
5		Light Gray Sand				45					
						45					

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-13

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ▽ AT TIME OF DRILLING 3.0 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
		Gray Sand				25		□ FINES CONTENT (%) □		
		Gray Slightly Clayey Sand				25				
		Gray Slightly Silty Sand				30				
5						30				
						30				

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-14

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring AT TIME OF DRILLING 3.0 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲	
								20 40 60 80	20 40 60 80
								PL	MC LL
								20 40 60 80	20 40 60 80
								□ FINES CONTENT (%) □	
								20 40 60 80	20 40 60 80
0		Gray Sand				25			
		Gray Slightly Clayey Sand				25			
						30			
						30			
						30			
5						30			

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-15

CLIENT Mills, Short and Associates **PROJECT NAME** Selvitz Road Project
PROJECT NUMBER 2407653-b&p **PROJECT LOCATION** Fort Pierce, Florida
DATE STARTED 9/17/24 **COMPLETED** 9/17/24 **GROUND ELEVATION** _____
DRILLING CONTRACTOR _____ **GROUND WATER LEVELS:**
DRILLING METHOD Auger Boring ▽ AT TIME OF DRILLING 2.9 ft
LOGGED BY MC/CH
NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0								PL MC LL 20 40 60 80		
		Gray Sand				25		<input type="checkbox"/> FINES CONTENT (%) <input type="checkbox"/> 20 40 60 80		
		Gray Slightly Silty Sand				30				
		Gray Slightly Clayey Sand				30				
5						35				

Bottom of borehole at 6.0 feet.



KSM Engineering & Testing
 P.O. Box 78-1377
 Sebastian, FL 32978
 Tel: (772)-589-0712
 Fax: (772)-589-6469

BORING NUMBER HA-16

CLIENT Mills, Short and Associates PROJECT NAME Selvitz Road Project
 PROJECT NUMBER 2407653-b&p PROJECT LOCATION Fort Pierce, Florida
 DATE STARTED 9/17/24 COMPLETED 9/17/24 GROUND ELEVATION _____
 DRILLING CONTRACTOR _____ GROUND WATER LEVELS:
 DRILLING METHOD Auger Boring ∇ AT TIME OF DRILLING 2.9 ft
 LOGGED BY MC/CH
 NOTES See Attached Location Plan

GEOTECH BH PLOTS - DATA TEMPLATE FOR TESTING.GDT - 10/18/24 10:56 - K:\KSM FILES\24 DOCS (KSM-SERVER)\2407653\SOIL INVESTIGATION\2407653-B&P.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	PENETROMETER	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								20	40	60	80
0								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
		Gray Sand				25					
		Gray Slightly Silty Sand				25					
5						30					
						30					
						35					

Bottom of borehole at 6.0 feet.