

Stormwater Design Calculations

For

**The City of Fort Pierce
and
Florida Department of Transportation**

**Family Dollar Store
1712 Orange Avenue, Fort Pierce, FL 34650**

September 2014



Project Number: 402-12-031
C.O.A. # 5125

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PE # 70246

1.0 Project Introduction

This project consists of an approximately 1.53 acre Family Dollar store development located at the northeast corner of Orange Avenue (SR 68) and N. 18th Street in the City of Fort Pierce, FL. The proposed project is on a commercial parcel with existing single family residential structures and associated paved areas which will be demolished for construction of a new 10,000 SF retail building and supporting infrastructure.

Elevations in this report reference NAVD 1988 Datum.

2.0 Project Description

This project consists of constructing an 10,000 s.f. commercial retail Family Dollar building as well as all supporting infrastructure, parking, and pond.

This site is located within FEMA Flood Zone X, or areas outside the 100 year flood zone per FEMA Map Panel 12111C 0179J, revised February 16, 2012. A copy of the FEMA FIRM Map is included in Appendix A.

This proposed project site consists of approximately 1.53 acres, of which:

- 0.85 acres is proposed impervious areas such as the building, parking, etc.
- 0.68 acres is pervious open green space and dry stormwater area.

3.0 Pre Development Basin Calculations

The existing site conditions have been modeled as a single drainage basin draining generally east via sheet flow towards the N. 17th Street right-of-way where it then enters to an existing FDOT stormwater curb inlet.

The site consists of Type B/D hydrologic soils group (Lawnwood-Urban land complex & Waveland-Urban land complex soils) according to the SCS Soils Survey. Groundcover is fair, therefore an open space curve number (CN) of 84 has been assigned for open space areas and a CN of 98 for impervious areas. See appendix for existing conditions CN calculations.

4.0 Post Development Basin Calculations

The proposed site conditions have been modeled as a single drainage basin draining to a proposed dry stormwater pond located along the northeastern corner of the development with piped discharge to the same existing FDOT stormwater curb within the N. 17th Street right-of-way as in the existing site conditions.

The site consists of Type B/D hydrologic soils group (Lawnwood-Urban land complex & Waveland-Urban land complex soils) according to the SCS Soils Survey. Groundcover is good, therefore an open space curve number (CN) of 80 has been assigned for open space areas and a CN of 98 for impervious areas. See appendix for proposed conditions CN calculations.

5.0 Water Quantity Attenuation

Since the proposed stormwater system is designed to enter an existing FDOT storm system via closed pipe flow, the stormwater system has been design to reduce the post development peak discharge rates down to the pre-development peak discharge rate for the 3-year critical duration storm event. The critical duration storm event for this development is the 1-hour, 3-year design storm which produces 2.30 cfs of peak discharge. The maximum proposed discharge rate for this project occurs during the 8-hour, 100-year design storm and has been reduced to 2.25 cfs, which is less than the critical storm discharge of 2.30 cfs. The existing and proposed

discharge rates for the FDOT 3-year and 100-year return period design storms are summarized in the tables below. Also summarized is the reduction of proposed discharge from the 3-year critical storm discharge, which is consistent with the Peak Discharge Approach outlined in section 5.1.2.1 of the FDOT Drainage Handbook.

Reduction of Discharge Rates to the FDOT ROW in CFS vs. 3 yr Critical Storm

	Existing 3-Year	Proposed 100-Year	Proposed Reduction vs. 3-year critical of 2.30 cfs
1-Hour	2.30	0.84	-1.46
2-Hour	2.14	0.15	-2.15
4-Hour	1.81	1.70	-0.60
8-Hour	1.71	2.25	-0.05
1-Day	0.64	0.79	-1.51
3-Day	0.49	0.83	-1.47
7-Day	0.48	0.48	-1.82
10-Day	0.36	0.63	-1.67

Proposed Peak Pond Stages:

	100-Year Stage (ft)
1-Hour	16.90
2-Hour	16.83
4-Hour	16.95
8-Hour	16.98
1-Day	16.89
3-Day	16.89
7-Day	16.87
10-Day	16.88

6.0 Water Quality Treatment

Based on the SFWMD Basis of Review and the City of Fort Pierce requirements, the total treatment volume required was checked based on one inch of treatment volume across the site or 2.5 inches times the percent impervious:

6.1 Total Treatment Volume Required

Total Site Area = 1.53 acres

Treatment Volume Required:

As 1" across the site:

$$V = 1 \text{ in} * 1 \text{ ft} / 12 \text{ in} * 1.53 \text{ ac.} = 0.13 \text{ ac-ft or } 5,584 \text{ cu. ft.}$$

As 2.5" times the percent impervious:

- a. Site Area = Total Area – Roof Area – Ponds Area = 1.53 ac. – 0.23 ac. – 0.16 ac. = 1.14 ac.
- b. Impervious Area = 0.93 ac.

c. Percent Impervious

$$\% \text{ Imp} = 0.93 \text{ ac.} / 1.14 \text{ ac.} = 0.82$$

d. 2.5 IN times the percent impervious

$$2.5'' * (0.82) = 2.05''$$

e. Treatment volume required

$$V = 2.05 \text{ in.} * 1 \text{ ft.} / 12 \text{ in.} * 1.14 \text{ ac.} = 0.195 \text{ ac-ft or } 8,483 \text{ cu. ft.}$$

Since the volume generated by 2.5" times the percent impervious is greater, that governs, and the total treatment volume becomes 8,483 cu. ft. or 0.195 ac-ft.

Section 5.2.1 of the SFWMD Basis of Review allows for the total treatment volume for dry detention to be 75% of the above calculated amounts. Therefore the total treatment volume becomes **6,363 cu. ft. or 0.146 ac-ft.**

6.2 Total Treatment Volume Provided:

Dry Detention Volumes:

POND STAGE	DETENTION AREA (AC)	CUM. DETENTION VOLUME (AC-Ft)	CUM. DETENTION VOLUME (CF)
13.50	0.052	0.00	0
14	0.064	0.03	1,260
15	0.088	0.10	4,565
16	0.115	0.21	8,994
16.80	0.138	0.31	13,413
17	0.144	0.34	14,649
18	0.176	0.50	21,629

An outlet control structure composed of an FDOT type "C" grate inlet has been placed with a top elevation of 16.80' which provides **13,413 cu ft** of treatment volume. This treatment volume provided is greater than the **6,363 cu ft** of treatment volume required as calculated above. Recovery of the treatment volume is accomplished via infiltration within the dry retention pond bottom. Recovery of the required treatment volume occurs within less than 3 hours.

Appendices

LBYD, Inc. ▲ 5405 Cypress Center Drive, Suite 310 ▲ Tampa, Florida 33609 ▲ Phone (813) 362-8585

Birmingham

Atlanta

www.lbyd.com

Huntsville

Tampa Bay

Appendix A
Project Aerial
&
FEMA FIRM Map

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Birmingham

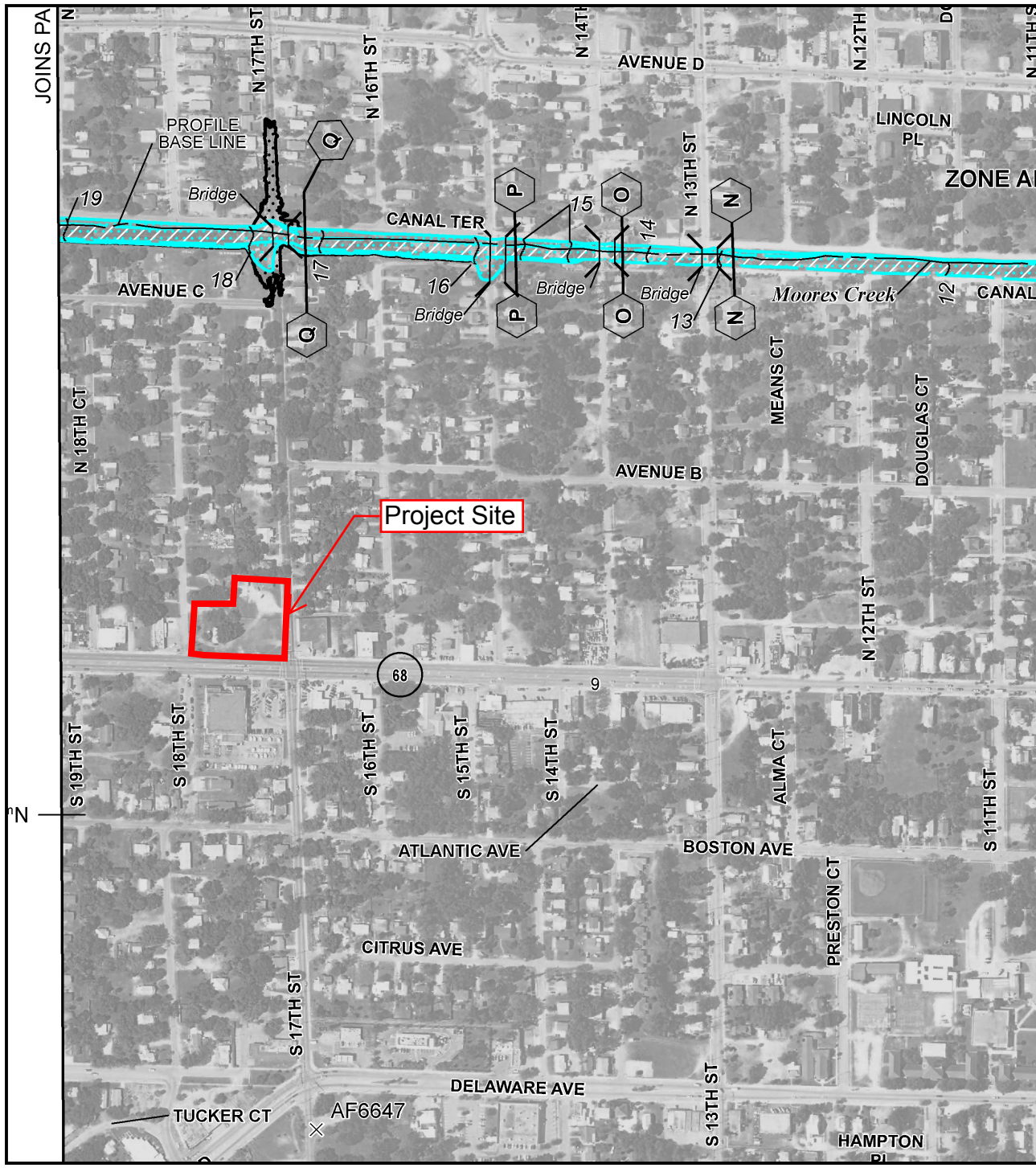
Atlanta

www.lbyd.com

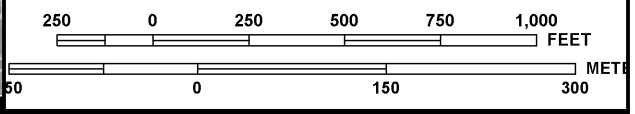
Huntsville

Tampa Bay





MAP SCALE 1" = 500'



PANEL 0179J

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
ST. LUCIE COUNTY,
FLORIDA
AND INCORPORATED AREAS

PANEL 179 OF 420
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FORT PIERCE, CITY OF	120286	0179	J
ST. LUCIE COUNTY	120285	0179	J

THIS MAP INCLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES SYSTEM ESTABLISHED UNDER THE COASTAL BARRIER RESOURCES ACT OF 1982 AND/OR SUBSEQUENT ENABLING LEGISLATION.

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



MAP NUMBER
12111C0179J

MAP REVISED
FEBRUARY 16, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix B
Existing Conditions PONDS Runoff Model

Project Name: Fort Pierce, FL Family Dollar
Project Number: 402-14-016
Subject: Existing Conditions

BY: MKA
Date: 9/10/2014
Sheet: 1 of 1

Total Drainage Area: **1.53 Acres**

Weighted SCS Curve Number

Land Use Description	Soil Type	CN	Area (ft ²)	Area (acres)	Percentage (%)	Weighted CN
Open Space (Fair)	B/D	84	45540	1.05	68.39%	57
Pond		99	0	0.00	0.00%	0
Impervious		98	21051	0.48	31.61%	31
			66591	1.53	100.00%	88

Weighted CN: 88

PONDS Version 3.3.0265
Retention Pond Recovery - Refined Method
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Project Data

Project Name: Fort Pierce Family Dollar
Simulation Description: Existing Conditions Runoff Model
Project Number: 402-14-016
Engineer : MKA
Supervising Engineer: RMW
Date: 09-12-2014

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Scenario Input Data

Scenario 1 :: FDOT 1 Hour - 1 hr - 2 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 30.0
DCIA (%) 0.0
Curve Number 88
Design Rainfall Depth (inches) 2.4
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 323
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 2 :: FDOT 2 Hour - 2 hr - 2 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 30.0
DCIA (%) 0.0
Curve Number 88
Design Rainfall Depth (inches) 2.9
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 323
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 3 :: FDOT 4 Hour - 4 hr - 2 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 30.0
DCIA (%) 0.0
Curve Number 88
Design Rainfall Depth (inches) 3.4
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 323
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

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Scenario Input Data (cont'd.)

Scenario 4 :: FDOT 8 Hour - 8 hr - 2 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 30.0
DCIA (%) 0.0
Curve Number 88
Design Rainfall Depth (inches) 4.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 323
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 5 :: FDOT 24 Hour - 24 hr - 2 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 30.0
DCIA (%) 0.0
Curve Number 88
Design Rainfall Depth (inches) 5.1
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 323
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 6 :: FDOT 72 Hour - 72 hr - 2 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 30.0
DCIA (%) 0.0
Curve Number 88
Design Rainfall Depth (inches) 6.6
Design Rainfall Duration (hours) 72.0
Shape Factor UHG 323
Rainfall Distribution FDOT 72 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

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Scenario Input Data (cont'd.)

Scenario 7 :: FDOT 168 Hour - 168 hr - 2 yr

Hydrograph Type:	Inline SCS
Modflow Routing:	Routed with infiltration
Repetitions:	1
Basin Area (acres)	1.530
Time Of Concentration (minutes)	30.0
DCIA (%)	0.0
Curve Number	88
Design Rainfall Depth (inches)	8.3
Design Rainfall Duration (hours)	168.0
Shape Factor	UHG 323
Rainfall Distribution	FDOT 168 Hour
Initial ground water level (ft datum)	11.00 (default)

No times after storm specified.

Scenario 8 :: FDOT 240 Hour - 240 hr - 2 yr

Hydrograph Type:	Inline SCS
Modflow Routing:	Routed with infiltration
Repetitions:	1
Basin Area (acres)	1.530
Time Of Concentration (minutes)	30.0
DCIA (%)	0.0
Curve Number	88
Design Rainfall Depth (inches)	9.5
Design Rainfall Duration (hours)	240.0
Shape Factor	UHG 323
Rainfall Distribution	FDOT 240 Hour
Initial ground water level (ft datum)	11.00 (default)

No times after storm specified.

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Sort-By-Category Report

Scenarios Considered: 1 to 8

Inflow - Rate - Maximum Positive

<u>Rank</u>	<u>Scenario Number</u>	<u>Maximum Positive Inflow Rate (ft³/s)</u>	<u>Time (hours)</u>	<u>Description</u>
1	1	2.3040	0.867	FDOT 1 Hour - 1 hr - 2 yr
2	2	2.1454	1.067	FDOT 2 Hour - 2 hr - 2 yr
3	4	1.8155	4.133	FDOT 8 Hour - 8 hr - 2 yr
4	3	1.7149	2.600	FDOT 4 Hour - 4 hr - 2 yr
5	5	0.6452	12.067	FDOT 24 Hour - 24 hr - 2 yr
6	8	0.4906	184.000	FDOT 240 Hour - 240 hr - 2 yr
7	6	0.4834	60.000	FDOT 72 Hour - 72 hr - 2 yr
8	7	0.3694	160.000	FDOT 168 Hour - 168 hr - 2 yr

Appendix C
Proposed Conditions PONDS Modeling

Project Name: Fort Pierce, FL Family Dollar
Project Number: 402-14-016
Subject: Proposed Conditions

BY: MKA
Date: 9/10/2014
Sheet: 1 of 1

Total Drainage Area **1.53 Acres**

Weighted SCS Curve Number - To Pond

Land Use Description	Soil Type	CN	Area (ft ²)	Area (Acres)	Percentage (%)	Weighted CN
Open Space (Good)	B/D	80	27574	0.63	41.41%	33
Pond		99	2226	0.05	3.34%	3
Impervious		98	36791	0.84	55.25%	54
			66591	1.53	100.00%	91

Weighted CN: 91

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Project Data

Project Name: Fort Pierce Family Dollar
Simulation Description: Proposed Conditions Pond Routing Model
Project Number: 402-14-016
Engineer : MKA
Supervising Engineer: RMW
Date: 09-12-2014

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 0.00
Water Table Elevation, [WT] (ft datum): 11.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 35.00
Fillable Porosity, [n] (%): 30.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day): 30.0
Maximum Area For Unsaturated Infiltration, [Av] (ft²): 4328.0

Geometry Data

Equivalent Pond Length, [L] (ft): 110.0
Equivalent Pond Width, [W] (ft): 60.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft ²)
13.00	1801.0
14.00	2768.0
15.00	3842.0
16.00	5017.0
17.00	6292.0
18.00	7668.0

Discharge Structures

Discharge Structure #1 is active as weir

Structure Parameters

Description: Type C Inlet - Outlet CS

Weir elevation, (ft datum):	16.80
Weir coefficient:	2.861
Weir length, (ft):	10
Weir exponent:	1.5

Tailwater - disabled, free discharge

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

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Scenario Input Data

Scenario 1 :: FDOT 1 Hour - 1 hr - 100 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 91
Design Rainfall Depth (inches) 4.4
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 484
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 2 :: FDOT 2 Hour - 2 hr - 100 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 91
Design Rainfall Depth (inches) 5.4
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 484
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 3 :: FDOT 4 Hour - 4 hr - 100 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 91
Design Rainfall Depth (inches) 6.5
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 484
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

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Scenario Input Data (cont'd.)

Scenario 4 :: FDOT 8 Hour - 8 hr - 100 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 91
Design Rainfall Depth (inches) 8.2
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 484
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 5 :: FDOT 24 Hour - 24 hr - 100 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 91
Design Rainfall Depth (inches) 12.1
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 484
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 6 :: FDOT 72 Hour - 72 hr - 100 yr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.530
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 91
Design Rainfall Depth (inches) 14.8
Design Rainfall Duration (hours) 72.0
Shape Factor UHG 484
Rainfall Distribution FDOT 72 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

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Scenario Input Data (cont'd.)

Scenario 7 :: FDOT 168 Hour - 168 hr - 100 yr

Hydrograph Type: Inline SCS
 Modflow Routing: Routed with infiltration
 Repetitions: 1

Basin Area (acres) 1.530
 Time Of Concentration (minutes) 10.0
 DCIA (%) 0.0
 Curve Number 91
 Design Rainfall Depth (inches) 16.4
 Design Rainfall Duration (hours) 168.0
 Shape Factor UHG 484
 Rainfall Distribution FDOT 168 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 8 :: FDOT 240 Hour - 240 hr - 100 yr

Hydrograph Type: Inline SCS
 Modflow Routing: Routed with infiltration
 Repetitions: 1

Basin Area (acres) 1.530
 Time Of Concentration (minutes) 10.0
 DCIA (%) 0.0
 Curve Number 91
 Design Rainfall Depth (inches) 17.8
 Design Rainfall Duration (hours) 240.0
 Shape Factor UHG 484
 Rainfall Distribution FDOT 240 Hour

Initial ground water level (ft datum) 11.00 (default)

No times after storm specified.

Scenario 9 :: Treatment Volume

Hydrograph Type: Slug Load
 Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 6363

Initial ground water level (ft datum) 11.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.000
0.250	2.500
0.500	3.000
1.000	3.500
1.500	4.000

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Sort-By-Category Report

Scenarios Considered: 1 to 9

Stage - Maximum

Rank	Scenario Number	Maximum Stage (ft datum)	Time (hours)	Description
1	4	16.98	4.133	FDOT 8 Hour - 8 hr - 100 yr
2	3	16.95	3.044	FDOT 4 Hour - 4 hr - 100 yr
3	1	16.90	0.933	FDOT 1 Hour - 1 hr - 100 yr
4	6	16.89	60.000	FDOT 72 Hour - 72 hr - 100 yr
5	5	16.89	13.044	FDOT 24 Hour - 24 hr - 100 yr
6	8	16.88	184.000	FDOT 240 Hour - 240 hr - 100 yr
7	7	16.87	160.000	FDOT 168 Hour - 168 hr - 100 yr
8	2	16.83	1.889	FDOT 2 Hour - 2 hr - 100 yr
9	9	15.19	0.002	Treatment Volume

Discharge - Rate - Maximum Positive

Rank	Scenario Number	Maximum Positive Discharge Rate (ft ³ /s)	Time (hours)	Description
1	4	2.25	4.133	FDOT 8 Hour - 8 hr - 100 yr
2	3	1.70	3.044	FDOT 4 Hour - 4 hr - 100 yr
3	1	0.84	0.933	FDOT 1 Hour - 1 hr - 100 yr
4	6	0.83	60.000	FDOT 72 Hour - 72 hr - 100 yr
5	5	0.79	13.044	FDOT 24 Hour - 24 hr - 100 yr
6	8	0.63	184.000	FDOT 240 Hour - 240 hr - 100 yr
7	7	0.48	160.000	FDOT 168 Hour - 168 hr - 100 yr
8	2	0.15	1.889	FDOT 2 Hour - 2 hr - 100 yr
9	9	None	N.A.	Treatment Volume

Appendix D
PONDS Recovery Analysis

PONDS Version 3.3.0265
Retention Pond Recovery - Refined Method
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Scenario Input Data

Scenario 9 :: Treatment Volume

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 6363

Initial ground water level (ft datum) 11.00 (default)

<u>Time After Storm Event (days)</u>	<u>Time After Storm Event (days)</u>
0.100	2.000
0.250	2.500
0.500	3.000
1.000	3.500
1.500	4.000

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Detailed Results :: Scenario 9 :: Treatment Volume

Elapsed Time	Instantaneous Inflow Rate	Outside Recharge	Stage Elevation	Infiltration Rate	Combined Instantaneous Discharge	Cumulative Inflow	Cumulative Infiltration	Combined Cumulative	
0.000	1060.5000	0.00000	11.00000	0.00000	0	0.000	0.00000	0	N.A.
0.002	1060.5000	0.00000	15.19340	1.41330	0	6363.000	8.48270	0	U/P
2.400	0.0000	0.00000	13.05880	0.43756	0	6363.000	6255.42100	0	U/S
6.000	0.0000	0.00000	12.51068	0.00519	0	6363.000	6363.00000	0	S
12.000	0.0000	0.00000	12.12788	0.00000	0	6363.000	6363.00000	0	S
24.000	0.0000	0.00000	11.79895	0.00000	0	6363.000	6363.00000	0	S
36.000	0.0000	0.00000	11.61880	0.00000	0	6363.000	6363.00000	0	S
48.000	0.0000	0.00000	11.50522	0.00000	0	6363.000	6363.00000	0	S
60.000	0.0000	0.00000	11.42723	0.00000	0	6363.000	6363.00000	0	S
72.000	0.0000	0.00000	11.37029	0.00000	0	6363.000	6363.00000	0	S
84.000	0.0000	0.00000	11.32686	0.00000	0	6363.000	6363.00000	0	S
96.000	0.0000	0.00000	11.29265	----	----	6363.000	6363.00000	0	N.A.