DRAFT

POND SITING REPORT

Florida Department of Transporation

District 7

Project Title: Interstate 75 (State Road 93A) Project Development and Environment Study

Limits of Project: From south of US 301/State Road 43 to north of Bruce B. Downs Boulevard/County Road 581

Hillsborough County, Florida

Financial Management Number: 419235-3

ETDM Number: 8002 & 14267

Date: January 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.



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Prepared by: WSP, Inc. Tampa, Florida

January 2022

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvements along approximately 18.0 miles of Interstate 75 (I-75) (State Road (SR) 93A) from south of US 301 (SR 43) to north of Bruce B. Downs (BBD) Boulevard in Hillsborough County, Florida. Refer to the project location map found in **Figure 1**. The design year for the improvements is 2045.

This PD&E Study is being conducted concurrently with the PD&E Study for the portion of I-75 that extends from Moccasin Wallow Road in Manatee County to south of US 301 (SR 43) in Hillsborough County (WPI Segment No. 419235-2).

The objective of the PD&E Study is to assist the FDOT and the Office of Environmental Management in reaching a decision on the type, location, and conceptual design of the necessary improvements for I-75 to safely and efficiently accommodate future travel demand. This PD&E Study will document the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives including elements such as proposed typical sections, special designation of travel lanes, preliminary horizontal alignments, and interchange enhancement alternatives. The anticipated social, physical, and natural environmental effects and costs of these improvements will be identified. The alternatives will be evaluated and compared based on a variety of parameters utilizing a matrix format. This process will identify the alternative that will best balance the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and costs).

The PD&E Study satisfies all applicable requirements, including the National Environmental Policy Act, to qualify for federal-aid funding of subsequent development phases (design, right-of-way acquisition, and construction). To initiate agency coordination, the project has been screened through the Programming Screen of the FDOT's Efficient Transportation Decision Making (ETDM) process as project 8002. An ETDM *Programming Screen Summary Report* was published on March 29, 2007, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. Based on the ETAT comments, the FHWA determined that this project qualified as a Type 2 Categorical Exclusion. It should be noted that ETDM also identifies the project as No. 14267. An Advance Notification package was sent on February 29, 2016 under this number for the project limit change from north of Fletcher Avenue to north of Bruce B. Downs Boulevard.

This Pond Siting Report (PSR) has been prepared as part of this PD&E Study to document stormwater treatment and attenuation requirements for the proposed improvements. This report identifies up to three (3) Stormwater Management Facility (SMF) alternatives per basin along with the required Floodplain Compensation (FPC) site(s). The SMF's were sized to provide treatment and attenuation for the additional impervious area including the two (2) proposed 12-foot express lanes in both the northbound and southbound direction. This study analyzed pond site alternatives that are hydraulically feasible and environmentally permissible based on the best available information.

The project study area was sub-divided into 34 roadway drainage basins. The first 25 basins referred to as Basin 1 through Basin 25 were analyzed in this report. For I-75, Basin A through

Basin EF were previously permitted to provide treatment and attenuation for the ultimate interstate typical which consists of 324 feet of impervious surface within the right-of-way. The interstate north of Bruce B. Downs has been permitted to treat and attenuate from right-of-way to right-of-way. Under the proposed improvements, the widening will consist of approximately 270 feet of impervious surface with the right-of-way. At the interchange of I-75 and Bruce B. Downs, calculations have been performed to demonstrate the existing stormwater facilities can accommodate the proposed widening project. For the basins on I-4, Basins H and I, the existing ponds provide treatment and attenuation for the existing interstate.

The SMF and FPC recommendations for Basin 1 through Basin 25 are based on a variety of factors and are summarized in the Stormwater Evaluation Matrix included in **Section 7.0** of the report. The matrix was developed using environmental and cultural assessments, construction costs and right-of-way costs. The preferred SMF's and FPC's for the entire project are summarized in **Table 1**.

	Basin	Receiving Water Body	Preferred SMF	FPC Site
	1	Archie Creek Tributary B	SMF 1C	-
	2	North Archie Creek	SMF 2/3	-
-	3	North Archie Creek	5101 2/5	-
	4	Linnemed Tributery On North	SMF 4/5	-
	5	Unnamed Tributary On North Archie Creek		-
	6	, worke ereek	SMF 6A	FPC 6R
	7 8	Delaney Creek	SMF 7/8	FPC 7
	9		SMF 9	-
	10	Tampa Bypass Canal	SMF 10C	-
	11	Tributary 2 South Branch	SMF 11A	-
	12 13	Tampa Bypass Canal Tributary 2	SMF 12/13C	FPC 12/13R & FPC 12/13L
	13	Tampa Bypass Canal Tributary 1 South Branch 2.1	SMF 14A	FPC 14
	15	Tampa Bypass Canal	SMF 15/16	-
	16	Tributary 1		-
	17		SMF 17A	FPC 17/18
	18	Tampa Bypass Canal Main	SMF 18A	
	19	Ditch	SMF 19A, SMF 19B, SMF 19C, SMF 19D	FPC 19A & FPC 19B
	20		SMF 20A	FPC 20
	21	Unnamed Tributary to Tampa Bypass Canal	SMF 21B	FPC 21B
	22		SMF 22/23	-
	23		SIVIF 22/23	-
	24	Tampa Bypass Canal	SMF 24B	-
	25		SMF 25A	-
	A	Cowhouse Creek	Existing Ponds A2 & A4	-
	В	COWINDE CIEEK	Existing Ponds B2 & B3	-
	С	Hillsborough River	Existing Ponds C2 & C5	FPC CD

Table 1: Preferred SMF's and FPC's

D		Existing Pond D	-
EF		Existing Pond EF	-
1B, 1C, Ramp 1 Infield		Existing Ponds 1B, 1C, Ramp 1 Infield	-
G	Cypress Creek	Existing Ponds G1A & G1B, 1A, G2, G3	-
H (I-4)	Tompo Pypogo Conol	Existing Pond 5-1	-
I (I-4)	Tampa Bypass Canal	Existing Pond 7	-

TABLE OF CONTENTS

EXEC	UTIVE SUMMARY1
1.0	SUMMARY OF PROJECT1
1.1	Description of Proposed Action
1.1	Existing Eacility
	Existing Facility
1.3	Project Purpose and Need
1.4	Report Purpose4
2.0	IMPROVEMENT ALTERNATIVES4
2.1	No-Build Alternative4
2.2	Mainline and Interchange Build Alternatives4
2.3	Preferred Alternative5
3.0	EXISTING CONDITIONS6
3.1	Topography & Hydrologic Features6
3.2	Soil Characteristics
3.3	Existing Drainage Systems8
3.4	Existing Stormwater Facilities8
3.5	Cross Drains10
3.6	Existing Bridges and Bridge Culverts11
4.0	FLOODPLAINS AND FLOODWAYS11
4.1	Floodplains11
Note	e: Impacts and compensation based on plan view area12
4.2	Floodways12
5.0	SCOPE AND DESIGN CRITERIA15
5.1	Purpose
5.2	Drainage System15
5.3	Receiving Waters
5.4	Outstanding Florida Water (OFW)16
5.5	SHWT Establishment16
5.6	DHW Establishment16
5.7	Regulatory Issues and Design Criteria16
5	.7.1 Water Quality
5	7.2 Water Quantity
5.8	SMF Geometry Layout17
5.9	FPC Site Sizing17

6.0	SITE SELECTION AND DESIGN APPROACH	17
7.0	PROPOSED CONDITIONS	18
7.1	Basin 1	18
7.2	Basin 2/3	19
7.3	Basin 4/5	19
7.4	Basin 6	19
7.5	Basin 7/8	19
7.6	Basin 9	20
7.7	Basin 10	
7.8	Basin 11	
7.9	Basin 12/13	
7.10		
7.11		
7.12	2 Basin 17	22
7.13		
7.14		
7.15	5 Basin 20	22
7.16		
7.17		
7.18		
7.19		
7.20		
7.21		
7.22		
7.23	Basin D	25
7.24	Basin EF	25
7.25	5 Basin 1B, 1C, & Ramp 1 Infield	25
7.26	Basin G	26
8.0	FDEP IMPAIRED WATER BODY	30
9.0	REFERENCES	31

LIST OF FIGURES

2
3
5
7
13
14

LIST OF TABLES

Table 1: Preferred SMF's and FPC's	2
Table 2: Summary of Existing Ponds from Fowler Ave. to Bruce B. Downs Blvd	9
Table 3: I-75 Cross Drain Summary	10
Table 4: 100-yr Floodplain Impact and Compensation Summary	12
Table 5: Stormwater Evaluation Matrix	27
Table 6: FDEP Impaired Waterbodies	30

LIST OF APPENDICIES

- Appendix A NRCS Soil Data
- Appendix B Existing Permits
- Appendix C Drainage Map
- Appendix D FEMA Firmette Maps
- Appendix E Coordination & Meeting Minutes
- Appendix F Proposed Pond Sizing Calculations
- Appendix G FDOT Right-of-Way Cost Estimates
- Appendix H Assessments
- Appendix I FDEP Verified Impaired List

1.0 SUMMARY OF PROJECT

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvements along approximately 18 miles of Interstate 75 (I-75) (State Road (SR) 93A) from south of US 301 (SR 43) to north of Bruce B. Downs (BBD) Boulevard in Hillsborough County, Florida. Refer to the project location map found in **Figure 1**. The design year for the improvements is 2045. This PD&E Study is being conducted concurrently with the PD&E Study for the section of I-75 that extends from Moccasin Wallow Road in Manatee County to south of US 301 in Hillsborough County, Florida (WPI Segment No. 419235-2).

The objective of this PD&E Study is to assist the FDOT and the Office of Environmental Management in reaching a decision on the type, location, and conceptual design of the necessary improvements for I-75 to safely and efficiently accommodate future travel demand. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives, including elements such as proposed typical sections, preliminary horizontal alignments, and interchange enhancement alternatives.

This Pond Siting Report (PSR) is an engineering tool used to identify potential stormwater pond sites and floodplain compensation sites. The information presented in this document is subject to change throughout the preliminary engineering and project design phases.

The vertical datum used for this project and documented in this report is the North American Vertical Datum 1988 (NAVD 88).

1.1 Description of Proposed Action

The proposed action evaluates the need to provide capacity and operational improvements along approximately 18 miles of I-75 from south of US 301 to north of BBD Boulevard in Hillsborough County, Florida, refer to **Figure 1**. This evaluation considers the operational and highway safety benefits of implementing capacity improvements and compares them to the cost savings and minimization of adverse impacts associated with a No-Build Alternative. An evaluation matrix compares the No-Build and Build Alternative on a variety of factors. This process identifies the alternative that best balances the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and construction costs).

The Build Alternative includes widening I-75 within the existing median to include two Express Lanes (EL) in each direction along with operational improvements. The improvements would be constructed on the existing alignment. Right-of-way will be required for some interchange improvements, slip ramps to provide access between the general use lanes (GULs) and ELs, stormwater management facilities, and floodplain compensation sites.

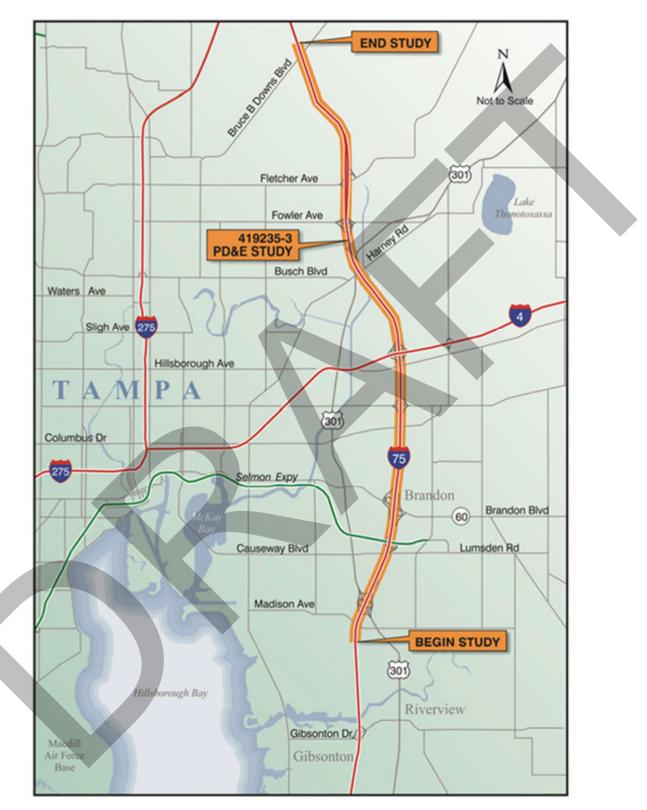


Figure 1: Project Location Map

Pond Siting Report

1.2 Existing Facility

I-75 is a limited access freeway that travels in a generally south-north direction from a southern terminus at SR 826 (Palmetto Expressway) in Hialeah, Florida, to a northern terminus in Sault Sainte Marie, Michigan, near the border with Canada.

In Florida, I-75 is included in the State Highway System (SHS), designated as SR 93A; the Florida Intrastate Highway System (FIHS); the Strategic Intermodal System (SIS); and the Federal Aid Interstate System. I-75 serves as a major evacuation route throughout the state

The portion of I-75 located within the project limits was opened to traffic in 1985, linking existing segments of I-75 to the north and south and completing the Tampa Bay Bypass. This portion of I-75 is classified as an Urban Principal Arterial – Interstate. Its mainline generally provides a six-lane, divided, limited access, rural typical section with auxiliary lanes and CD roadways in sections. Refer to **Figure 2** for existing I-75 mainline typical sections.

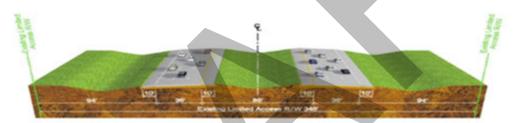
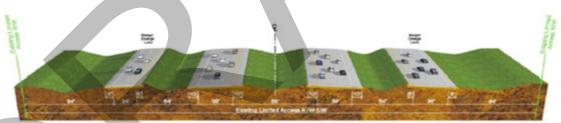


Figure 2: Existing I-75 Mainline Typical Sections

Existing Typical Section from SR 60 to north of Bruce B. Downs Boulevard



Existing Typical Section from US 301 to SR 60

The (limited access) right-of-way along I-75 ranges from a minimum of 348 feet between SR 60 and Fowler Avenue to a maximum of 636 feet between US 301 and the Selmon Expressway. The posted speed limit is 70 miles per hour (mph).

There are eight interchanges along I-75 within the project limits. They are located at US 301, Selmon Expressway, SR 60, Martin Luther King Jr. Boulevard, I-4, Fowler Avenue, Fletcher Avenue, and BBD Boulevard. The study area also includes 67 bridges, including crossings over the Hillsborough River, Memorial Gardens Slough, Mango Lake Drainage Canal, Harney Flats Canal, Tampa Bypass Canal, and Cowhouse Creek.

1.3 Project Purpose and Need

The purpose of the project is to evaluate alternatives to address the corridor's capacity and relieve congestion. These improvements are expected to enhance the overall safety and improve the operating conditions of the facility within the project limits.

I-75 is a south-north interstate highway that is a major trade and tourism corridor. I-75 is part of the highway network that provides access to regional intermodal facilities such as several general aviation airports, MacDill Air Force Base, several seaports, transit stations, cruise ship terminals and major CSX intermodal rail facilities. It is part of the Strategic Intermodal System (SIS) and is a vital link in the transportation network that connects the Tampa Bay region to the remainder of the state and the nation.

I-75 is a critical evacuation route as shown on the Florida Division of Emergency Management's evacuation route network. Improvements to I-75 will improve evacuation efforts, when needed, will enhance access to activity centers in the area, and movement of goods and freight in the greater Tampa Bay region

Statewide and regional transportation plans and studies by FDOT and the Hillsborough County Metropolitan Planning Organization (MPO) identify the need for interstate improvements.

1.4 Report Purpose

This Pond Siting Report is one of several documents that will be prepared as part of this PD&E Study. This report documents the preferred SMF and FPC for each roadway drainage basin.

2.0 IMPROVEMENT ALTERNATIVES

2.1 No-Build Alternative

The No-Build Alternative assumes that the existing conditions would remain for I-75 within the project limits and only routine maintenance activities would occur, except for currently planned or programmed projects already committed. The advantages to the No-Build Alternative include no new costs for design and construction, no effects to existing land uses and natural resources, and no disruption to the public during construction. However, the No-Build Alternative would not address the travelers' needs and would result in increased congestion and user costs. The traffic analyses for this alternative indicated that by the year 2045 a significant portion of the I-75 mainline, merge/diverge areas, and ramp termini intersections would operate below acceptable LOS.

This alternative remains under consideration as a viable alternative throughout the PD&E Study process.

2.2 Mainline and Interchange Build Alternatives

The original PD&E study began in 2008 and considered two mainline build alternatives, with the recommended build alternative shown at the joint public hearing held May 6, 2010. Refer to the project's 2020 *Preliminary Engineering Report* (PER) for additional project background. Pond Siting Report 4 WPI Segment No. 419235-3

After the 2010 Public Hearing, the FDOT put the study on hold until the Tampa Bay Express (TBX) Master Plan was complete. The TBX program was developed to provide guidance for improvements to the Tampa Bay interstate system and identified freeway segments (including this segment of I-75) for the addition of tolled express lanes. In 2017, FDOT District Seven reset TBX to Tampa Bay Next (TBNext) to demonstrate its commitment to comprehensive, integrated transportation planning and development. Since the Public Hearing in 2010, the FDOT is revising the number of managed lanes from six Special Use Lanes (SULs) to four ELs, two in each direction, along the I-75 corridor. This PD&E study limit will be extended north of Bruce B. Downs Boulevard.

2.3 Preferred Alternative

All alternatives have been evaluated with regard to costs, operational factors, and environmental impacts. Based on these evaluations, a preferred build alternative utilizing one typical section was identified for the I-75 mainline and the interchanges within the study area.

The Preferred Build Alternative Typical Section includes three 12-foot GULs with auxiliary lanes, in each direction. Inside and outside shoulders will be 12-feet wide. Adjacent to the GULs, within the median, two 12-foot ELs with 12-foot inside and outside shoulders will be included in each direction. Refer to **Figure 3** for a graphic of this typical section.

Should a multimodal envelope be added to the typical section, it would be placed to the outside on either side of I-75.

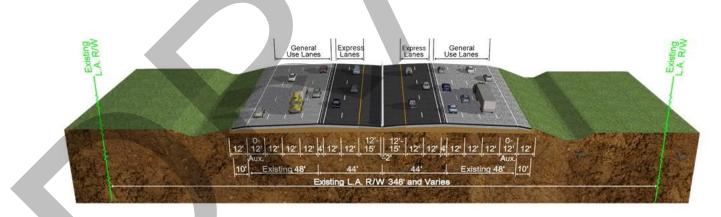


Figure 3: I-75 Preferred Build Alternative Typical Section

Interchange improvements will occur at all eight interchanges in the project corridor. While the I-75 at I-4 interchange will see extensive improvements, the remaining the interchanges will see minor adjustments to accommodate the preferred build alternative.

3.0 EXISTING CONDITIONS

3.1 Topography & Hydrologic Features

The study area involves four major watersheds; Delaney/Archie Creek, Tampa Bypass Canal, Hillsborough River, and Cypress Creek. The Delaney/Archie Creek Watershed's primary receiving water bodies are North Archie Creek and its tributaries toward the south and Delaney Creek toward the north end of the watershed. The Tampa Bypass Canal Watershed drains toward the Tampa Bypass Canal either directly or by means of several tributary systems. Finally, the Hillsborough River Watershed's primary receiving water body is the Hillsborough River. All four watersheds generally flow from east to west and ultimately outfall into either Hillsborough Bay or McKay Bay. A Regional Drainage Basin Map which includes the watersheds is provided in **Figure 4**.

The Delaney/Archie Creek Watershed boundary starts south of the project begin and extend to north of the I-75 and State Road 60 interchange. This watershed is extensively developed with flat terrain and a high groundwater table. The basin typically flows in a southwest direction and ultimately outfalls to Hillsborough Bay through a series of ditches and canals.

The Tampa Bypass Canal Watershed extends from north of the I-75 and State Road 60 interchange to the Tampa Bypass Canal crossing south of the I-75 and Fowler Avenue interchange. The predominant land use in this watershed is urban with some agricultural. The watershed's primary conveyance system is the 14-mile long Tampa Bypass Canal. The Tampa Bypass Canal was originally constructed as a flood control project and is operated by the SWFWMD.

The Hillsborough River Watershed boundary begins at the Tampa Bypass Canal crossing and extends to just north of Bruce B. Downs Boulevard. The basins between Fletcher Avenue and Bruce B. Downs Boulevard discharge to the Hillsborough River which is a designated Outstanding Florida Water (OFW). This area between Fletcher Avenue and Bruce B. Downs Boulevard has been previously designed and permitted as part of ERP No. 21639.

The Cypress Creek Watershed boundary begins just north of Bruce B. Downs Boulevard and extends north to just south of State Road 52. The watershed flows southerly into Big Cypress Swamp and ultimately to the Hillsborough River. The land use consists of large residential units and swamp.

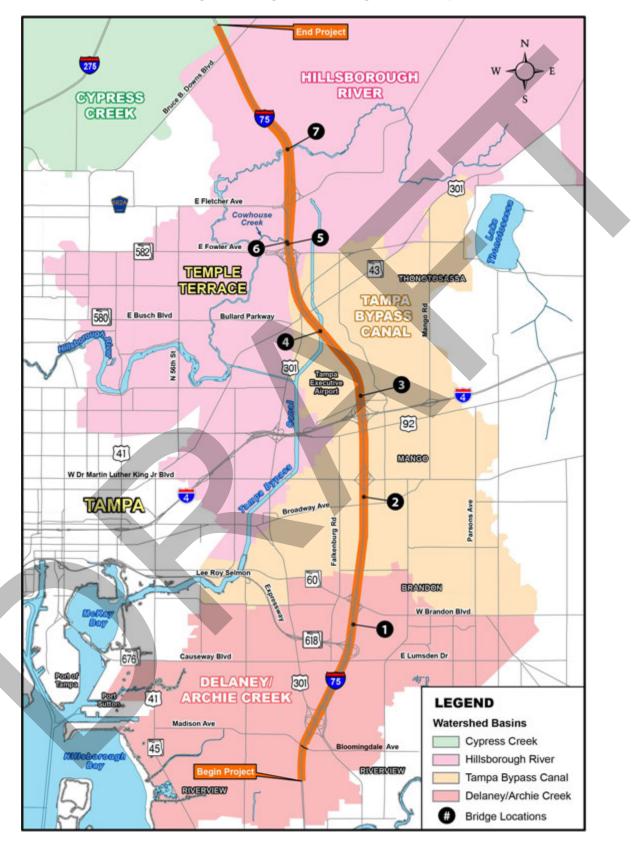


Figure 4: Regional Drainage Basin Map

3.2 Soil Characteristics

A general assessment was conducted of the surface to near-surface conditions of the soils within the study limits based on a review of existing data and reference materials included in the Natural Resources Conservation Service (NRCS) web soil survey, SWFWMD soil shape files, and current aerial imagery. NRCS soil maps and depth to water table maps are provided to illustrate the soil characteristics within and adjacent to the study limits and can be found in **Appendix A**

In general, the soils within the project limits are fine sands with 0% to 2% slopes. The predominant soil type is Myakka fine sands. Candler, Malabar, Ona, Pomello, and Smyrna fine sands were also identified.

3.3 Existing Drainage Systems

The existing interstate mainline is a divided rural typical section consisting of a drainage system of open ditches along each side of the roadway as well as in the median. Stormwater runoff from the interstate is conveyed by this system of open ditches to points of discharge as it leaves the right-of way. These point discharges generally consist of either cross drains or wetland systems. Except for isolated improvements at the Selmon Expressway, I-75 at the MLK interchange, and I-75 from I-4 to the Tampa Bypass Canal, none of the existing stormwater runoff from I-75 between Progress Boulevard to south of Fowler Avenue is currently being treated or attenuated before leaving the right-of-way. From south of Fowler Avenue to south of Bruce B. Downs, improvements to the interstate were previously permitted and constructed under ERP No. 21639.

3.4 Existing Stormwater Facilities

The original design and construction of I-75 did not include stormwater management. However, the recent improvements discussed in **Section 3.3** do include stormwater management systems for those specific roadway projects. The stormwater management facilities from south of Fowler Avenue to south of Bruce B. Downs were designed to provide treatment and attenuation for an ultimate interstate condition. The ultimate interstate condition assumes 324 feet of impervious surface within the right-of-way. Under the proposed improvements, the widening consists of approximately 270 feet of impervious surface within the right-of-way and therefore will not require modification of the existing ponds.

At the interchange at I-75 and Bruce B. Downs, calculations were performed to demonstrate that treatment and attenuation due to the proposed widening can be accomplished in the Ramp 1 Infield pond. Additional discussion regarding the calculations is provided in **Section 7.25**.

The interstate north of Bruce B. Downs has been permitted to provide treatment and attenuation from right-of-way to right-of-way. The existing ponds from south of Fowler Avenue to north of Bruce B. Downs are summarized in the **Table 2**. Select pages from the permits are included in **Appendix B** of this report.

Pond Name	Location (Lt./Rt.)	Size (Ac.)	Treatmen (Ac-		Attenuation Volume (Ac-Ft)		Receiving Water Body	
Name	(Eu/Ku)	(AC.)	Required	Provided	Pre	Post	Water Bouy	
Pond A2	1907+00 Rt.	5.94	7.44	7.46	355.6	150.2	Cowhouse	
Pond A4	1907+00 Lt.	6.05	7.87	7.88	333.0	130.2	Creek	
Pond B2	1933+00 Rt.	2.63	2.71	2.71	137.9	108.0	Cowhouse	
Pond B3	1963+00 Lt.	3.11	3.13	3.13			Creek	
Pond C2	1971+00 Lt.	6.75	7.19	7.22	175.0	141.1	Hillsborough	
Pond C5	1985+00 Rt.	10.32	0.32 11.75 13.08				River	
FPC CD Pond	2027+00 Rt. 2070+00	2.13	N/A	N/A	N/A	N/A	Hillsborough River	
D Pond	2070+00 Rt. 2115+00	8.00	6.77	6.91	376.4	331.0	Hillsborough River	
EF	Lt. 2169+00	32.30	5.84	17.70			Hillsborough	
1C Ramp	Lt.	0.55	0.13	0.17	10.19	8.77	River	
1 Infield	2170+00 Rt.	4.70	0.16	0.18	12.86	8.33	Hillsborough River	
Pond 1B	2171+00 Lt.	0.66	1.30	1.42	14.29	12.75	Hillsborough River	
Pond G1A & G1B	2180+00 Lt.	2.04	1.66	2.07	71.7	41.6	Cypress Creek	
Pond 1A	2183+00 Rt.	3.41	0.52	0.60	46.60	25.60	Cypress Creek	
Pond G2	2227+00 Lt.	1.08	0.64	0.76	23.7	14.5	Cypress Creek	
Pond G3	2236+00 Lt.	4.29	2.24	2.67	63.9	33.8	Cypress Creek	
Pond 5-1	I-4 Rt.	1.06	-	-	-	-	Tampa Bypass Canal	
Pond 7	I-4 Lt.	5.78	-	-	-	-	Tampa Bypass Canal	

 Table 2: Summary of Existing Ponds from Fowler Ave. to Bruce B. Downs Blvd.

3.5 Cross Drains

A review of the existing FDOT as-built construction plans, drainage maps, permit research, and SLD's for Hillsborough County indicates that there are 37 existing cross drains within the limits of the I-75 PD&E study area. Hydraulic equivalency for replacement or modification of the existing cross drains will be determined during the subsequent design phase of this project. The station, size and material of the existing cross drains are summarized in **Table 3**. The cross drain locations are also shown on the Drainage Maps in **Appendix C**.

	Station (CL of Const.)	Basin No.	Description	Receiving Water Body
	1267+90.76	1	6' x 4' CBC	Archie Creek
	1291+53.13	1	5' x 4' CBC	Archie Creek
	1302+11.23	3	Double 9' x 7' CBC	Archie Creek
	1354+00.00	4	7' x 10' CBC	Archie Creek
	1375+61.73	5	18" RCP	Archie Creek
	1409+48.14	7	18" RCP	Delaney Creek
	1460+00.00	8	6' x 4' CBC	Delaney Creek
	1463+48.75	9	18" RCP	Delaney Creek
	1492+78.75	9	54" RCP	Delaney Creek
	1495+00.00	10	15" RCP	Delaney Creek
	1499+03.75	10	15" RCP	Delaney Creek
	1502+00.00	10	15" RCP	Delaney Creek
	1506+77.75	10	36" RCP	Delaney Creek
	1512+67.93	11	(2) 15" & (1) 18" RCP	Tampa Bypass Canal
	1517+00.00	12	15" RCP	Tampa Bypass Canal
	1525+00.00	12	24" RCP	Tampa Bypass Canal
	1527+61.74	12	30" RCP	Tampa Bypass Canal
	1543+07.15	12	9' x 5' CBC	Tampa Bypass Canal
	1564+38.95	14	8' x 4' RCP	Tampa Bypass Canal
	1572+06.90	14	4' x 6' CBC	Tampa Bypass Canal
	1581+97.53	14	6' x 4' CBC	Tampa Bypass Canal
	1588+55.44	14	36" RCP	Tampa Bypass Canal
K	1667+47.69	17	54" RCP	Tampa Bypass Canal
	1676+00.00	18	15" & 24" RCP	Tampa Bypass Canal
	1748+01.11	20	42" RCP	Tampa Bypass Canal
	1757+00.00	21	Double 48" RCP	Tampa Bypass Canal
	1775+48.59	21	Double 42" RCP	Tampa Bypass Canal
	1794+91.84	22	48" RCP	Tampa Bypass Canal
	1823+01.31	23	48" RCP	Tampa Bypass Canal
	1859+00.00	25	48" RCP	Tampa Bypass Canal
	2077+87.78	D	12' x 5' CBC	Hillsborough River
	2096+00.00	EF	24" RCP	Hillsborough River
	2106+00.00	EF	24" RCP	Hillsborough River

Table 3: I-75 Cross Drain Summary

2114+00.00	EF	42" RCP	Hillsborough River
2128+00.00	EF	42" RCP	Hillsborough River
2195+00.00	G	36" RCP	Cypress Creek
2208+00.00	G	42" RCP	Cypress Creek

3.6 Existing Bridges and Bridge Culverts

The I-75 corridor contains seventeen (17) bridges, four (4) of which span major waterways. The following briefly describes the bridge and bridge culverts that span existing waterways along the I-75 corridor.

- 1) I-75 Bridge Culvert at Memorial Garden Slough (Bridge No. 100421) Triple 12-foot by 8-foot concrete box culvert.
- 2) I-75 Bridge Culvert at Mango Lake Drainage Canal (Bridge No. 100437): Double 10-foot by 6-foot concrete box culvert.
- 3) I-75 Bridge Culvert at Harvey Flats Canal (Bridge No. 100418): Quadruple 11-foot by 10-foot concrete box culvert.
- 4) I-75 Bridges over Tampa Bypass Canal (Bridge No. 100473 SB, Bridge No. 100474 NB): Two twelve-span structures over the Tampa Bypass Canal. Both bridges are 828 feet long with a clear roadway width of 56 feet.
- 5) **I-75 Bridges over Cowhouse Creek** (Bridge No. 100481 SB, Bridge No. 100482 NB): Two four-span structures over Cowhouse Creek. The overall length of the SB bridge is 340 feet and has a roadway clear width of 68 feet. The overall length of the NB bridge is 350 feet long with a roadway clear width of 80 feet.
- 6) **I-75 Ramp C Bridge over Cowhouse Creek** (Bridge No. 100480): One four-span structure over Cowhouse Creek. The overall length of the bridge is 340 feet and has a roadway clear width of 27 feet.
- 7) I-75 Bridges over Hillsborough River (Bridge No. 100387 SB, Bridge No. 100388 NB): Two seven-span structures over Hillsborough River. The overall length of the SB bridge is 438 feet and has a roadway clear width of 68 feet. The overall length of the NB bridge is 458 feet long with a roadway clear width of 68 feet.

4.0 FLOODPLAINS AND FLOODWAYS

4.1 Floodplains

Information obtained from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) shows the proposed roadway improvements will impact the 100-year floodplain at several locations along the project corridor. An overview of the project corridor with the 100-year floodplain is shown on **Figure 5** and **Figure 6**. FEMA Firmettes are included in **Appendix D** which show where the impacts to the 100-year floodplain will occur along with the floodplain compensation site locations. The 100-year floodplain and floodplain compensation sites are also included on the Drainage Maps in **Appendix C**. The impacts to the 100-year floodplain and compensation are summarized in **Table 4**.

Basin	Floodplain Compensation Site Name	Location	Base Flood Elevation (ft)	Impact (Ac)	Required Compensation (Ac)	Provided Compensation (Ac)
6	FPC 6R	1360+00 RT	28.7	2.64	3.17	4.67
7	FPC 7	1437+00 LT	27.0	1.02	1.22	1.26
12/13	FPC 12/13R	1542+00 RT	43.2	0.76	0.91	1.11
12/13	FPC 12/13L	1543+00 LT	43.2	0.88	1.06	1.63
14	FPC 14	1579+00 RT	39.8	0.32	0.39	0.77
18	FPC 17/18	1670+00 LT	35.3	1.77	2.12	2.44
10	FPC 19A	1705+00 LT	10.0	1.82	240	0.04
19	FPC 19B	1711+00 LT	19.0 00 LT		2.18	2.34
20	FPC 20	1735+00 LT	22.0	1.30	1.56	1.57
21	FPC 21 B	1755+00 LT	22.0	1.38	1.65	1.66

Table 4: 100-yr Floodplain Impact and Compensation Summary

Note: Impacts and compensation based on plan view area.

4.2 Floodways

Based on the FEMA flood maps, there are 5 locations where the interstate crosses a regulated floodway. These include the interstate crossings at Archie Creek, Delaney Creek, the Tampa Bypass Canal, Cowhouse Creek, and the Hillsborough River. The floodway locations along the project corridor are shown on **Figure 5** and **Figure 6**. The floodways are also shown on the FEMA Firmettes included in **Appendix D**.

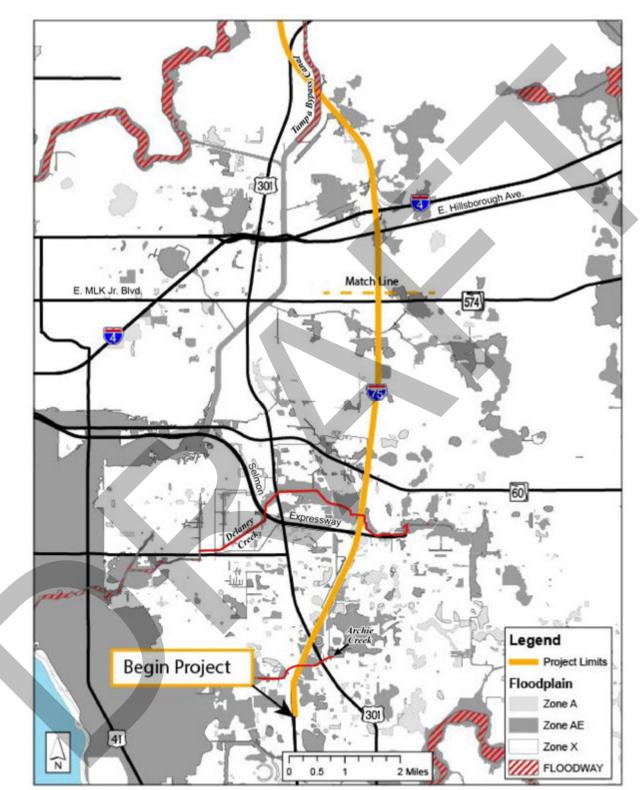
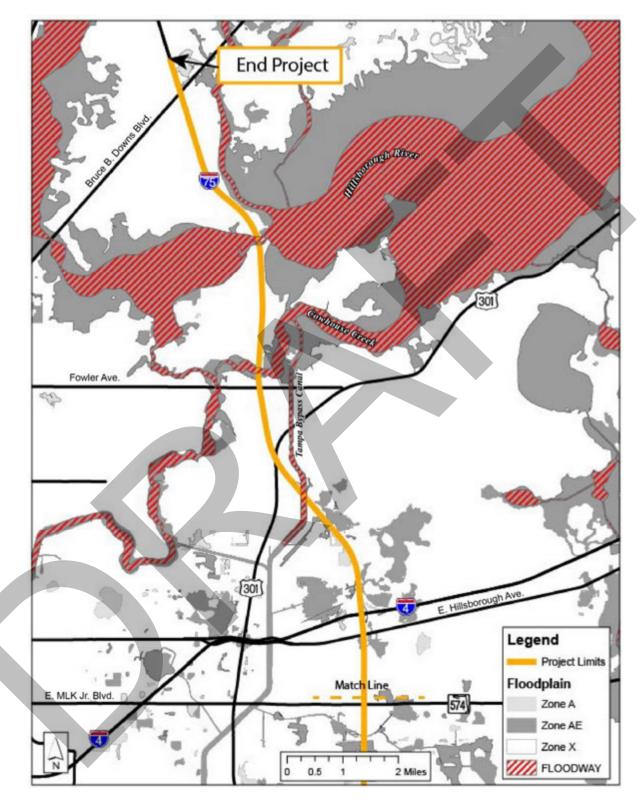


Figure 5: FEMA Floodplain Map (Sheet 1 of 2)





5.0 SCOPE AND DESIGN CRITERIA

5.1 Purpose

The purpose of this Pond Siting Report is to identify one preferred pond site per basin. The preferred pond sites identified in this report are hydraulically feasible and meet the SWFWMD and the Department's criteria. The report also identifies floodplain impacts and compensation sites associated with the roadway improvements.

The project study area was sub-divided into 34 roadway drainage basins. The first 25 basins referred to as Basin 1 through Basin 25 were analyzed in this report. Basin A through Basin EF were previously permitted to provide treatment and attenuation for the ultimate interstate typical which consists of 324 feet of impervious surface within the right-of-way. The interstate north of Bruce B. Downs has been permitted to treat and attenuate from right-of-way to right-of-way. Under the proposed improvements, the widening will consist of approximately 270 feet of impervious surface with the right-of-way. At the interchange of I-75 and Bruce B. Downs, calculations have been performed to demonstrate the existing stormwater facilities can accommodate the proposed widening project. For the basins on I-4, Basins H and I, the existing ponds will provide treatment and attenuation for the proposed improvements. A bridge has been proposed to span Pond 5-1 so it can remain in the proposed condition.

The analysis performed in this report includes a preliminary drainage design to determine pond sizes and outfall locations necessary for stormwater treatment and attenuation. The preferred pond sites and alternatives were sized to accommodate the new impervious area including the addition of two express lanes in each direction. Meeting minutes regarding the coordination with SWFWMD are provided in **Appendix E.**

5.2 Drainage System

The existing I-75 mainline is a divided rural typical section consisting of a drainage system of open ditches along each side of the roadway as well as in the median. Stormwater runoff from the interstate is conveyed by this system of open ditches to points of discharge as it leaves the right-of way. These discharge points generally consist of either cross drains or wetland systems. With the exception of the isolated roadway improvements discussed in **Section 3.3** and **Section 3.4**, none of the existing stormwater runoff within the project limits is being treated or attenuated before leaving the right-of-way. The proposed drainage system will consist of open ditches and closed piped systems to convey stormwater runoff from each project basin to a proposed stormwater management facility. Runoff from each basin will be treated and attenuated in a preferred pond site prior to discharging off-site.

5.3 Receiving Waters

The SMF's will discharge to the historical outfall in the basin and therefore will not alter historical drainage patterns.

5.4 Outstanding Florida Water (OFW)

The Hillsborough River Watershed at the I-75 crossing has been designated as an Outstanding Florida Water (OFW).

5.5 SHWT Establishment

The seasonal high water table (SHWT) for each pond was estimated using the National Resources Conservation Service (NRCS) soil data, existing SWFWMD permits, and aerial imagery. In areas where ponds were adjacent to existing wetlands or other surface water systems, SHWT's were set equal to the approximate SHWT elevations of the adjacent systems.

5.6 DHW Establishment

The ponds were designed for the SWFWMD 25-Year/24-Hour storm event since all basins are open with no know historical flooding issues. The design high water (DHW) for each pond was generally limited to three feet above the SHWT. One foot of freeboard has been provided between the inside berm and the SWFWMD 25-Year/24-Hour storm event. The ponds were also designed to provide one foot of clearance between the low edge of pavement and the FDOT 10-Year/24-Hour storm event.

5.7 Regulatory Issues and Design Criteria

The design of the SMF's is governed by the rules and criteria set forth in the State Wide Environmental Resource Permit (ERP) Applicants Handbook (2018) Volumes I and II, the FDOT Drainage Manual (January 2020) and the FDOT Drainage Design Guide, Stormwater Management Facility (January 2020).

A pre-application meeting was conducted with SWFWMD on Wednesday, April 25th, 2018. Based on the meeting, the project will be required to meeting the following criteria:

5.7.1 Water Quality

- Treat one inch of rainfall from either the existing co-mingled or new impervious area (DCIA) for wet detention systems.
- Provide 50 percent additional treatment for any direct discharges to an OFW.
- Provide a net environmental improvement for discharges to an impaired water body.

5.7.2 Water Quantity

• Detention of the post-development peak discharge rate to the pre-development peak discharge rate for the SWFWMD 25-Year/24-Hour storm event.

The pre-application meeting minutes with the SWFMWD are included in Appendix E.

5.8 SMF Geometry Layout

The stormwater ponds were sized based on criteria established in the FDOT Drainage Manual 2020. The size of the SMFs identified in this report includes the area required to store the treatment and attenuation volume with one foot of freeboard above the SWFWMD 25-Year/24-Hour storm event and the inside maintenance berm. The SMF's area was designed to include a minimum 15-foot wide maintenance berm with at least 1:8 slope or flatter around the perimeter of the facility and to have 1:4 side slopes from the inside berm to the pond bottom. The outside berm was designed to tie into the existing ground at a 1:4 slope and the radii of the inside edge of the maintenance berm was designed to be at least 30 feet.

5.9 FPC Site Sizing

The 100-year floodplain impacts, and compensation sites are calculated based on a plan view area (footprint). This mythology was presented and agreed during the Long List Meeting on June 7, 2019. Both the impacts and compensation sites were estimated using FEMA 100-year contours, 100-year elevations from the FEMA FIRM's, and SWFWMD LiDAR Contours. All proposed compensation sites have been designed to be hydraulically connected to the area of impact. The meeting minutes and presentation from the Long List Meeting are included in **Appendix E**.

6.0 SITE SELECTION AND DESIGN APPROACH

The initial considerations for the SMF site locations were based on the Project Development and Environmental (PD&E) study from July 2010 referred to as Alternative Stormwater Management Facilities Report (ASMFR). The ASMFR considered one (1) pond per basin for the ultimate condition and included an analysis for two (2) separate typical sections. The typical sections evaluated in the ASMFR are for the Recommended PD&E and for a 324-foot wide impervious section. The project was divided into 30 onsite roadway drainage basins referred to as Basins 1 through 25 and Basins A through EF.

Under the current project, the pond sites identified in the ASMFR were reviewed for their viability. Any pond sites that could be constructed within the existing right-of-way were given priority. Otherwise, two (2) to three (3) off-site alternatives were developed for each basin. The data collection used to size the pond sites is based on 1-foot contours from Geographic Information System (GIS) Lidar, existing SWFWMD permits and National Resources Conservation Service (NRCS) soils data. The wetlands were identified using GIS National Wetland Inventory, floodplains were identified using GIS FEMA maps from 2008 and 2013, and impaired waters were identified using FDEP water body identification (WBID) maps. Other factors considered in the pond design included selecting parcels which were vacant, government owned or impacted due to the proposed roadway improvements.

The pond site alternatives were then presented to the FDOT during the Long List Meeting on June 7, 2019. During the meeting, both the existing and proposed typical sections for the I-75 mainline were presented. The existing typical section for I-75 consists of three (3) General Use Lanes with auxiliary lanes in each direction. In addition to the general use lanes and auxiliary lanes, the proposed typical will also include two (2) Express Lanes (EL) in each direction. The presentation also explained that the ponds were designed to only accommodate the additional runoff from the proposed Express Lanes. Recommendations

were made by the Department regarding the pond alternatives and easement locations. These recommendations were implemented and resubmitted to the Department for preliminary assessments and right-of-way costs. The meeting minutes and presentation from the Long List Meeting is included in **Appendix E**.

A second meeting, referred to as the Short List Meeting was conducted on September 27, 2019. The purpose of the meeting was to confirm the recommendations from the Long List Meeting and identify the preferred pond site alternatives. An evaluation matrix was developed to identify the preferred pond sites by comparing cost and preliminary assessment findings. A more comprehensive assessment was later performed for each preferred pond site alternative to further identify any potential risks or impacts. The final costs and assessments for the alternative and preferred pond sites have been summarized in the Stormwater Evaluation Matrix which is included in **Table 5**. The presentation from the Short List Meeting is included in **Appendix E**.

7.0 PROPOSED CONDITIONS

The study area contains 25 proposed roadway drainage basins from the beginning of the project limits to just south of Fowler Avenue. The basin boundaries are based on the location of the existing cross drains and the location of I-75 bridges over intersecting roadways. Stormwater runoff from each basin will be collected by a stormsewer system and conveyed to a proposed pond. The ponds are numbered from south to north with one or more recommended alternative per drainage basin. Each alternative has been designed to provide treatment and attenuation for the additional impervious area due to the proposed roadway improvements. All existing basin outfalls will be maintained following the construction of the roadway improvements. The pond sizing calculations and drainage maps are provided in **Appendix F** and **Appendix C**, respectively. A matrix has been developed to select a preferred alternative pond site and is provided in **Table 5**. All preferred pond alternatives is included in **Appendix G**.

In addition to the 25 proposed roadway drainage basins, there are 7 existing roadway drainage basins from south of Fowler Avenue to north of Bruce B. Downs Boulevard. These drainage facilities were designed for the ultimate condition as discussed in **Section 5.1** of this report.

7.1 Basin 1

Basin 1 begins south of Progress Boulevard at station 1267+89 and extends north to station 1293+55 where Progress Boulevard crosses I-75. The roadway drainage basin is located in the Archie Creek regional basin which outfalls to Hillsborough Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 1A, SMF 1B, and SMF 1C. The preferred alternative for this basin is SMF 1C which is a wet detention facility designed to provide treatment and attenuation for 6.84 acres of additional impervious area. The pond site is 2.37 acres and will impact nine (9) existing parcels in total, eight of which are Single Family Residential parcels and one parcel that is owned by the Home Owners Association. There are no anticipated floodplain impacts due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.2 Basin 2/3

Basin 2 begins at station 1293+55, where Progress Boulevard crosses I-75, and extends north to station 1302+00. Basin 3 begins at station 1302+00 and extends north to station 1327+00. Both basins discharge to Archie Creek which ultimately outfalls to Hillsborough Bay. Runoff from both Basin 2 and Basin 3 discharge to a proposed pond site referred to as SMF 2/3 which is located in the infield of the U.S. 301 and I-75 interchange. The pond is a wet-detention facility and has been designed to provide treatment and attenuation for 10.25 acres of additional impervious area. The pond site is 7.57 acres and is the preferred pond since it is located the existing right-of-way. There are no anticipated floodplain impacts within these basins due to the proposed roadway improvements.

7.3 Basin 4/5

Basin 4 begins at station 1327+00, where U.S. 301 crosses I-75, and extends north to station 1354+00. Basin 5 begins at station 1354+00 and continues north to station 1376+00. Both basins discharge to Archie Creek which ultimately outfalls to Hillsborough Bay. Runoff from both Basin 4 and Basin 5 discharge to a proposed pond site referred to as SMF 4/5 which is located in the infield of the U.S. 301 and I-75 interchange. The pond is a wet-detention facility and has been designed to provide treatment and attenuation for 25.15 acres of additional impervious area. The pond site is 10.47 acres and is the preferred pond since it is located within the existing right-of-way. There are no anticipated floodplain impacts within these basins due to the proposed roadway improvements.

7.4 Basin 6

Basin 6 begins north of U.S. 301 at station 1376+00 and extends north to station 1406+18. The roadway drainage basin is located in the Archie Creek regional basin which outfalls to Hillsborough Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 6A and SMF 6B. The preferred alternative for this basin is SMF 6A which is a wet detention facility designed to provide treatment and attenuation for 14.16 acres of additional impervious area. The pond site is 3.31 acres and will impact one (1) parcel with a land use designation of Office Multistory A (Off Multi-Sty A). The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a proposed floodplain compensation site referred to as FPC 6R. The floodplain compensation site is 4.67 acres and is located within the existing right-of-way.

7.5 Basin 7/8

Basin 7 begins at station 1406+18, where Causeway Boulevard intersects with I-75 and extends north to station 1440+00. Basin 8 begins at station 1440+00 and extends north to station 1460+00. Both roadway drainage basins are located in the Delaney Creek regional basin which outfalls to Hillsborough Bay.

Three alternative SMF's were considered for Basin 7 and two alternatives were considered for Basin 8. The alternatives for Basin 7 are referred to as SMF 7A, SMF 7B and SMF 7C. The alternatives for Basin 8 are referred to as SMF 8A and SMF 8B. The alternative pond sites for Basin 7 and Basin 8 were designed as wet detention facilities that provide treatment and attenuation for 12.64 acres and 8.07 acres of additional impervious area, respectively.

Following the procurement of right-of-way cost estimates, it was determined that combining the treatment and attenuation for Basin 7 and Basin 8 into a single pond referred to as SMF 7/8 is a less expensive option than providing treatment and attenuation separately. Therefore, SMF 7/8 is the preferred alternative for Basin 7 and Basin 8. SMF 7/8 is a wet detention facility designed to provide treatment and attenuation for 20.71 acres of additional impervious area. The pond is 5.55 acres and will impact one (1) parcel with a land use designation of Vacant Commercial. SMF 7/8 located adjacent to the interstate will not require an easement acquisition. The anticipated floodplain impacts due to the proposed roadway improvements will be provided in a floodplain compensation site referred to as FPC 7. The floodplain impacts occur along the southbound exit ramp onto the Selmon Expressway in Basin 7. The compensation site is 1.26 acres and is partially located within FDOT right-of-way and will also impact two (2) additional parcels both of which have a land use designation of FDOT Vacant. The floodplain compensation site is required for all pond site options in Basin 7 and the preferred alternative SMF 7/8.

7.6 Basin 9

Basin 9 begins at station 1460+00, just south of the intersection of State Road 60 and I-75, and extends north to station 1492+00. This basin discharges to Delaney Creek which ultimately outfalls to Hillsborough Bay. Runoff from Basin 9 will discharge to a proposed pond site referred to as SMF 9. The pond is a wet detention facility designed to provide treatment and attenuation for 17.86 acres of additional impervious area. The pond site is 2.87 acres and is located within the infield at the interchange of State Road 60 and I-75. Since SMF 9 is located within the existing right-of-way it is the preferred pond site. There are no anticipated floodplain impacts within this basin due to the proposed roadway improvements.

7.7 Basin 10

Basin 10 begins north of State Road 60 at station 1492+00 and extends north to the railroad overpass bridge at station 1506+48. The roadway drainage basin is located in the Delaney Creek regional basin which outfalls to Hillsborough Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 10A, SMF 10B, and SMF 10C. The preferred alternative is SMF 10C which is a wet detention facility designed to provide treatment and attenuation for 8.79 acres of additional impervious area. The pond site is 2.47 acres and will impact one (1) parcel which has a land use designation of Vacant Industrial. There are no anticipated floodplain impacts due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.8 Basin 11

Basin 11 begins at the railroad overpass bridge at station 1506+48 and extends north to the intersection of Woodberry Road and I-75 at station 1514+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 11A and SMF 11B. The preferred alternative is SMF 11A which is a wet detention facility designed to provide treatment and attenuation for 4.70 acres of additional impervious area. The pond site is 1.32 acres and will impact two (2) parcels, one of which has a land use designation of Warehouse B and the other is designated as County Vacant. There are no anticipated floodplain impacts

due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.9 Basin 12/13

Basin 12 begins at station 1514+00, where Woodberry Road intersects with I-75 and extends north to station 1543+00. Basin 13 begins at station 1543+00 and extends north to station 1551+00. The roadway drainage basins are located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 12/13A, SMF 12/13B, and SMF 12/13C. The preferred alternative is SMF 12/13C which is a wet detention facility designed to provide treatment and attenuation for 21.47 acres of additional impervious area. The pond site is 7.35 acres and will impact two (2) parcels, one (1) designated as Pasture and one (1) designated as Vacant Residential. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in two floodplain compensations sites referred to as FPC 12/13R and FPC 12/13L, both of which are required for all alternatives within this basin. FPC 12/13R is 1.11-acre site that will impact two (2) parcels with a land designation of Pasture. FPC 12/13L is a 1.63-acre site that will impact two (2) parcels with a land use designation of Mobile Home and Flex Serv C. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.10 Basin 14

Basin 14 begins at station 1551+00 and extends north to station 1590+00, where East Broadway Boulevard intersects with I-75. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 14A and SMF 14B. The preferred alternative is SMF 14A which is a wet detention facility designed to provide treatment and attenuation for 13.80 acres of additional impervious area. The pond site is 5.72 acres and will impact one (1) parcel which has a land use designation of Vacant Commercial. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 14, which is required for all alternatives within this basin. The compensation site is 0.77 acres and impacts one (1) parcel with a land designation of Vacant Commercial. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.11 Basin 15/16

Basin 15 begins where East Broadway Boulevard intersects with I-75 at station 1590+00 and extends north to station 1603+00. Basin 16 begins at station 1603+00 and extends to just north of where East Martin Luther King Jr. Boulevard intersects with I-75 at station 1643+00. Both basins discharge to the Tampa Bypass Canal which ultimately outfalls to McKay Bay. Runoff from both Basin 15 and Basin 16 discharge to a proposed pond site referred to as SMF 15/16. SMF 15/16 is a wet detention facility designed to provide treatment and attenuation for 20.34 acres of additional impervious area. The pond site is 6.27 acres and is located in the infield at the interchange of East Martin Luther King Jr. Boulevard and I-75. Since SMF 15/16 is located within the existing right-of-way it is the preferred pond site. There are no anticipated floodplain impacts within these basins due to the proposed roadway improvements.

7.12 Basin 17

Basin 17 begins just north of the intersection of East Martin Luther King Jr. Boulevard and I-75 at station 1643+00 and extends north to station 1668+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 17A and SMF 17B. The preferred alternative for this basin is SMF 17A which is a wet detention facility designed to provide treatment and attenuation for 11.99 acres of additional impervious area. The pond site is 3.93 acres and will impact two (2) parcels, both with a land use designation of Pasture. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 17/18 which provides floodplain compensation for both Basin 17 and Basin 18. The compensation site is 2.44 acres and will impact one (1) parcel with a land designation of Pasture. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.13 Basin 18

Basin 18 begins at station 1668+00 and extends north to where East Hillsborough Avenue intersects with I-75 at station 1678+50. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 18A and SMF 18B. The preferred alternative is SMF 18A which is a wet detention facility designed to provide treatment and attenuation for 5.51 acres of additional impervious area. The pond site is 2.19 acres and will impact one (1) parcel with a land use designation of Pasture. The anticipated floodplain impacts due to the proposed roadway improvements will be provided in FPC 17/18. The preferred SMF will require an easement acquisition of 0.52 acres.

7.14 Basin 19

Basin 19 begins where East Hillsborough Avenue intersects with I-75 at station 1678+50 and extends north of the interchange of I-4 and I-75 to station 1725+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Four SMF's were designed for the basin and are referred to as SMF 19A, SMF 19B, SMF 19C and SMF 19D. The pond sites have been designed as wet detention facilities that will provide treatment and attenuation for 31.30 acres of additional impervious area. Cumulatively, the pond sites total 11.01 acres and are located within the exiting right-of-way of the I-4 and I-75 interchange. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in two proposed floodplain compensation sites referred to as FPC 19A and FPC 19B which are 1.44 acres and 0.90 acres, respectively.

7.15 Basin 20

Basin 20 begins north of the I-4 and I-75 interchange at station 1725+00 and extends north to station 1754+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 20A and SMF 20B. The preferred alternative is SMF 20A which is a wet detention facility designed to provide treatment and attenuation for 12.46 acres of additional impervious area. The pond site is 7.56 acres and will impact two (2) parcels, one of which has a land designation of Pasture, the other parcel has a land designation of Vacant

Acreage. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 20, which is required for all alternatives within this basin. The compensation site is 1.57 acres and will impact one (1) parcel with a land use designation of Pasture. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.16 Basin 21

Basin 21 begins at station 1754+00 and extends north to station 1784+00 near the Tampa Executive Airport. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 21A and SMF 21B. The preferred alternative is SMF 21B which is a wet detention facility designed to provide treatment and attenuation for 10.42 acres of additional impervious area. The pond site is 6.70 acres and is will impact one (1) parcel which has a land designation of Pasture. The anticipated floodplain impacts due to the proposed roadway improvements will be mitigated in a floodplain compensation site referred to as FPC 21B. The compensation site is 1.66 acres and will impact one (1) existing parcel with a land designation of Pasture. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.17 Basin 22/23

Basin 22 begins at station 1784+00, near the Tampa Executive Airport and extends north to the Tampa Bypass Canal at station 1810+00. Basin 23 begins at the Tampa Bypass Canal at station 1810+00 and extends north to station 1835+00 where Harney Road intersects with I-75. Both roadway drainage basins are located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay.

One pond site alternative was considered for Basin 22 and is referred to as SMF 22A. Two alternatives were considered for Basin 23 and are referred to as SMF 23A and SMF 23B. The ponds in Basin 22 and Basin 23 were designed to provide treatment and attenuation in a wet detention facility for 8.62 acres and 9.00 acres of additional impervious area, respectively. A second pond site alternative was considered for Basin 22 and presented during the Long List Meeting. This option was dismissed during the meeting due to the significant impact to multiple property owners. The option is referred to as SMF 22A and is shown on Sheet Number 13 for the Alternative Pond Sites from the Long List Meeting presentation. The presentation and meeting minutes from the Long List Meeting, which includes Sheet Number 13, are included in **Appendix E**.

A cost comparison indicates that combining the treatment and attenuation for Basin 22 and Basin 23 into a single pond referred to as SMF 22/23 is a less expensive option than providing treatment and attenuation separately. Therefore, SMF 22/23 is the preferred alternative for Basin 22 and Basin 23. SMF 22/23 is a wet detention facility designed to provide treatment and attenuation for 17.62 acres of additional impervious area. The pond site is 4.36 acres and will impact three (3) parcels, two of which have land use designations of Poultry/Bees/Fish and the third is designated as Dairies/Feed lots. There are no anticipated floodplain impacts in either Basin 22 or Basin 23 due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.18 Basin 24

Basin 24 begins at station 1835+00 where Harney Road intersects with I-75 and extends north to station 1847+00 where U.S. 301 intersects with I-75. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Two alternative SMF's were considered for the basin and are referred to as SMF 24A and SMF 24B. The preferred alternative is SMF 24B which is a wet detention facility designed to provide treatment and attenuation for 3.78 acres of additional impervious area. The pond site is 1.98 acres and will impact three (3) parcels, one of which is designated FDOT Vacant and the other two with a land use designation of Vacant Commercial. There are no anticipated floodplain impacts within this basin due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.19 Basin 25

Basin 25 begins at station 1847+00 where U.S. 301 intersects with I-75 and extends north to station 1874+00. The roadway drainage basin is located in the Tampa Bypass Canal regional basin which outfalls to McKay Bay. Three alternative SMF's were considered for the basin and are referred to as SMF 25A, SMF 25B, and SMF 25C-1 and 2. The preferred alternative is SMF 25A which is a wet detention facility designed to provide treatment and attenuation for 10.71 acres of additional impervious area. The pond site is 1.86 acres and will impact four (4) existing parcels, two of which have a land use designation of FDOT Vacant and the other two with a land use designation of Single-Family Residences. There are no anticipated floodplain impacts within this basin due to the proposed roadway improvements. The preferred SMF located adjacent to the interstate will not require an easement acquisition.

7.20 Basin A

Basin A begins at station 1874+00 and extends north of East Fowler Avenue to station 1923+00. There are two existing wet detention ponds within the basin limits referred to as Pond A2 and Pond A4. The ponds are located in the infield at station 1907+00, where East Fowler Avenue crosses I-75. Pond A2 is 5.94 acres and is on the right side of I-75 and Pond A4 is 6.05 acres and is on the left side of I-75. Both ponds outfall to Cowhouse Creek and were permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing ponds will not require modification due to the proposed roadway improvements.

7.21 Basin B

Basin B begins at station 1923+00 and extends north to station 1967+00 where East Fletcher Avenue intersects with I-75. There are two existing ponds within the basin limits referred to as Pond B2 and Pond B3. Pond B2 is an existing 2.63-acre wet detention facility located at station 1933+00 (Rt). Pond B3 is an existing 3.11-acre wet detention facility located in the infield at station 1963+00 (Lt). Both ponds outfall to Cowhouse Creek and were permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing ponds will not require modification due to the proposed roadway improvements.

7.22 Basin C

Basin C begins at station 1967+00 where East Fletcher Avenue intersects with I-75 and extends north to the Hillsborough River at station 2029+00. There are two existing ponds and a floodplain compensation site within the basin limits referred to as Pond C2, Pond C5 and FPC CD, respectively. Pond C2 is an existing 6.75-acre wet detention facility located in the infield at station 1971+00 (Lt). Pond C5 is an existing 10.32-acre wet detention facility located in the infield at station 1985+00 (Rt). FPC CD is an existing 2.30-acre floodplain compensation site that is directly connected to the Hillsborough River on the east side of the I-75 bridge crossing over the Hillsborough River. Both ponds outfall to the Hillsborough River. Both the ponds and the FPC were permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing ponds will not require modification due to the proposed roadway improvements.

7.23 Basin D

Basin D begins at station 2029+00 where the Hillsborough River crosses under I-75 and extends to station 2080+00. There is one existing pond within the basin limits referred to as Pond D. Pond D is an existing 8.00-acre wet detention facility which outfalls to Hillsborough River. The pond is located at station 2057+00 (Rt) and was permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing pond will not require modification due to the proposed roadway improvements.

7.24 Basin EF

Basin EF begins at station 2080+00 and extends north to the I-75 ramps for Bruce B. Downs Boulevard at station 2157+00. The basin also includes the grass median along I-75 between the ramps and I-75 bridge over Bruce B. Downs Boulevard. There is one existing pond within the basin limits referred to as Pond EF. Pond EF is an existing 32.30-acre wet detention facility located at station 2115+00 (Lt). The pond discharges to a wetland system which ultimately outfalls to the Hillsborough River. The existing pond was permitted and constructed for the ultimate condition as discussed in **Section 5.1** of this document. Therefore, the existing pond will not require modification due to the proposed roadway improvements.

7.25 Basin 1B, 1C, & Ramp 1 Infield

Basin 1B, 1C, and Ramp 1 Infield begins at station 2157+00 south of Bruce B. Downs Boulevard and extends north to station 2175+35. There are three (3) existing ponds within the basin limits referred to as Pond 1B, Pond 1C, and Pond Ramp 1 Infield. Currently, treatment and attenuation for the runoff from northbound I-75 and the exit ramp is provided in Pond Ramp 1 Infield. The pond is located in the southeast quadrant of I-75 and Bruce B. Downs Boulevard and provides treatment for the entire Ramp 1 Infield basin. The proposed widening along northbound I-75 occurs within the basin limits of Ramp 1 Infield and therefore will not require additional treatment. The treatment for the southbound widening along I-75 will also be provided in Pond Ramp 1 Infield. The pond currently has additional treatment capacity and is therefore able to accommodate the treatment requirements for the southbound widening. Calculations were performed to demonstrate that treatment and attenuation due to the proposed widening can be accomplished in the Ramp 1 Infield pond. The modified pond calculations which demonstrate that the existing pond is able to accommodate the additional runoff from the I-75 widening is included in **Appendix F**. The existing ponds were permitted under ERP No. 44021369.007 and selected sheets from the Drainage Design Document are provided in **Appendix B**.

Walls along the southbound widening will minimize impacts to the existing ponds referred to as Pond 1B and Pond 1C.

7.26 Basin G

Basin G begins at station 2175+35 and extends north to station 2246+00. There are three (3) existing ponds within the basin limits referred to as Pond G1A and G1B, Pond G2, and Pond G3. Pond G1A and G1B are located in the northwest infield of the I-75 and Bruce B. Downs Boulevard intersection and are hydraulically connected and considered to be a single pond. Ponds G2 and G3 are located on the west side of I-75 approximately 5,200 and 6,000 feet north of Bruce B. Downs Boulevard, respectively. The ponds within Basin G were designed for the ultimate condition and provide treatment and attenuation from right-of-way to right-of-way within the basin limits. The existing ponds were permitted and constructed under ERP No. 43033020.004 with selected sheets from the approved permit included in **Appendix B**. A drainage map with a graphical representation of the size and location of the ponds is provided in **Appendix C**.

Within the limits for Basin G, runoff from the northeast quadrant of I-75 and Bruce B. Downs Boulevard is collected and conveyed to a separate pond referred to as Pond 1A. The pond is located in the northeast infield of I-75 and Bruce B. Downs Boulevard and was permitted under ERP No. 43021639.001. Pond 1A collects runoff from the highpoint on the flyover bridge east to Bruce B. Downs Boulevard. The pond also treats and attenuates runoff from segments of I-75 which discharges directly into the northeast infield area. The proposed widening to the outside will require a wall to avoid impacting this existing pond. Since the ponds in basin G have been designed to provide treatment and attenuation for the ultimate condition, modification to Pond 1A will not be required due to the proposed roadway widening. Selected sheets from the approved permit are included in **Appendix B.** The existing pond is also shown on the Drainage Maps provided in **Appendix C.**



Table 5: Stormwater Evaluation Matrix

SMF/FPC Site Alternative	Pond/FPC Size (acres)	Easement Size (acres)	Wetland Impact Estimate (acres)	Mitigation Assumption	Protected Species Ranking	Potential Species*	Contamination and Hazardous Material Rating	Culture	al Resource Pot Historic	ential Historical	Wetland Mitigation Cost Estimate ^	Right-of-Way Cost Estimate	Pond/FPC Construction Cost**	Total Cost	SMF Site Ranking
SMF 1A	2.75	0	0.01	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$780	\$25,047,300	\$330,000	\$25,378,080	3
SMF 1B	3.47	0	0.04	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$3,120	\$18,652,600	\$416,400	\$19,072,120	2
SMF 1C	2.37	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	Low	LOW	LOW	\$0	\$5,669,700	\$284,400	\$5,954,100	1
SMF 2/3	7.57	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	MED	LOW	LOW	LOW	\$0	\$0	\$908,400	\$908,400	1
SMF 4/5	10.47	0	1.18	Tampa Bay Mitigation Bank	MEDIUM	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	HIGH	LOW	LOW	\$92,040	\$0	\$1,256,400	\$1,348,440	1
SMF 6A	3.31	0.09	0	N/A	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$4,004,400	\$408,000	\$4,412,400	1
SMF 6B	3.43	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$6,323,000	\$411,600	\$6,734,600	2
FPC 6R	4.67	0	0.46	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$35,880	\$0	\$560,400	\$596,280	1
SMF 7A	3.16	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE. FBB	LOW	LOW	LOW	LOW	\$0	\$28,083,600	\$379,200		1
FPC 7	1.26	0	0.16	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$12,480	\$0	\$151,200	\$28,626,480	4
SMF 7B	2.00	0.17	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$5,771,900	\$260,400	\$6,032,300	2
SMF 7C	8.82	0	0.66	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	MED	LOW	LOW	LOW	\$51,480	\$23,828,700	\$1,058,400	\$24,938,580	3
SMF 8A	2.65	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	NO DATA	NO DATA	NO DATA	\$0	\$4,924,400	\$318,000	\$5,242,400	2
SMF 8B	3.58	0.9	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$5,905,200	\$721,200	\$6,626,400	3
SMF 7/8	5.55	0	0.14	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$10,920	\$8,584,200	\$666,000	\$9,261,120	1
SMF 9	2.87	0	0	N/A	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$0	\$344,400	\$344,400	1
SMF 10A	3.28	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	MED	MODERATE	LOW	MODERATE	\$0	\$1,357,700	\$393,600	\$1,751,300	2
SMF 10B	4.53	0.83	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	MED	LOW/MODERATE	LOW	LOW	\$0	\$3,899,600	\$848,400	\$4,748,000	3
SMF 10C	2.47	0	1.83	Tampa Bay Mitigation Bank	rom	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	MED	MODERATE	LOW	LOW	\$142,740	\$990,100	\$296,400	\$1,429,240	1
SMF 11A	1.32	0	0.08	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	MED	MODERATE	LOW	MODERATE	\$6,240	\$765,300	\$158,400	\$929,940	1
SMF 11B	1.55	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	MED	MODERATE	LOW	MODERATE	\$0	\$3,204,100	\$186,000	\$3,390,100	2
SMF 12/13A	5.07	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	MED	LOW	LOW	LOW	\$0	65 400 500	\$608,400	67 000 700	
FPC 12/13L&R	2.74	0	0.53	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$6,402,500	\$328,800	\$7,339,700	3
SMF 12/13B	4.72	0	0	N/A	Low	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	62.245.400	\$566,400	62.000	
FPC 12/13L&R	2.74	0	0.53	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$2,216,400	\$328,800	\$3,111,600	2
SMF 12/13C	7.35	0	0.01	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	MODERATE	LOW	MODERATE	\$780	42.022.000	\$685,200	40.000	1000
FPC 12/13L&R	2.74	0	0.53	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$2,033,500	\$328,800	\$3,048,280	1

SMF/FPC Site Alternative	Pond/FPC Size (acres)	Easement Size (acres)	Wetland Impact Estimate	Mitigation Assumption	Protected Species Ranking	Potential Species*	Contamination and Hazardous Material Rating	Cultura	al Resource Pot	tential	Wetland Mitigation Cost Estimate ^	Right-of-Way Cost Estimate	Pond/FPC Construction Cost**	Total Cost	SMF Si Rankin
			(acres)		(c			Prehistoric	Historic	Historical	1				
SMF 14A	5.72	0	1.83	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$142,740	\$1,758,700	\$686,400	\$2,680,240	1
FPC 14	0.77	0	0.04	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0		\$92,400		
SMF 14B	4.96	1.73	0.06	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$4,680	\$2,413,700	\$1,234,800	\$3,745,580	2
FPC 14	0.77	0	0.04	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	rom	LOW	LOW	\$0		\$92,400		-
SMF 15/16	6.27	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	\$0	\$752,400	\$752,400	1
SMF 17A	3.93	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	\$973,300	\$471,600	\$1,444,900	1
SMF 17B	4.09	0.08	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	MODERATE	\$0	\$1,494,900	\$500,400	\$1,995,300	2
SMF 18A	2.19	0.52	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	\$958,400	\$404,400	\$1,362,800	1
SMF 18B	2.16	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	\$2,202,000	\$288,000	\$2,490,000	2
FPC 17/18	2.44	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	\$1,259,700	\$292,800	\$1,552,500	1
SMF 19A	1.57	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$0	\$188,400	\$188,400	1
SMF 19B	2.05	0	0	N/A	LOW	EIS, GT, FSC, FBQ, SEAK, BE, FBB	LOW	HIGH	LOW	LOW	\$0	\$0	\$246,000	\$246,000	1
SMF 19C	2.80	0	0	N/A	LOW	EIS, GT, FSC, FBO, ŠEAK, BE, FBB	LOW	LOW	LOW	LOW	\$0	\$0	\$336,000	\$336,000	1
SMF 19D	4.19	0	3.57	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$278,460	\$0	\$502,800	\$781,260	1
FPC 19A	0.67	0	0.06	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$4,680	\$0	\$80,400	\$85,080	1
FPC 19B	0.90	0	0.77	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$60,060	\$0	\$108,000	\$168,060	1
SMF 20A	7.56	0	0.03	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	MED	MODERATE	LOW	LOW	\$2,340	\$319,300	\$986,400	\$1,589,260	1
FPC 20	1.57	0	1.19	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	MED	LOW	LOW	LOW	\$92,820	\$515,500	\$188,400	\$1,505,200	
SMF 20B	9.63	1.01	1.23	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	HIGH	LOW	MODERATE	\$95,940	\$956,800	\$1,390,920	\$2,724,880	2
FPC 20	1.57	0	1.19	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	MED	LOW	LOW	LOW	\$92,820	5550,000	\$188,400	\$2,724,000	
SMF 21A	7.77	0	2.47	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	HIGH	LOW	LOW	\$192,660	\$336,100	\$932,400	\$1,890,280	2
FPC 21A	2.02	0.75	1.24	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	HIGH	LOW	LOW	\$96,720	\$550,100	\$332,400	\$1,850,280	
SMF 21B	6.70	0	0.86	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	HIGH	LOW	LOW	LOW	\$67,080	\$201.400	\$804,000	¢1 267 020	
FPC 21B	1.66	0	0.08	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	HIGH	LOW	LOW	LOW	\$6,240	\$291,400	\$199,200	\$1,367,920	1
SMF 22A	3.94	0	0.24	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$18,720	\$199,300	\$472,800	\$690,820	2
SMF 23A	3.15	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	MODERATE	LOW	LOW	\$0	\$680,200	\$378,000	\$1,058,200	2
SMF 23B	2.81	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	MODERATE	LOW	LOW	\$0	\$1,312,400	\$337,200	\$1,649,600	3
SMF 22/23	4.36	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	MODERATE	\$0	\$781,200	\$523,200	\$1,304,400	1

SMF/FPC Site Pond/FPC Size Alternative (acres)	6 6 T T T T T T T T T T T T T T T T T T	Wetland Impact Estimate	Mitigation Assumption	Protected Species Ranking	Potential Species*	Contamination and Hazardous Material Rating	Cultura	al Resource Pot	ential	Wetland Mitigation Cost Estimate ^	Right-of-Way Cost Estimate	Pond/FPC Construction Cost**	Total Cost	SMF Site Ranking	
			(acres)					Prehistoric	Historic	Historical					
SMF 24A	2.04	0	0.11	Tampa Bay Mitigation Bank	LOW	EIS, WS, GT, FSC, FBO, WDWB, SEAK, BE, FBB	LOW	HIGH	LOW	LOW	\$8,580	\$1,350,600	\$244,800	\$1,603,980	2
SMF 24B	1.98	0	0.14	Tampa Bay Mitigation Bank	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW	LOW	LOW	\$10,920	\$1,318,000	\$237,600	\$1,566,520	1
SMF 25A	1.86	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	MODERATE	50	\$985,300	\$274,500	\$1,259,800	1
SMF 25B	2.81	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	LOW/MODERATE	LOW	LOW	\$0	\$1,573,900	\$361,050	\$1,934,950	2
SMF 25C-1	2.07	0.11	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	MODERATE	LOW	MODERATE	\$0	\$1,541,600	\$261,600	\$1,803,200	3
SMF 25C-2	2.44	0	0	N/A	LOW	EIS, GT, FSC, FBO, SEAK, BE, FBB	LOW	NO DATA	NO DATA	NO DATA	\$0	\$1,712,900	\$292,800	\$2,005,700	3

^ = Based on an estimated UMAM delta of 0.60 (medium quality wetland) and a cost of \$130,000 per credit at Tampa Bay Mitigation Bank

** Includes the associated easement acquisiton costs when applicable

Notes:

SMF 4/5 is directly adjacent to bald eagle nest HL047. Construction of this pond would likely occur within the 330ft primary buffer of the nest and require an incidental take permit.

Green shading represents archeological sites within the APE (area of potential effects)

Blue shading represents archeological sites adjacent to the APE Yellow shading represents historic resources

* Legend	
EIS	Eastern Indigo Snake
WS	Wood Stork
GT	Gopher Tortoise
FSC	Florida Sandhill Crane
FBO	Florida Burrowing Owl
WDWB	Wetland-dependant Wading Birds
SEAK	Southeastern American Kestrel
BE	Bald Eagle
FBB	Florida Black Bear
FSJ	Florida Scrub Jay
WDWB SEAK BE FBB	Wetland-dependant Wading Birds Southeastern American Kestrel Bald Eagle Florida Black Bear

8.0 FDEP IMPAIRED WATER BODY

The project limits were evaluated for impairments as identified by the Florida Department of Environmental Protection (FDEP). Based on their Water Body Identification Numbers (WBIDs), FDEP has identified eight (8) basins with the project limits that are impaired. Pollutant loading calculations were performed for all nutrient based pollutants. Calculations were not performed for non-nutrient based impairments. A map showing the WBIDs, the verified impairment list, and the required calculations are provided in **Appendix I**. The WBIDs and the impairment are summarized in **Table 6**.

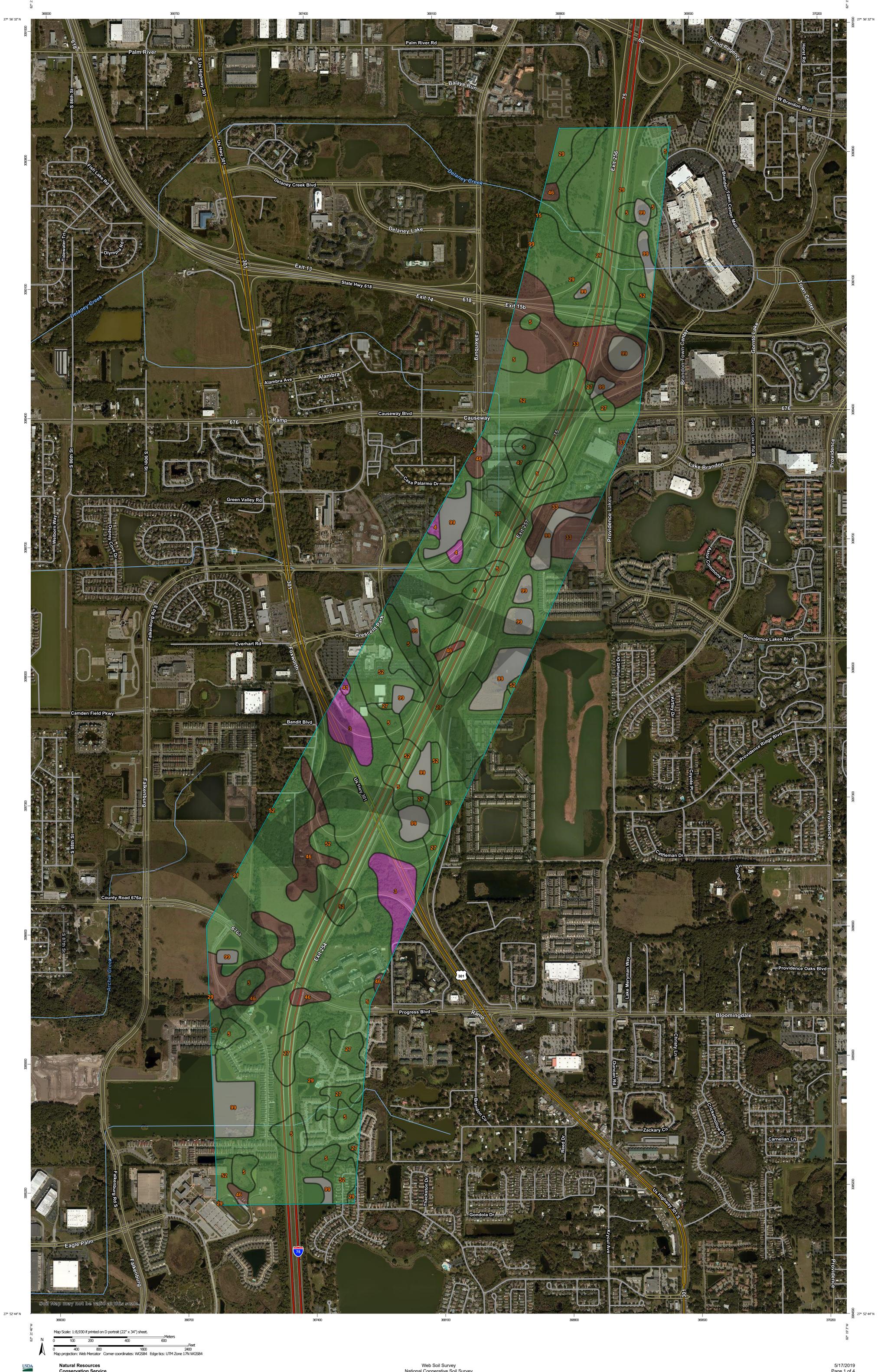
Planning Unit	Water Body Identification	Water Segment Name	Impairment	Impaired Roadway Basins
Coastal Hillsborough Bay Tributary	1628	Archie Creek	Fecal Coliform	1-5
Coastal Hillsborough Bay Tributary	1632	Delaney Creek Popoff Canal	Enterococci	5,6
Coastal Hillsborough Bay Tributary	1605	Delaney Creek	Nutrients (Macrophytes)	7,8
Coastal Hillsborough Bay Tributary	1536A	Unnamed Drain	Fecal Coliform	11-13
Coastal Hillsborough Bay Tributary	1576	Mango Drain	Dissolved Oxygen & Fecal Coliform	14-16
Coastal Hillsborough Bay Tributary	1536C	Tampa Bypass Canal Tributary	Fecal Coliform	17-21
Coastal Hillsborough Bay Tributary	1536B	Sixmile Creek (Tampa Bypass Canal)	Dissolved Oxygen	22,23
Hillsborough River	1402	Cypress Creek	Fecal Coliform	G

Table 6: FDEP Impaired Waterbodies

9.0 REFERENCES

- 1. FDOT 2020 Drainage Manual
- 2.
- FDOT 2020 Drainage Design Guide SWFWMD 2018 Environmental Resource Permit Handbook, Volume I & II 3.
- 4. Tampa Bay Water Atlas
- 5.
- The Florida Geographic Data library (FGDL) The FEMA Flood Insurance Rate Maps (FIRMs) 6.

Appendix A NRCS Soil Data



Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
3	Archbold fine sand	A	33.0	2.7%
4	Arents, nearly level	A	3.3	0.3%
5	Basinger, Holopaw, and Samsula soils, depressional	A/D	72.9	5.9%
15	Felda fine sand, 0 to 2 percent slopes	A/D	0.1	0.0%
27	Malabar fine sand, 0 to 2 percent slopes	A/D	168.6	13.6%
29	Myakka fine sand, 0 to 2 percent slopes	A/D	474.2	38.1%
33	Ona fine sand, 0 to 2 percent slopes	B/D	70.4	5.7%
41	Pomello fine sand, 0 to 5 percent slopes	A	0.8	0.1%
46	St. Johns fine sand	B/D	55.8	4.5%
47	Seffner fine sand, 0 to 2 percent slopes	A/D	14.2	1.1%
52	Smyrna fine sand, 0 to 2 percent slopes	A/D	253.0	20.3%
99	Water		97.4	7.8%
Totals for Area of Inter	rest	1,243.7	100.0%	



Hydrologic Soil Group—Hillsborough County, Florida



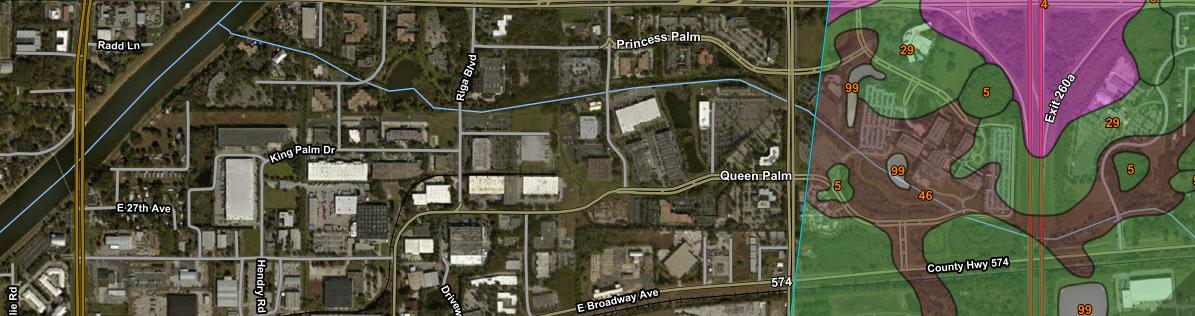
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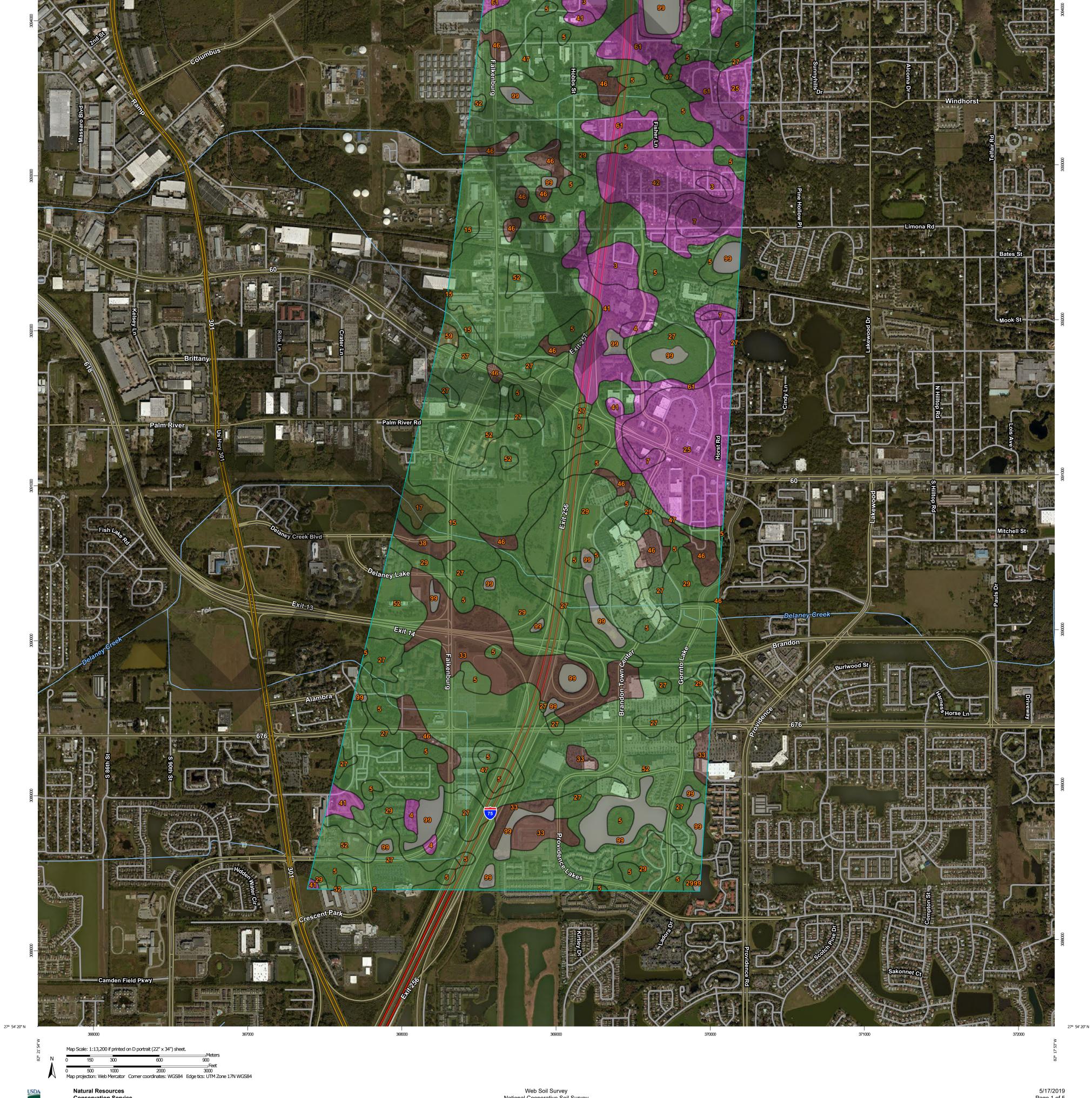
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61 Elm Ln 46

27° 59' 58" N



27° 59' 58" N

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
3	Archbold fine sand	A	33.5	0.8%
4	Arents, nearly level	A	136.3	3.3%
5	Basinger, Holopaw, and Samsula soils, depressional	A/D	296.7	7.1%
7	Candler fine sand, 0 to 5 percent slopes	A	151.0	3.6%
9	Candler-Urban land complex, 0 to 5 percent slopes	A	1.9	0.0%
14	Eaton mucky sand, depressional	C/D	2.4	0.1%
15	Felda fine sand, 0 to 2 percent slopes	A/D	52.3	1.3%
17	Floridana fine sand, 0 to 2 percent slopes	C/D	9.4	0.2%
18	Fort Meade loamy fine sand, 0 to 5 percent slopes	A	3.2	0.1%
23	Kendrick fine sand, 2 to 5 percent slopes	A	38.9	0.9%
25	Lake fine sand, 0 to 5 percent slopes	A	133.4	3.2%
26	Lochloosa-Micanopy fine sands, 0 to 5 percent slopes	С	24.2	0.6%
27	Malabar fine sand, 0 to 2 percent slopes	A/D	287.4	6.9%
29	Myakka fine sand, 0 to 2 percent slopes	A/D	1,410.7	33.8%
33	Ona fine sand, 0 to 2 percent slopes	B/D	151.8	3.6%
38	Pinellas fine sand, 0 to 2 percent slopes	B/D	10.0	0.2%
41	Pomello fine sand, 0 to 5 percent slopes	A	78.2	1.9%
42	Pomello-Urban land complex, 0 to 5 percent slopes	A	66.6	1.6%
46	St. Johns fine sand	B/D	219.4	5.3%
47	Seffner fine sand, 0 to 2 percent slopes	A/D	57.2	1.4%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
52	Smyrna fine sand, 0 to 2 percent slopes	A/D	568.0	13.6%
53	Tavares-Millhopper complex, 0 to 5 percent slopes	A	13.6	0.3%
59	Winder fine sand, 0 to 2 percent slopes	C/D	3.6	0.1%
61	Zolfo fine sand, 0 to 2 percent slopes	A	249.5	6.0%
99	Water		168.5	4.0%
Totals for Area of Inter	est	1	4,167.5	100.0%

Description

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

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

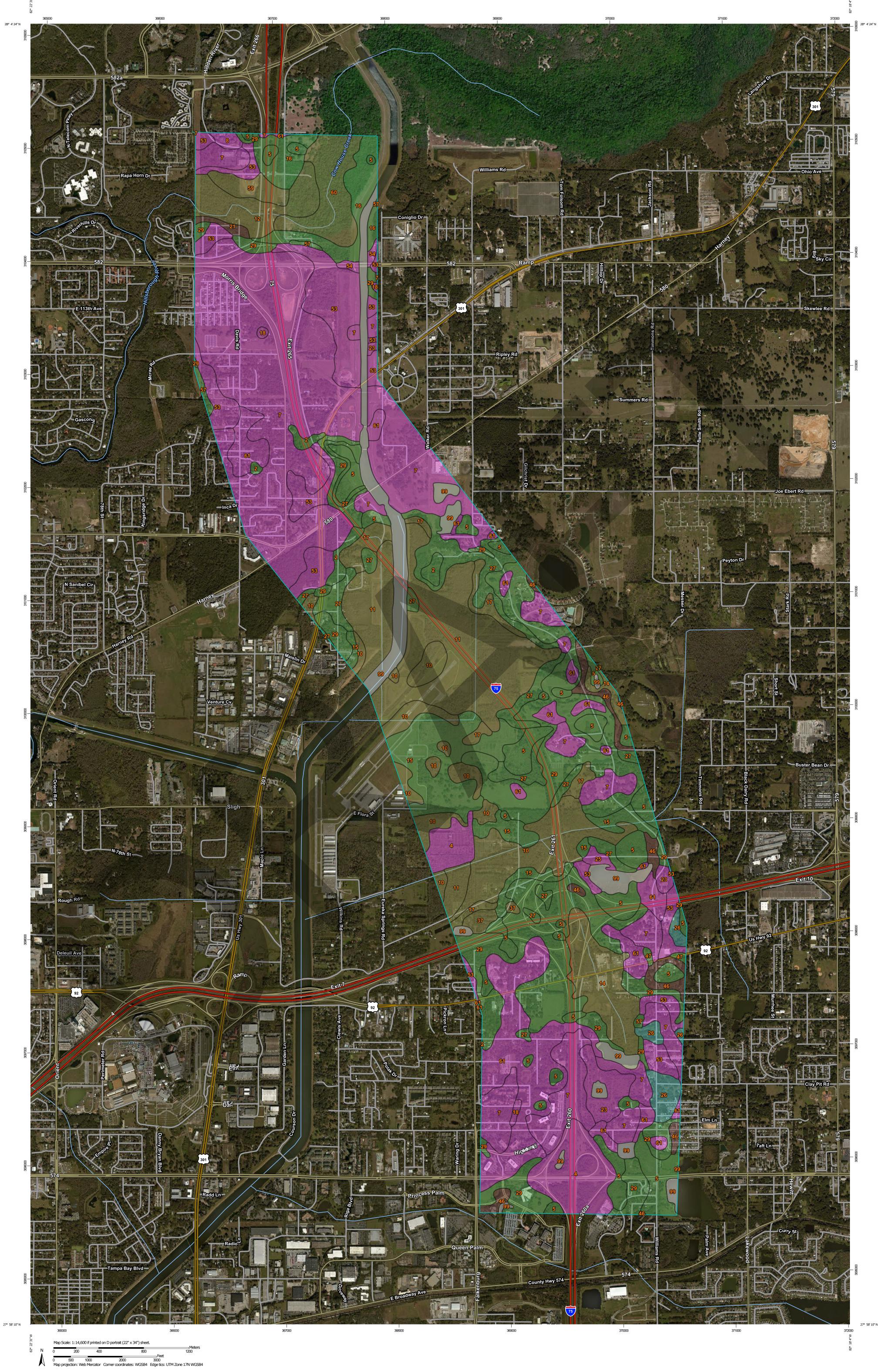
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

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

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

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

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

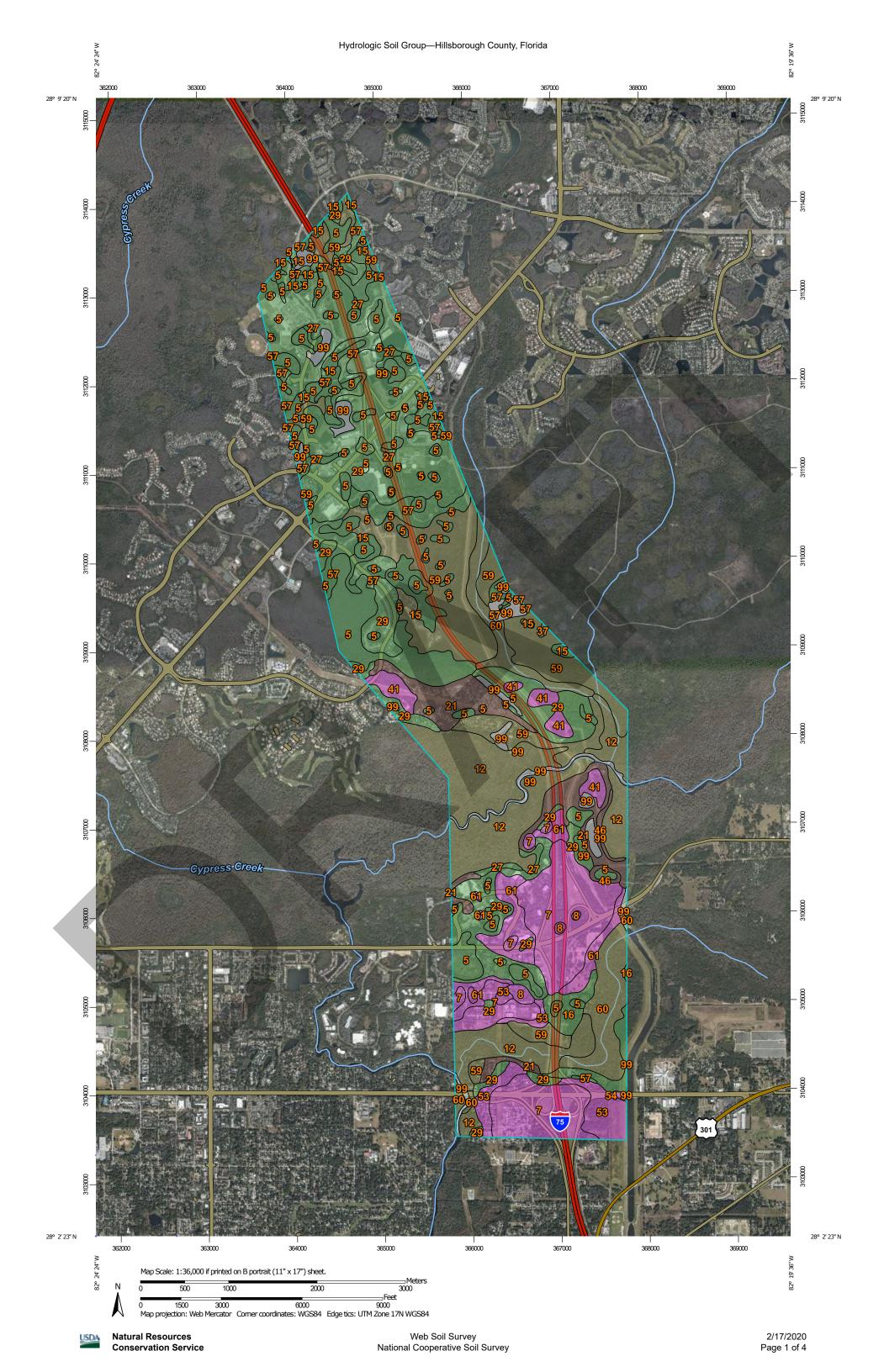


Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2	Adamsville fine sand, 0 to 2 percent slopes	A/D	29.9	0.7%
4	Arents, nearly level	А	137.4	3.0%
5	Basinger, Holopaw, and Samsula soils, depressional	A/D	243.3	5.4%
7	Candler fine sand, 0 to 5 percent slopes	A	1,058.1	23.3%
8	Candler fine sand, 5 to 12 percent slopes	A	7.6	0.2%
10	Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes	C/D	245.6	5.4%
11	Chobee muck, frequently ponded, 0 to 1 percent slopes	C/D	393.9	8.7%
12	Chobee sandy loam, frequently flooded	C/D	80.7	1.8%
14	Eaton mucky sand, depressional	C/D	117.2	2.6%
15	Felda fine sand, 0 to 2 percent slopes	A/D	201.7	4.4%
16	Felda fine sand, 0 to 2 percent slopes, occasionally flooded	A/D	102.9	2.3%
17	Floridana fine sand, 0 to 2 percent slopes	C/D	65.8	1.4%
18	Fort Meade loamy fine sand, 0 to 5 percent slopes	A	6.0	0.1%
21	Immokalee fine sand, 0 to 2 percent slopes	B/D	8.1	0.2%
23	Kendrick fine sand, 2 to 5 percent slopes	A	48.5	1.1%
25	Lake fine sand, 0 to 5 percent slopes	A	7.1	0.2%
26	Lochloosa-Micanopy fine sands, 0 to 5 percent slopes	С	41.1	0.9%
27	Malabar fine sand, 0 to 2 percent slopes	A/D	179.7	4.0%
29	Myakka fine sand, 0 to 2 percent slopes	A/D	583.2	12.8%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
37	Paisley fine sand, depressional	C/D	13.5	0.3%
46	St. Johns fine sand	B/D	56.4	1.2%
47	Seffner fine sand, 0 to 2 percent slopes	A/D	4.3	0.1%
53	Tavares-Millhopper complex, 0 to 5 percent slopes	A	272.0	6.0%
54	Tavares-Millhopper fine sands, 5 to 8 percent slopes	A	6.7	0.1%
57	Wabasso fine sand, 0 to 2 percent slopes	A/D	10.1	0.2%
59	Winder fine sand, 0 to 2 percent slopes	C/D	29.2	0.6%
60	Winder fine sand, frequently flooded	C/D	92.4	2.0%
61	Zolfo fine sand, 0 to 2 percent slopes	A	324.8	7.1%
99	Water		175.7	3.9%
Totals for Area of Inter	rest	4,543.0	100.0%	





Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
5	Basinger, Holopaw, and Samsula soils, depressional	A/D	619.4	12.4%
7	Candler fine sand, 0 to 5 percent slopes	A	514.0	10.3%
8	Candler fine sand, 5 to 12 percent slopes	A	17.1	0.3%
12	Chobee sandy loam, frequently flooded	C/D	655.8	13.2%
15	Felda fine sand, 0 to 2 percent slopes	A/D	105.3	2.1%
16	Felda fine sand, 0 to 2 percent slopes, occasionally flooded	A/D	82.9	1.7%
18	Fort Meade loamy fine sand, 0 to 5 percent slopes	A	3.2	0.1%
21	Immokalee fine sand, 0 to 2 percent slopes	B/D	222.1	4.5%
27	Malabar fine sand, 0 to 2 percent slopes	A/D	40.1	0.8%
29	Myakka fine sand, 0 to 2 percent slopes	A/D	1,089.6	21.9%
37	Paisley fine sand, depressional	C/D	2.3	0.0%
41	Pomello fine sand, 0 to 5 percent slopes	A	84.5	1.7%
46	St. Johns fine sand	B/D	17.8	0.4%
53	Tavares-Millhopper complex, 0 to 5 percent slopes	A	118.0	2.4%
54	Tavares-Millhopper fine sands, 5 to 8 percent slopes	A	3.7	0.1%
57	Wabasso fine sand, 0 to 2 percent slopes	A/D	244.8	4.9%
59	Winder fine sand, 0 to 2 percent slopes	C/D	620.5	12.5%
60	Winder fine sand, frequently flooded	C/D	248.3	5.0%
61	Zolfo fine sand, 0 to 2 percent slopes	A	147.0	3.0%
99	Water		140.7	2.8%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Totals for Area of Interes	st	4,977.3	100.0%	

Description

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

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

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

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

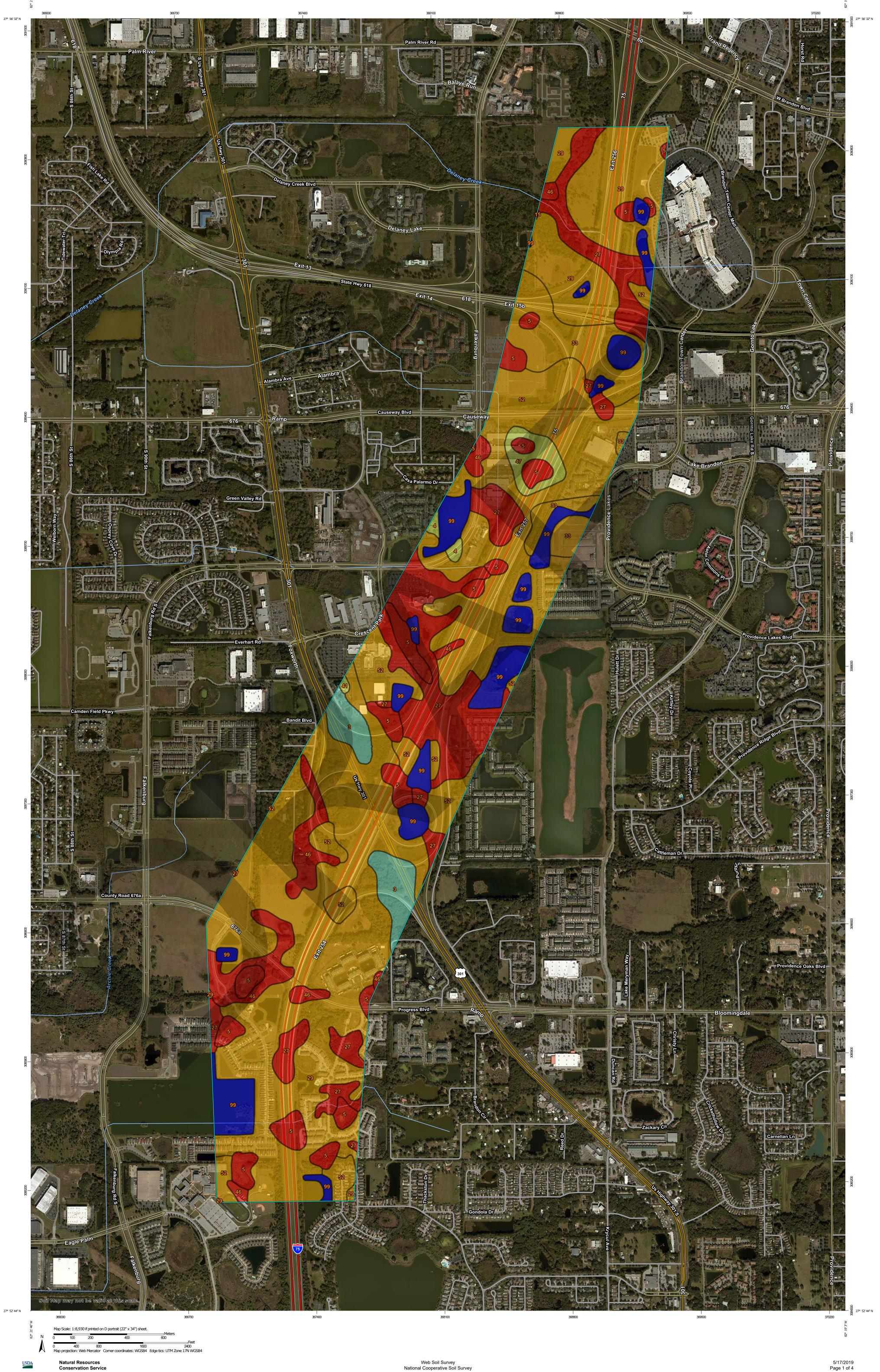
Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

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

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

Rating Options

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified Tie-break Rule: Higher



Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
3	Archbold fine sand	145	33.0	2.7%
4	Arents, nearly level	69	3.3	0.3%
5	Basinger, Holopaw, and Samsula soils, depressional	0	72.9	5.9%
15	Felda fine sand, 0 to 2 percent slopes	15	0.1	0.0%
27	Malabar fine sand, 0 to 2 percent slopes	15	168.6	13.6%
29	Myakka fine sand, 0 to 2 percent slopes	30	474.2	38.1%
33	Ona fine sand, 0 to 2 percent slopes	31	70.4	5.7%
41	Pomello fine sand, 0 to 5 percent slopes	84	0.8	0.1%
46	St. Johns fine sand	15	55.8	4.5%
47	Seffner fine sand, 0 to 2 percent slopes	59	14.2	1.1%
52	Smyrna fine sand, 0 to 2 percent slopes	30	253.0	20.3%
99	Water	>200	97.4	7.8%
Totals for Area of Inter	rest		1,243.7	100.0%

Depth to Water Table

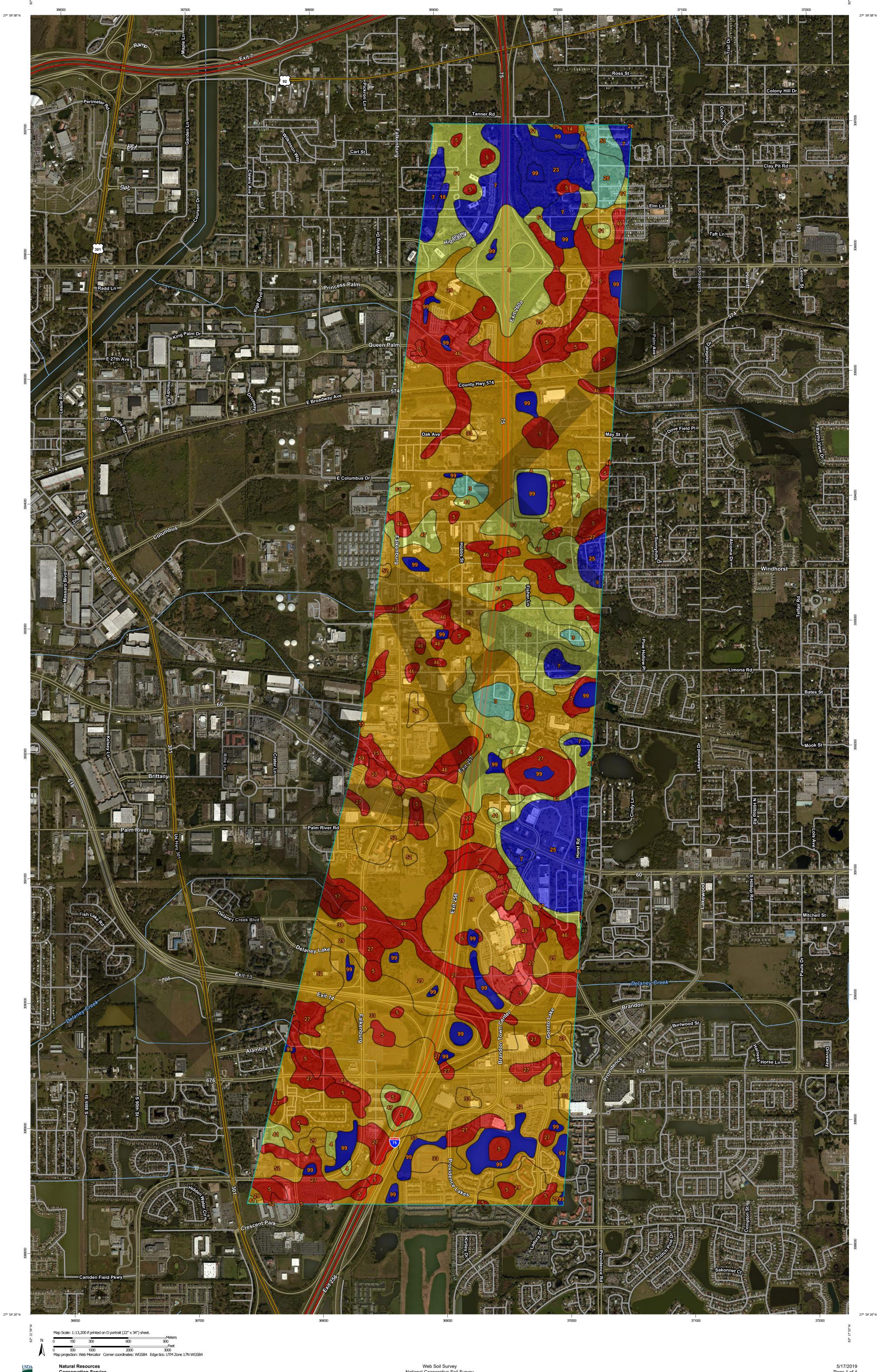
Description

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

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

Rating Options

Units of Measure: centimeters Aggregation Method: Dominant Component Component Percent Cutoff: None Specified



Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
3	Archbold fine sand	145	33.5	0.8%
4	Arents, nearly level	69	136.3	3.3%
5	Basinger, Holopaw, and Samsula soils, depressional	0	296.7	7.1%
7	Candler fine sand, 0 to 5 percent slopes	>200	151.0	3.6%
9	Candler-Urban land complex, 0 to 5 percent slopes	>200	1.9	0.0%
14	Eaton mucky sand, depressional	0	2.4	0.1%
15	Felda fine sand, 0 to 2 percent slopes	15	52.3	1.3%
17	Floridana fine sand, 0 to 2 percent slopes	8	9,4	0.2%
18	Fort Meade loamy fine sand, 0 to 5 percent slopes	>200	3.2	0.1%
23	Kendrick fine sand, 2 to 5 percent slopes	>200	38.9	0.9%
25	Lake fine sand, 0 to 5 percent slopes	>200	133.4	3.2%
26	Lochloosa-Micanopy fine sands, 0 to 5 percent slopes	114	24.2	0.6%
27	Malabar fine sand, 0 to 2 percent slopes	15	287.4	6.9%
29	Myakka fine sand, 0 to 2 percent slopes	30	1,410.7	33.8%
33	Ona fine sand, 0 to 2 percent slopes	31	151.8	3.6%
38	Pinellas fine sand, 0 to 2 percent slopes	30	10.0	0.2%
41	Pomello fine sand, 0 to 5 percent slopes	84	78.2	1.9%
42	Pomello-Urban land complex, 0 to 5 percent slopes	84	66.6	1.6%
46	St. Johns fine sand	15	219.4	5.3%
47	Seffner fine sand, 0 to 2 percent slopes	59	57.2	1.4%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of	AOI
52	Smyrna fine sand, 0 to 2 percent slopes	30	568.0		13.6%
53	Tavares-Millhopper complex, 0 to 5 percent slopes	145	13.6		0.3%
59	Winder fine sand, 0 to 2 percent slopes	15	3.6		0.1%
61	Zolfo fine sand, 0 to 2 percent slopes	76	249.5		6.0%
99	Water	>200	168.5		4.0%
Totals for Area of Interest			4,167.5		100.0%

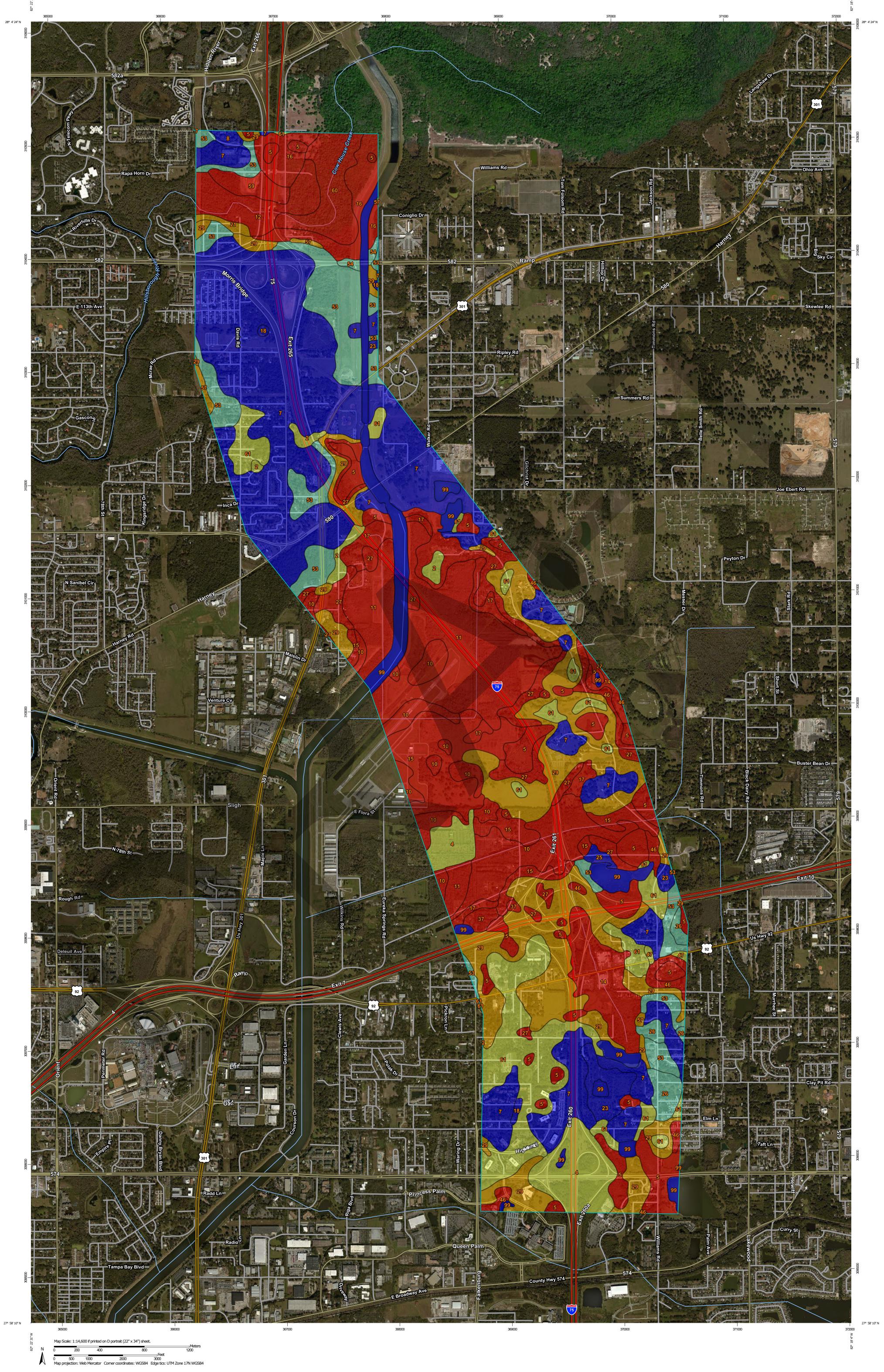
Description

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

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

Rating Options

Units of Measure: centimeters Aggregation Method: Dominant Component Component Percent Cutoff: None Specified Tie-break Rule: Lower Interpret Nulls as Zero: No Beginning Month: January Ending Month: December



Depth to Water Table

Man	Man un 't un	Detine (continue to)	A	Parameter (A O)
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
2	Adamsville fine sand, 0 to 2 percent slopes	51	29.9	0.7%
4	Arents, nearly level	69	137.4	3.0%
5	Basinger, Holopaw, and Samsula soils, depressional	0	243.3	5.4%
7	Candler fine sand, 0 to 5 percent slopes	>200	1,058.1	23.3%
8	Candler fine sand, 5 to 12 percent slopes	>200	7.6	0.2%
10	Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes	8	245.6	5.4%
11	Chobee muck, frequently ponded, 0 to 1 percent slopes	8	393.9	8.7%
12	Chobee sandy loam, frequently flooded	0	80.7	1.8%
14	Eaton mucky sand, depressional	0	117.2	2.6%
15	Felda fine sand, 0 to 2 percent slopes	15	201.7	4.4%
16	Felda fine sand, 0 to 2 percent slopes, occasionally flooded	15	102.9	2.3%
17	Floridana fine sand, 0 to 2 percent slopes	8	65.8	1.4%
18	Fort Meade loamy fine sand, 0 to 5 percent slopes	>200	6.0	0.1%
21	Immokalee fine sand, 0 to 2 percent slopes	30	8.1	0.2%
23	Kendrick fine sand, 2 to 5 percent slopes	>200	48.5	1.1%
25	Lake fine sand, 0 to 5 percent slopes	>200	7.1	0.2%
26	Lochloosa-Micanopy fine sands, 0 to 5 percent slopes	114	41.1	0.9%
27	Malabar fine sand, 0 to 2 percent slopes	15	179.7	4.0%
29	Myakka fine sand, 0 to 2 percent slopes	30	583.2	12.8%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
37	Paisley fine sand, depressional	0	13.5	0.3%
46	St. Johns fine sand	15	56.4	1.2%
47	Seffner fine sand, 0 to 2 percent slopes	59	4.3	0.1%
53	Tavares-Millhopper complex, 0 to 5 percent slopes	145	272.0	6.0%
54	Tavares-Millhopper fine sands, 5 to 8 percent slopes	145	6.7	0.1%
57	Wabasso fine sand, 0 to 2 percent slopes	30	10.1	0.2%
59	Winder fine sand, 0 to 2 percent slopes	15	29.2	0.6%
60	Winder fine sand, frequently flooded	0	92.4	2.0%
61	Zolfo fine sand, 0 to 2 percent slopes	76	324.8	7.1%
99	Water	>200	175.7	3.9%
Totals for Area of Interest			4,543.0	100.0%

Description

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

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

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

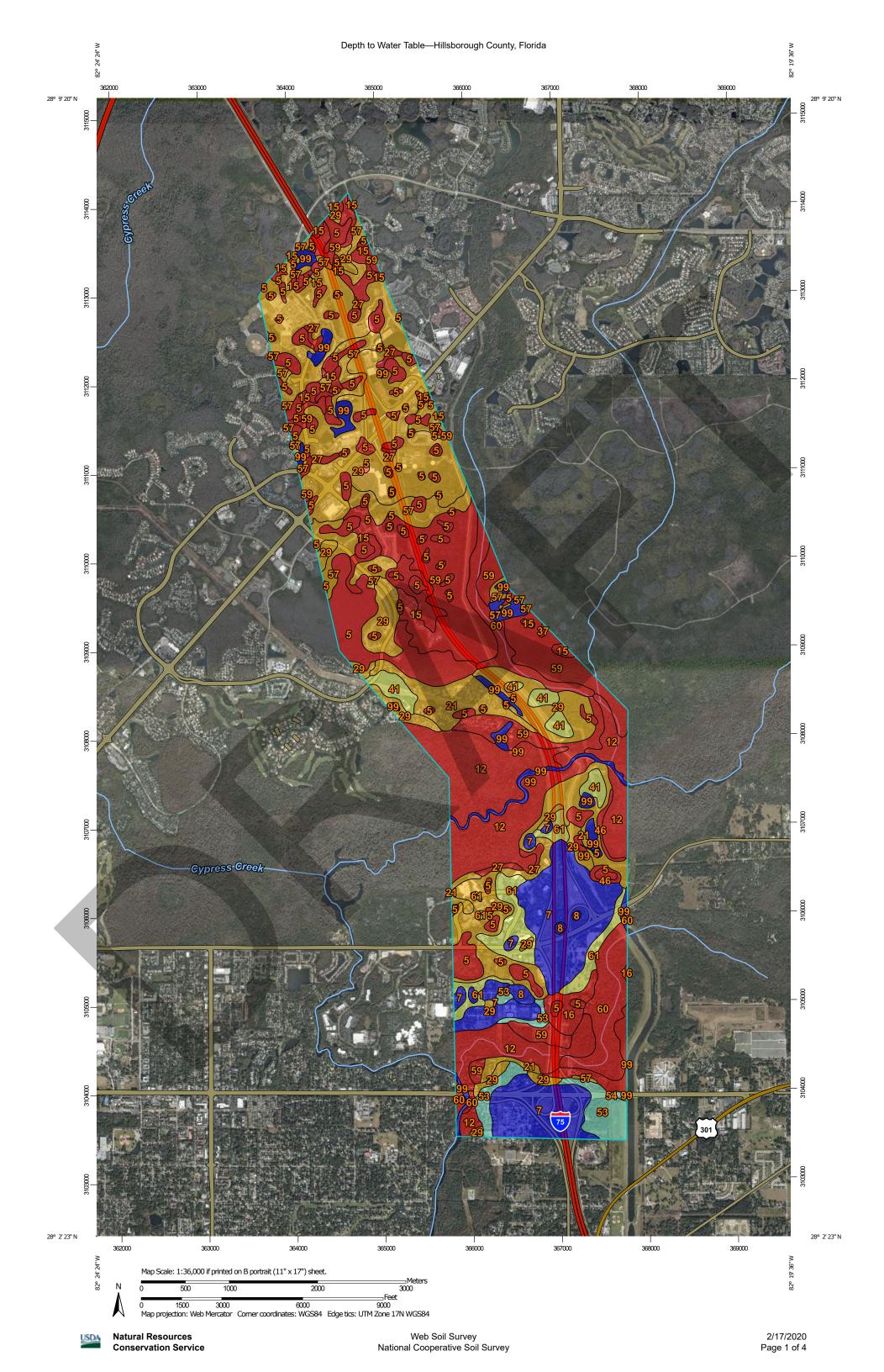
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December



Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
5	Basinger, Holopaw, and Samsula soils, depressional	0	619.4	12.4%
7	Candler fine sand, 0 to 5 percent slopes	>200	514.0	10.3%
8	Candler fine sand, 5 to 12 percent slopes	>200	17.1	0.3%
12	Chobee sandy loam, frequently flooded	0	655.8	13.2%
15	Felda fine sand, 0 to 2 percent slopes	15	105.3	2.1%
16	Felda fine sand, 0 to 2 percent slopes, occasionally flooded	15	82.9	1.7%
18	Fort Meade loamy fine sand, 0 to 5 percent slopes	>200	3.2	0.1%
21	Immokalee fine sand, 0 to 2 percent slopes	31	222.1	4.5%
27	Malabar fine sand, 0 to 2 percent slopes	15	40.1	0.8%
29	Myakka fine sand, 0 to 2 percent slopes	31	1,089.6	21.9%
37	Paisley fine sand, depressional	0	2.3	0.0%
41	Pomello fine sand, 0 to 5 percent slopes	84	84.5	1.7%
46	St. Johns fine sand	15	17.8	0.4%
53	Tavares-Millhopper complex, 0 to 5 percent slopes	145	118.0	2.49
54	Tavares-Millhopper fine sands, 5 to 8 percent slopes	145	3.7	0.19
57	Wabasso fine sand, 0 to 2 percent slopes	31	244.8	4.9%
59	Winder fine sand, 0 to 2 percent slopes	15	620.5	12.5%
60	Winder fine sand, frequently flooded	0	248.3	5.0%
61	Zolfo fine sand, 0 to 2 percent slopes	76	147.0	3.0%
99	Water	>200	140.7	2.8%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percer	nt of AOI
Totals for Area of Interest			4,977.3		100.0%

Description

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

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

Rating Options

Units of Measure: centimeters Aggregation Method: Dominant Component Component Percent Cutoff: None Specified Tie-break Rule: Lower Interpret Nulls as Zero: No Beginning Month: January Ending Month: December Appendix B Existing Permits

ERP# 43021639.006

Existing Permits

Basins A-EF



I-75 (SR 93A)

from south of Fowler Avenue to north of Bruce B. Downs Blvd. (CR 581)

Drainage Design Documentation

Volume 1 of 5

FPN 408459-2-52-01

Submitted to Florida Department of Transportation District Seven

Submitted by **PB Americas, Inc.**

Prepared by ICON Consultant Group, Inc.

March 2011









An Equal Opportunity Employer Southwest Florida Water Management District

Bartow Service Office 170 Century Boulevard Bartow, Florida 33830-7700 (863) 534-1448 or 1-800-492-7862 (FL only) Sarasota Service Office 6750 Fruitville Road Sarasota, Florida 34240-9711 (941) 377-3722 or 1-800-320-3503 (FL only)

2379 Broad Street, Brooksville, Florida 34604-6899

(352) 796-7211 or 1-800-423-1476 (FL only)

TDD only: 1-800-231-6103 (FL only)

On the Internet at WaterMatters.org

Tampa Service Office 7601 Highway 301 North Tampa, Florida 33637-6759 (813) 985-7481 or 1-800-836-0797 (FL only)

November 30, 2010

Sally A. Prescott Florida Department of Transportation 11201 North McKinley Drive, MS 7-820 Tampa, FL 33612-6456

Subject:

Final Agency Action Transmittal LetterERP Individual ConstructionPermit No.:43021639.006/637474Project Name:FDOT - I-75 (State Road 93A) from Fowler Avenue to
Bruce B. Downs BoulevardCounty:HillsboroughSec/Twp/Rge:06, 07, 18, 19/28S/20E; 14, 23,25,26,36/27S/19E;
01,12,13/28S/19E

Dear Ms. Prescott:

This letter constitutes notice of Final Agency Action for **approval** of the permit referenced above. Final approval is contingent upon no objection to the District's action being received by the District within the time frames described below.

You or any person whose substantial interests are affected by the District's action regarding a permit may request an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes, (F.S.), and Chapter 28-106, Florida Administrative Code, (F.A.C.), of the Uniform Rules of Procedure. A request for hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's action, or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no disputed facts, and (3) otherwise comply with Chapter 28-106, F.A.C. Copies of Sections 28-106.201 and 28-106.301, F.A.C. are enclosed for your reference. A request for hearing must be filed with (received by) the Agency Clerk of the District at the District's Brooksville address within 21 days of receipt of this notice. Receipt is deemed to be the fifth day after the date on which this notice is deposited in the United States mail. Failure to file a request for hearing within this time period shall constitute a waiver of any right you or such person may have to request a hearing under Sections 120,569 and 120,57, F.S. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding the District's action in this matter is not available prior to the filing of a request for hearing.

Enclosed is a "Noticing Packet" that provides information regarding the District Rule 40D-1.1010, F.A.C., which addresses the notification of persons whose substantial interests may be affected by the District's action in this matter. The packet contains guidelines on how to provide notice of the District's action, and a notice that you may use.

The enclosed approved construction plans are part of the permit, and construction must be in accordance with these plans.

Ronald E. Oakley Chair, Pasco Hugh M. Gramling Vice Chair, Hillsborough H. Paul Senft, Jr. Secretary, Polk Douglas B. Tharp Treasurer, Sumter Neil Combee

Former Chair, Polk Todd Pressman

Former Chair, Pinellas

Judith C. Whitehead Former Chair, Hernando

Jeffrey M. Adams Pinellas

Carlos Beruff

Manatee Bryan K. Beswick

DeSoto Jennifer E. Closshev

Hillsborough

Albert G. Joerger Sarasota

Maritza Rovira-Forino Hillsborough

> David L. Moore Executive Director

William S. Bilenky General Counsel If you have questions concerning the permit, please contact Robin L. McGill, P.E., at the Tampa Service Office, extension 2072. For assistance with environmental concerns, please contact Lisa L. Cartwright, extension 2227.

Sincerely,

Alba E. Más, P.E., Director Tampa Regulation Department

AEM:RLM:LLC:gin Enclosures: Approved Permit w/Conditions Attached Approved Construction Drawings Statement of Completion Notice of Authorization to Commence Construction Noticing Packet (42.00-039) Sections 28-106.201 and 28-106.301, F.A.C. cc/enc: File of Record 43021639.006/637474 Michael E. Mills, P.E., ICON Consultant Group, Inc. US Army Corps of Engineers

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE INDIVIDUAL CONSTRUCTION MODIFICATION PERMIT NO. 43021639.006/637474

Expiration Date: November 30, 2015

PERMIT ISSUE DATE: November 30, 2010

This permit is issued under the provisions of Chapter 373, Florida Statutes, (F.S.), and the Rules contained in Chapters 40D-4 and 40, Florida Administrative Code, (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME:

FDOT - I-75 (State Road 93A) from Fowler Avenue to Bruce B. Downs Boulevard

GRANTED TO:

Florida Department of Transportation 11201 North McKinley Drive, MS 7-820 Tampa, FL 33612-6456

ABSTRACT: This Individual permit authorization is for the construction of a new surface water management system serving roadway improvements to I-75 (State Road 93A) from south of Fowler Avenue to north of Bruce B. Downs Boulevard. The proposed improvements traverse approximately 6.54 miles. The project area is approximately 595.80 acres. The site lies within: Sections 14, 23, 25, 26, and 36, Township 27 South, and Range 19 East; Sections 1, 12 & 13, Township 28 South and Range 19 East; and Sections 06, 07, 18 and 19, Township 28 South, and Range 20 East, in Hillsborough County. The existing facility is a four-lane limited access highway. The improvements design addressed the surface water management requirements for two scenarios: Proposed Widening (Interim - widening to 8-lanes) and Future Ultimate Interstate Section. The proposed construction shall include the addition of two travel lanes in each direction, additional through and turn lanes on Fowler Avenue, westbound, interchange improvements and bridge widening over Cow House Creek and Hillsborough River. The future ultimate 10-lane interstate typical section developed by FDOT was utilized as the basis for the stormwater management facility designs. This modification is for the redesign of the approved interim 6-lane typical to the 8-lane typical. It also includes some additional improvements to westbound Fowler Avenue. All other drainage design calculations are essentially the same as previously approved under ERP No. 43021639.004.

Improvements to Fowler Avenue are to be done only to the westbound portion of the roadway, which will include the replacement of the westbound bridge over Hillsborough River and the widening from 3 to 5 lanes. Conveyance of drainage will continue to be via ditches and directed to the river. Due to the right-of-way constraints, compensatory treatment in a roadside area adjacent to Fowler Avenue east of I-75 is proposed.

The project has been divided into seven basins that correspond to the watershed limits. The surface water management facilities have been sized to accommodate the future ultimate interstate typical section. This design assumes 324' of impervious right-of-way throughout the entire project limits. Pond A2, Pond A4, Pond B2, Pond B3, Pond C2 and Pond C5 are new wet detention ponds that will be constructed to provide water quality treatment and attenuation for their respective basins. The project proposes to modify an existing linear swale system within Basin D that is owned and maintained by the District.

ERP# 44021639.007

Existing Permits

Basin 1B, 1C, Ramp 1 Infield

DRAINAGE DESIGN DOCUMENTATION

CR 581 (Bruce B. Downs Blvd) at SR 93A (I-75)

Hillsborough County, Florida

County CIP No: 61044

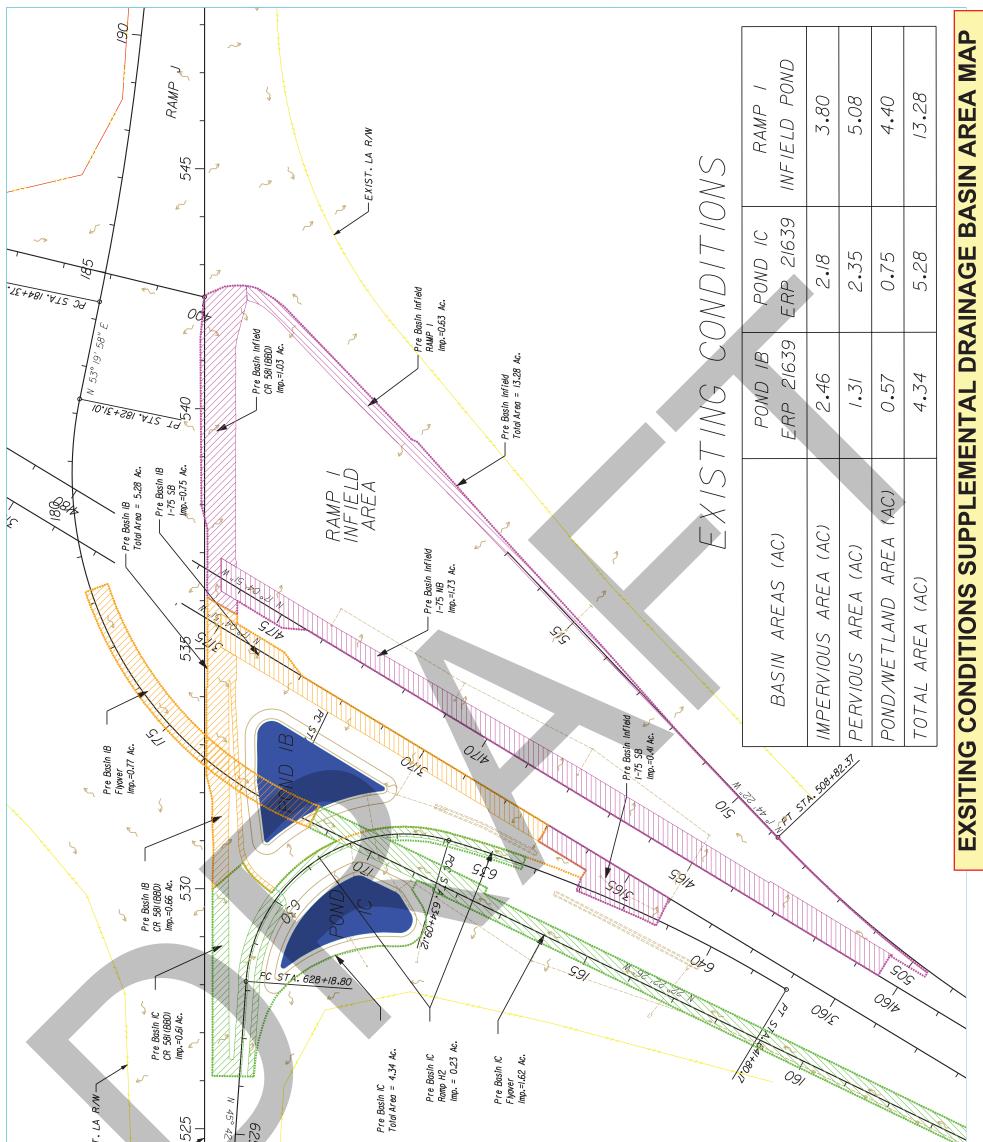


Hillsborough County, Florida

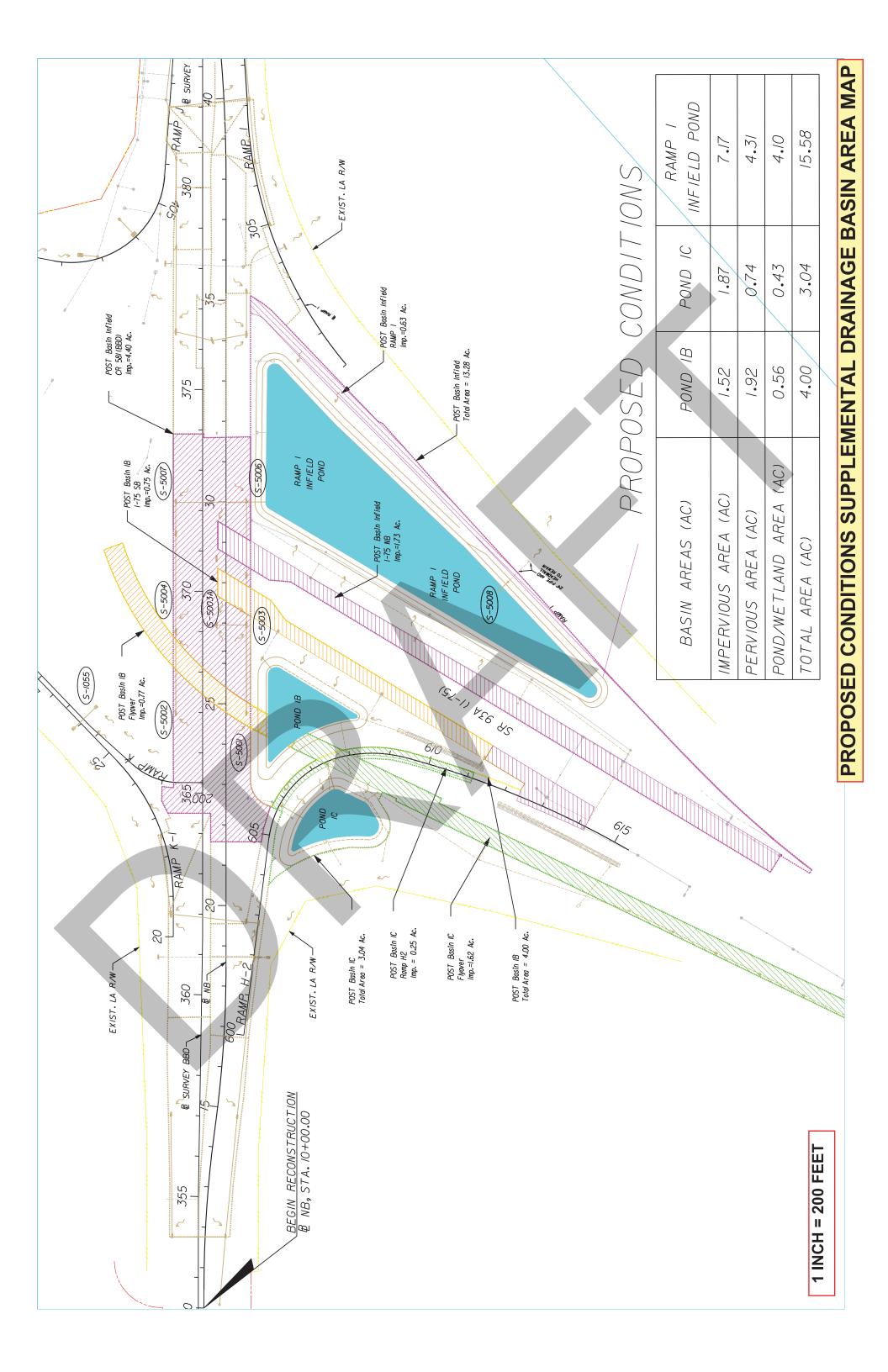
Prepared For: HILLSBOROUGH COUNTY

Prepared By: HNTB Corporation 10210 Highland Manor Drive, Suite 140 Tampa, FL 33610 Florida Certificate of Authorization No. 6500

> February, 2011 Permit Modification Submittal



E SURVEY BBD	RAMP H-25	
- - - - -		1 INCH = 200 FEET



SWFWMD ENGINEERING WORKSHEET



PERMIT NAME

									TOTALS	
E	BASIN NO. – P	OND NO.	<mark>O</mark> or c	SMF - Infield	SMF 1B		SMF 1C			1
		POND BOT	TOM ELEVATION	37.0	36.6		36.3			
	SEASON	SEASONAL HIGH WATER ELEVATION			42.7		42.3			
	CC	ONTROL DE	VICE ELEVATION	42.5	42.7		42.3			
P O	DESI	GN LOW WA	ATER ELEVATION	42.75	43.0		42.7			
N D		WEIR INV	/ERT ELEVATION	42.85	43.0		42.7			
D	DESIC	DESIGN HIGH WATER ELEVATION			44.00		43.72			
A T		TOP OF BANK ELEVATION		45.5	44.1		44.5			
A		AREA AT TO	OP OF BANK (AC)	4.7	0.66		0.55			2
	VOLUME AT DHW (AC-FT)		7.10	0.79		0.68				
	VOLUME AT TOB (AC-FT)		13.08	0.86		1.08				
Q	25YR/24HR	R/24HR WEIR WIDTH (FT)		3.0	4.08		3.0			
U A	RATES	PRE-DEVE	ELOPED (CFS)	12.86	14.29		10.19			
N T		POST-DEV	/ELOPED (CFS)	8.33	12.75		8.77			
I T	100YR/24HR	PROVIDED	D (AC-FT)	N/A	N/A		N/A			
Y	RETENTION VOLUMES	REQUIRE	D (AC-FT)	N/A	N/A		N/A			
	TREATMENT	AREA (AC)	OFW? Y OR N	16.06 N	1.48	N	1.92	Ν		
	TREATMENT	VOL. REQU	IRED (AC-FT)	1.30	0.13		0.16			
Q U	TREATMENT	VOL. PROVIDED (AC-FT)		MENT VOL. PROVIDED (AC-FT) 1.42 0.17		0.18				
L	A L METHOD OF TREATMENT		Wet Detention	Wet Detenti	ion	Wet Detentio	on		3	
I T	CONTROL DE			V-Notch	Orifice		Orifice			
Y	CONTROL DEVICE DIMENSIONS		0.35' Ht x 90 deg	1.25" Dia	1	1.25" Dia				
	RECOVERY	IME (HRS)		>120 hrs	146 hrs		130 hrs			
	100 YEAR	ENCROAC	HMENT (AC-FT)	N/A	N/A		N/A			4
F		COMPENS	SATION (AC-FT)	N/A	N/A		N/A			5
~	omments:	<u>I</u>					<u> </u>			٤

Comments:

Evaluator:

Supervisor:

HN	FB Computation	HNTB Proj. No.	32916.00	FPID No.	405492-8-56-01
Project:	I-75 / BBD	Computed:	DJB	Date:	18-Jan-11
Subject:	SCS Curve Numbers	Checked:	MJJ	Date:	
Description:	Ramp I, Infield	BBD, I-75 NB, I-75 SB, I-75 Off Ramp, & Infield Pond			

PRE-DEVELOPED - WEIGHTED CN CALCULATIONS

PRE Basin Area 13.28 Ac.

LAND USE	SOILS	AREA (AC)	CN	PRODUCT
Roadway Impervious				
Bruce B. Downs	N/A	1.03	98	100.9
I-75 NB/SB	N/A	2.14	98	209.7
I-75 Off-Ramp (Ramp I)	N/A	0.63	98	61.7
Pervious (Grass Good)	B/D	5.08	80	406.4
Pond Site (NWL / Wetland)	B/D	4.40	100	440.0
* Based on PB & URS Basin Data	SUBTOTALS	13.28		1218.8
See Permit No. 43021639.001	TOTAL WEIGHTED CN =			91.8

POST DEVELOPED - WEIGHTED CN CALCULATIONS

POST Basin Area 15.58 Ac.

LAND USE	SOILS	AREA (AC)	CN	PRODUCT
Roadway Impervious				
Bruce B. Downs	N/A	4.40	98	431.2
I-75 NB/SB	N/A	2.14	98	209.7
I-75 Off-Ramp (Ramp I)	N/A	0.63	98	61.7
Pervious (Grass Good)	B/D	4.31	80	345.2
Pond Site (NWL / Wetland)	B/D	4.10	100	409.5
* Based on PB & URS Basin Data	SUBTOTAL	15.58		1457.4
See Permit No. 43021639.001	τοτα	TOTAL WEIGHTED CN =		

ŀ	INTB Computation	HNTB Proj. No.	32916.00	FPID No.	405492-8-56-01
Project:	I-75 / BBD	Computed:	DJB	Date:	18-Jan-11
Subject:	Pond Stage-Storage Data - CADD File Data	Checked:	MJJ	Date:	
Description:	Infield Pond	Sheet:		Of:	
REQUIRED T	REATMENT VOLUME:	* See URS permit	ted computations		

REQUIRED TREATMENT VOLUME:

Treatment Vol.= (1 * OFW Criteria D			15.58 Ac.	Area * (1"/12) = 1.30 ac-ft	
Pond Design Elevations:				Total Pond R/W Area:	1.06 Ac.
Pond Bottom Elevation:	37.0 feet	76666 Sq-ft			
Grade Break Elev:	40.5 feet	155509 Sq-ft		0.14	
NWL Elev:	42.5 feet	174899 Sq-ft		Dead Pool Side Slope:	1:2
PAV / WEIR Elev:	42.85 feet	178397 Sq-ft		3.7	1:4
Inside Berm TOB Elev:	45.5 feet	204884 Sq-ft		1.3	1:20
Outside Berm TOB Elev:	46.5 feet	243500 Sq-ft		4.4	Varies

Infield Pond										
	Stage / Storage Data									
	POND AREA POND VOLUMES									
STAGE	Increme	ntal	Increr	mental	Cummulative	NOTES				
(ELEV.)	(ft^2)	(Ac.)	(CU-FT)	(Ac-Ft)	(Ac-ft)					
37.0	76666	1.76				Pond bottom				
38.8	107098	2.46	160793	3.69	3.69					
40.5	155509	3.57	229781	5.28	8.97	Grade Break				
42.5	174899	4.02	330408	7.59	16.55	NWL				
42.5	174899	4.02				NWL				
42.6	175599	4.03	12267	0.28	0.28					
42.6	176298	4.05	12316	0.28	0.56					
42.71	176998	4.06	12365	0.28	0.85					
42.8	177698	4.08	12414	0.28	1.13					
42.85	178397	4.10	12463	0.29	1.42	PAV / Weir				
43.38	183695	4.22	95954	2.20	3.62					
43.91	188992	4.34	98762	2.27	5.89					
44.44	194289	4.46	101570	2.33	8.22					
44.97	199587	4.58	104377	2.40	10.62					
45.50	204884	4.70	107185	2.46	13.08	Inside Top of Berm				
45.70	212607	4.88	41749	0.96	14.04					
45.90	220331	5.06	43294	0.99	15.03					
46.10	228054	5.24	44838	1.03	16.06					
46.30	235777	5.41	46383	1.06	17.12					
46.50	243500	5.59	47928	1.10	18.22	Outside Top of Berm				

Permanent Pool Volume Provided Pond Storage Volume Provided

Elevations in NGVD 1929

INFIELD POND - ICPR INPUT REPORT

POST - DEVELOPED



EL 42.5 IS SHW IN WETLAND AT DISCHARGE

DHW = 43.18 for Detention Pond 3 of different ERP that discharges to same wetland system EL 45.5 Shoulder Elevation of I-75 NB Off-Ramp with no history of overtopping.

Time(hrs)	Stage(ft)
0.00	42.500
12.50	43.000
24.00	42.500
240.00	42.500

POST - DEVELOPED _____

---- Drop Structures -----

Name:	Type-D
Group:	BASE
	UPSTREA
Geometry:	Circula
Span(in):	24.00

АМ ar Rise(in): 24.00 Invert(ft): 39.800 Manning's N: 0.012000 Top Clip(in): 0.000 Bot Clip(in): 0.000

DOWNSTREAM Circular 24.00 24.00 39.630

0.012000

0.000

0.000

From Node: Infield To Node: TW

_____ Length(ft): 120.00 Count: 1

> Friction Equation: Average Conveyance Solution Algorithm: Most Restrictive Flow: Both Entrance Loss Coef: 0.500 Exit Loss Coef: 0.000 Outlet Ctrl Spec: Use dc or tw Inlet Ctrl Spec: Use dn Solution Incs: 10

> > TABLE

TABLE

TABLE

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Remove existing Type C and replace with Type D Control Structure

*** Weir 1 of 4 for Drop Structure Type-D ***

		TABLE
Count:	1	Bottom Clip(in): 0.000
Type:	Vertical: Mavis	Top Clip(in): 0.000
Flow:	Both	Weir Disc Coef: 3.200
Geometry:	Rectangular	Orifice Disc Coef: 0.600
Span(in):	12.00	Invert(ft): 42.850
Rise(in):	9.00	Control Elev(ft): 42.850

*** Weir 2 of 4 for Drop Structure Type-D ***

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
<pre>Span(in):</pre>	36.00	<pre>Invert(ft):</pre>	43.600
Rise(in):	10.80	Control Elev(ft):	43.600

*** Weir 3 of 4 for Drop Structure Type-D ***

1	Bottom Clip(ft):	0.000
Vertical: Mavis	Top Clip(ft):	0.000
Both	Weir Disc Coef:	3.200
Trapezoidal	Orifice Disc Coef:	0.600
0.01	<pre>Invert(ft):</pre>	42.500
1.00	Control Elev(ft):	42.500
1.00	Struct Opening Dim(ft):	0.35
	1 Vertical: Mavis Both Trapezoidal 0.01 1.00 1.00	Vertical: MavisTop Clip(ft):BothWeir Disc Coef:TrapezoidalOrifice Disc Coef:0.01Invert(ft):1.00Control Elev(ft):

*** Weir 4 of 4 for Drop Structure Type-D ***

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
<pre>Span(in):</pre>	36.00	<pre>Invert(ft):</pre>	44.500
Rise(in):	49.00	Control Elev(ft):	44.500

POST - DEVELOPED

```
_____
---- Hydrology Simulations -----
_____
 _____
     Name: 100Y001H
   Filename: C:\ICPR_Infield\Proposed\100Y001H.R32
   Override Defaults: Yes
  Storm Duration(hrs): 1.00
      Rainfall File: FDOT-1
  Rainfall Amount(in): 4.50
Time(hrs)
        Print Inc(min)
----
2.000
         2.50
_____
     Name: 100Y002H
   Filename: C:\ICPR_Infield\Proposed\100Y002H.R32
   Override Defaults: Yes
  Storm Duration(hrs): 2.00
      Rainfall File: FDOT-2
  Rainfall Amount(in): 6.00
         Print Inc(min)
Time(hrs)
_____
3.000
          2.50
 _____
     Name: 100Y004H
  Filename: C:\ICPR_Infield\Proposed\100Y004H.R32
   Override Defaults: Yes
  Storm Duration(hrs): 4.00
      Rainfall File: FDOT-4
  Rainfall Amount(in): 7.30
      Print Inc(min)
Time(hrs)
_____
5.000
          5.00
                              -----
     Name: 100Y008H
   Filename: C:\ICPR_Infield\Proposed\100Y008H.R32
   Override Defaults: Yes
  Storm Duration(hrs): 8.00
     Rainfall File: FDOT-8
  Rainfall Amount(in): 9.20
Time(hrs)
         Print Inc(min)
-----
        _ _____
9.000
         5.00
```

POST - DEVELOPED

```
Name: 100Y024H
   Filename: C:\ICPR_Infield\Proposed\100Y024H.R32
    Override Defaults: Yes
   Storm Duration(hrs): 24.00
       Rainfall File: FDOT-24
   Rainfall Amount(in): 13.00
Time(hrs)
          Print Inc(min)
_____
25.000
           5.00
_____
      Name: 100Y072H
   Filename: C:\ICPR_Infield\Proposed\100Y072H.R32
    Override Defaults: Yes
   Storm Duration(hrs): 72.00
       Rainfall File: FDOT-72
   Rainfall Amount(in): 15.50
          Print Inc(min)
Time(hrs)
 ------
           5.00
73.000
_____
     Name: 100Y168H
   Filename: C:\ICPR_Infield\Proposed\100Y168H.R32
    Override Defaults: Yes
   Storm Duration(hrs): 168.00
       Rainfall File: FDOT-168
   Rainfall Amount(in): 20.00
           Print Inc(min)
Time(hrs)
_____
            _____
169.000
            5.00
                                                        _____
 _____
      Name: 100Y240H
   Filename: C:\ICPR_Infield\Proposed\100Y240H.R32
    Override Defaults: Yes
   Storm Duration(hrs): 240.00
      Rainfall File: FDOT-240
   Rainfall Amount(in): 24.00
Time(hrs)
         Print Inc(min)
           _ ____
 _____
241.000
            15.00
_____
                      _____
     Name: SWFWMD
   Filename: C:\ICPR_Infield\Proposed\SWFWMD.R32
    Override Defaults: No
Time(hrs)
           Print Inc(min)
------
```

2.50

24.000

POST - DEVELOPED

```
_____
                                         ____
Name: 100Y001H
                         Hydrology Sim: 100Y001H
   Filename: C:\ICPR_Infield\Proposed\100Y001H.I32
    Execute: Yes
                  Restart: No
                                   Patch: No Alternative: No
     Max Delta Z(ft): 0.05
                                    Delta Z Factor: 0.00500
  Time Step Optimizer: 10.000
     Start Time(hrs): 0.000
                                    End Time(hrs): 2.00
   Min Calc Time(sec): 0.2500
                                Max Calc Time(sec): 60.0000
     Boundary Stages:
                                    Boundary Flows:
100 yr / 001 hr
Time(hrs) Print Inc(min)
-----
          2.500
2.000
Group
          Run
_____ _
BASE
           Yes
_____
      Name: 100Y002H Hydrology Sim: 100Y002H
   Filename: C:\ICPR_Infield\Proposed\100Y002H.I32
    Execute: Yes
                  Restart: No
                                    Patch: No
                                              Alternative: No
     Max Delta Z(ft): 0.05
                                    Delta Z Factor: 0.00500
  Time Step Optimizer: 10.000
     Start Time(hrs): 0.000
                                     End Time(hrs): 3.00
                                 Max Calc Time(sec): 60.0000
   Min Calc Time(sec): 0.2500
                                    Boundary Flows:
     Boundary Stages:
100 yr / 002 hr
           Print Inc(min)
Time(hrs)
           _____
_____
3.000
           2.500
Group
           Run
_____
BASE
           Yes
_____
                    _____
      Name: 100Y004H
                        Hydrology Sim: 100Y004H
   Filename: C:\ICPR_Infield\Proposed\100Y004H.I32
    Execute: Yes
                   Restart: No
                                    Patch: No Alternative: No
     Max Delta Z(ft): 0.05
                                    Delta Z Factor: 0.00500
  Time Step Optimizer: 10.000
     Start Time(hrs): 0.000
                                    End Time(hrs): 5.00
   Min Calc Time(sec): 0.2500
                                Max Calc Time(sec): 60.0000
     Boundary Stages:
                                    Boundary Flows:
100 yr / 004 hr
Time(hrs)
          Print Inc(min)
_____
5.000
           5.000
Group
          Run
_____ ____
BASE
           Yes
```

```
INFIELD POND
```

```
ST - DEVELOPE
                                                          _____
       Name: 100Y008H
                             Hydrology Sim: 100Y008H
    Filename: C:\ICPR_Infield\Proposed\100Y008H.I32
    Execute: Yes
                     Restart: No
                                          Patch: No Alternative: No
      Max Delta Z(ft): 0.05
                                          Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
      Start Time(hrs): 0.000
                                          End Time(hrs): 72.00
    Min Calc Time(sec): 0.1000
                                      Max Calc Time(sec): 60.0000
      Boundary Stages:
                                          Boundary Flows:
100 yr / 008 hr
Time(hrs)
            Print Inc(min)
_____
72.000
            5.000
Group
            Run
_____ ____
BASE
             Yes
      Name: 100Y024H
                            Hydrology Sim: 100Y024H
    Filename: C:\ICPR_Infield\Proposed\100Y024H.I32
     Execute: Yes
                     Restart: No
                                          Patch: No
                                                      Alternative: No
                                          Delta Z Factor: 0.00500
      Max Delta Z(ft): 0.05
   Time Step Optimizer: 10.000
      Start Time(hrs): 0.000
                                           End Time(hrs): 25.00
    Min Calc Time(sec): 0.2500
                                       Max Calc Time(sec): 60.0000
      Boundary Stages:
                                          Boundary Flows:
100 yr / 024 hr
Time(hrs)
            Print Inc(min)
_____
25.000
             5.000
Group
             Run
_____
             ____
BASE
             Yes
-----
                                          _____
                           _____
                           Hydrology Sim: 100Y072H
       Name: 100Y072H
    Filename: C:\ICPR_Infield\Proposed\100Y072H.I32
     Execute: Yes
                      Restart: No
                                          Patch: No
 Alternative: No
      Max Delta Z(ft): 0.05
                                          Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
      Start Time(hrs): 0.000
                                          End Time(hrs): 73.00
    Min Calc Time(sec): 0.2500
                                       Max Calc Time(sec): 60.0000
      Boundary Stages:
                                          Boundary Flows:
100 yr / 072 hr
Time(hrs)
            Print Inc(min)
_____
73.000
             5.000
            Run
Group
_____ _
BASE
             Yes
```

```
INFIELD POND
```

```
OST - DEVELOPED
  _____
                                                                _____
       Name: 100Y168H
                              Hydrology Sim: 100Y168H
    Filename: C:\ICPR_Infield\Proposed\100Y168H.I32
     Execute: Yes
                     Restart: No
                                           Patch: No Alternative: No
      Max Delta Z(ft): 0.05
                                           Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
      Start Time(hrs): 0.000
                                           End Time(hrs): 169.00
    Min Calc Time(sec): 0.2500
                                       Max Calc Time(sec): 60.0000
      Boundary Stages:
                                           Boundary Flows:
100 yr / 168 hr
Time(hrs)
            Print Inc(min)
-----
169.000
            5.000
Group
            Run
_____ ____
BASE
             Yes
       Name: 100Y240H
                            Hydrology Sim: 100Y240H
    Filename: C:\ICPR_Infield\Proposed\100Y240H.I32
     Execute: Yes
                      Restart: No
                                           Patch: No
 Alternative: No
      Max Delta Z(ft): 0.05
                                           Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
      Start Time(hrs): 0.000
                                            End Time(hrs): 241.00
    Min Calc Time(sec): 0.2500
                                        Max Calc Time(sec): 60.0000
      Boundary Stages:
                                           Boundary Flows:
100 yr / 240 hr
Time(hrs)
             Print Inc(min)
------
241.000
             15.000
Group
             Run
_____
BASE
              Yes
                                                        _____
       Name: SWFWMD
                             Hydrology Sim: SWFWMD
    Filename: C:\ICPR_Infield\Proposed\SWFWMD.I32
     Execute: Yes
                       Restart: No
                                           Patch: No
 Alternative: No
      Max Delta Z(ft): 0.05
                                           Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
      Start Time(hrs): 0.000
                                           End Time(hrs): 24.00
    Min Calc Time(sec): 0.1000
                                       Max Calc Time(sec): 60.0000
      Boundary Stages:
                                           Boundary Flows:
SWFWMD 25YR / 24HR
Time(hrs)
             Print Inc(min)
_____
24.000
             2.500
Group
            Run
_____ ____
BASE
             Yes
```

2/10/2011 7:38 PM

INFIELD POND

SWFWMD ENGINEERING WORKSHEET

PERMIT NUMBER: 44021639.007 FDOT I-75 at CR 581 (BBD) Interchange PERMIT NAME:

	BASIN NO	- POND NO.	Open or Closed Basin?	Pond 1B	0	Pond 1C	0	Infield Pond	0	TOTALS
P O N D		POND BOTTO	M ELEVATION	36.60		36.30		37.00		
	SEASONAL HIGH WATER ELEVATION		42.70		42.30		42.30			
	CONTROL DEVICE ELEVATION		42.70		42.30		42.30			
	DESIGN LOW WATER ELEVATION		43.00		42.70		42.70			
	WEIR INVERT ELEVATION			43.00		43.72		43.72		
D	DE	SIGN HIGH WATE	R ELEVATION	44.00		44.19		44.19		
A T	TOP OF BANK ELEVATION		44.10		44.50		45.50			
А		AREA AT TOP	OF BANK (Ac.)	0.66		0.55		4.70		5.91
	VOLUME AT DHW (AcFt.)			0.79		0.68		7.10		
		VOLUME A	T TOB (AcFt.)	0.86		1.08		13.08		
Q U A N	25 YR/24 HR DISCHARGE RATES -		EIR WIDTH (ft)	4.08		3.00		3.00		
		E PRE-DE	VELOPED (cfs)	14.29		10.19		12.86		
			VELOPED (cfs)	12.75		8.77		8.33		
T I	100YR/24 H	-	VIDED (AcFt.)	N/A		n/a	7	n/a		
T Y	RETENTIO VOLUME		UIRED (AcFt.)	N/A		n/a		n/a		
	TREAT	MENT AREA (Ac)	OFW? Y/N	1.52	Ν	1.87	N	7.17	N	
Q	TREATME	NT VOLUME REQU	UIRED (AcFt.)	0.13		0.16		1.30 *		
U A	TREATME	NT VOLUME PROV	VIDED (AcFt.)	0.17	V	0.18		1.42		
L I		METHOD OI	F TREATMENT	Wet detention	on	Wet detentio	n	Wet detention	on	
T Y		CONTROL	DEVICE TYPE	Circular ori	fice	Circular orif	ice	v-notch		
	(CONTROL DEVICE	DIMENSIONS	1.25" dia		1.25" dia.		0.35' ht x 90 deg.)	
		RECOVER	RY TIMES (Hrs)	> 120		> 120		> 120		
100 YEAR FLOODPLAIN		ENCROACH	MENT (AcFt.)	N/A		n/a		n/a		n/a
		COMPENSA	ATION (AcFt.)	N/A		n/a		n/a		n/a
		COMPEN	SATION TYPE	N/A		n/a		n/a		n/a
		ENCROACHMEN	NT RESULT (ft)	N/A		n/a		n/a		n/a

COMMENTS: **0** * Impaired waters treatment volume derived from District nutrient loading spreadsheet. **2 3 4** RLM 4/18/11

42.00-045 (Rev. 7/00)



ROADWAY PLANS SIGNING AND PAVEMENT MARKING PLANS SIGNALIZATION PLANS (NOT INCLUDED) ITS PLANS (NOT INCLUDED) LANDSCAPING PLANS (NOT INCLUDED)

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

SHEET NO. SHEET DESCRIPTION

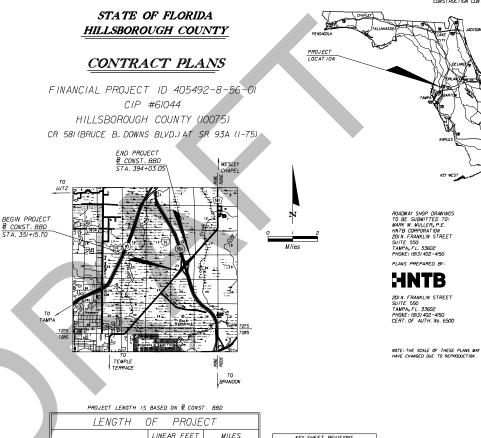
SUMMARY OF PAY ITEMS DRAINAGE MAP TYPICAL SECTION OPTIONAL MATERIALS TABULATION PROJECT LAYOUT GENERAL NOTES
TYPICAL SECTION OPTIONAL WATERIALS TABULATION PROJECT LAYOUT GENERAL NOTES
OPTIONAL MATERIALS TABULATION PROJECT LAYOUT GENERAL NOTES
PROJECT LAYOUT GENERAL NOTES
GENERAL NOTES
ROADWAY PLAN
ROADWAY PROFILE
RAMP TERMINAL DETAILS
INTERSECTION DETAILS
DRAINAGE STRUCTURES
POND PLAN / DETAIL SHEETS
POND CROSS SECTIONS
ROADWAY SOIL SURVEY
CROSS SECTIONS
STORMWATER POLLUTION PREVENTION PLAN
TRAFFIC CONTROL PLANS Not Included
UTILITY ADJUSTMENTS Not Included

* INCLUDED IN THIS SUBMITTAL

GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION. DESIGN STANDARDS DATED 2010. AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2010. AS AWENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 07/01/2011 For Design Standards Modifications click on "Design Standards" at the following web site: http://www.dot.state.fl.us/rddesign/

REVISIONS



OFFICIAL KEY SHEET REVISIONS ROADWAY PLANS DATE DESCRIPTION ΞĦ ENGINEER OF RECORD: MARK W. MULLER, P.E. ίΩ. P.E. NO.: 64023 FISCAL SHEET YEAR NO. 11

HILLSBOROUGH COUNTY PROJECT MANAGER: WILLIAM ALFORD FDOT PROJECT MANAGER: AMY N. NEIDRINGHAUS, P.E.

4287.35

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ROADWAY

BRIDGES

EXCEPTIONS

NET LENGTH OF PROJECT

GROSS LENGTH OF PROJECT

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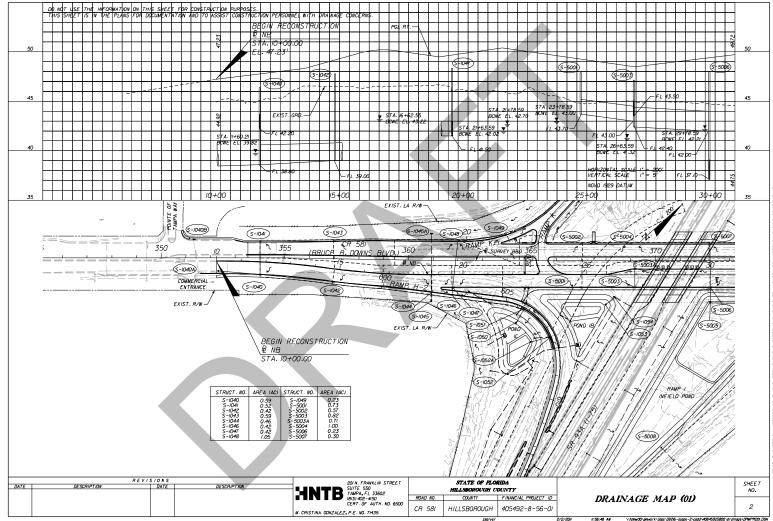
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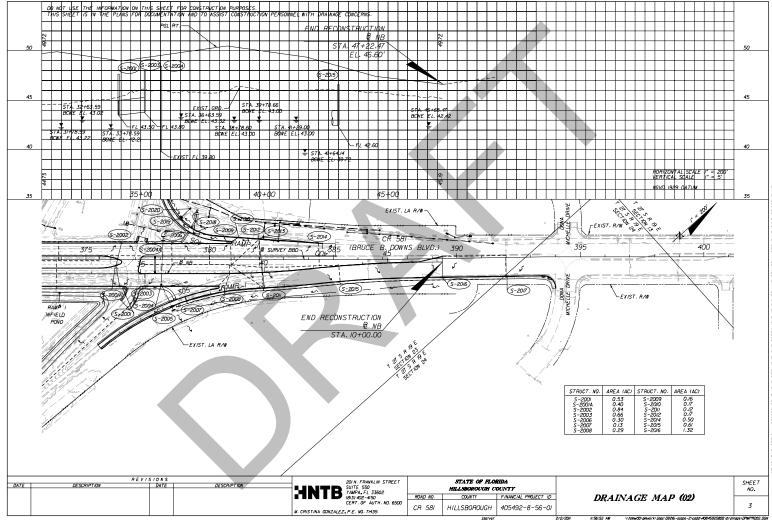
CONSTRUCTION CONTRACT NO.

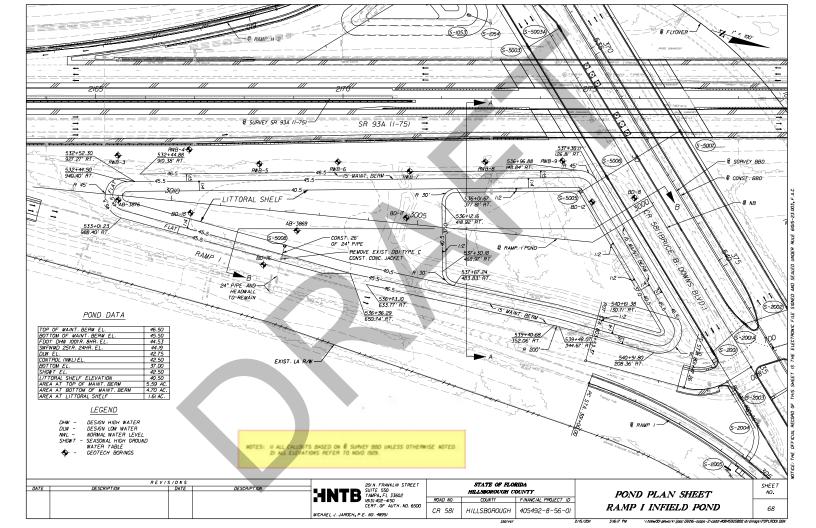
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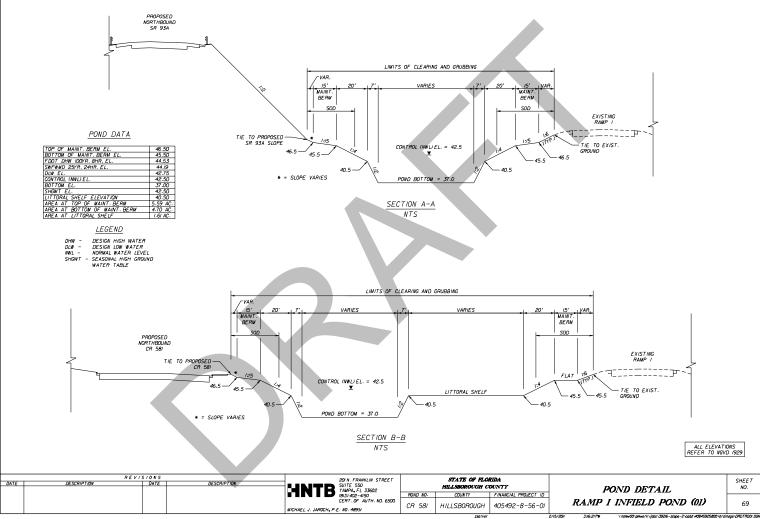
PIERCE

LAUDERDALE







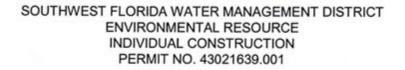


616/5-23.003, F.A.C RULE UNDER AND SEALED SIGNED . THE ELECTRONIC FILE ŝ SHEET THIS Я RECORD OFFICIAL F ΞE VOTICE:

ERP# 43021639.001

Existing Permits

Basin 1A



Expiration Date: August 30, 2010 PERMIT ISSUE DATE: August 30, 2005

This permit is issued under the provisions of Chapter 373, Florida Statutes (F.S.), and the Rules contained in Chapters 40D-4 and 40, Florida Administrative Code (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME: FDOT - I-75 at CR 581 (Bruce B. Downs Boulevard) Interchange Flyover

GRANTED TO:

Florida Department of Transportation, District VII 11201 North McKinley Drive, MS 7-800 Tampa, FL 33612-6403

ABSTRACT: This Individual Construction Permit is for the construction of a two-lane flyover ramp to accommodate the CR 581 southbound to I-75 southbound movement. Additionally, the southbound CR 581 to southbound I-75 turn lanes and median cut will be removed; the CR 581 northbound to the I-75 southbound ramp will be realigned; and the CR 581 southbound to northbound I-75 ramps will be reconfigured. The project area limits extend from Station 41+00, just north of the Hillsborough River Bridge, to Station 200+04, northeast of the I-75/CR 581 interchange.

Water quality treatment and water quantity attenuation will be provided within the existing right-of-way, the northeast and southwest infield areas of the I-75 and CR 581 interchange and the on-line retention swales that are located along the southbound lanes and median of I-75. Of the 16 surface water management areas, 3 will utilize wet detention for treatment and the remaining 13 will utilize on-line retention as the treatment method. The required treatment volume is an additional 50% for the ponds that will outfall to the Hillsborough River, an Outstanding Florida Water (OFW) at this location. It was demonstrated that the post development peak discharge rate would not exceed the pre-development peak discharge rate for the 25-year, 24-hour storm event.

OP. & MAINT. ENTITY:	Florida Department of Transp	ortation, District VII
COUNTY:	Hillsborough	
SEC/TWP/RGE:	23, 25, 26, 36/27S/19E	
TOTAL ACRES OWNED OR UNDER CONTROL:	70.00	
PROJECT SIZE:	66.87 Acres	
LAND USE:	Road Project	4). -
DATE APPLICATION FILED:	March 22, 2005	
AMENDED DATE:	N/A	TRANSFERRED

TRANSFERRED TO OPERATION PHASE

ERP# 43033020.004

Existing Permits

Basin G



Opportunity Employer

Southwest Florida Water Management District

Bartow Service Office 170 Century Boulevard Bartow, Florida 33830-7700 (863) 534-1448 or 1-800-492-7862 (FL only)

November 18, 2008

Lecanto Service Office Suite 226 3600 West Sovereign Path Lecanto, Florida 34461-8070 (352) 527-8131

2379 Broad Street, Brooksville, Florida 34604-6899

(352) 796-7211 or 1-800-423-1476 (FL only)

TDD only 1-800-231-6103 (FL only)

On the Internet at: WaterMatters.org

Sarasota Service Office 6750 Fruitville Road Sarasota, Florida 34240-9711 (941) 377-3722 or 1-800-320-3503 (FL only)

Tampa Service Office 7601 Highway 301 North Tampa, Florida 33637-6759 (813) 985-7481 or 1-800-836-0797 (FL only)

Neil Combee Chair, Polk

Todd Pressman Vice Chair, Pinellas Jennifer E. Closshey Secretary, Hillsborough

> **Ronald E. Oakley** Treasurer, Pasco Bryan K. Beswick

DeSoto Patricia M. Glass

Manatee

Hugh M. Gramling Hillsborough

Albert G. Joerger Sarasota

Sallie Parks Pinellas

Maritza Rovira-Forino Hillsborough

> H. Paul Senft, Jr. Polk **Douglas B. Tharp**

Sumter

Judith C. Whitehead Hernando

David L. Moore **Executive Director** William S. Bilenky **General Counsel**

Sally A. Prescott Florida Department of Transportation, District VII 11201 North McKinley Drive Tampa, FL 33612-6403

Notice of Final Agency Action for Approval Subject:

ERP Individual Construction Permit No .: 43033020.004 Project Name: FDOT - I-75 (State Road 93A) North of Bruce B. Downs to State Road 56 (Mainline Widening) County: Hillsborough, Pasco 03, 10, 11, 14, 23/27S/19E; Sec/Twp/Rge: 26, 27, 34/26S/19E

Dear Ms. Prescott:

The Environmental Resource permit referenced above was approved by the District Governing Board subject to all terms and conditions set forth in the permit.

The enclosed approved construction plans are part of the permit, and construction must be in accordance with these plans.

If you have questions concerning the permit, please contact Robin L. McGill, P.E., at the Tampa Service Office, extension 2072. For assistance with environmental concerns, please contact Rick A. Perry, P.W.S., extension 2056.

Sincerely,

Paul W. O'Neil, Jr., P.E., Department Director Regulation Performance Management

PWO:qin Enclosures:

Approved Permit w/Conditions Attached Approved Construction Drawings Statement of Completion Notice of Authorization to Commence Construction cc/enc: File of Record 43033020.004 Tammy Kreisle, P.E., URS Corporation Southern US Army Corps of Engineers

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE INDIVIDUAL CONSTRUCTION PERMIT NO. 43033020.004

Expiration Date: November 18, 2013 PERMIT ISSUE DATE: November 18, 2008

This permit is issued under the provisions of Chapter 373, Florida Statutes, (F.S.), and the Rules contained in Chapters 40D-4 and 40, Florida Administrative Code, (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME:

FDOT - I-75 (State Road 93A) North of Bruce B. Downs to State Road 56 (Mainline Widening)

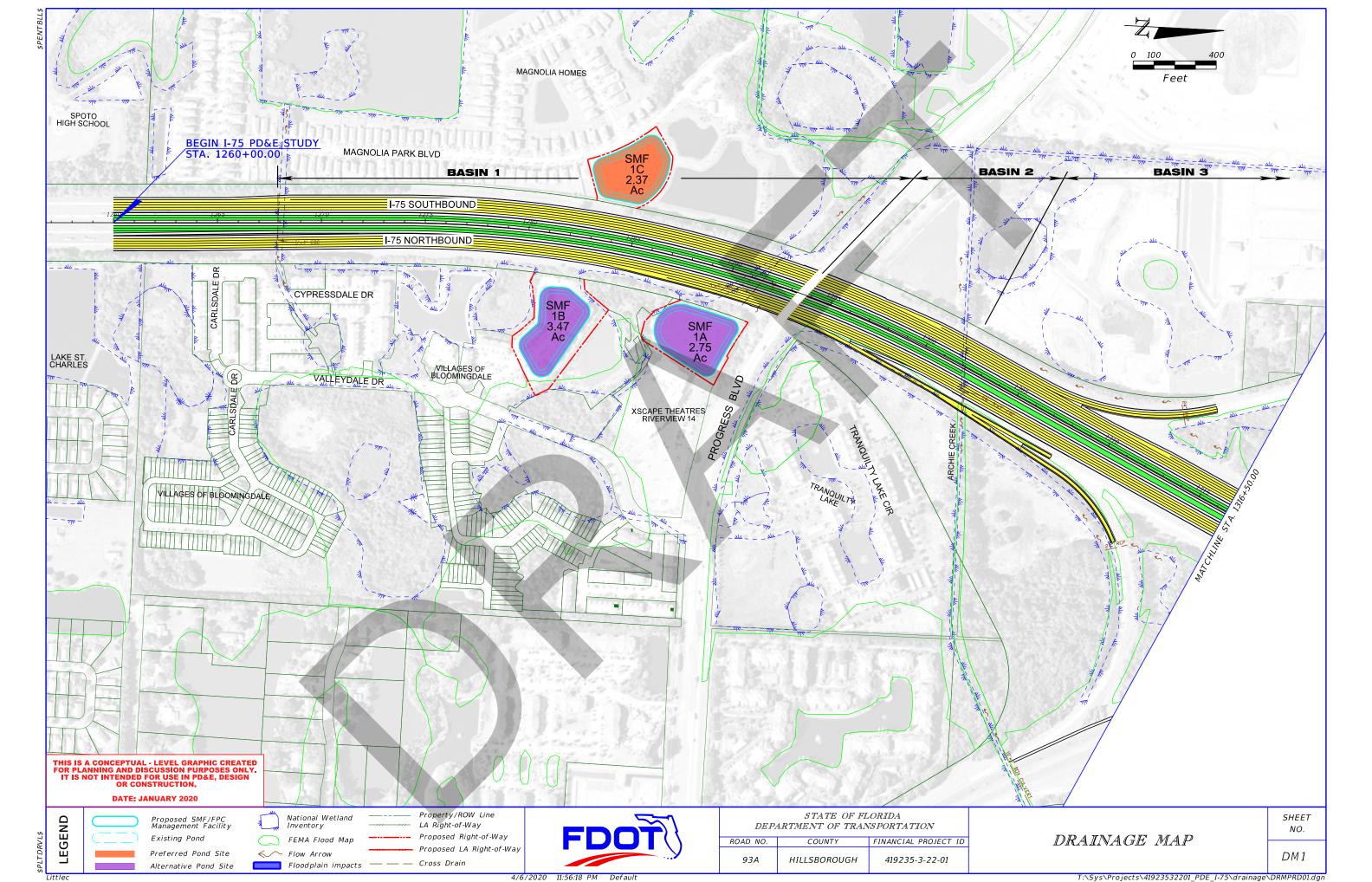
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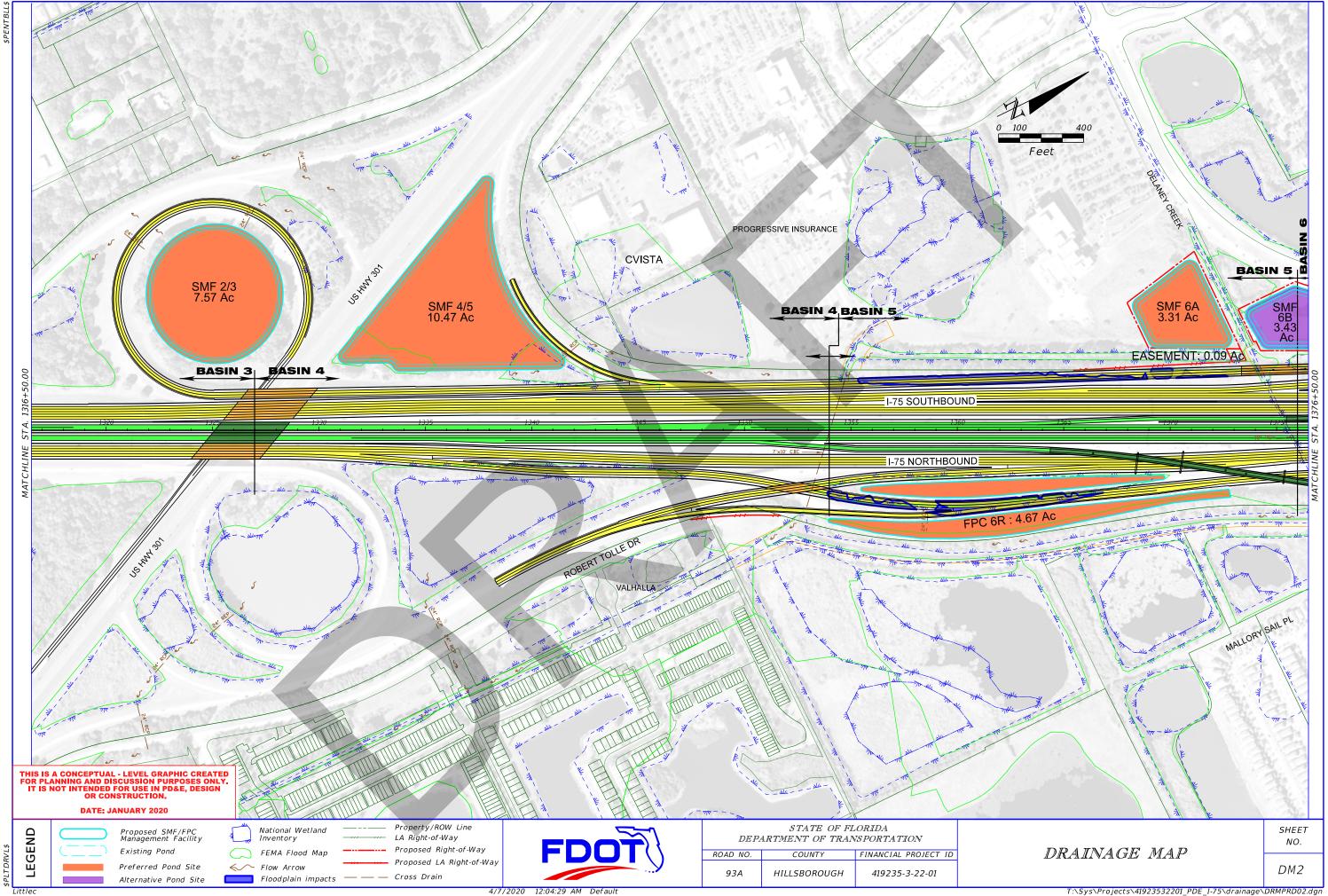
Florida Department of Transportation, District VII 11201 North McKinley Drive Tampa, FL 33612-6403

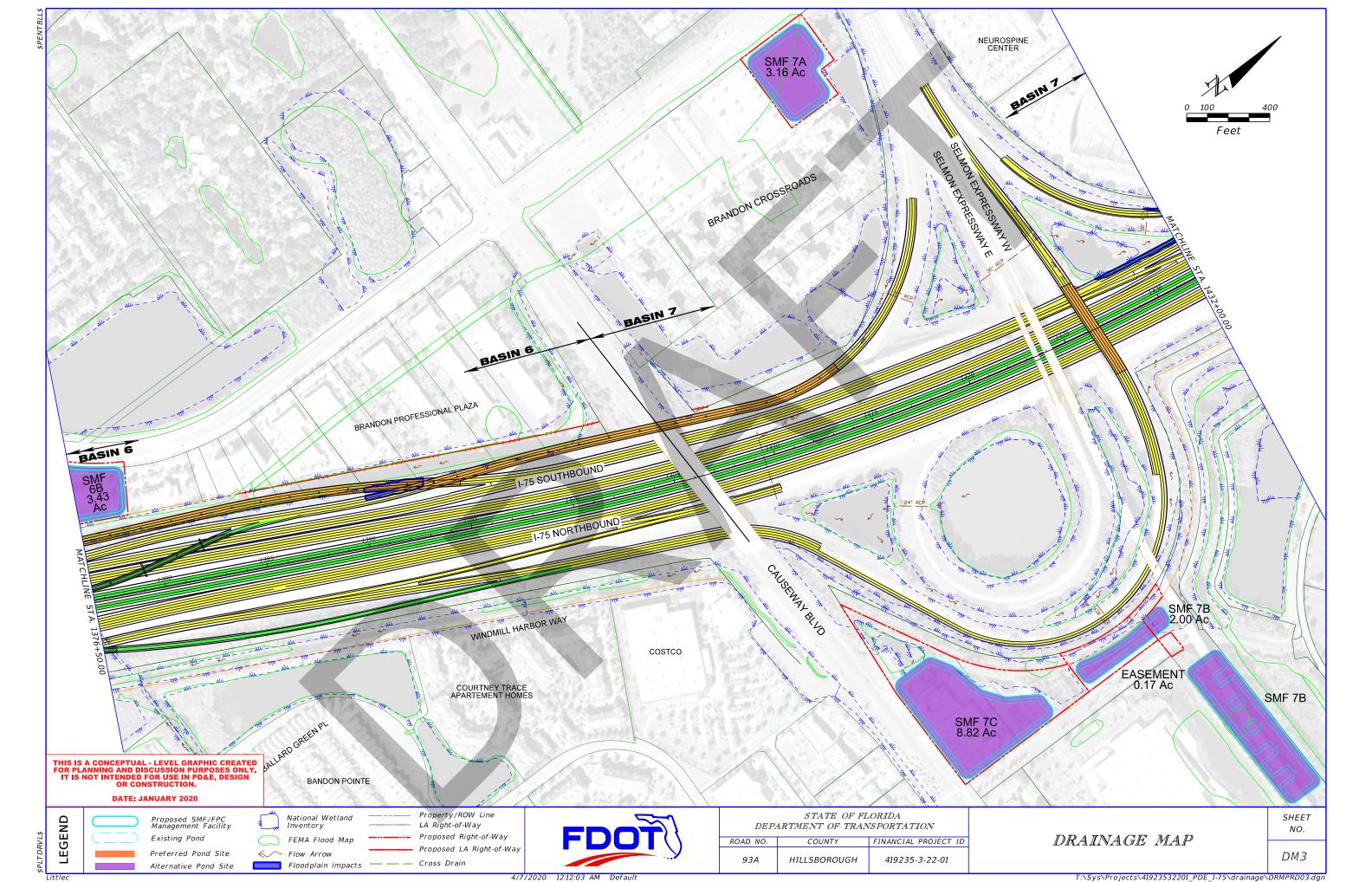
ABSTRACT: This Individual permit authorization is for the construction of a new surface water management system for the widening of a 4.7-mile section of 1-75 from Bruce B. Downs Boulevard to State Road 56. The project is located in Hillsborough and Pasco Counties. It is located in the Cypress Creek Watershed of the Hillsborough River Basin and will discharge runoff to Cypress Creek and associated wetlands. The existing bridge over Cypress Creek in Hillsborough County will be widened. The existing I-75 bridge over Cypress Creek in Pasco County will not be widened as part of this project. The design report addressed the ultimate concept. From Bruce B. Downs Boulevard to the I-75/I-275 apex, the proposed roadway typical section will consist of six 12-foot through lanes (three northbound and three southbound), 12-foot inside and outside shoulders (10 feet paved), and 64-foot median. From the I-75/I-275 apex to State Road 56, the proposed ultimate improvements will consist of ten 12-foot through lanes (four northbound and six southbound), 12-foot inside and outside shoulders (10 feet paved) and a 64-foot median.

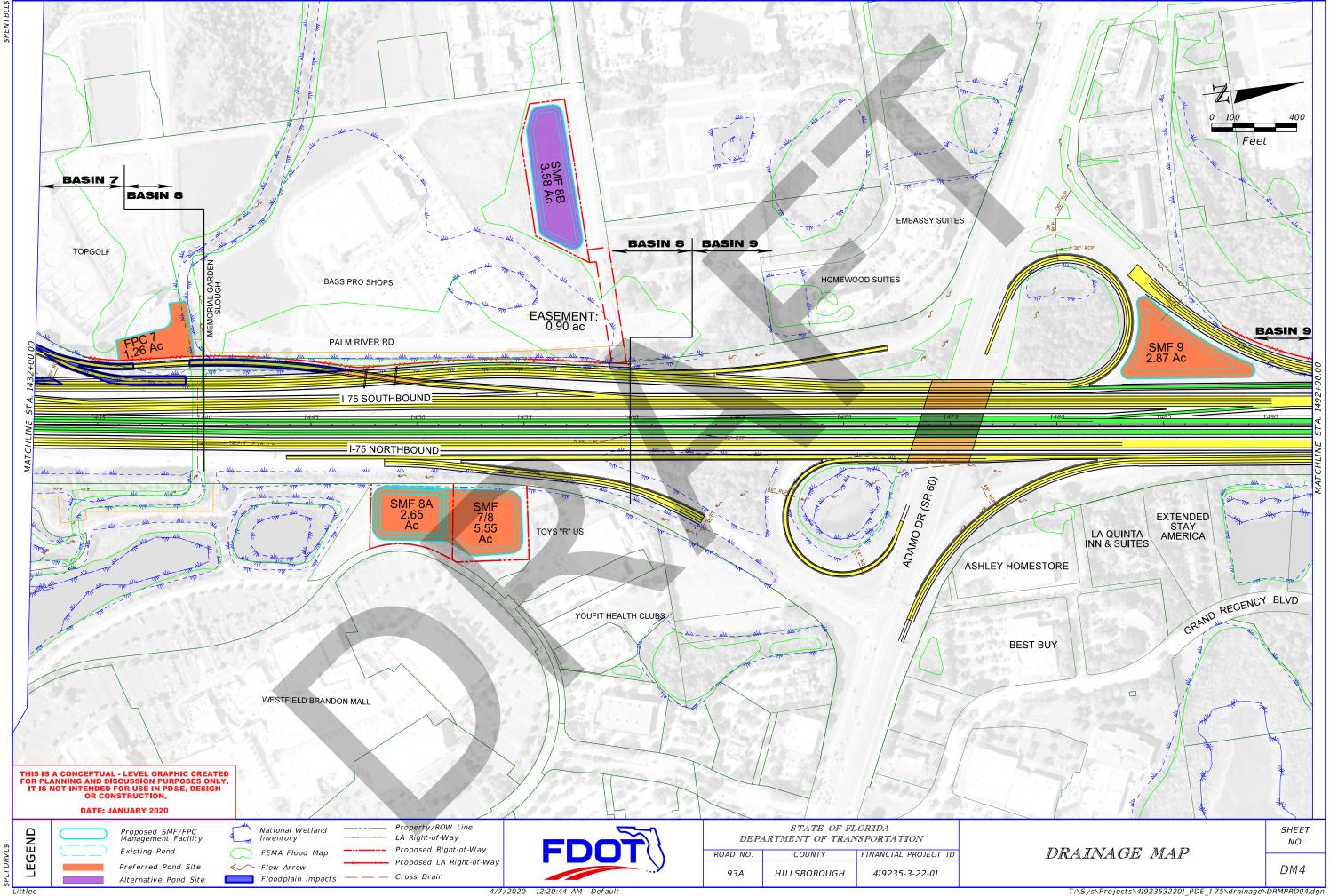
The right-of-way width will vary between 300 feet and 364 feet. The drainage systems for the project drainage will include storm sewer and ditches for conveyance of project runoff to the four proposed stormwater management facilities (SMFs). The SMFs are sized to treat and attenuate for runoff over the right-of-way width as if it is 100% impervious as directed by FDOT. The water quality treatment method will be wet detention. The treatment volume is one inch of runoff from the contributing area for Basin G. Basin H discharges to Cypress Creek, an Outstanding Florida Water (OFW), thus the treatment volume is one and one-half inch of runoff from the contributing area. Portions of Basin H are located within the FEMA 100-year flood plain. All encroachment into the 100-year floodplain will be compensated for in FPC Site H so that there will be no net loss in historic floodplain storage. Mitigation for the permanent wetland impacts will be provided through the Districts FDOT Mitigation Program pursuant to Chapter 373.4137, F.S.

Appendix C Drainage Map

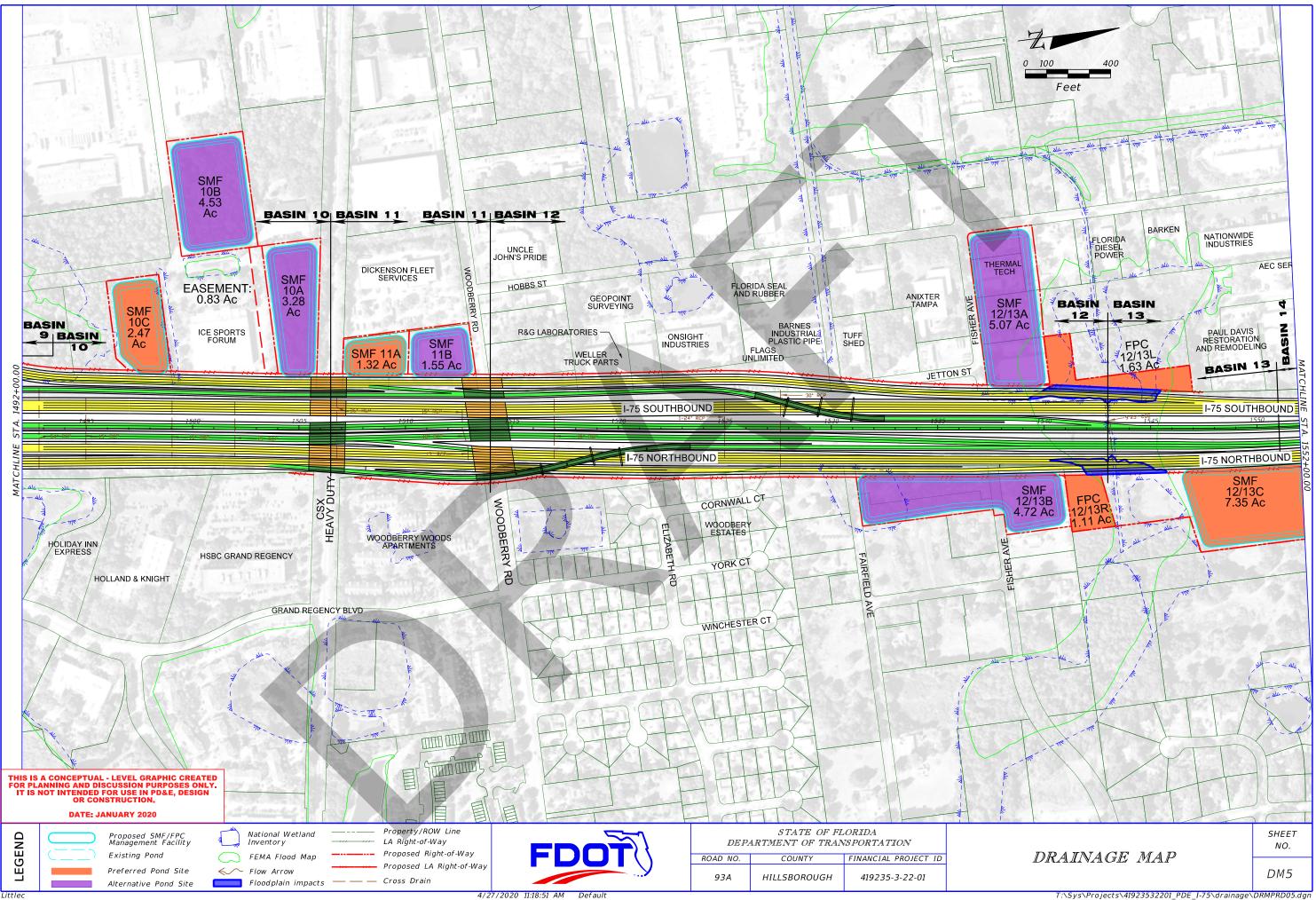








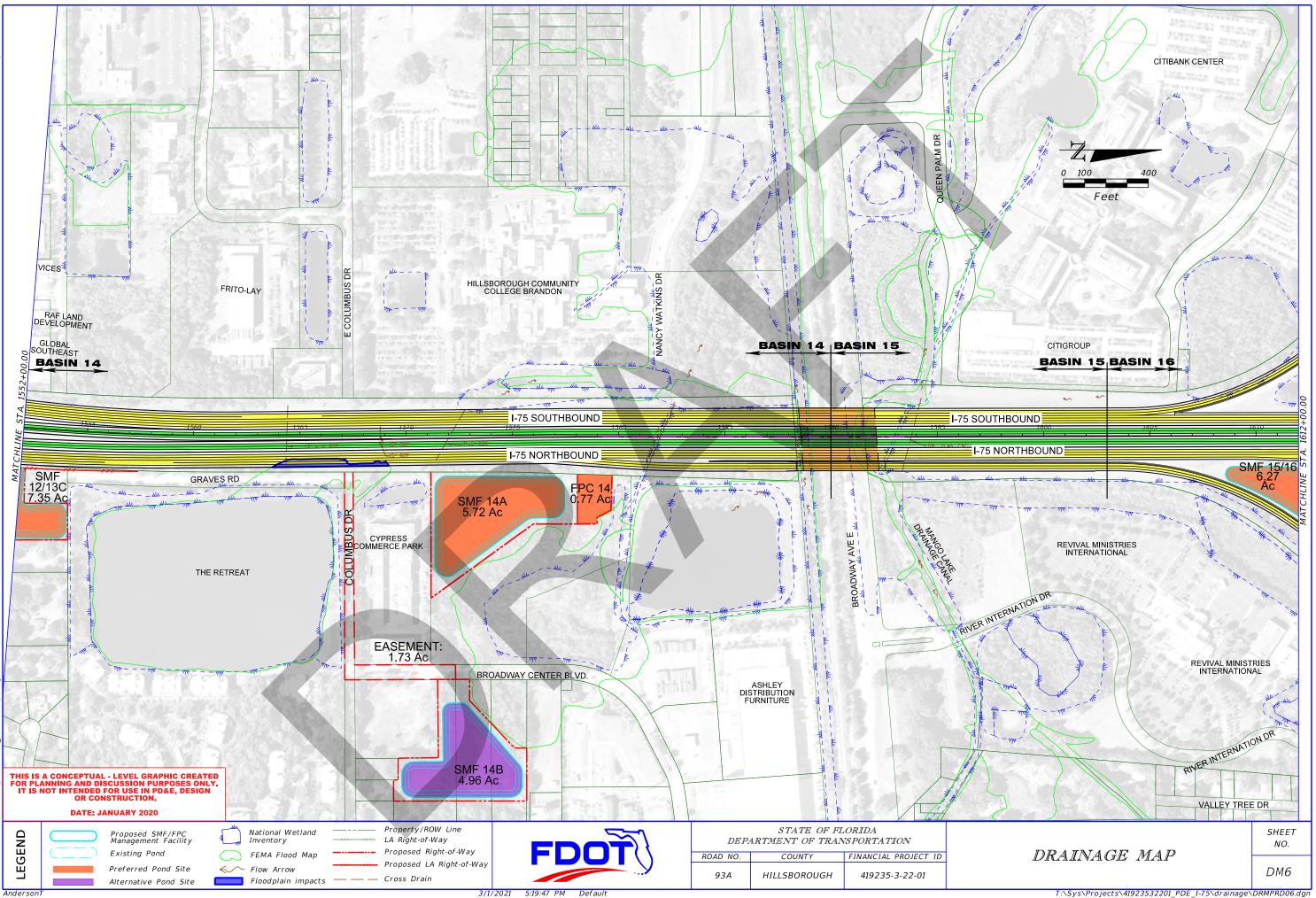
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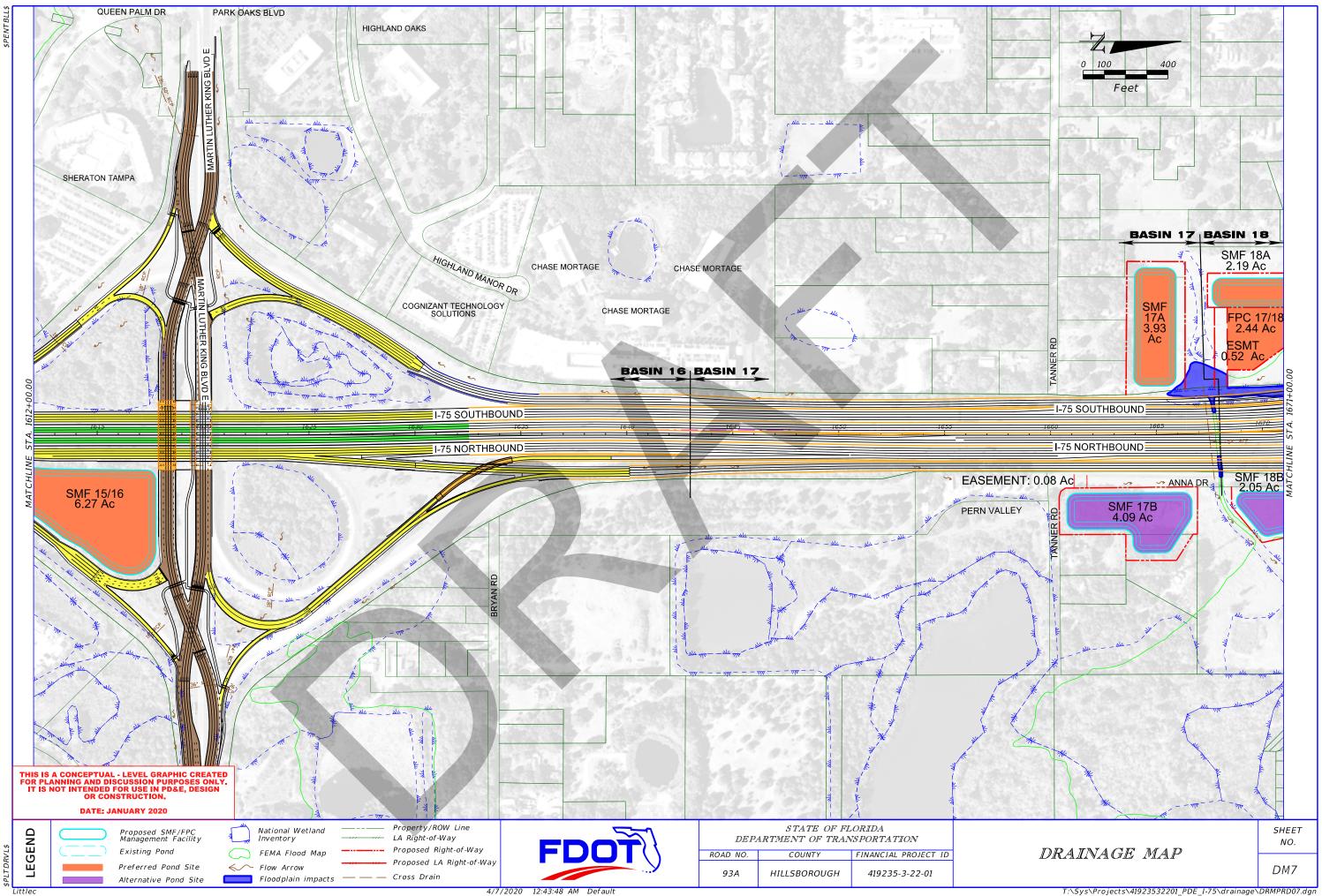
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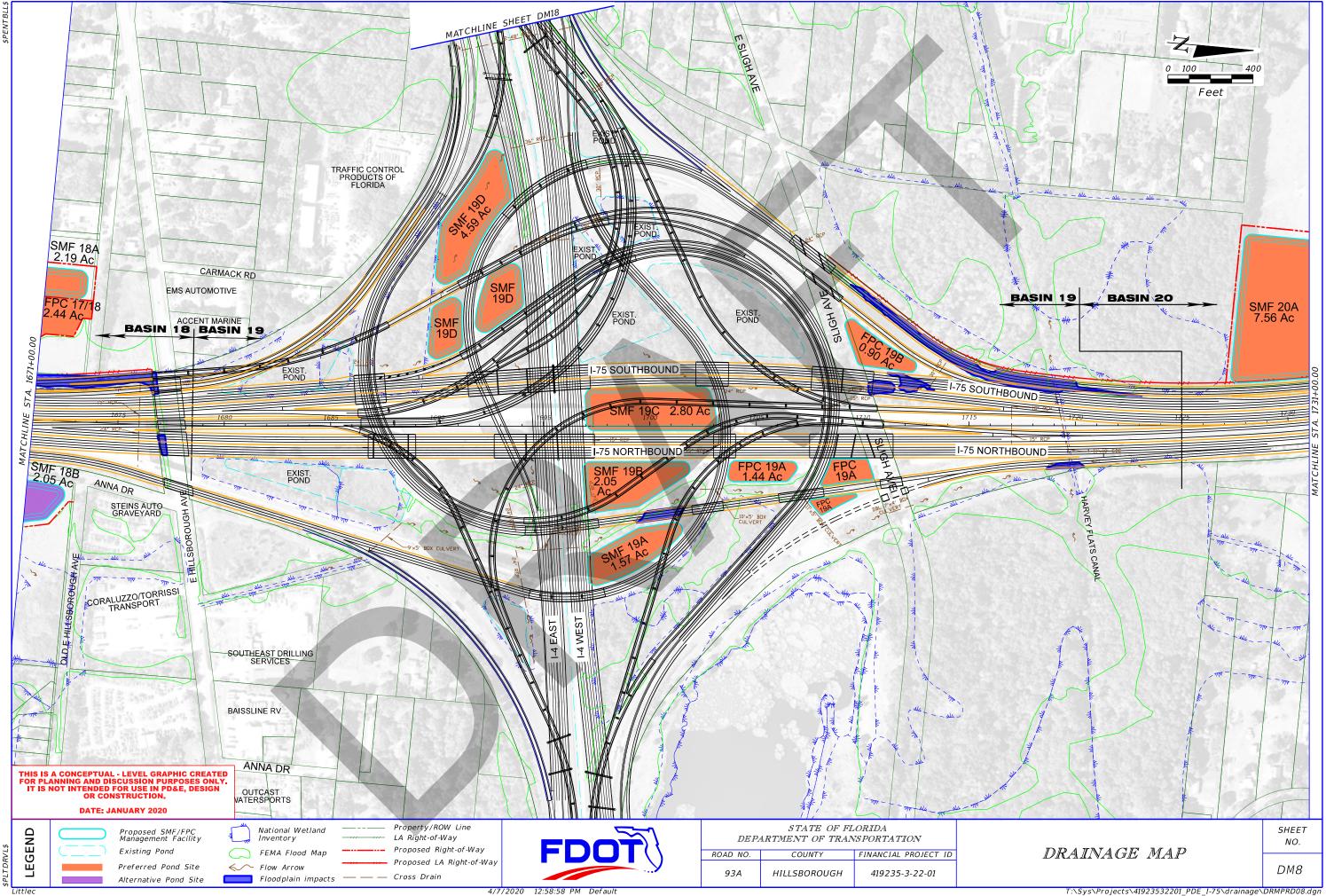
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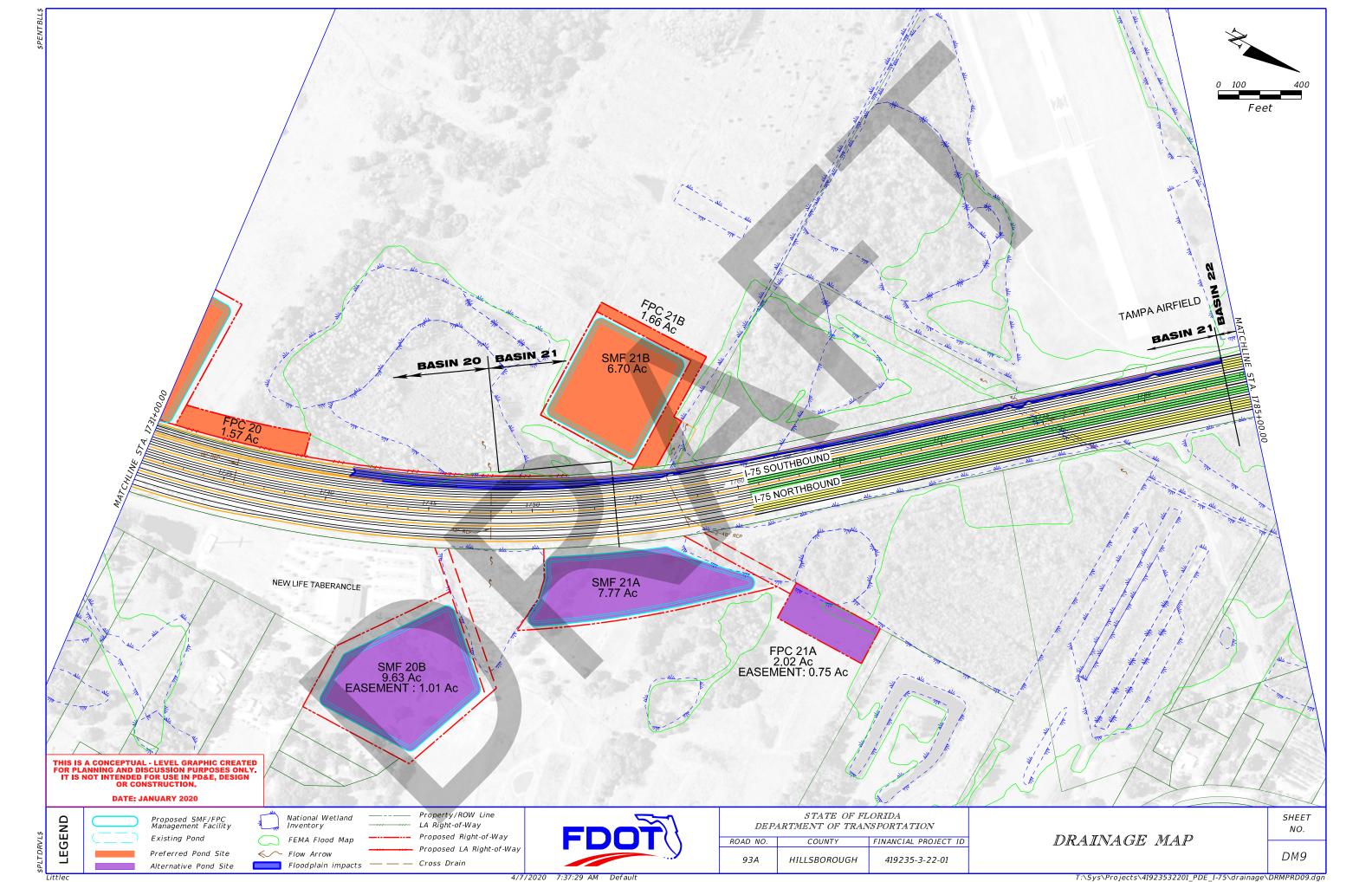




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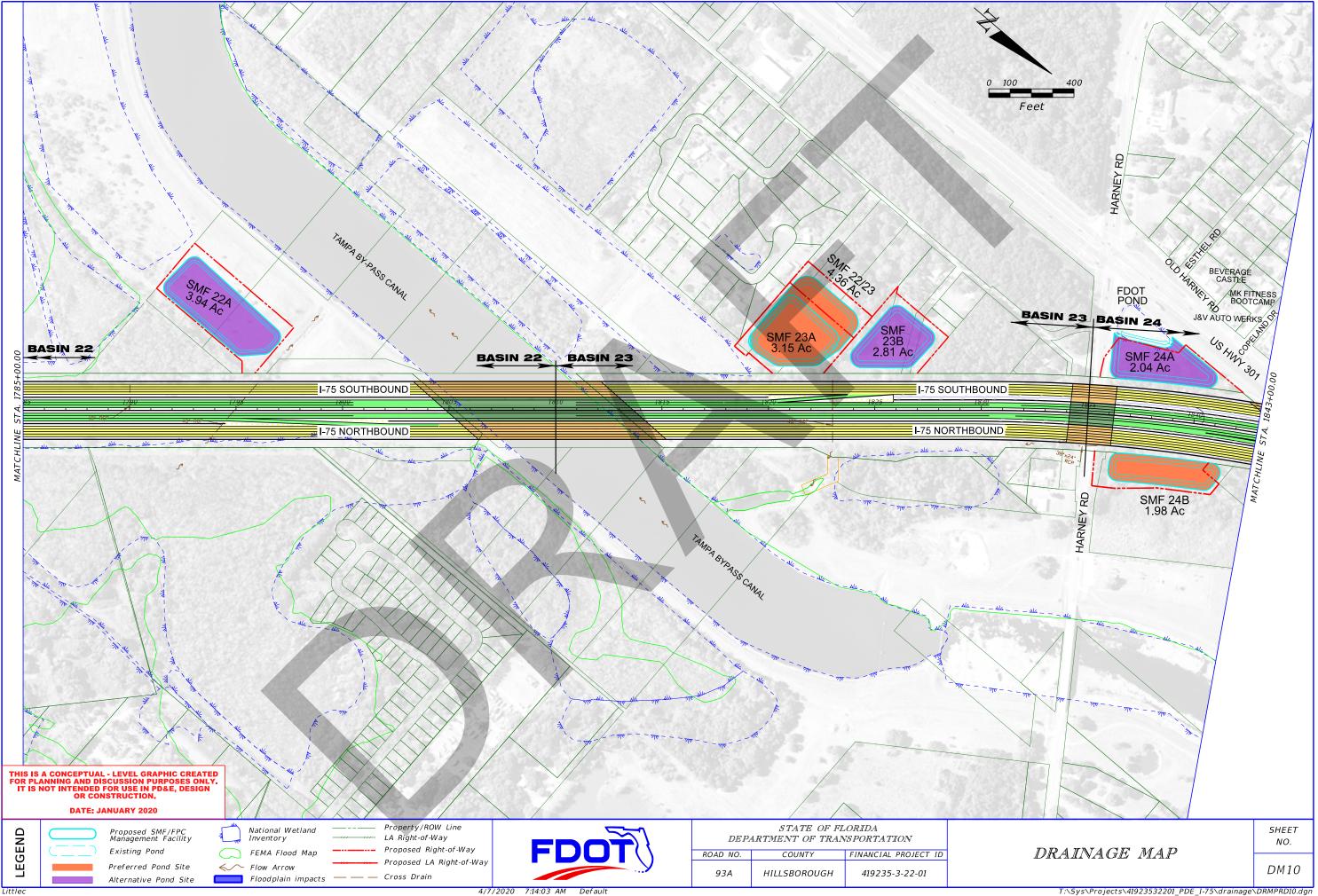


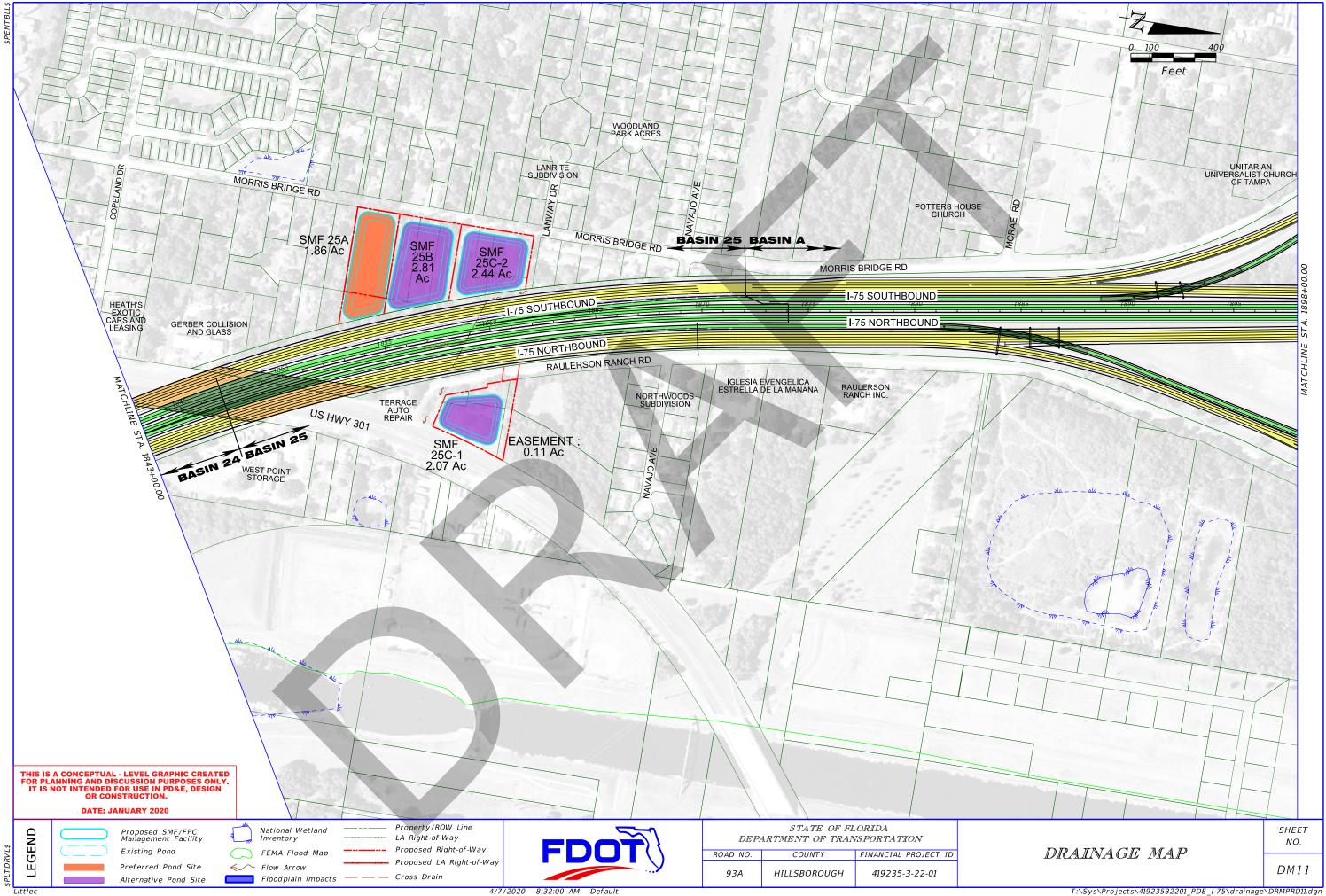


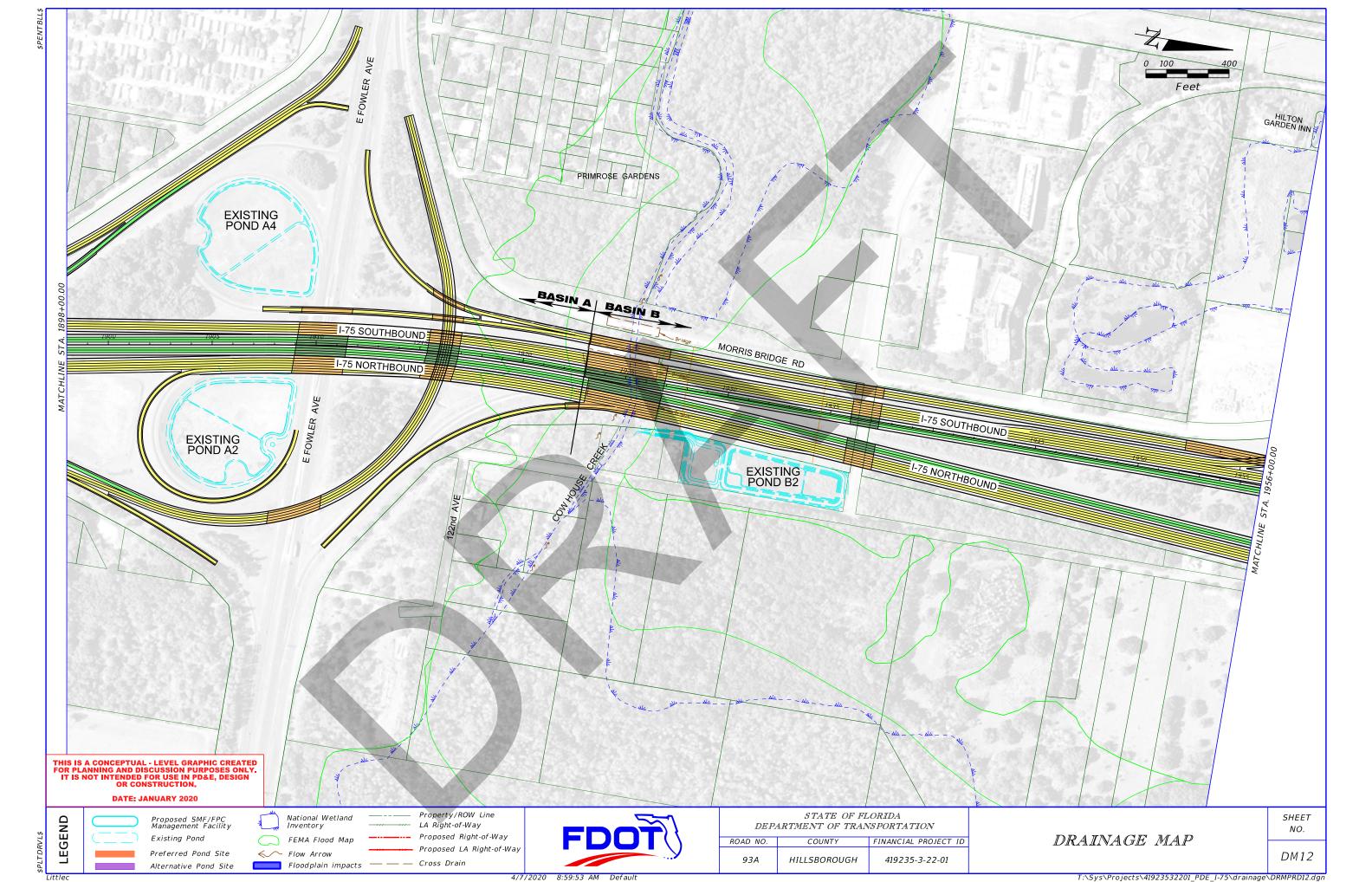


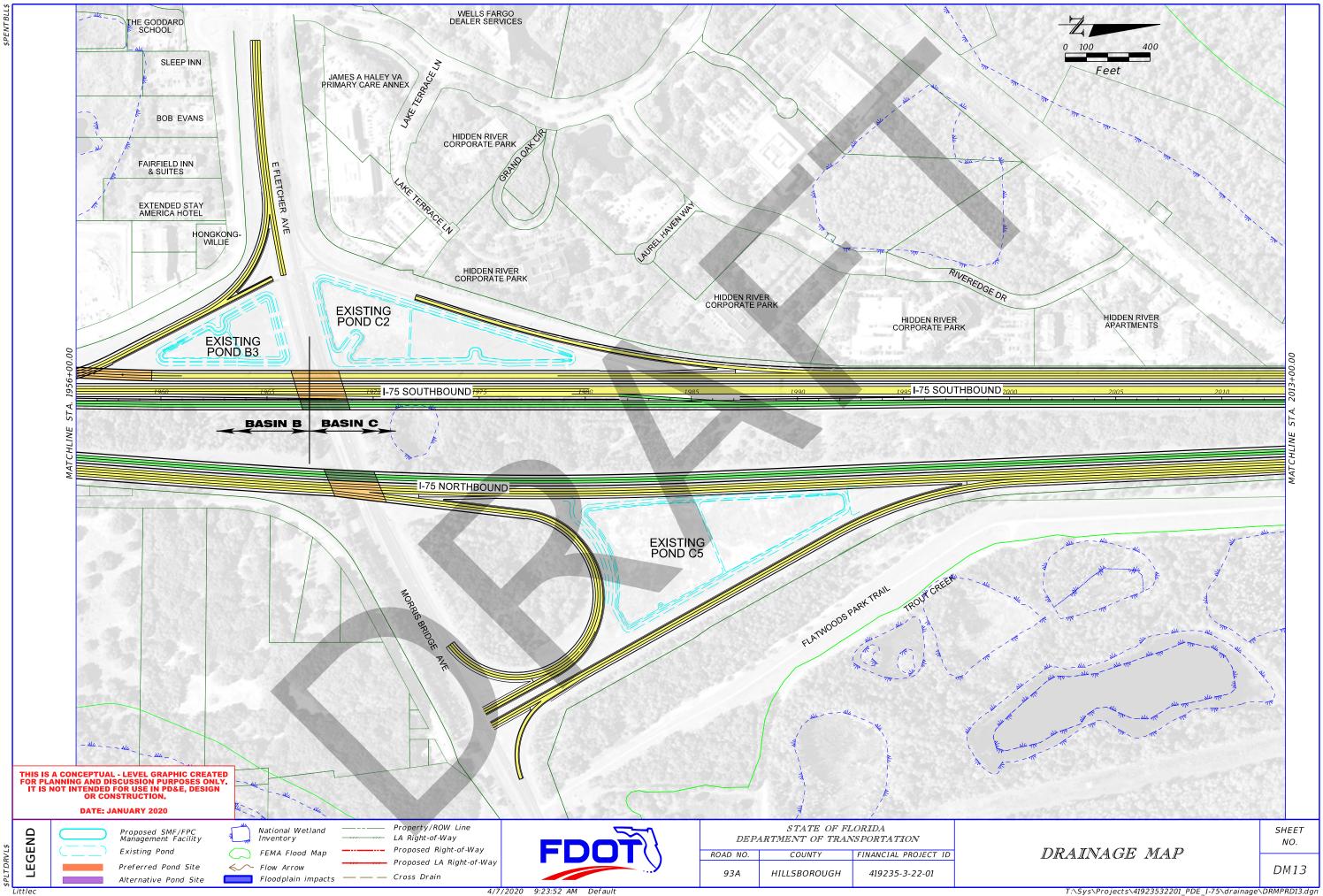


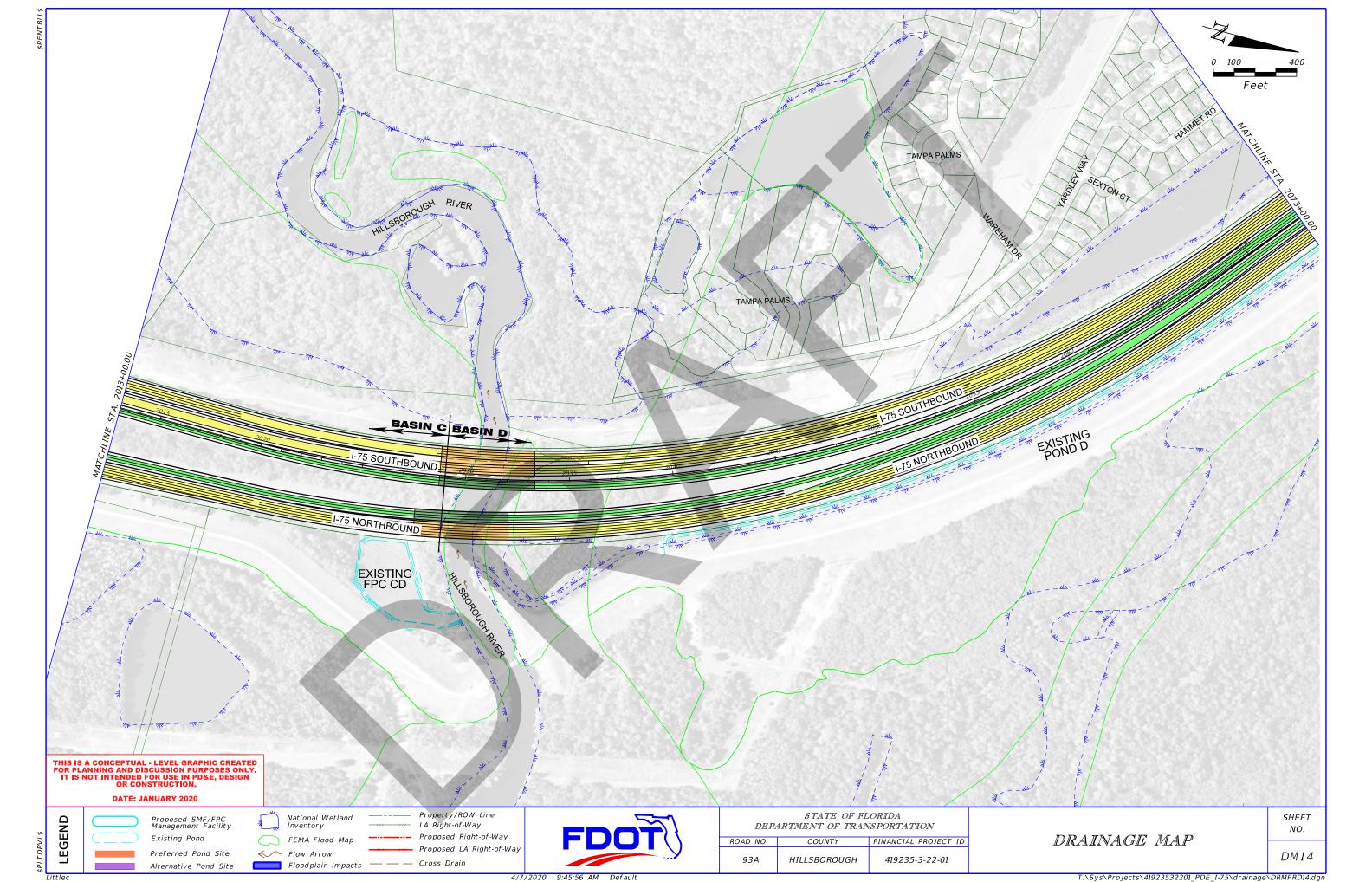
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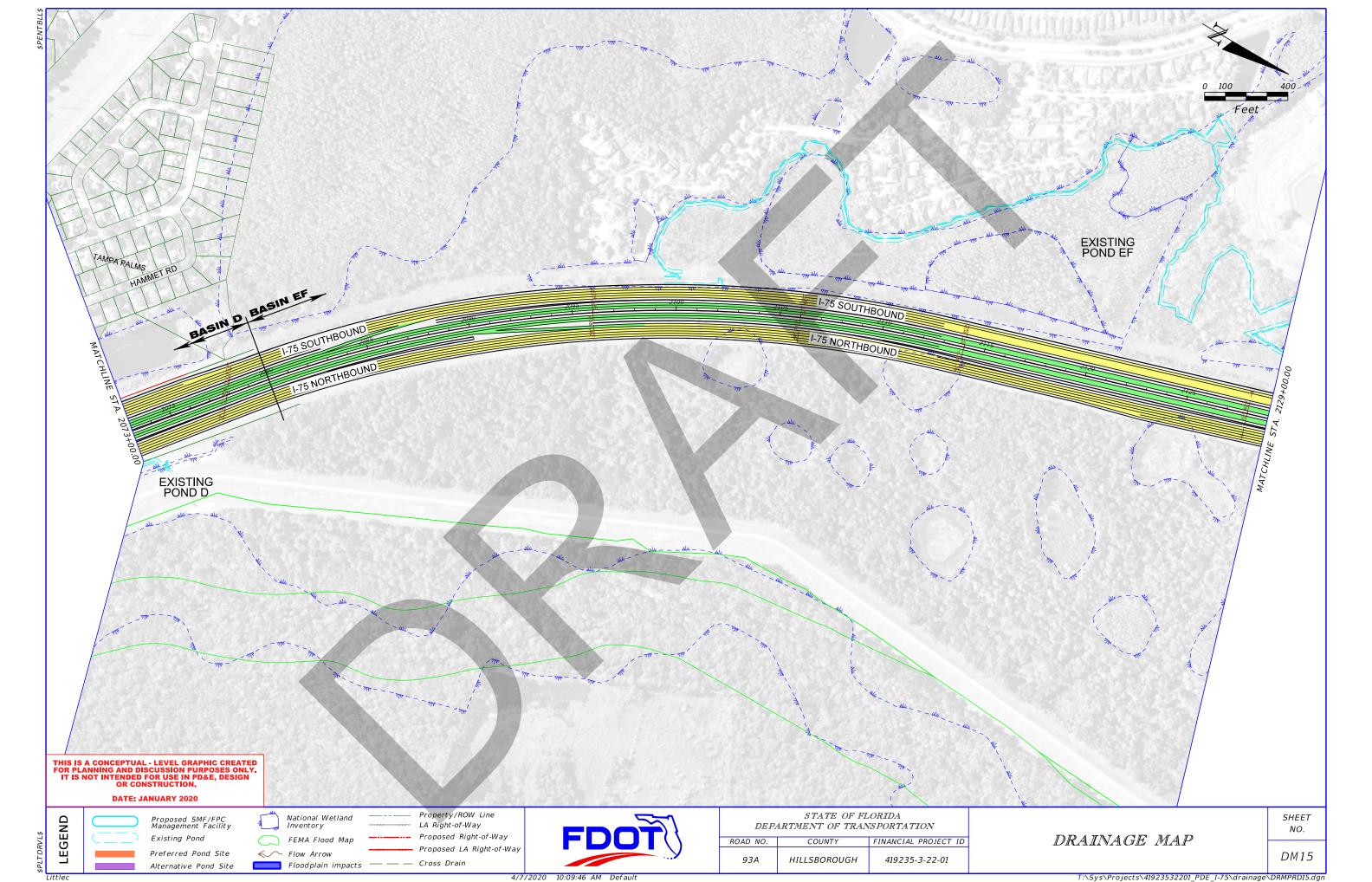


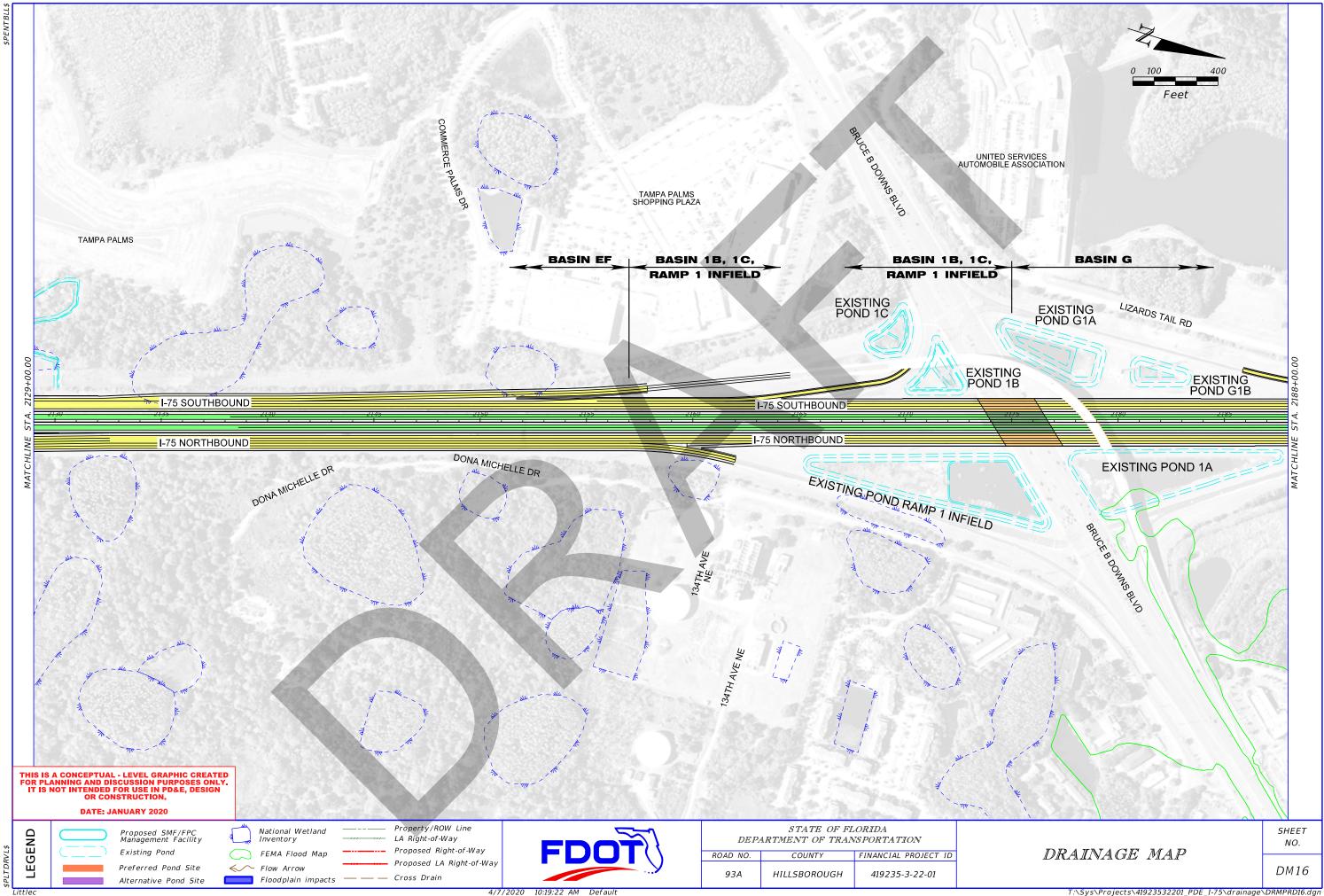


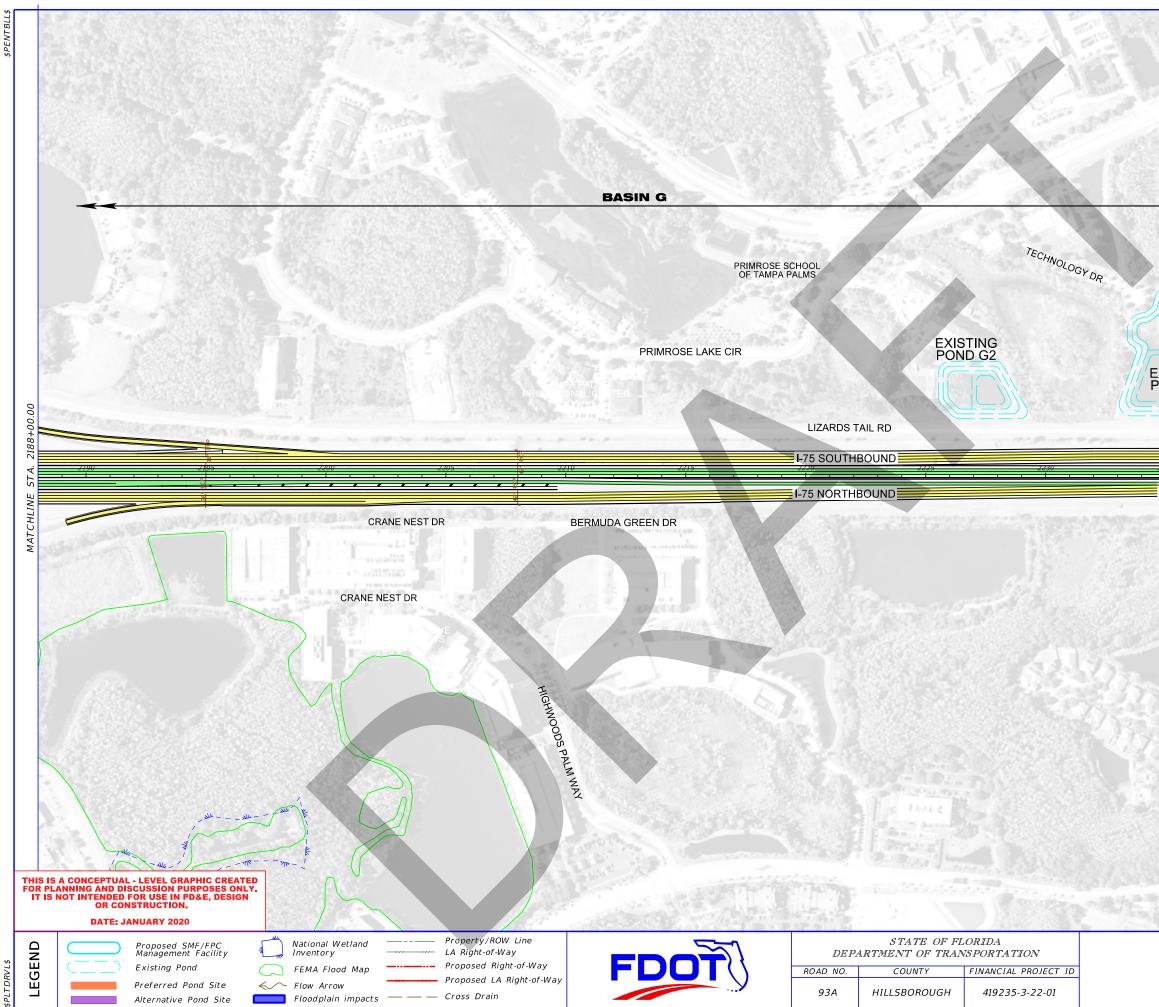






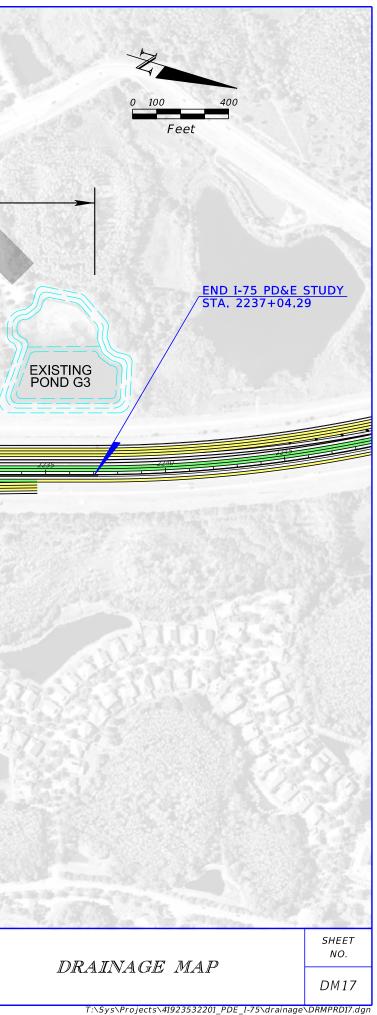


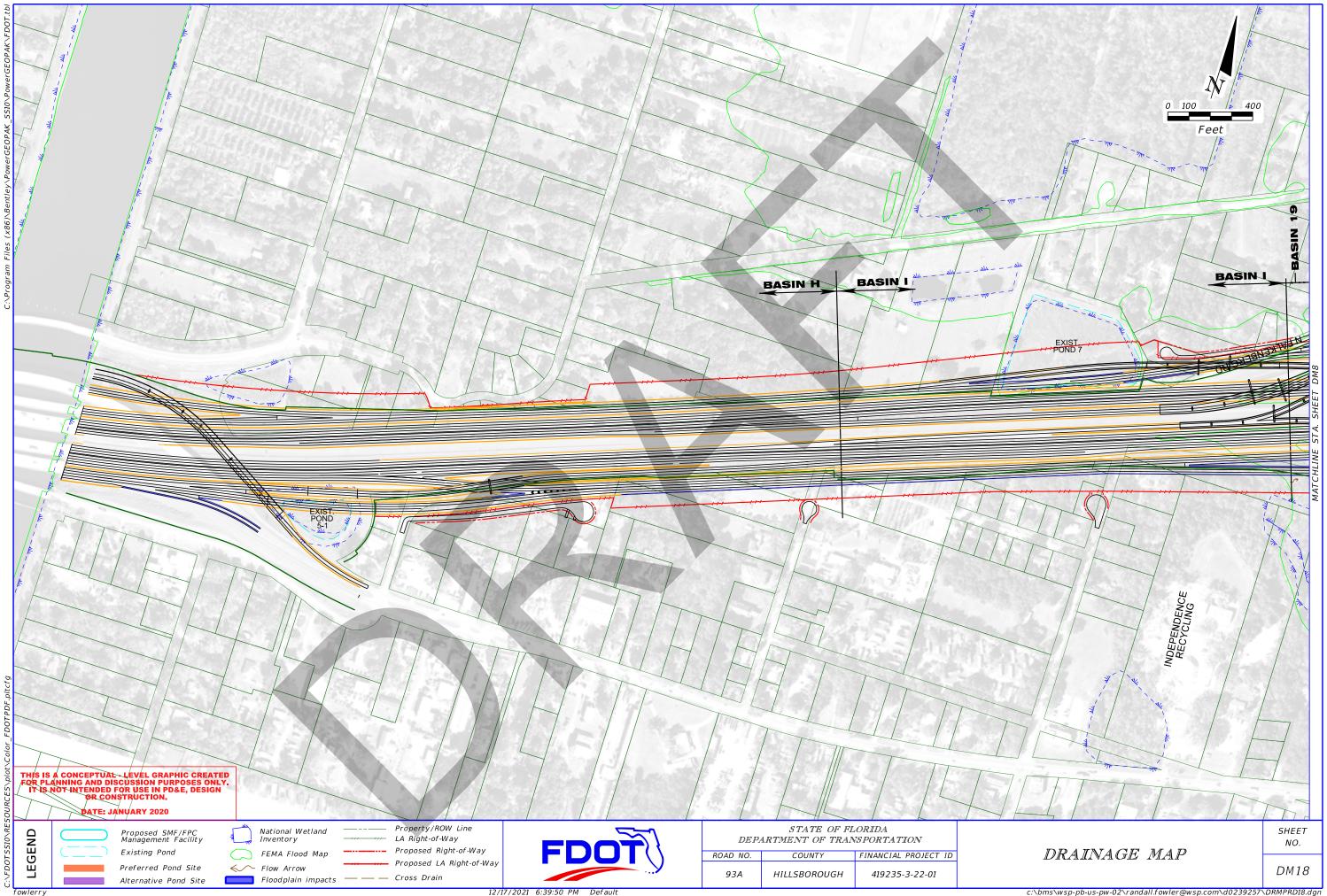




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Appendix D FEMA Firmette Maps

Key Sheet Map Numbers within Project Limits



Map Number 12057C0388H

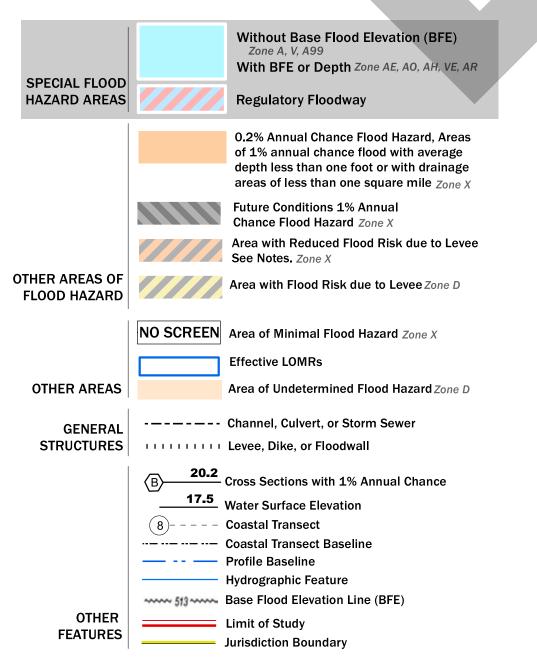


USGS The National Map: Orthoimagery. Data refreshed April, 2019.

27°52'23.36"N

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can beordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 1/23/2020 1:08:37 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. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

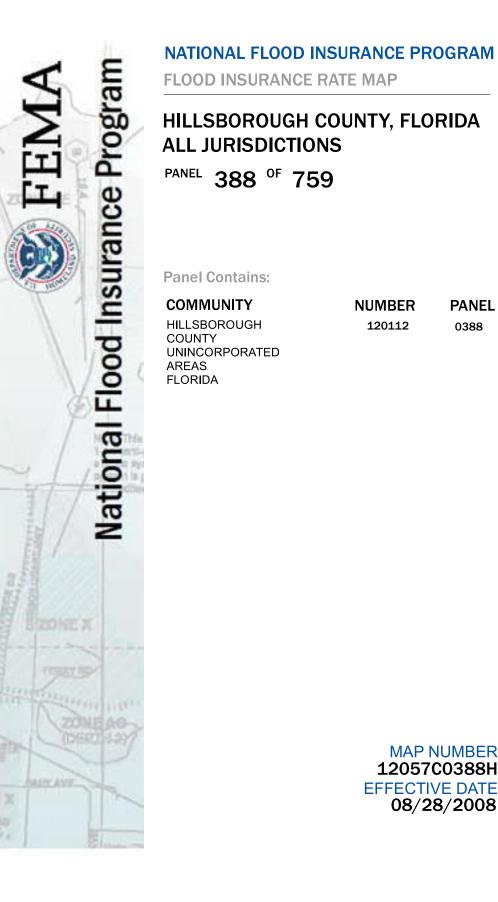
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

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, FIRM panel number, and FIRM effective date.

SCALE

Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD88 For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood IN Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 inch = 500 feet				1:6,00	OC
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MAP NUMBER 12057C0388H EFFECTIVE DATE 08/28/2008

Map Number 12057C0389H



NUMBER

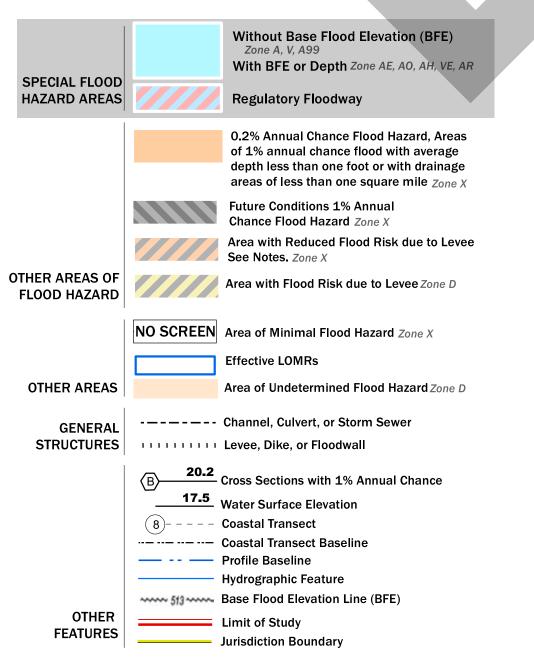
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PANEL

0389

FLOOD HAZARD INFORMATION

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



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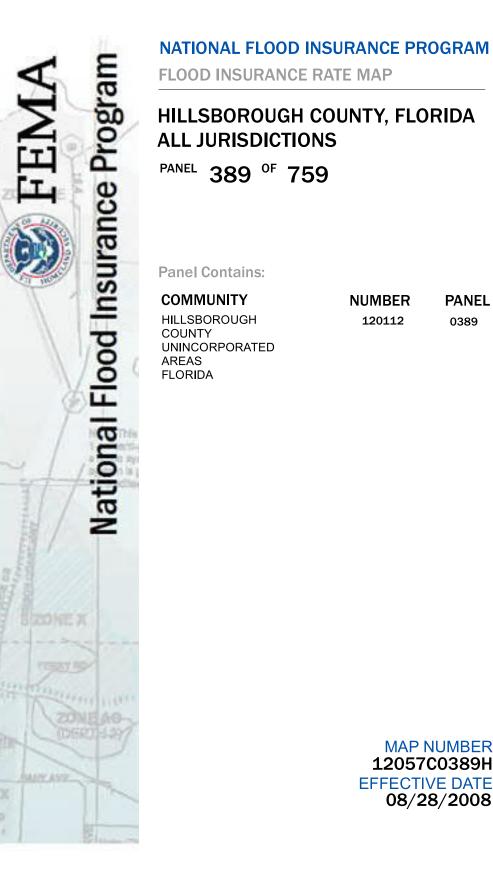
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

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, FIRM panel number, and FIRM effective date.

SCALE

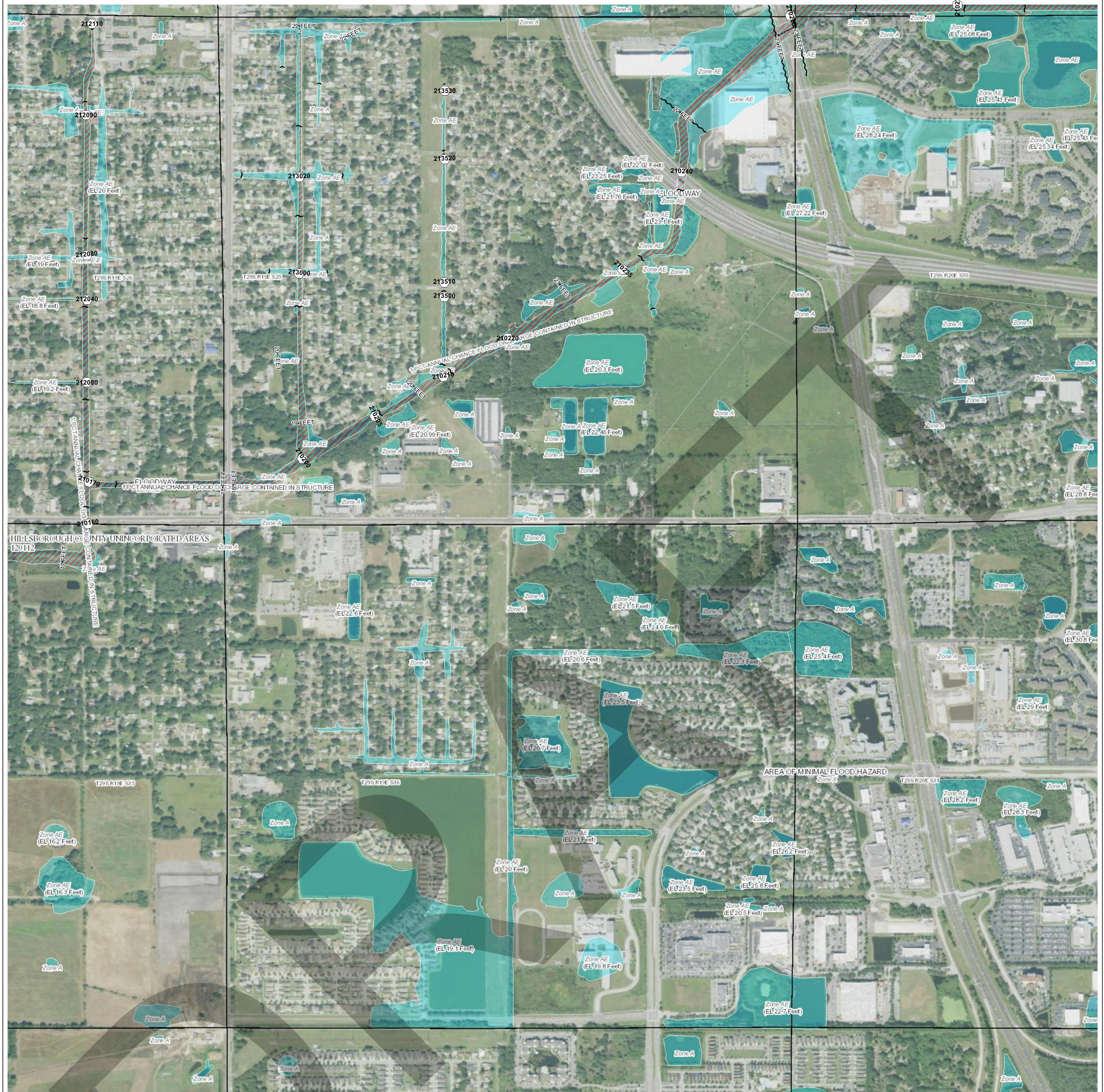
Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD88 For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood IN Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 inch = 500 feet				1:6,0	00
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				Meters	
0	50 100	200	300	400	



MAP NUMBER 12057C0389H **EFFECTIVE DATE** 08/28/2008

Map Number 12057C0386J



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

NUMBER

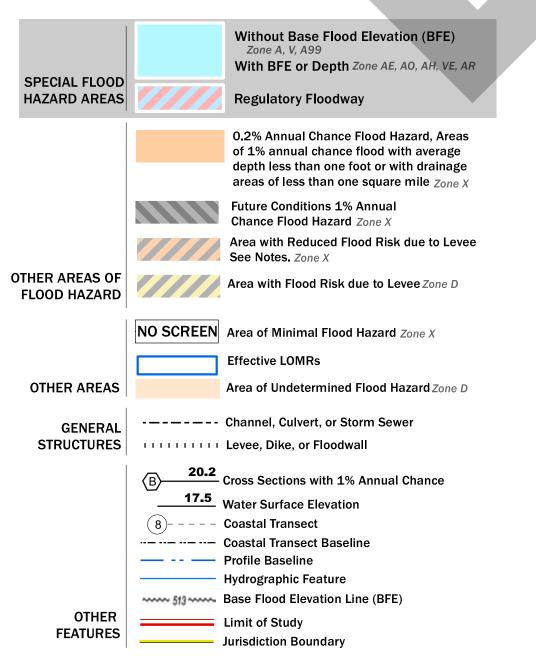
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PANEL

0386

FLOOD HAZARD INFORMATION

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NOTES TO USERS

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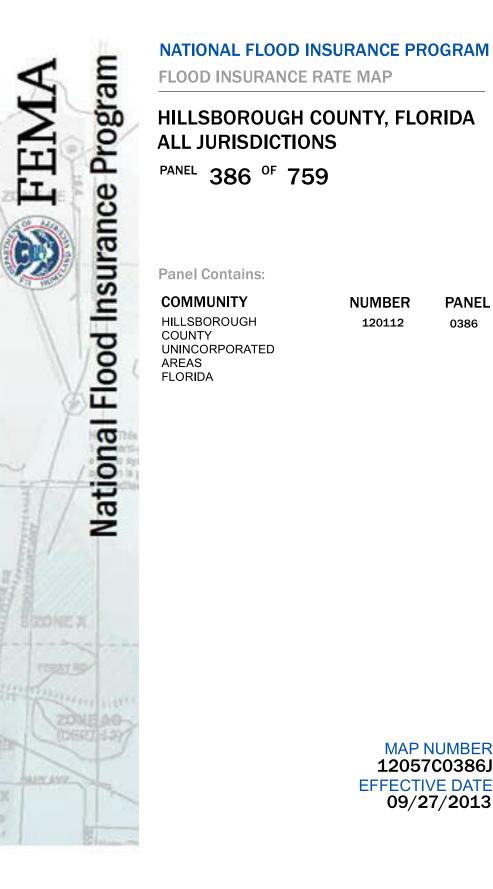
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

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SCALE

Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD88 For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood IN Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 i	nch =	500 feet		1:6,0	00
0	250	500	1,000	1,500	2,000 Feet
	50 100	200	300	Meters	



MAP NUMBER 12057C0386J EFFECTIVE DATE 09/27/2013

Map Number 12057C0387J

7°56'21.68"



NUMBER

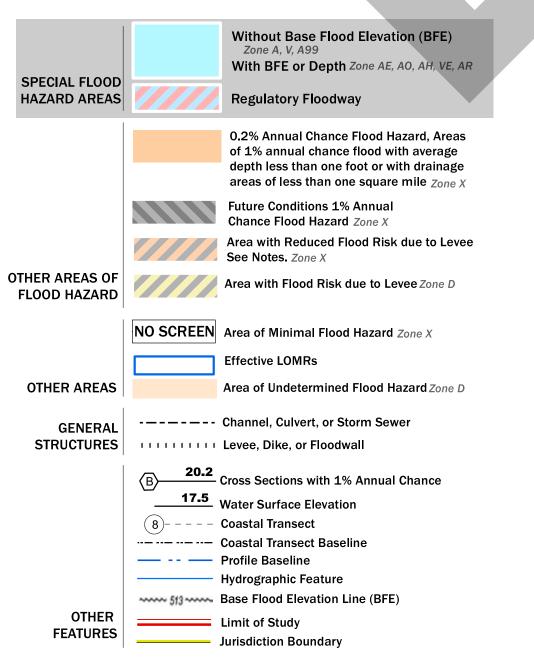
120112

PANEL

0387

FLOOD HAZARD INFORMATION

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



NOTES TO USERS

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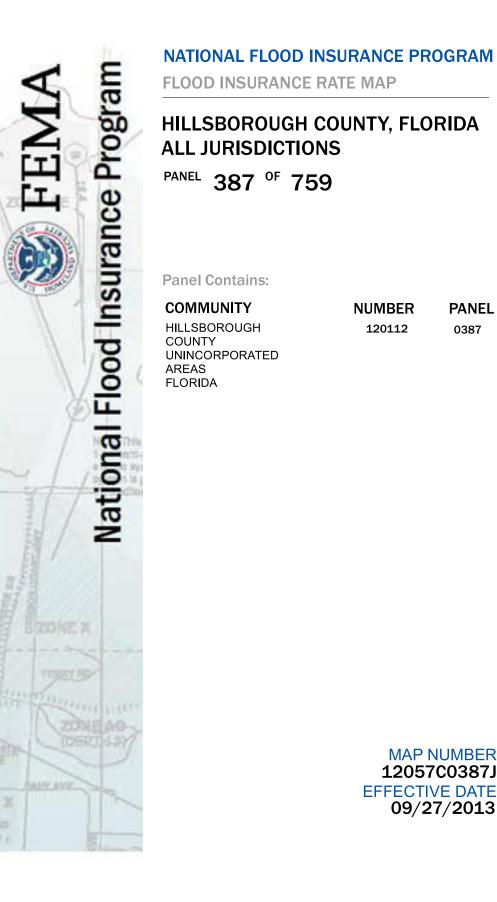
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SCALE

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1 inch = 500 feet				1:6,00	00
0	250	500	1,000	1,500	2,000 Feet
0	50 100) 200	300	Meters 400	

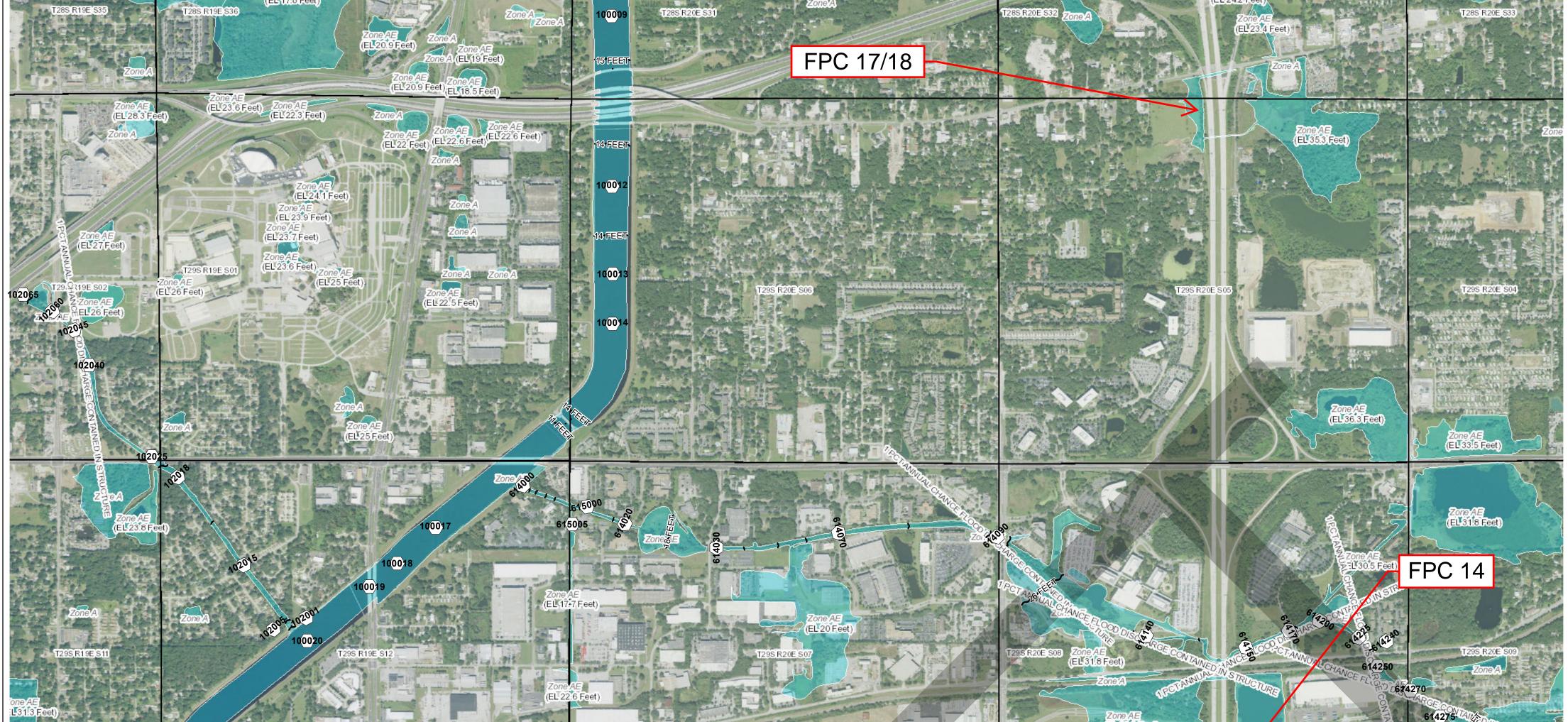




MAP NUMBER 12057C0387J EFFECTIVE DATE

09/27/2013

Map Number 12057C0380J



OROUGH COUNTY UNINCORPORATED AREAS .615350 FPC 12/13L AREA OF MINIMAL FLOOD HAZARD (EL39.8 Feet) 116 7 15 FPC 12/13R (EL/40.1]Feet) (EL/43.2]Feet) 9S R20E S

> Zone AE (EL 40.74 Feet) (EL 31.22 Feet) (EL 31.24 Feet) Zone AE (EL 30.61 Feet) Zone (EL 32.25 Feet) e(EL 32 16 Feet) EL 30.34 Feet) EL 32,17 Feet

25.91 Feet) (EL 27.54 Feet) 7 (EL 29.44 Feet) (EL 28.44 Feet)

EL 37:8 Feet) Zone AE (EL 42:4 Feet) 9S R20E S2 T29S R20E S2 (EL 38.9 Feet

NUMBER

120112

PANEL

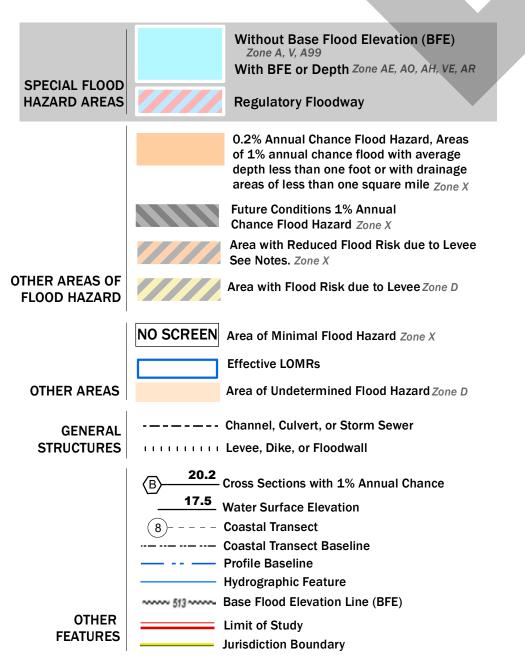
0380

MAP NUMBER 12057C0380J EFFECTIVE DATE 09/27/2013

Zone AE EL 37:3 Feet

FLOOD HAZARD INFORMATION

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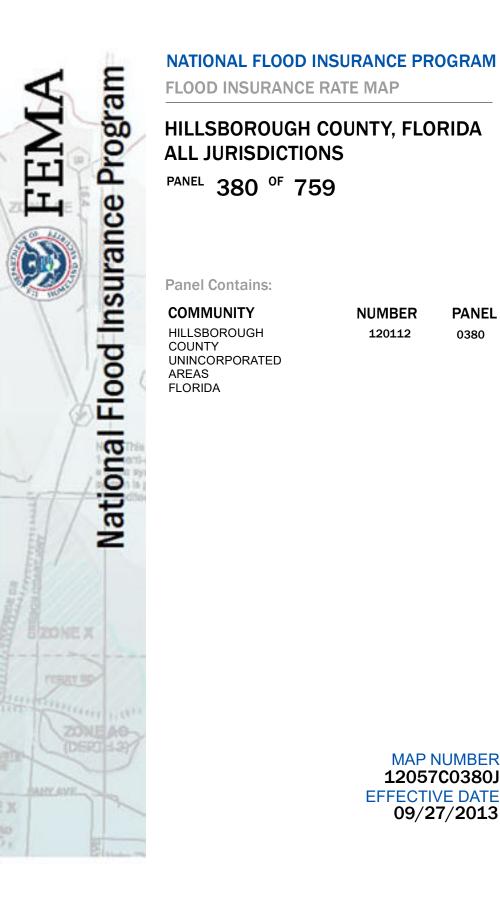
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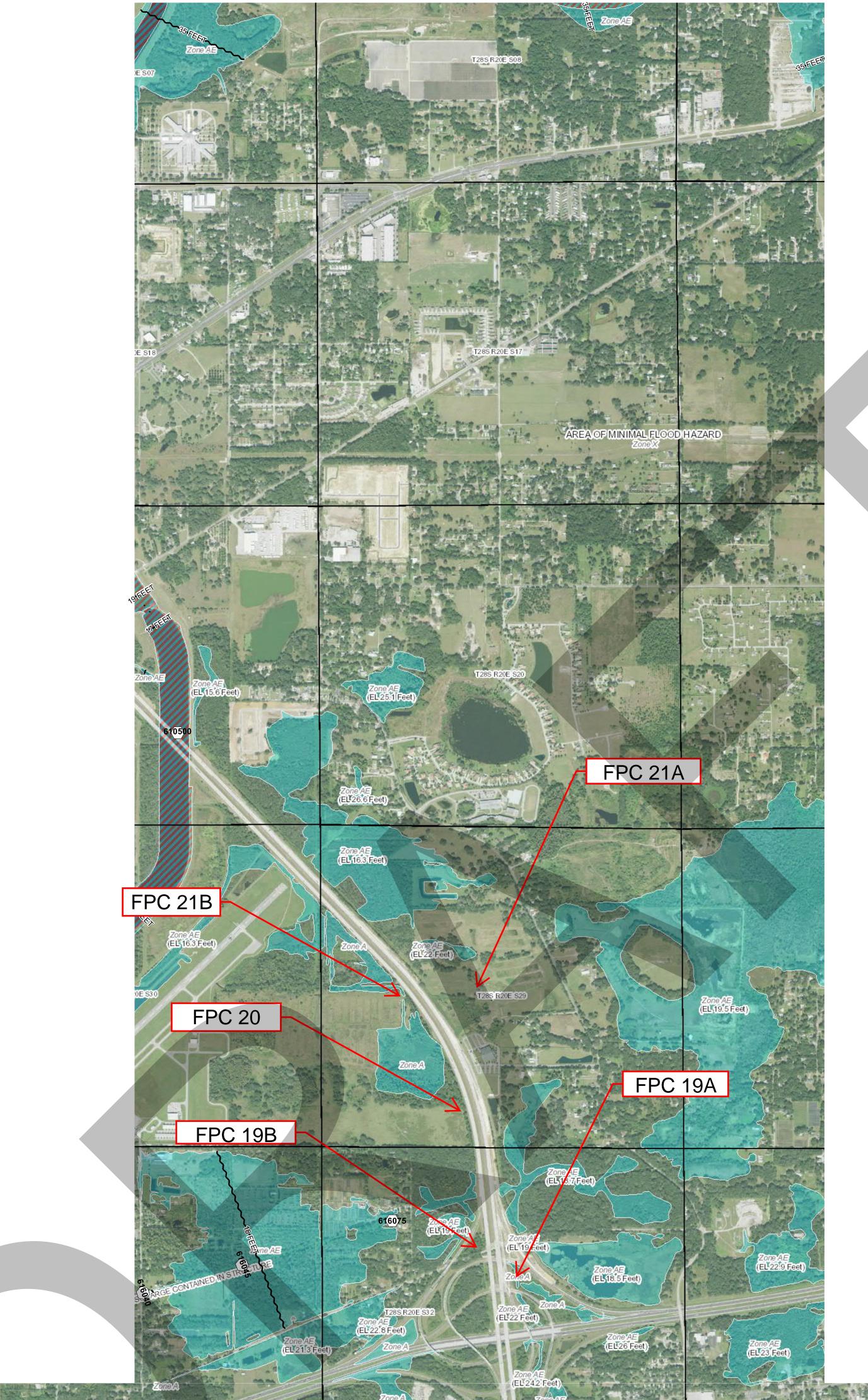
SCALE

Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD88 For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 inch = 1,000 feet				1:12,0	00
0	500 [~]	1,000	2,000	3,000	4,000 Feet
	105 210	420	630	Meters	



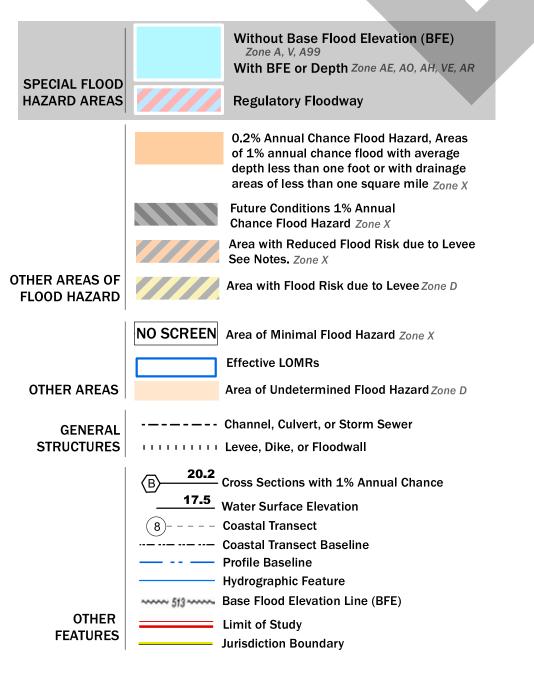
Map Number 12057C0240H



FLOOD HAZARD INFORMATION

EL 19 Feet)

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



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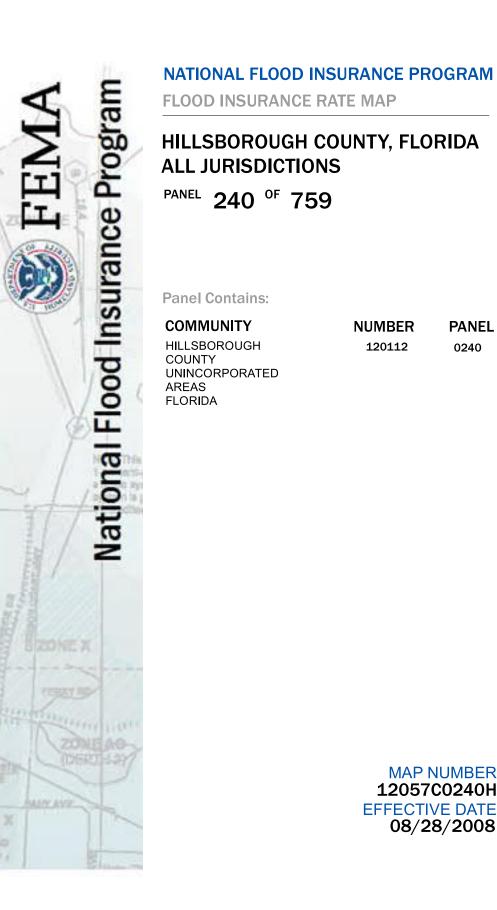
SCALE

3.4 Feet

EL 35 3 Feet

Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD88 For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood N Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 inch = 1,000 feet				1:12,0	00
0	500	1,000	2,000	3,000	4,000 Feet
	105 210) 420	630	Meters	



MAP NUMBER 12057C0240H EFFECTIVE DATE 08/28/2008

27°59'46.70"N

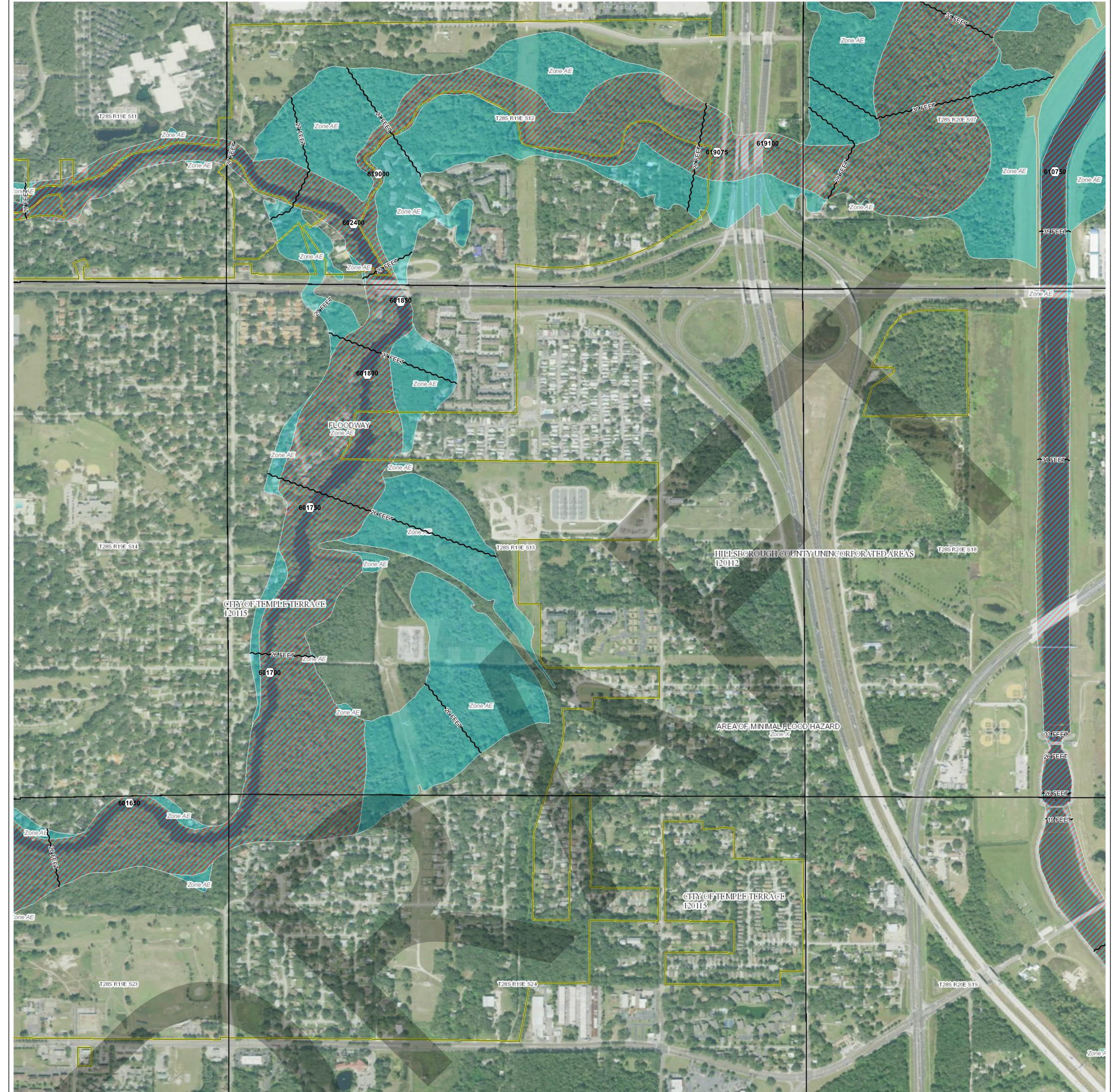
NUMBER

120112

PANEL

0240

Map Number 12057C0236H



PANEL

0236

0236

MAP NUMBER 12057C0236H

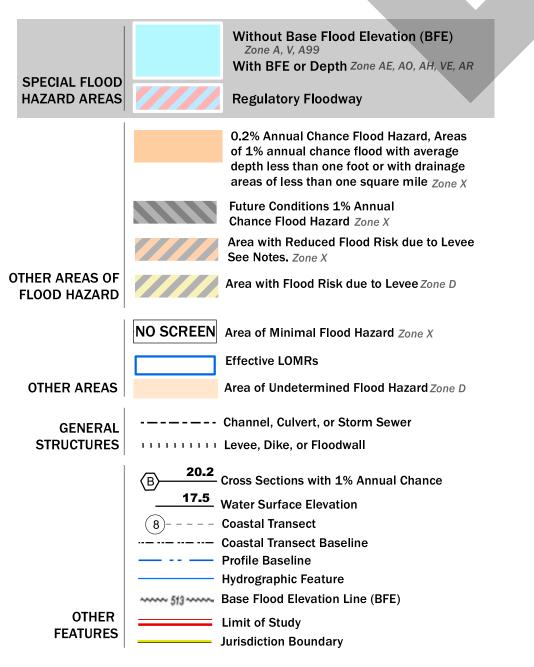
EFFECTIVE DATE 08/28/2008

120115

120112

FLOOD HAZARD INFORMATION

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



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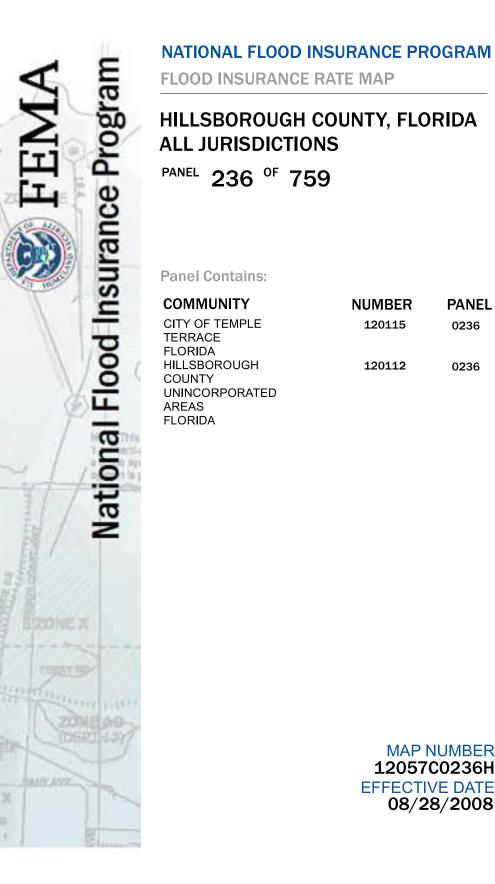
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SCALE

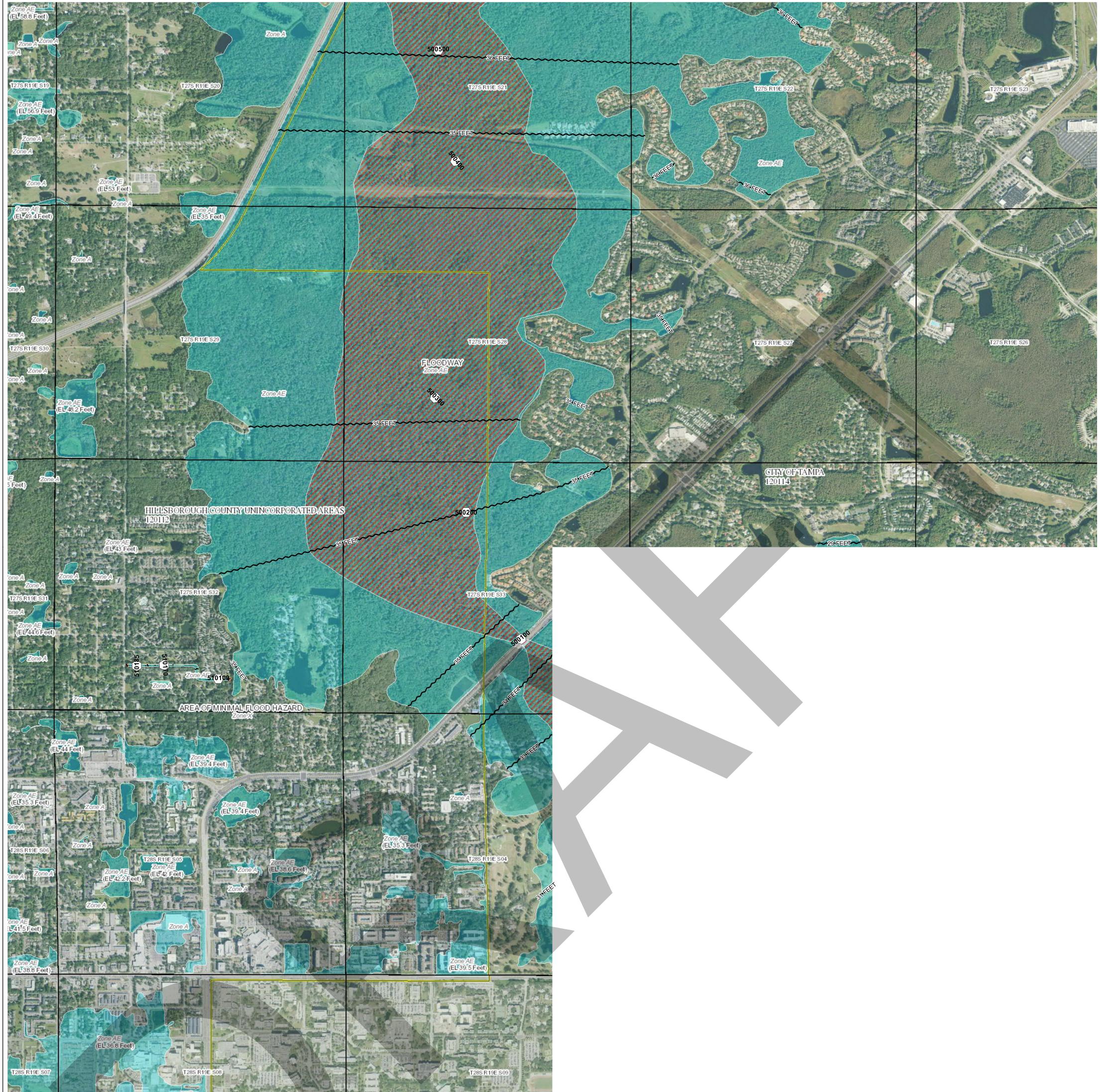
Map Projection: GCS, Geodetic Reference System 1980; Vertical Datum: NAVD88 For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood IN Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 i	nch =	500 feet		1:6,0	00
0	250	500	1,000	1,500	2,000 Fee
				Meters	
0	50 100	200	300	400	



Map Number 12057C0210H

8°7'43 34



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

28°3'31.70"N

PANEL

0210

0210

MAP NUMBER 12057C0210H

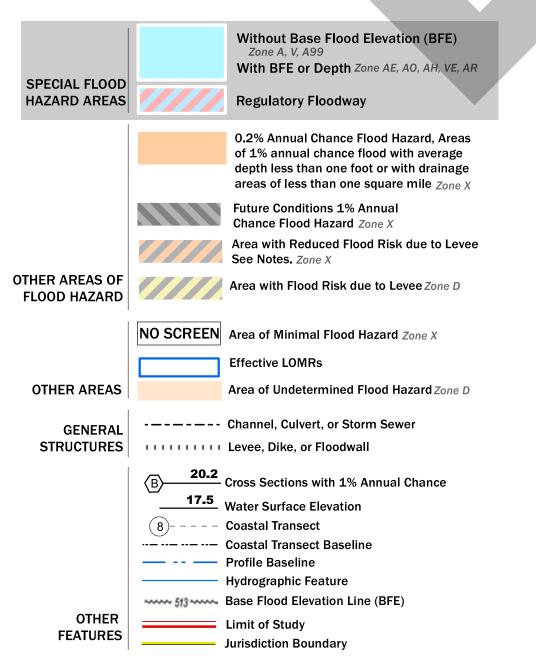
08/28/2008

120112

120114

FLOOD HAZARD INFORMATION

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



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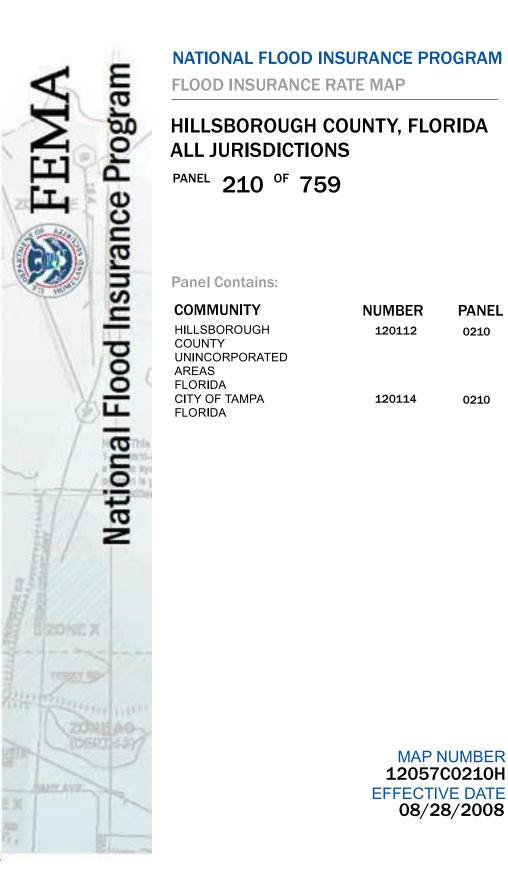
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SCALE

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1 i	inch =	1,000 fee	1:12,0	000	
0	500	1,000	2,000	3,000	4,000 Feet
				Meters	
0	105 21	0 420	630	840	



Map Number 12057C0230H

8°7'43 34'



PANEL

0230

0230

0230

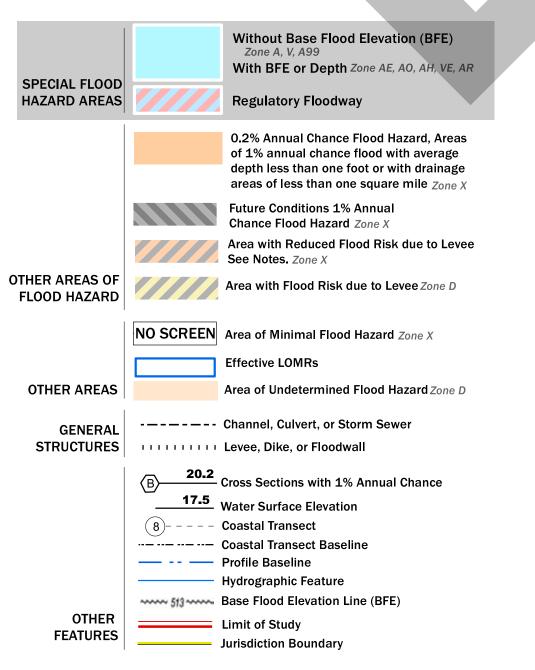
120114

120115

120112

FLOOD HAZARD INFORMATION

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



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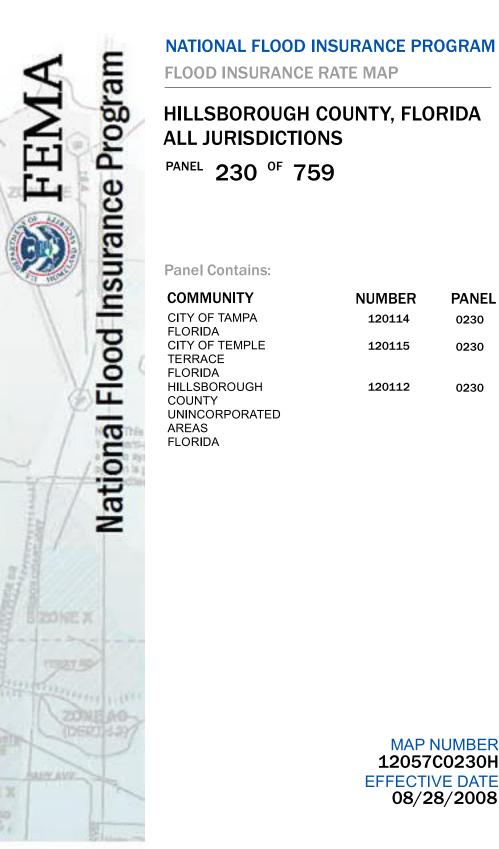
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SCALE

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1 inch = 1,000 feet				1:12,0	000
0	500	1,000	2,000	3,000	4,000 Feet
	105 210) 420	630	Meters	



MAP NUMBER 12057C0230H EFFECTIVE DATE 08/28/2008

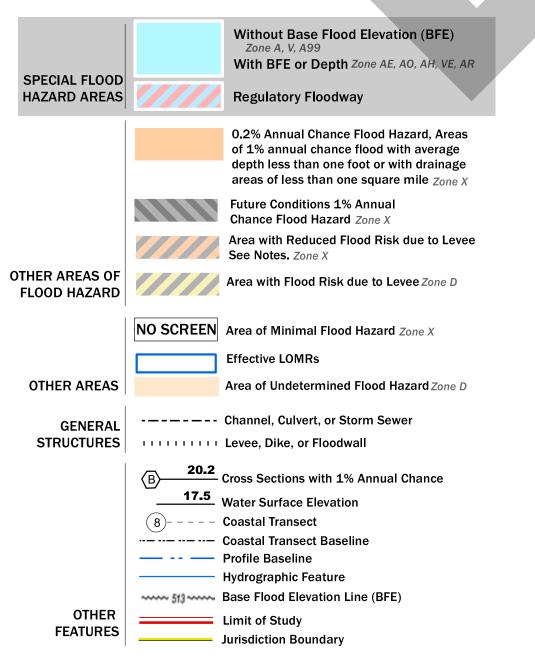


28°10'59.47"I



FLOOD HAZARD INFORMATION

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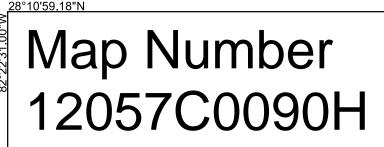
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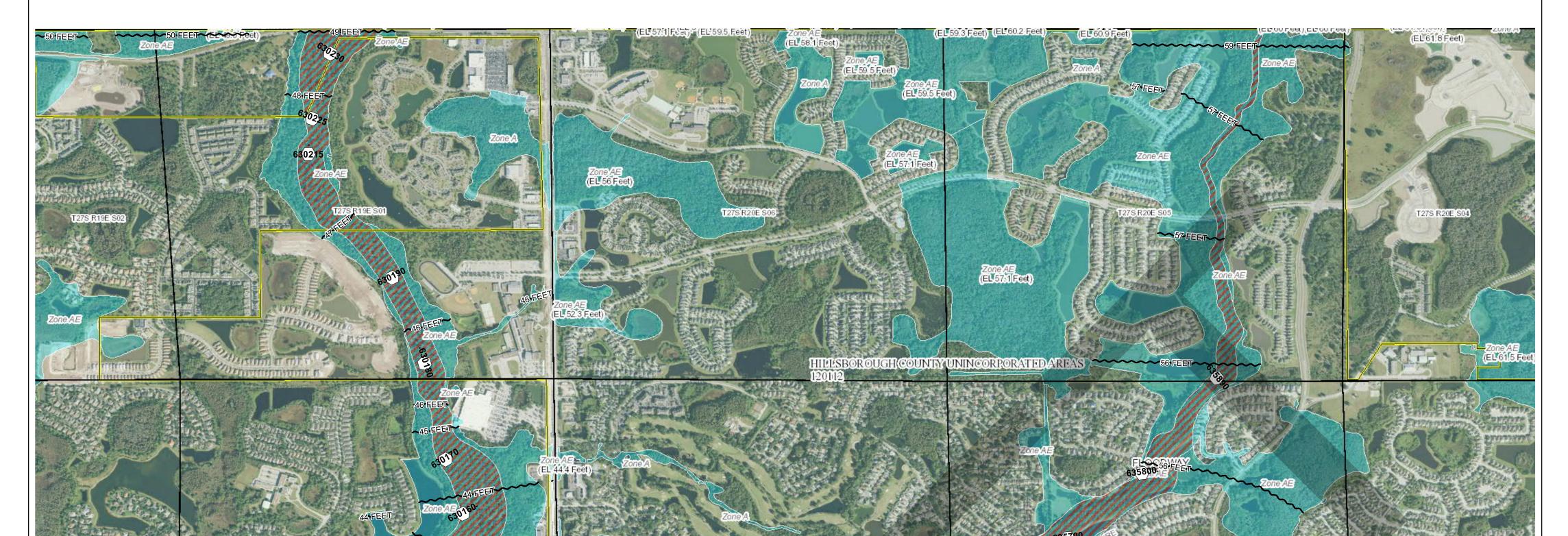
SCALE

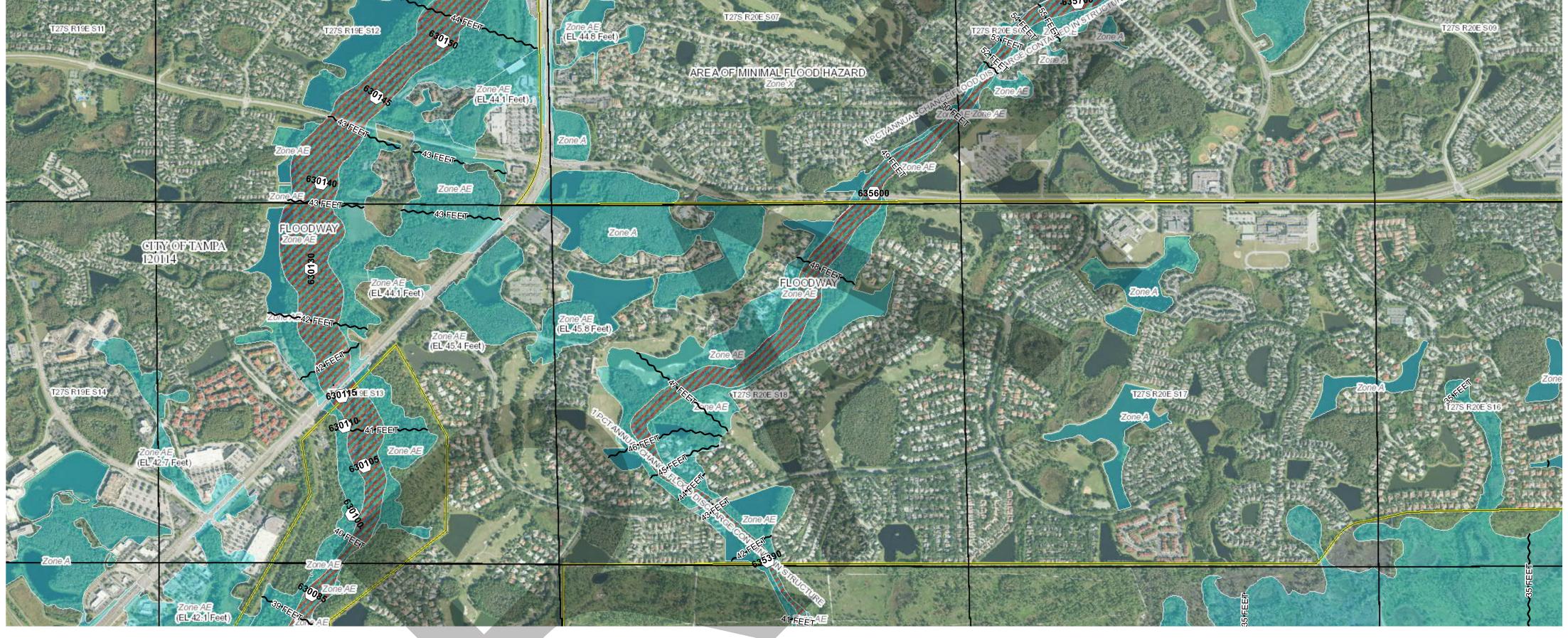
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1 inch = 1,000 feet				1:12,0	00
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				Meters	
0	105 210	0 420	630	840	

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	National Floc	AREAS FLORIDA PASCO COUNTY FLORIDA CITY OF TAMPA FLORIDA	120230 120114	0070 0070
A REAL PROPERTY AND A REAL				
ANY AVE			12057 EFFECTI	NUMBER C0070H VE DATE 8/2008

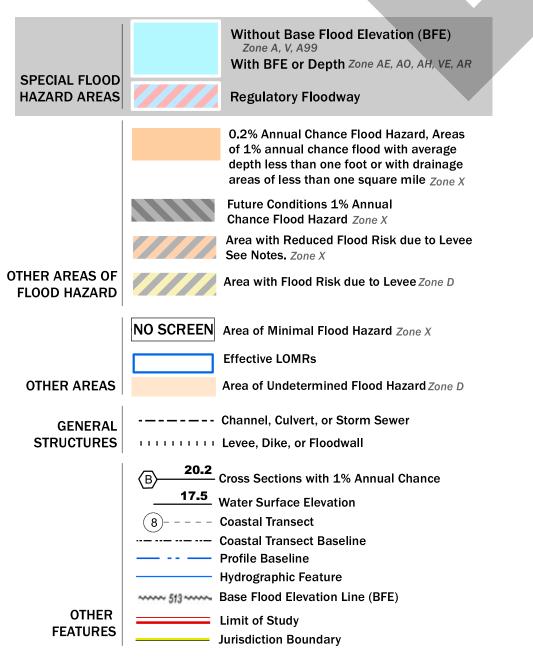






FLOOD HAZARD INFORMATION

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SCALE

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1 inch = 1,000 feet				1:12,0	000
0	500	1,000	2,000	3,000	4,000 Feet
				Meters	
0	105 21	0 420	630	840	

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Appendix E Coordination & Meeting Minutes

SWFWMD Pre-Application Meeting Minutes

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT RESOURCE REGULATION DIVISION PRE-APPLICATION MEETING NOTES

FILE NUMBER:

PA 405566

04/25/2018			
11:00			
Tampa Bay Next Sections	9 and 10		
David Kramer			
Lauren Greenfield, Joel Br	nwo		· · · · · · · · · · · · · · · · · · ·
Daniel Lauricello, Virginia	Creighton, William Adar	ns, Cristina Jackson,	John Littlefield
Hillsborough/Manatee ROW	Sec/Twp/Rge: Project Acreage:	Varies 100++ acres	
	11:00 Tampa Bay Next Sections David Kramer Lauren Greenfield, Joel Bro Daniel Lauricello, Virginia (Hillsborough/Manatee	11:00 Tampa Bay Next Sections 9 and 10 David Kramer Lauren Greenfield, Joel Brown Daniel Lauricello, Virginia Creighton, William Adam Hillsborough/Manatee Sec/Twp/Rge:	11:00 Tampa Bay Next Sections 9 and 10 David Kramer Lauren Greenfield, Joel Brown Daniel Lauricello, Virginia Creighton, William Adams, Cristina Jackson, Hillsborough/Manatee Sec/Twp/Rge: Varies

Prior On-Site/Off-Site Permit Activity:

• Significant permitting history within and adjacent to the roadway corridor.

Project Overview:

- High level discussion regarding improvements to 175 within Hillsborough and Manatee Counties.
- Section 10: Moccasin Wallow Road (CR 6) to South of US Hwy 301 (SR 43), Manatee and Hillsborough
- Section 9: US Hwy 301 to Bruce B. Downs, Hillsborough

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- Provide the limits of surface waters and wetlands on-site.
- Provide appropriate mitigation using UMAM for impacts, if applicable.
- Demonstrate elimination and reduction of wetland impacts.
- Maintain minimum 15 foot, average 25 foot wetland conservation area setback or address secondary impacts.
- As of October 1, 2017, the District will no longer send a copy of an application that does not qualify for a State Programmatic General Permit (SPGP) to the U.S. Army Corps of Engineers. If a project does not qualify for a SPGP, you will need to apply separately to the Corps using the appropriate federal application form for activities under federal jurisdiction. Please see the Corps' Jacksonville District Regulatory Division Sourcebook for more information about federal permitting. Please call your local Corps office if you have questions about federal permitting. Link: http://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- Project encompasses almost the entire length of Hillsborough County and a portion of Manatee County along the existing I75 corridor.
- WBIDs need to be independently verified by the consultant.
- Portions of the project discharge to impaired waters.
- Portions of the project may discharge to local closed basins.
- Several OFW's within the project area including but possibly not limited to the Hillsborough and Little Manatee Rivers and the Cockroach Bay Aquatic Preserve.

• All wells within the project area should be identified and their future use/abandonment must be designated.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Project falls within many different regional and local watersheds/drainage basins.
- Demonstrate that post development peak discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- For projects or portions of projects that discharge to a closed basin, limit the post-development 100-year discharge volume to the pre-development 100-year, 24-hour volume.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).

- Provide equivalent compensating storage for all 100-year, 24-hour riverine floodplain impacts if applicable. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation, if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100year storm events for the pre- and post-development conditions.
- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges. [Section 3.0 Applicant's Handbook Volume II]

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Must replace treatment function of existing ditches to be filled.
- Refer to Section 4.5 A.H.V.II for Alterations to Existing Public Roadway Projects.
- Refer to Sections 4.8, 4.8.1 and 4.8.2 A.H.V.II for Compensating Stormwater Treatment, Overtreatment, and Offsite Compensation.
- All co-mingled existing & new impervious (DCIA) that is proposed to be connected to a treatment pond will require treatment (times ½" for dry treatment or 1" for wet treatment).
- However, if equivalent treatment concepts are used it is possible to strategically locate the pond(s) so that the <u>minimum</u> treatment requirement may be for an area equivalent to the net increase in impervious area. That is, co-mingled existing & new impervious that is not connected to a treatment pond may bypass treatment (as per Section 4.5(2), A.H.V.II) if the 'total impervious area' that is connected to the treatment pond(s) is at least equivalent to the area of new impervious. The 'total impervious area' that is connected to the pond(s) may be composed of co-mingled existing & new impervious.
- Offsite impervious not required to be treated; but may be useful to be treated when using equivalent treatment concepts or when attempting to meet net improvement.
- Provide additional 50% treatment for any direct discharges to OFW. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(f).
- Please be advised that although use of isolated wetlands for ERP treatment purposes is permittable as per Section 4.1(a)(3), A.H.V.II, use of isolated wetlands for treatment purposes may not necessarily meet US Army Corps criteria.
- In addition, if the project discharges to an impaired water body, must provide a net environmental improvement.
- Applicant must demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use.
- Discussion also included the potential for off-site compensatory treatment or "regional treatment." Most feasible/permittable regional treatment locations would be within the same Wbid, or another segment/Wbid that is part of the same contiguous water body that is located upstream of the impacts. This would allow the applicant to clearly demonstrate that the load reduction provided by the regional treatment facility provides a measurable benefit to the segment/Wbid being impacted.

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

- Portions of the project may be located within state owned sovereign submerged lands (SSSL). Be advised that a title determination will be required from FDEP to verify the presence and/or location of SSSL.
- If use of SSSL is proposed, authorization will be required. Refer to Chapter 18-21, F.A.C. and Chapter 18-20, F.A.C. for guidance on projects that impact SSSL and Aquatic Preserves.
- For areas over SSSL, a new easement or a modification to an existing easement may be required.

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

Demonstrate ownership and control of entire project area.

Application Type and Fee Required:

 SWERP – Sections A, C and E of the ERP Application – fee to be determined based on construction permit project area. The group also discussed expected deliverables for design-build projects. The District has agreed to a minimum level of detail to be provided with construction permit applications for project using a design-build approach. HNTB has created a list of items that must be included, at a minimum, with future ERP applications.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.
- The plans and drainage report submitted electronically must include the appropriate information required under Rule 61G15-23.005(4)(c), F.A.C. The following text is acceptable to the Florida Board of Professional Engineers (FBPE) to meet this requirement and must appear where the signature would normally appear:

[Licensee] State of Florida, Professional Engineer, License No. X This item has been electronically signed and sealed by [Licensee, PE] on [DATE] using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies

 Provide soil erosion and sediment control measures for use during construction. Refer to ERP Applicant's Handbook Vol. 1 Part IV Erosion and Sediment Control.

Disclaimer: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.

FDOT Long List Meeting



PROJECT NAME	I-75 (SR 93A) PD&E FROM S. OF US 301 TO N. OF BRUCE B. DOWNS BLVD. HILLSBOROUGH COUNTY FDOT DISTRICT 7
PROJECT NUMBER(S)	FPID 419235-3-22-01
DATE	07 June 2019
TIME	10:30 AM
VENUE	FDOT D7-HQ
SUBJECT	POND SITING LONG LIST MEETING
PRESENT	See Attached Sign-In Sheet
DISTRIBUTION	Attendees (See Sign-In Sheet)
KEY ITEMS OF DISCUSSIO	N ACTION BY

KEY ITEMS OF DISCUSSION

1.0 PROJECT REFRESHER John Littlefield provided an overview of the project which included explanations on the project limits, typical sections and previous coordination with SWFWMD. Mr. Littlefield also provided a description of the major drainage basins within the project limits and the criteria used to design the ponds. The pond siting criteria is included in the attached Long List Meeting Presentation. The presentation also includes a summary of the pond site atternatives, floodplain compensation sites, drainage basin maps, and alternative matrix analysis for each basin. June Meeting 2.0 DRAINAGE BASIN AND POND SUMMARY Basin 1: 			
2.1Basin 1: - Coordinate with American Engineering regarding additional pond treatment/attenuation capacity that may be available in the adjacent project to the south (Section 10). - Relocate pond alternative SMF 1A to the XScape Theatre.WSP2.2Basin 2 through Basin 5: Pond sites are located within the existing right-of-way therefore, only one alternative evaluated for each basin.N/A2.3Basin 6: FDOT requested that the drainage easement line be revised to limited access (LA) right-of- way. The right-of-way revision begins at station 1365+10 RT and extends north to station 1402+50.WSP2.4Basin 7: FDOT requested that an additional pond site be included in the basin. The pond site alternative is referred to as SMF 7C and is located at the northwest corner of Causeway Blvd. and Brandon Town Center Drive.WSP2.5Basin 8: Revise drainage easement to lie in the Estuary Lakes Drive right-of-way and eliminate parcel takes for current easement design.WSP2.6Basin 9: Pond site is located within the existing right-of-way and therefore only one alternative was evaluated.N/A2.7Basin 10: Show LA right-of-way for ponds along west side of roadway. This will require HNTB to provide the final concept with the right-of-way shown for the entire project.WSP2.8Basin 11: The Department requested that SMF 11C be removed from the proposed pond site alternatives for the basin.WSP	1.0	John Littlefield provided an overview of the project which included explanations on the project limits, typical sections and previous coordination with SWFWMD. Mr. Littlefield also provided a description of the major drainage basins within the project limits and the criteria used to design the ponds. The pond siting criteria is included in the attached Long List Meeting Presentation. The presentation also includes a summary of the pond site alternatives, floodplain compensation sites,	June Meeting
alternative evaluated for each basin. 2.3 Basin 6: FDOT requested that the drainage easement line be revised to limited access (LA) right-of-way. The right-of-way revision begins at station 1365+10 RT and extends north to station 1402+50. WSP 2.4 Basin 7: FDOT requested that an additional pond site be included in the basin. The pond site alternative is referred to as SMF 7C and is located at the northwest corner of Causeway Blvd. and Brandon Town Center Drive. WSP 2.5 Basin 8: Revise drainage easement to lie in the Estuary Lakes Drive right-of-way and eliminate parcel WSP 2.6 Basin 9: Pond site is located within the existing right-of-way and therefore only one alternative was evaluated. N/A 2.7 Basin 10: Show LA right-of-way for ponds along west side of roadway. This will require HNTB to provide the final concept with the right-of-way shown for the entire project. WSP 2.8 Basin 11: The Department requested that SMF 11C be removed from the proposed pond site alternatives for the basin. WSP		 Basin 1: Coordinate with American Engineering regarding additional pond treatment/attenuation capacity that may be available in the adjacent project to the south (Section 10). 	WSP
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provide the final concept with the right-of-way shown for the entire project. HNTB 2.8 Basin 11: The Department requested that SMF 11C be removed from the proposed pond site alternatives for the basin. WSP	2.6		N/A
alternatives for the basin.	2.7		
2.9 Basin 12 & Basin 13: No recommended revisions for the pond sites or floodplain compensation sites. N/A	2.8		WSP
	2.9	Basin 12 & Basin 13: No recommended revisions for the pond sites or floodplain compensation sites.	N/A

2.10	Basin 14: Remove pond site alternative SMF 14C. FDOT requested that the easement be relocated to Columbus Drive and eliminate the parcel takes for the current easement design.	WSP
2.11	Basin 15 & Basin 16: Pond site located within the existing right-of-way therefore, only one alternative evaluated.	N/A
2.12	 Basin 17 & Basin 18: As discussed during the meeting, Crystal Geiger will investigate whether alternative SMF 17B is viable due to the historical structure located on Parcel 065069. Based on subsequent coordination, it was determined the structure has historical significance and therefore SMF 17B will be relocated along the east side for I-75 at the intersection of Anna Drive and Tanner Road. HNTB will need to avoid impacting the Tanner property when establishing the proposed right-of-way for the project. 	WSP HNTB
2.13	Basin 19: Pond sites and floodplain compensation sites are located within the existing right-of-way.	N/A
2.14	Basin 20: The easement for SMF 20A is not required and should be removed.	WSP
2.15	 Basin 21: The Department requested the following revisions. Eliminate SMF 21B. Redesign FPC 21B along the east side of SMF 21A. Rename SMF 21C and FPC 21A to SMF 21B and FPC 21B, respectively. 	WSP
2.16	 Basin 22 Remove SMF 22A and easement due to the numerous properties required. Redesign pond site SMF 22A on SWFWMD property adjacent to the by-pass canal. 	WSP
2.17	Basin 23: No recommended revisions for the pond site alternatives.	N/A
2.18	Basin 24: No recommended revisions.	N/A
2.19	Basin 25: — Evaluate potential pond site on Luxury Stone site.	WSP
3.0	RIGHT-OF-WAY: — Six to Eight weeks for right-of-way estimates. — Include right-of-way request form with resubmittal.	N/A
4.0	 ACTION ITEMS: Resubmit to FDOT by July 9th, 2019. HNTB to provide updated right-of-way requirements. Add environmental aspects to matrix table for Short List Meeting. 	WSP HNTB
5.0	SCHEDULE — FDOT is still anticipating a Public Hearing in December 2019.	N/A

NEXT MEETING

An invitation will be issued for the September 2019 Short List Meeting.

POND SITING LONG LIST MEETING I-75 (SR 93A) PD&E From S. of US 301 to N. of Bruce B. Downs Blvd. HILLSBOROUGH COUNTY, FDOT DISTRICT 7

FPID 419235-3-22-01



Project Refresher

- Two (2) contiguous I-75 Projects (aka. Sec. 9 & 10)
 - Section 9
 - 17.8 miles
- 8 Interchanges Including I-4
- Existing Typical Section
 - 3-GUL's w/ auxiliary lanes
- Proposed Typical Sections
 - 3 GUL's + 2 EL's in each direction
 - EL's barrier separated
 - CD's lanes vary throughout
- SWFWMD Meeting 4/2018
 - Treat additional impervious area
 - Compensatory Treatment allowable



HILLSBOROUGH COUNTY, FDOT DISTRICT 7







Drainage Refresher

- Previous Pond Siting Report (2010)
 - Project limits changed N. of Fletcher Ave.
 - One (1) pond per basin
 - Analysis for two (2) typical sections
 - Recommended PD&E
 - 324-Foot Impervious
- Three (3) Major Basins
 - Delaney / Archie Creek
 - Tampa By-Pass Canal
 - Hillsborough River
- 30 Onsite Basins (1-25, A-EF)
- 50% increase in new pavement area





Data Collection

- Survey
 - No survey conducted
 - 1-foot GIS Lidar
 - Existing SWFWMD Permits
 - Several on-going break-out projects
- Geotechnical Data
 - No borings conducted
 - USDA / NRCS Soils
 - Mostly HSG A/D or B/D
 - SHWT depths 0 2.5 feet
- Wetlands
 - GIS National Wetland Inventory
- Floodplains GIS FEMA Maps (2008 & 2013)
- FDEP Impaired Waters



U.S. Fish and Wildlife Service National Wetlands Inventory









INTERSTATE 75



Drainage Refresher

Water Quality

- One (1) OFW at Hillsborough River / Cowhouse Creek
- Six (6) Impaired WBID's / Four (4) Nutrient Impaired
 - 12 Basins (7, 8, and 14-23)
- All Wet Ponds (1-inch x New Impervious Area)
- 15% of volume

Water Quantity

- All Open Basins
- Used SWFWMD 25-yr / 24-hr Storm
- Rainfall = 8.0 inches
- SCS Method to calculate Volumes
- 85% of volume Critical Volume

Floodplains

- Numerous Floodplains (Zone A & Zone AE)
- Five (5) Floodways (Traverse Crossings)
- Nine (9) Basins with Floodplain Impacts
- Impact / Compensation- Area for Area plus 20%



Project Development & Environment Study

I-75 (SR 93A) From South of US 301 (SR 43) to North of Fletcher Avenue (CR 582A), Hillsborough County





Work Program Item Segment Number: 419235-3

DRAFT

Alternative Stormwater Management Facilities Report

VOLUME 1 OF 2

Florida Department of Transportation District Seven

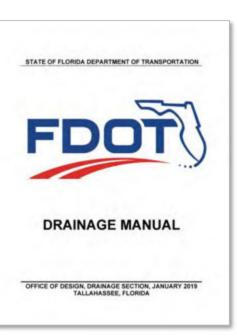


Manuel Santos, E.I. DOT Project Manager



Pond Siting Criteria

- Other Criteria
 - 1- foot freeboard (inside berm) for 25-yr / 24-hr Storm
 - 10-yr Hydraulic Check with LEOP
 - Impaired Basins Pollutant Calculations performed
- 30 Basins
 - Last four (5) Basins designed for ultimate
 - Remaining 25 Basins require evaluation
- Evaluated 2 or 3 alternative Pond Sites / Basin
 - Exceptions:
 - Pond within the existing ROW
 - 2 or more vacant sites were available, or
 - Other remaining parcels in wetlands or floodplains
- One FPC Site / Basin
- FDOT / County Owned R/W
- Combined Basins, where beneficial
- Compensatory Treatment



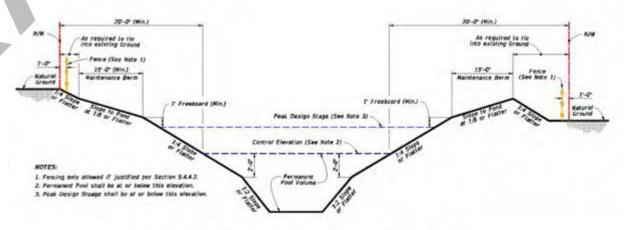
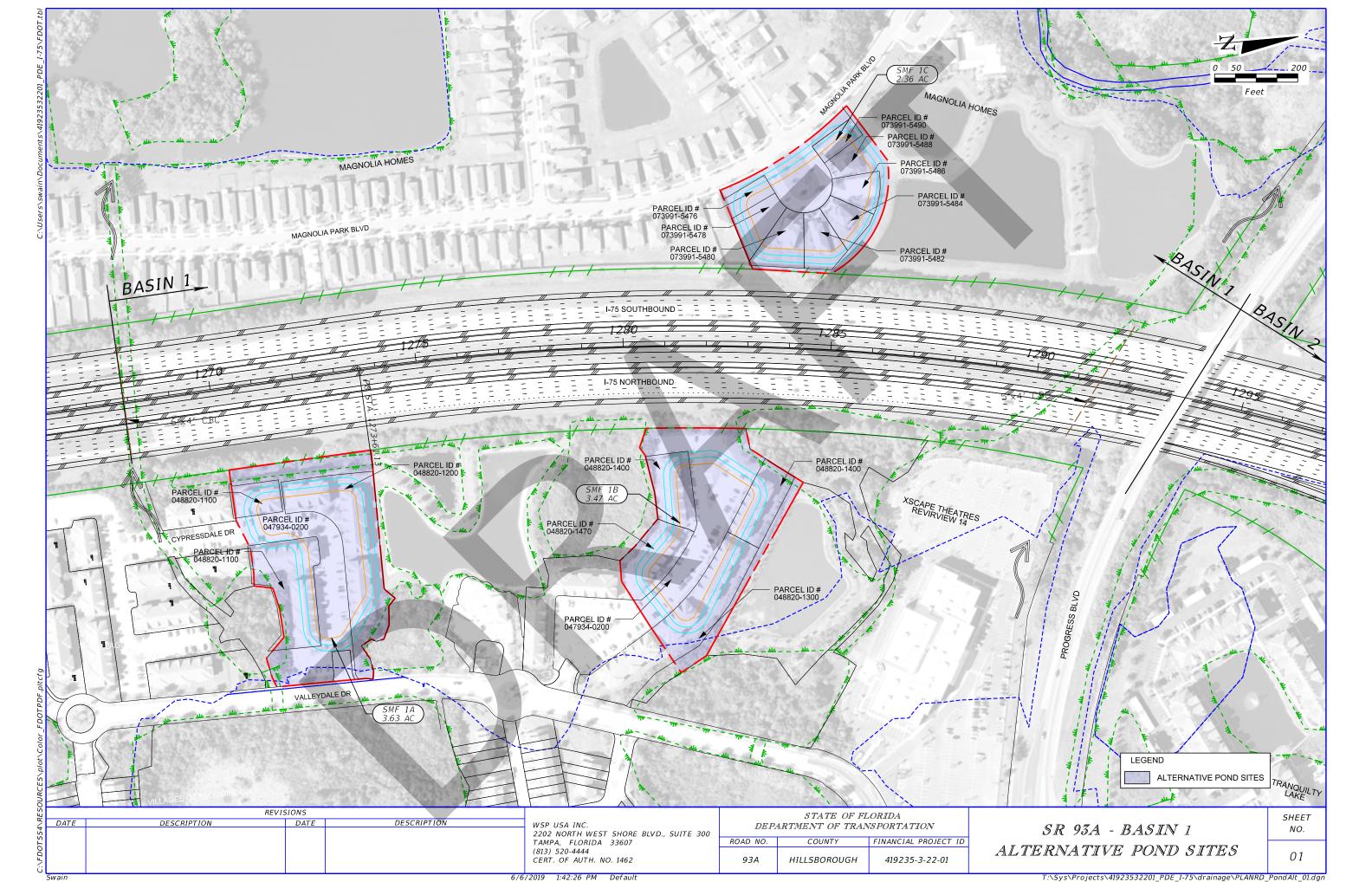


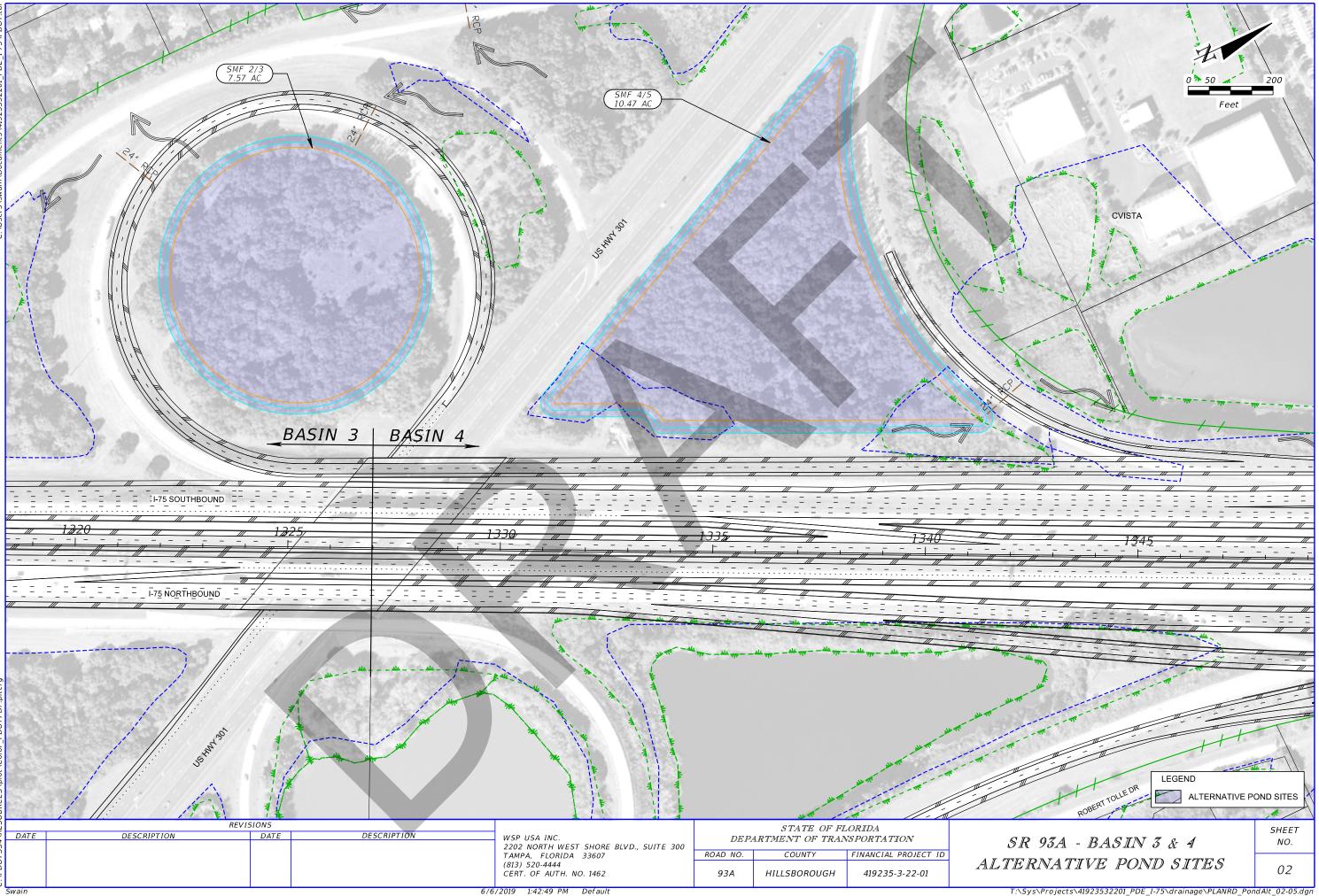
Figure 5-1: Minimum Clearance Retention-Detention Ponds

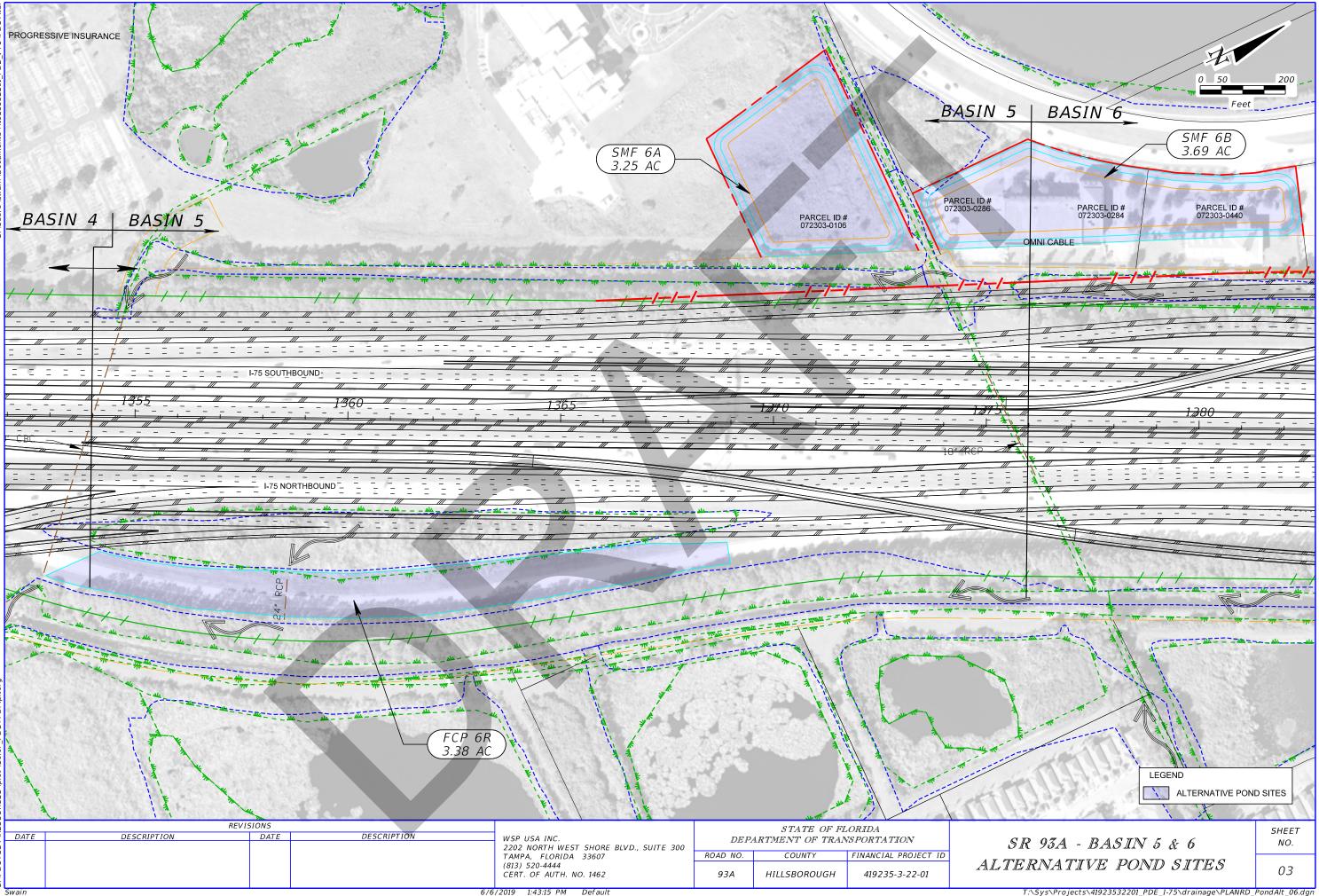
Pond Siting Long List Meeting Summary Sheet I-75 (SR 93A) PD&E From S. of US 301 to N. of Bruce B. Downs Blvd.

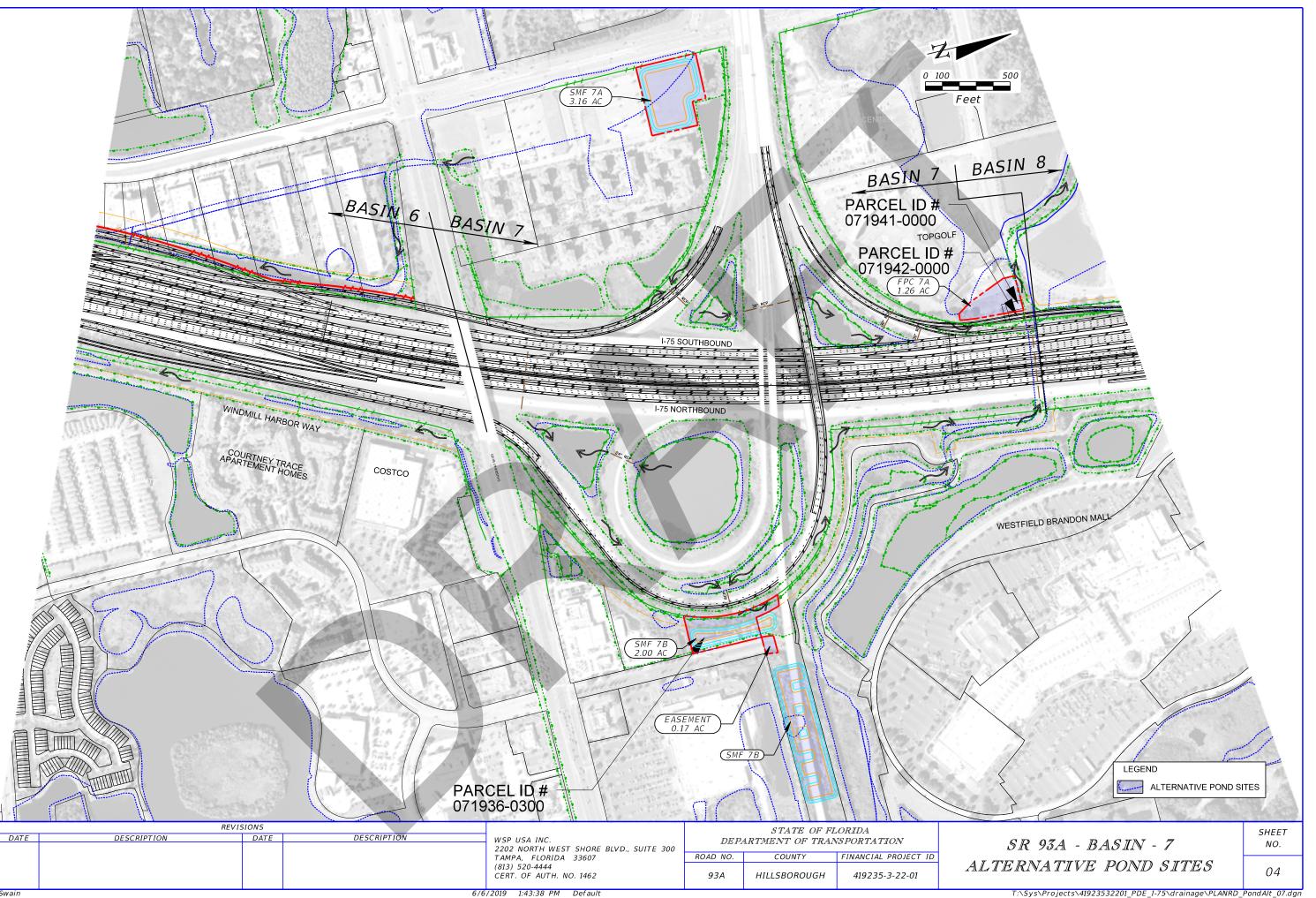
Basin	Receiving Water / Outfall	SMF Alternative Sites	FPC Sites	
1	Archie Creek Trib. B	SMF 1A, SMF 1B & SMF 1C	-	
2	North Archie Creek	SMF 2/3	-	
4 5	Unnamed Trib. on North Archie Creek	SMF 4/5		
6	Archie Greek	SMF 6A & SMF 6B	FPC 6	
7	Delaney Creek	SMF 7A &SMF 7B SMF 8A, SMF 8B & SMF 8C	FPC 7	
9	Tampa Bypass Canal Trib. 2 S.	SMF 9	-	
10 11	Branch	SMF 10A, SMF 10B & SMF 10C SMF 11A, SMF 11B & SMF 11C	-	
12 13	Tampa Bypass Canal Trib. 2	SMF 12/13A, SMF 12/13B, & SMF 12/13C	FPC 12/13R & FPC 12/13L	
14	Tampa Bypass Canal Trib. 1 S. Branch 2.1	SMF 14A, SMF 14B & SMF 14C	FPC 14	
15	Tampa Bypass Canal Trib. 1	SMF 15/16	<u> </u>	
16	Tampa Bypass Canal Trib. 1			
17		SMF 17A & SMF 17B	-	
18	Tampa Bypass Canal Main	SMF 18A & SMF 18B	FPC 17/18	
19	Ditch	SMF 19A, SMF 19B, SMF 19C & SMF 19D	FPC 19A & FPC 19B	
20		SMF 20A & SMF20B	FPC 20	
21	Unnamed trib. to Tampa Bypass Canal	SMF 21A, SMF 21B & SMF 21C	FPC 21A & FPC 21B	
22 23		SMF 22A, SMF 23A, SMF 23B & SMF 22/23	-	
24	Tampa Bypass Canal	SMF 24A & SMF 24B	-	
25		SMF 25A, SMF 25B & SMF 25C	-	
А	Cowhourse Crook	Pond A2 & Pond A4	-	
В	Cowhouse Creek	Pond B2 & Pond B3	-	
С		Pond C-2 & C-5	FPC B	
D	Hillsborough River	Pond D	-	
E &F		Pond EF	-	

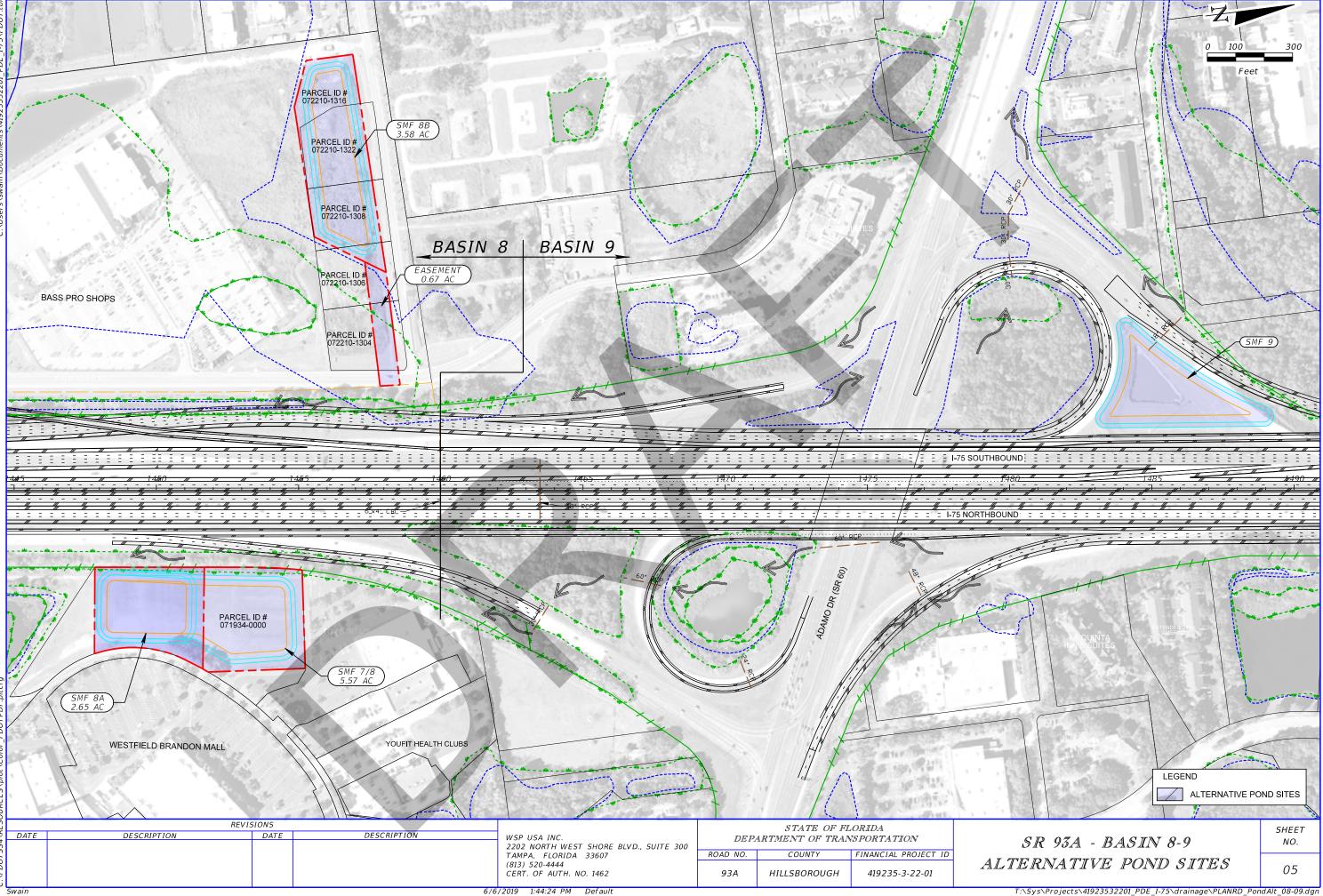


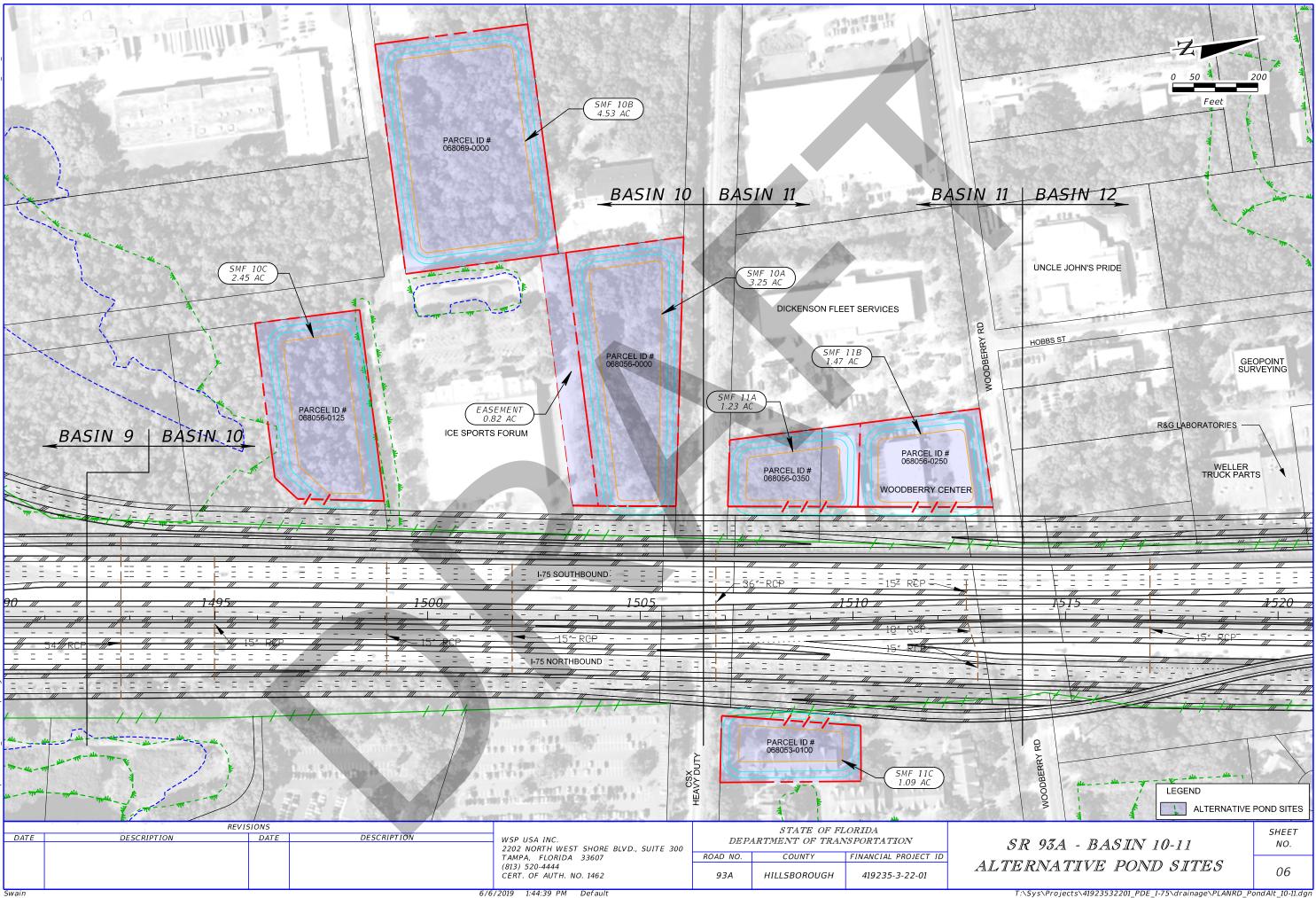


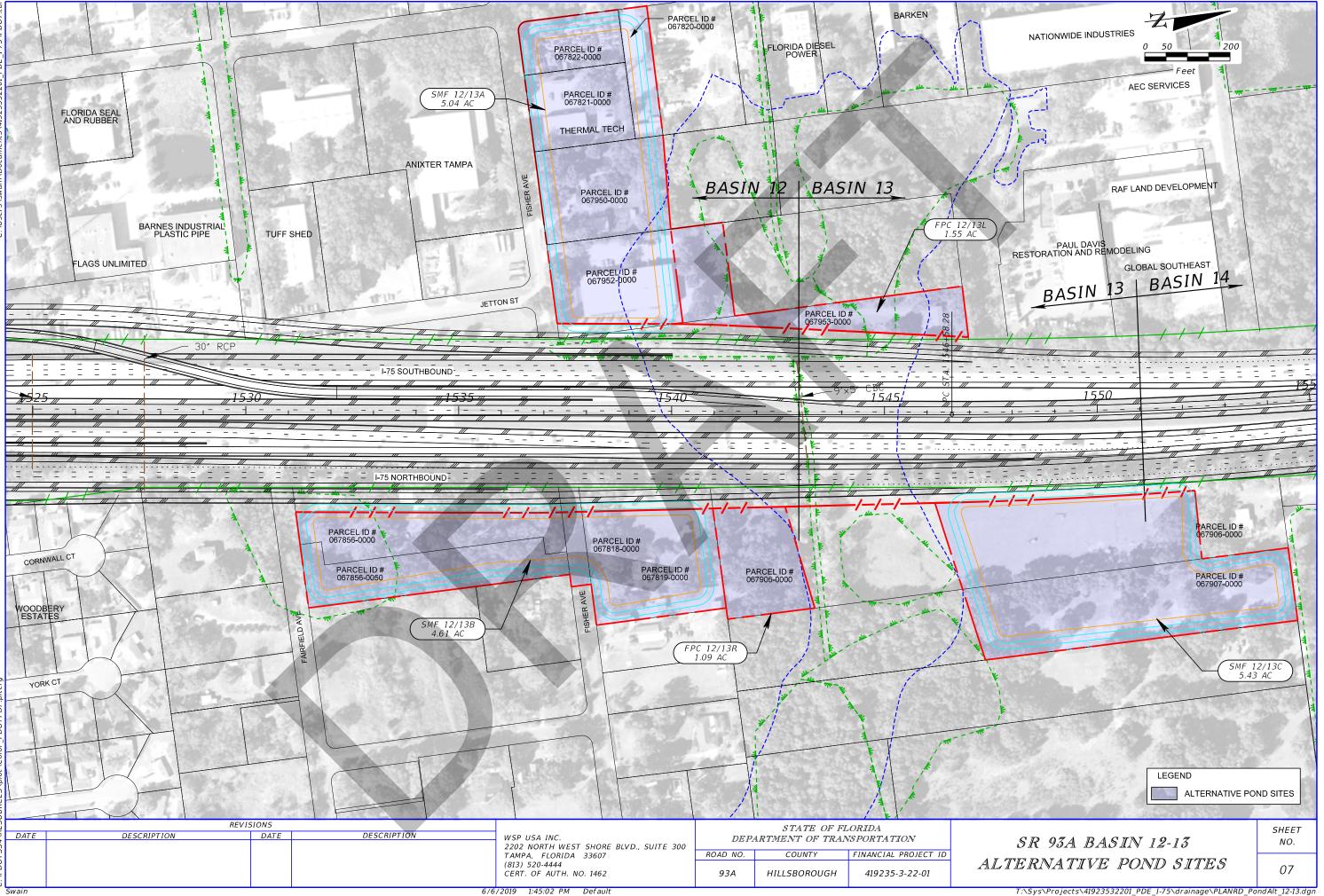


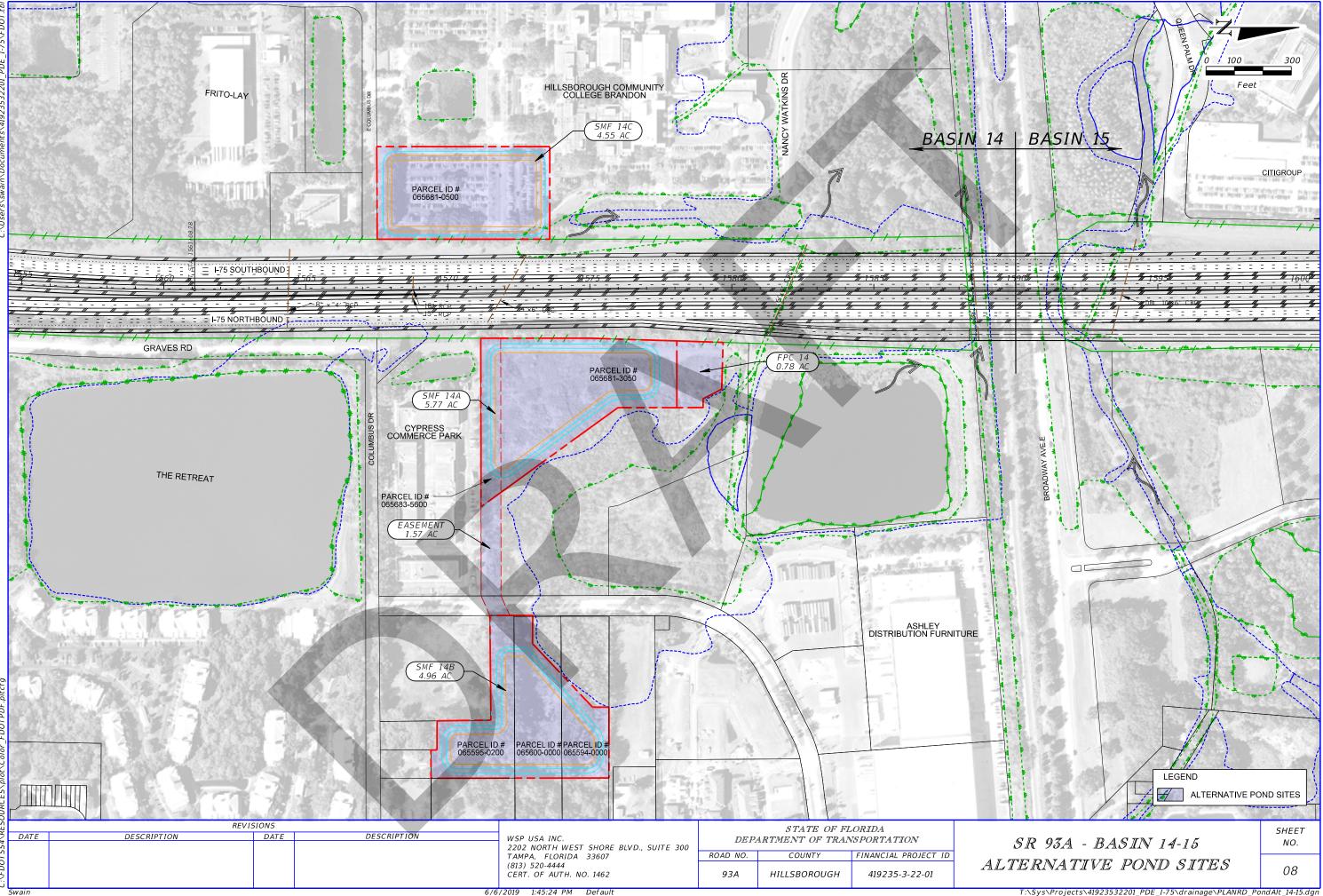




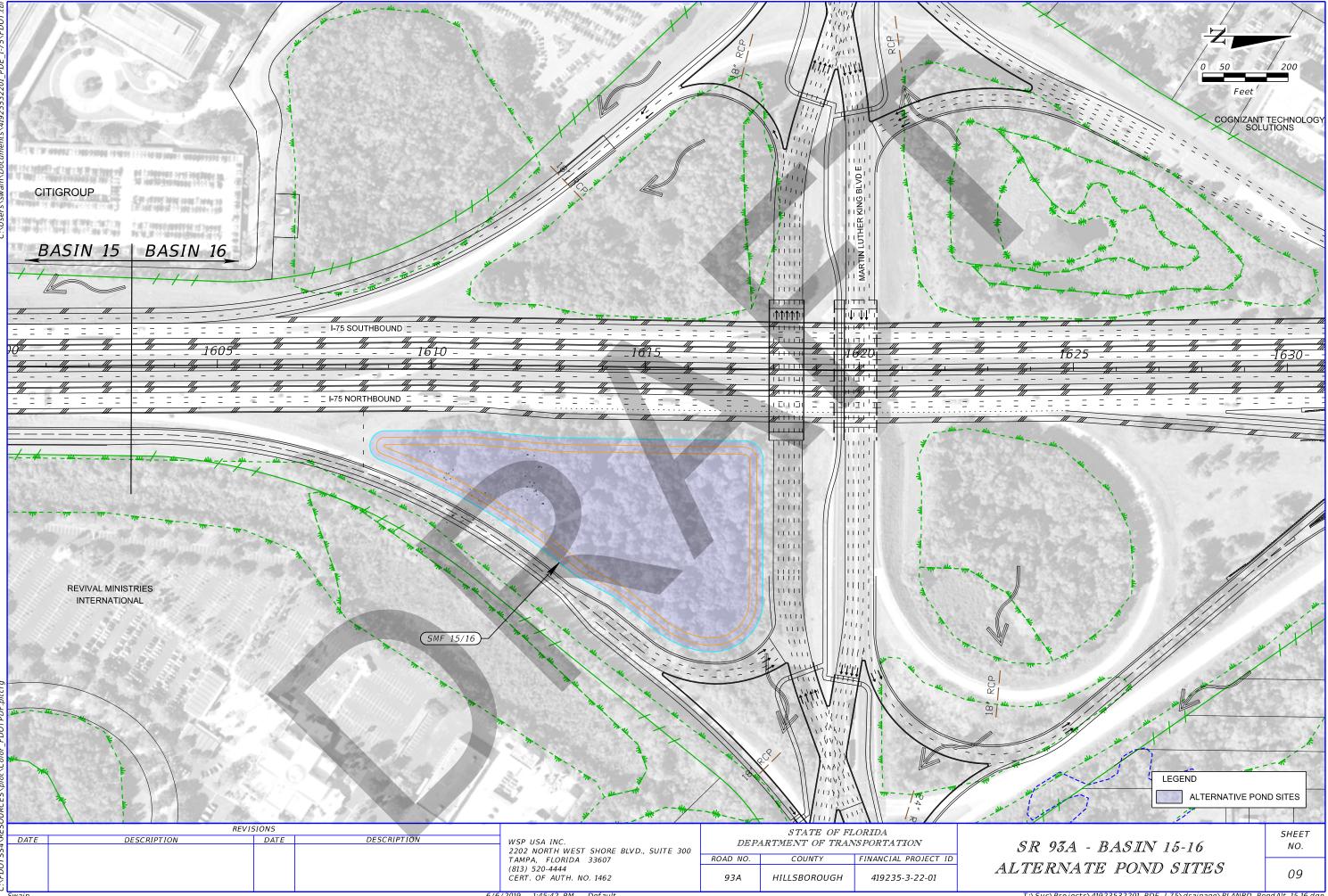






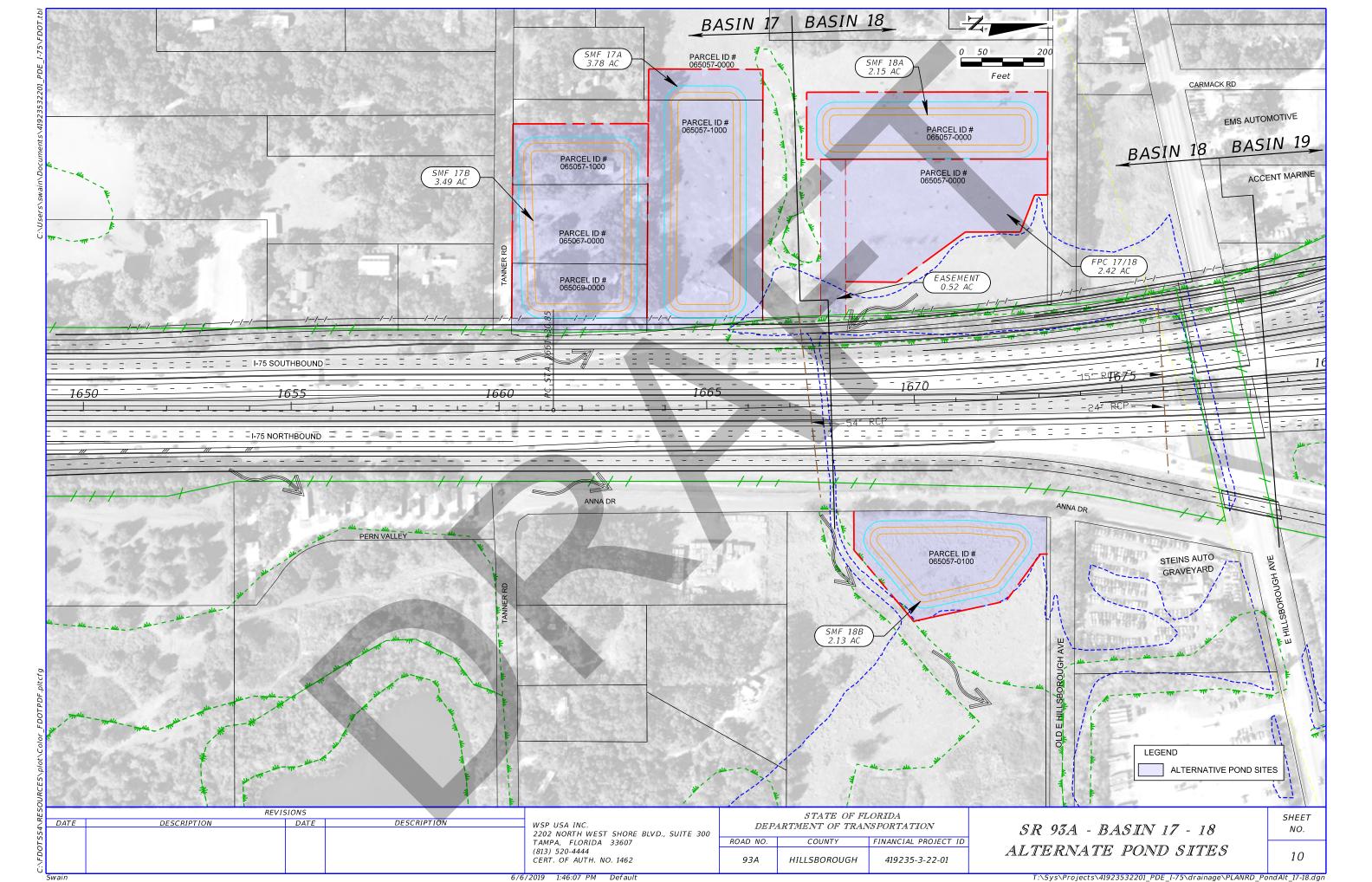


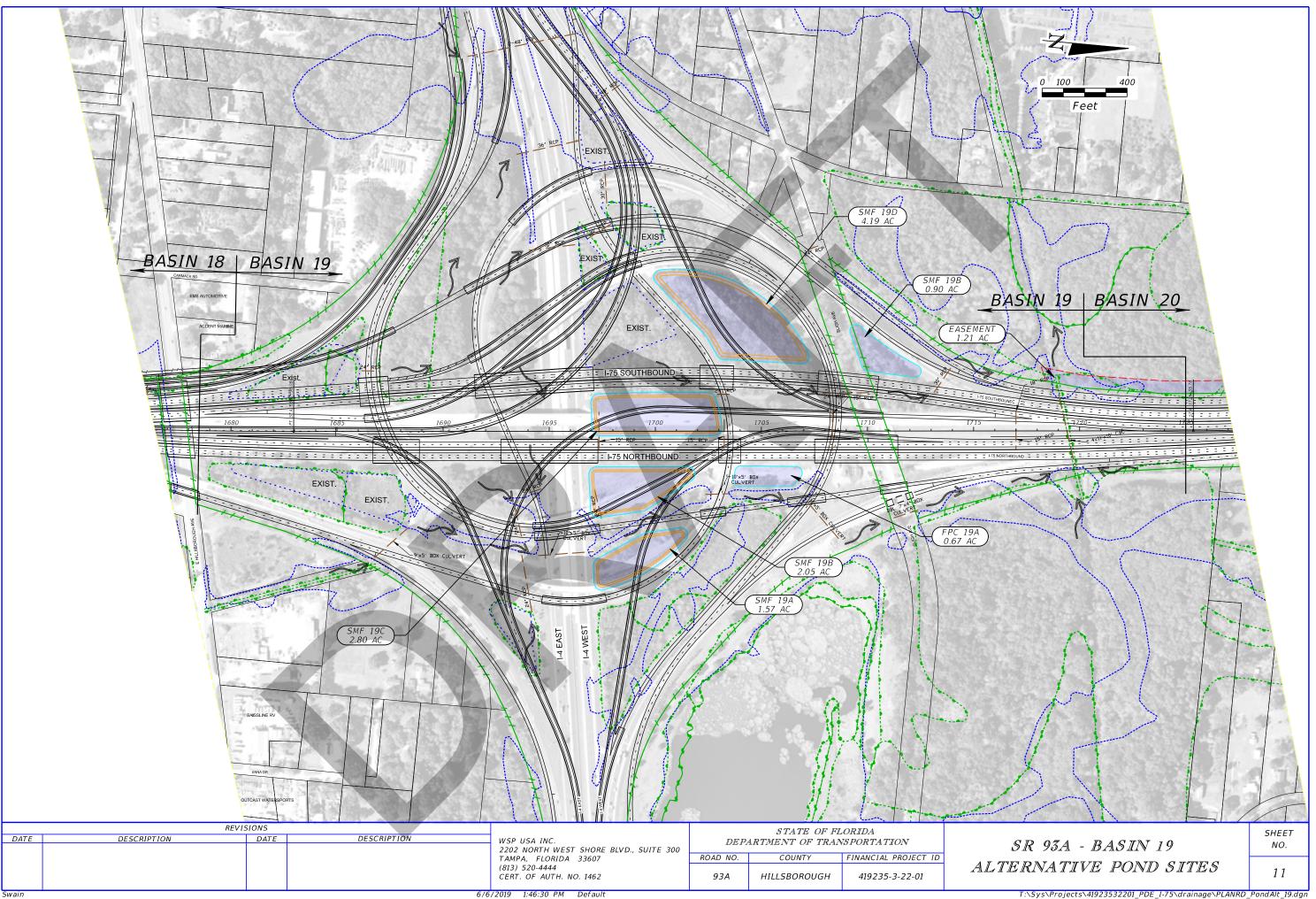
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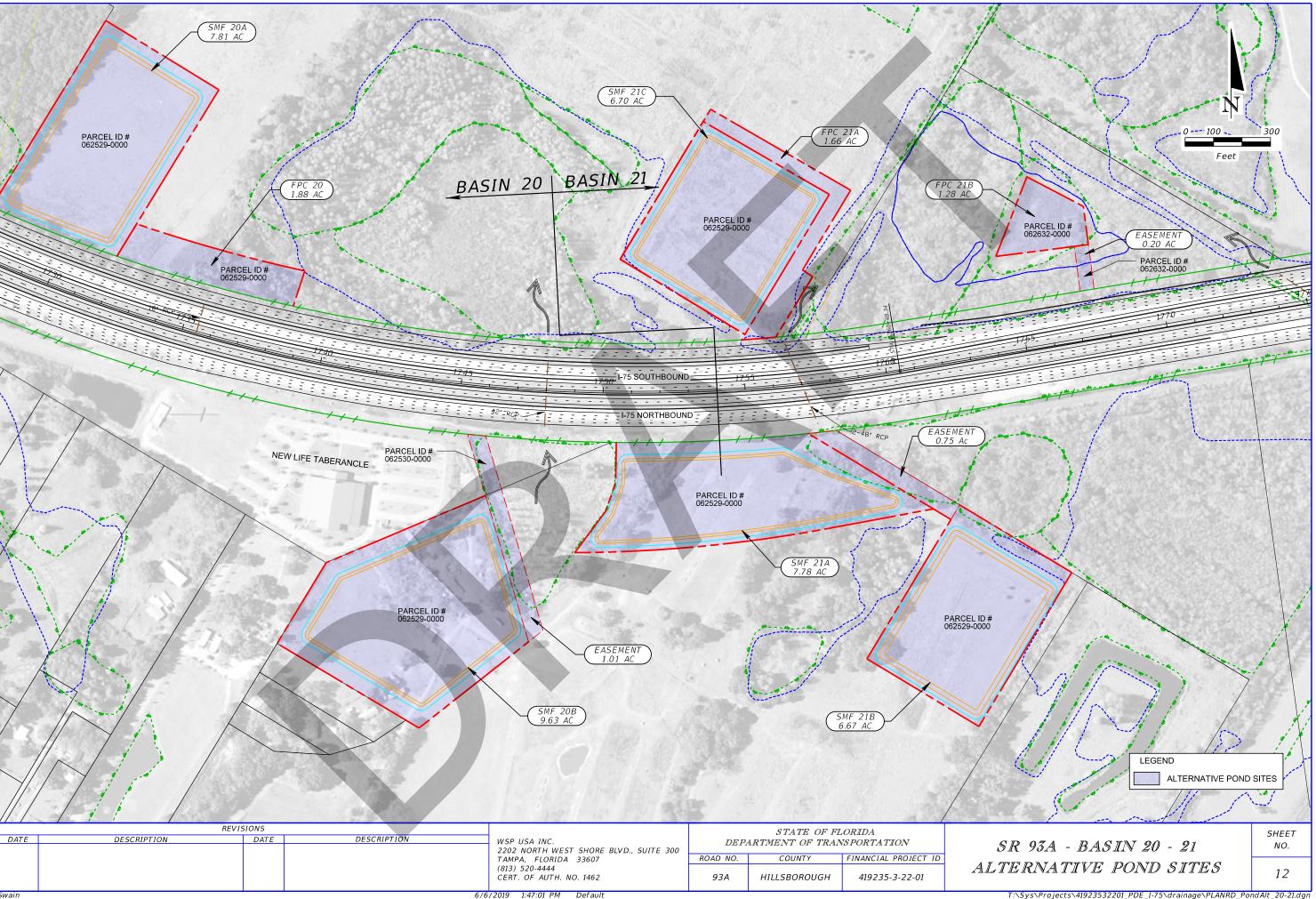
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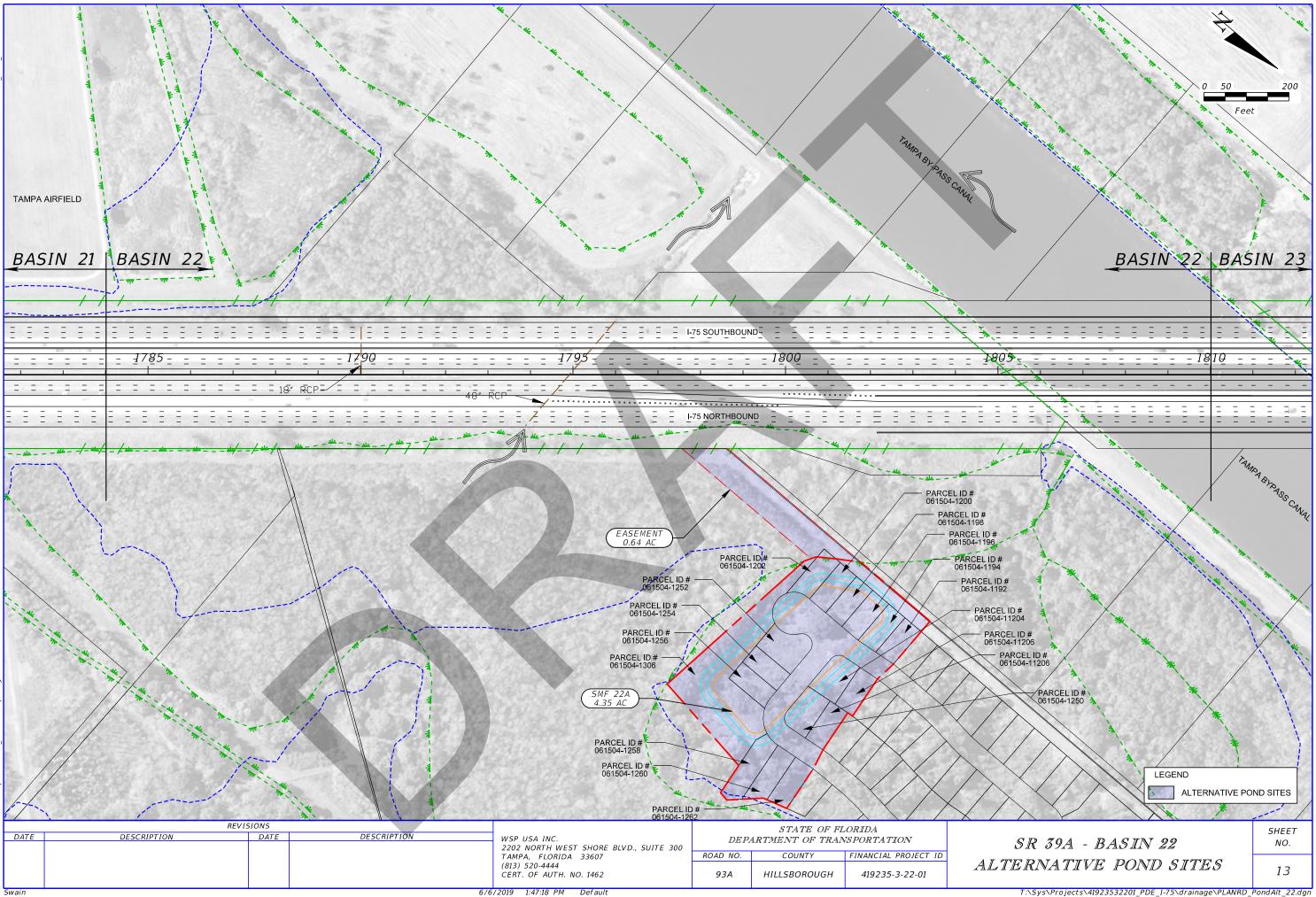
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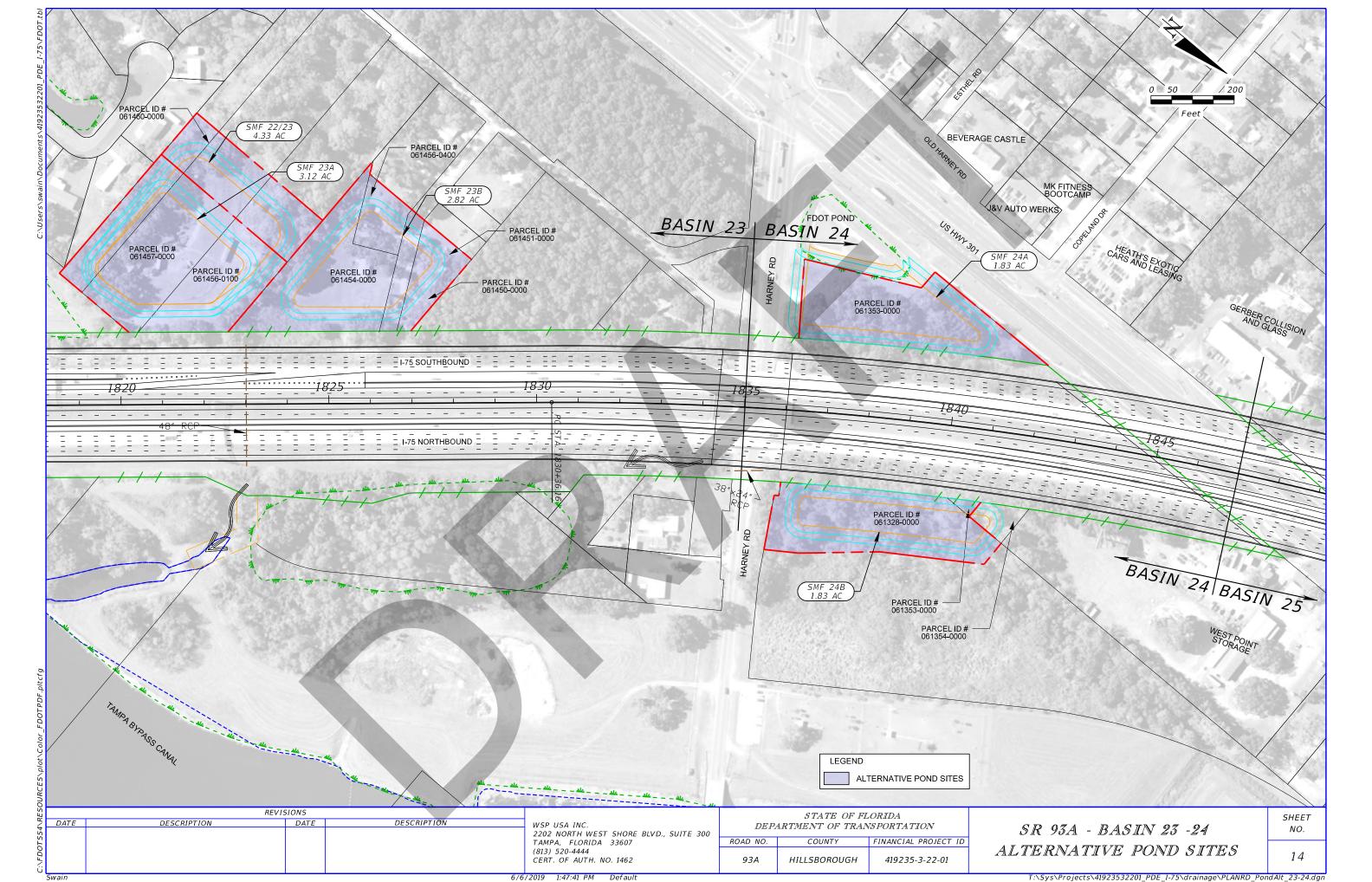


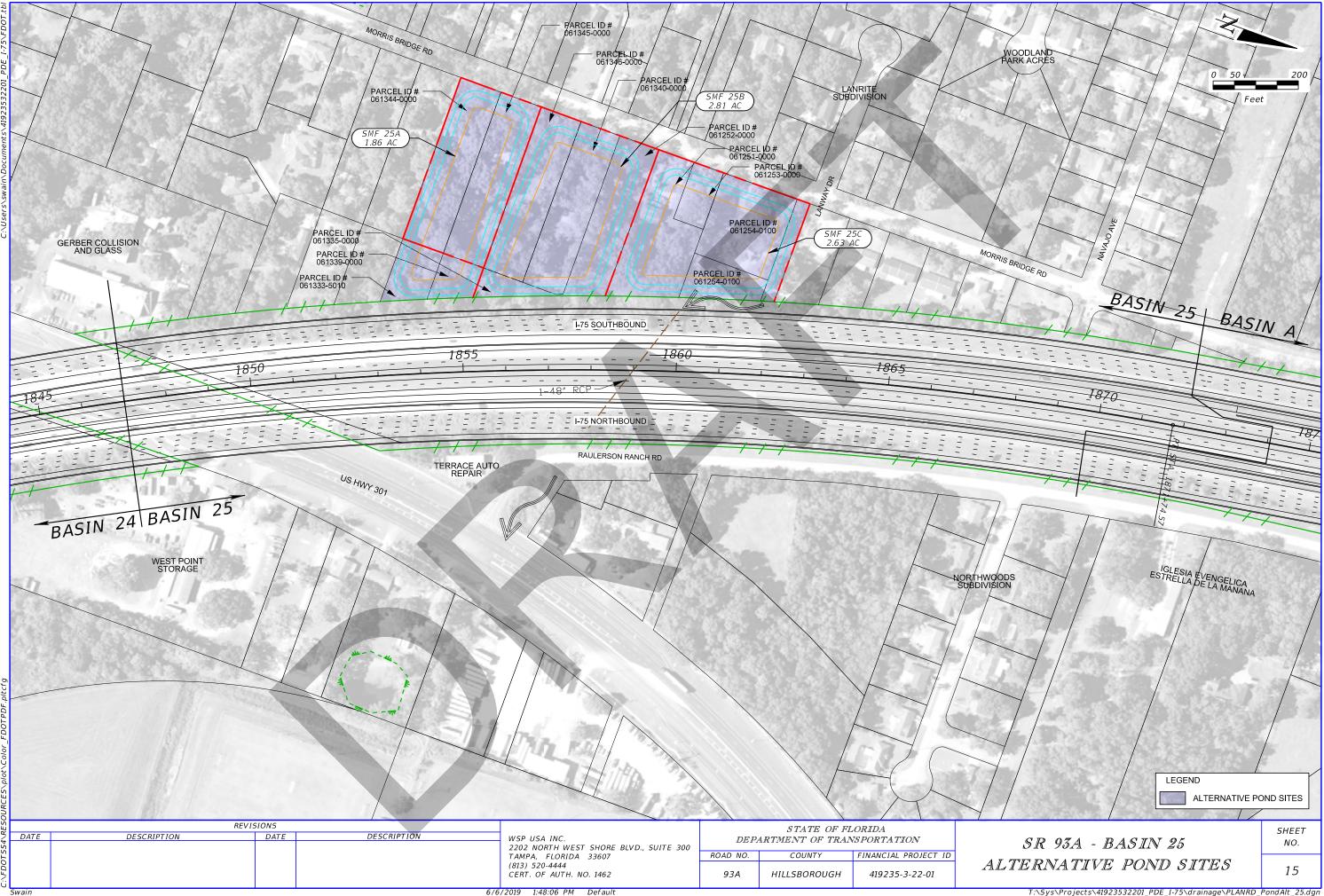


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- 40						
Parameter		Pond Alternative				
T di di lictoi	SMF 1A	SMF 1B	SMF 1C			
Location (Station), Side	1272+00, RT	1282+00, RT	1284+00, LT			
Pond/FPC ROW Area (Ac.)	3.63	3.47	2.36			
Easement ROW Area (Ac.)	0.00	0.00	0.00			
Total ROW Area (Ac.)	3.63	3.47	2.36			
No. of Parcels	4	5	9			
No. of Property Owners	Aprox. 30	Aprox. 28	9			
	(3) Header (Condo)	(4) Header (Condo)	(8) Single Family R.			
Land Use	(1) Residential HOA	(1) Residential HOA	(1) Homeowners HOA			
Additional inflow Pipe Length (ft)	0	0	0			
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	\$0.00			
Additional Outfall Pipe Length(ft)	0	0	0			
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00			
Wetland Impacts (Ac.)	0.10	0.10	0.00			
Wetland Mitigation Cost (\$ 120k/acre)	\$12,000.00	\$12,000.00	\$0.00			
Floodplain Impacts (Ac.)	0.00	0.00	0.00			
Total Cost	\$12,000.00	\$12,000.00	\$0.00			

Basin 2/3

Parameter	Pond Alternative
Farameter	SMF 2/3
Location (Station), Side	1323+00, LT
Pond/FPC ROW Area (Ac.)	0.00
Easement ROW Area (Ac.)	0.00
Total ROW Area (Ac.)	0.00
No. of Parcels	0
No. of Property Owners	0
Land Use	-
Additional inflow Pipe Length (ft)	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00
Additional Outfall Pipe Length(ft)	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00
Wetland Impacts (Ac.)	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00
Floodplain Impacts (Ac.)	0.00
Total Cost	\$0.00

Basin 4/5

Parameter	Pond Alternative
Faianietei	SMF 4/5
Location (Station), Side	1335+00, LT
Pond/FPC ROW Area (Ac.)	0.00
Easement ROW Area (Ac.)	0.00
Total ROW Area (Ac.)	0.00
No. of Parcels	0
No. of Property Owners	0
Land Use	-
Additional inflow Pipe Length (ft)	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00
Additional Outfall Pipe Length(ft)	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00
Wetland Impacts (Ac.)	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00
Floodplain Impacts (Ac.)	0.00
Total Cost	\$0.00

Parameter	Pond Alternative		Floodplains
Parameter	SMF 6A	SMF 6B	FPC 6
Location (Station), Side	1370+00, LT	1378+00, LT	1360+00, RT
Pond/FPC ROW Area (Ac.)	3.25	3.69	0.00
Easement ROW Area (Ac.)	0.00	0.00	0.00
Total ROW Area (Ac.)	3.25	3.69	0.00
No. of Parcels	1	3	0
No. of Property Owners	1	3	0
Land Use	(1) Off Multi-Sty A	(1) Warehourse A (1) Off Multi-Sty A (1) Header	-
Additional inflow Pipe Length (ft)	0	0	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	\$0.00
Additional Outfall Pipe Length(ft)	0	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.00	0.00	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00	\$0.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00
Total Cost	\$0.00	\$0.00	\$0.00

Parameter	Pond	Alternative	Floodplains
Parameter	SMF 7A	SMF 7B	FPC 7
Location (Station), Side	1415+70, LT	1422+00, RT	1437+00, LT
Pond/FPC ROW Area (Ac.)	3.16	2.00	0.00
Easement ROW Area (Ac.)	0.00	0.17	0.00
Total ROW Area (Ac.)	3.16	2.17	0.00
No. of Parcels	1	2	2
No. of Property Owners	1	2	1
Land Use	(1) Vacant Comm.	(1) Day Care Center A (1) FDOT Vacant	(2) FDOT Vacant
Additional inflow Pipe Length (ft)	0	0	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	\$0.00
Additional Outfall Pipe Length(ft)	0	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.00	0.30	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$36,000.00	\$0.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00
Total Cost	\$0.00	\$36,000.00	\$0.00

Basin 8 & 7/8

Daramator	Pond Alternative				
Parameter	SMF 8A	SMF 8B	SMF 7/8		
Location (Station), Side	1450+00, RT	1454+00, RT	1457+00, LT		
Pond/FPC ROW Area (Ac.)	2.65	3.58	5.57		
Easement ROW Area (Ac.)	0.00	0.67	0.00		
Total ROW Area (Ac.)	2.65	4.25	5.57		
No. of Parcels	1	5	1		
No. of Property Owners	1	1	1		
Land Use	(1) Vacant Comm.	(5) Vacant Comm.	(1) Vacant Comm.		
Additional inflow Pipe Length (ft)	0	430	0		
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$77,400.00	\$0.00		
Additional Outfall Pipe Length(ft)	0	430	0		
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$38,700.00	\$0.00		
Wetland Impacts (Ac.)	0.00	0.37	0.00		
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$44,400.00	\$0.00		
Floodplain Impacts (Ac.)	0.00	0.00	0.00		
Total Cost	\$0.00	\$160,500.00	\$0.00		

Parameter	Pond Alternative
Faianietei	SMF 9
Location (Station), Side	1485+00, LT
Pond/FPC ROW Area (Ac.)	0.00
Easement ROW Area (Ac.)	0.00
Total ROW Area (Ac.)	0.00
No. of Parcels	0
No. of Property Owners	0
Land Use	-
Additional inflow Pipe Length (ft)	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00
Additional Outfall Pipe Length(ft)	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00
Wetland Impacts (Ac.)	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00
Floodplain Impacts (Ac.)	0.00
Total Cost	\$0.00

Basin io				
Parameter	Pond Alternative			
Parameter	SMF 10A	SMF 10B	SMF 10C	
Location (Station), Side	1504+00, LT	1500+00, LT	1497+00, LT	
Pond/FPC ROW Area (Ac.)	3.25	4.53	2.45	
Easement ROW Area (Ac.)	0.00	0.82	0.00	
Total ROW Area (Ac.)	3.25	5.35	2.45	
No. of Parcels	1	2	1	
No. of Property Owners	1	2	1	
Land Use	(1) Bowling Alley/Skate Rink Vacant Area	(1) Bowling Alley/Skate Rink Vacant Area (1) Warehouse C	(1) Vacant Industrial	
Additional inflow Pipe Length (ft)	0	600	0	
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$108,000.00	\$0.00	
Additional Outfall Pipe Length(ft)	0	600	0	
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$54,000.00	\$0.00	
Wetland Impacts (Ac.)	0.00	0.00	0.08	
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00	\$9,600.00	
Floodplain Impacts (Ac.)	0.00	0.00	0.00	
Total Cost	\$0.00	\$162,000.00	\$9,600.00	

Basili II				
Parameter	Pond Alternative			
Parameter	SMF 11A	SMF 11B	SMF 11C	
Location (Station), Side	1508+00, LT	1512+00, LT	1508+00, RT	
Pond/FPC ROW Area (Ac.)	1.23	1.47	1.09	
Easement ROW Area (Ac.)	0.00	0.00	0.00	
Total ROW Area (Ac.)	1.23	1.47	1.09	
No. of Parcels	2	1	1	
No. of Property Owners	2	1	1	
	(1) Wharehouse B	(1) Warehouse B	(1) LIHTC -Apartments	
Land Use	(1) County Vacant	(I) Warehouse b	(1) LITTC - Apartments	
Additional inflow Pipe Length (ft)	0 0		0	
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	\$0.00	
Additional Outfall Pipe Length(ft)	0	0	0	
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00	
Wetland Impacts (Ac.)	0.00 0.00		0.00	
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00 \$0.00		\$0.00	
Floodplain Impacts (Ac.)	0.00	0.00	0.00	
Total Cost	\$0.00	\$0.00	\$0.00	

Basin 12/13

Du3111 127 13					
Parameter	Pond Alternative			Floodplains	
	SMF 12/13A	SMF 12/13B	SMF 12/13C	FPC 12/13R	FPC 12/13L
Location (Station), Side	1539+00, LT	1536+00, RT	1550+00, RT	1542+00, RT	1543+00, LT
Pond/FPC ROW Area (Ac.)	5.04	4.61	5.43	1.09	1.55
Easement ROW Area (Ac.)	0.00	0.00	0.00	0.00	0.00
Total ROW Area (Ac.)	5.04	4.61	5.43	1.09	1.55
No. of Parcels	6	4	2	1	2
No. of Property Owners	6	4	2	1	2
Land Use	(2) Mobile Home (1) Flex Serv C (1) Warehouse A (1) Wharehouse B (1) Vacant Industrial	(3) Single Family R. (1) Vacant R.	(1) Pasture (1) Vacant R.	(1) Pasture	(1) Mobile Home (1) Flex Serv C
Additional inflow Pipe Length (ft)	0	0	0	0	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Additional Outfall Pipe Length(ft)	0	0	0	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.00	1.20	0.00	0.00	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$144,000.00	\$0.00	\$0.00	\$0.00
Floodplain Impacts (Ac.)	0.67	0.00	0.00	0.00	0.00
Total Cost	\$0.00	\$144,000.00	\$0.00	\$0.00	\$0.00

		Pond Alternative		Floodplains
Parameter	SMF 14A	SMF 14B	SMF 14C	FPC 14
Location (Station), Side	1575+00, RT	1575+00, RT	1570+00, LT	1580+00, RT
Pond/FPC ROW Area (Ac.)	5.77	4.96	4.55	0.78
Easement ROW Area (Ac.)	0.00	1.57	0.00	0.00
Total ROW Area (Ac.)	5.77	6.53	4.55	0.78
No. of Parcels	1	4	1	1
No. of Property Owners	1	2	1	1
Land Use	(1) Vacant Comm.	(3) Single Family R. (1) Vacant R. Comm.	(1) State- School Parking Lot	(1) Vacant Comm.
Additional inflow Pipe Length (ft)	0	1065	0	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$191,700.00	\$0.00	\$0.00
Additional Outfall Pipe Length(ft)	0	1065	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$95,850.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.00	0.00	0.13	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00	\$15,600.00	\$0.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00	0.00
Total Cost	\$0.00	\$287,550.00	\$15,600.00	\$0.00

Basin 15/16

Parameter	Pond Alternative
Falanietei	SMF 15/16
Location (Station), Side	1615+00, RT
Pond/FPC ROW Area (Ac.)	0
Easement ROW Area (Ac.)	0.00
Total ROW Area (Ac.)	0.00
No. of Parcels	0
No. of Property Owners	0
Land Use	-
Additional inflow Pipe Length (ft)	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00
Additional Outfall Pipe Length(ft)	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00
Wetland Impacts (Ac.)	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00
Floodplain Impacts (Ac.)	0.00
Total Cost	\$0.00

Parameter	Pond Alternative		
Falametei	SMF 17A	SMF 17B	
Location (Station), Side	1665+00, LT	1640+00, LT	
Pond/FPC ROW Area (Ac.)	3.78	3.49	
Easement ROW Area (Ac.)	0.00	0.00	
Total ROW Area (Ac.)	3.78	3.49	
No. of Parcels	2	3	
No. of Property Owners	1	1	
Land Use	(2) Pasture	(3) Pasture	
Additional inflow Pipe Length (ft)	0	0	
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	
Additional Outfall Pipe Length(ft)	0	0	
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	
Wetland Impacts (Ac.)	0.00	0.00	
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00	
Floodplain Impacts (Ac.)	0.00	0.00	
Total Cost	\$0.00	\$0.00	

Parameter	Pond Alt	Floodplains	
Faianetei	SMF 18A	SMF 18B	FPC 17/18
Location (Station), Side	1670+00, LT	1670+00, RT	1711+00, LT
Pond/FPC ROW Area (Ac.)	2.15	2.13	2.42
Easement ROW Area (Ac.)	0.52	0.00	0.22
Total ROW Area (Ac.)	2.67	2.13	2.64
No. of Parcels	1	1	1
No. of Property Owners	1	1	1
Land Use	(1) Pasture	(1) Pasture	(1) Pasture
Additional inflow Pipe Length (ft)	375	65	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$67,500.00	\$11,700.00	\$0.00
Additional Outfall Pipe Length(ft)	0	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.00	0.00	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00	\$0.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00
Total Cost	\$67,500.00	\$11,700.00	\$0.00

Parameter	Pond Alternative				Floodplains	
Parameter	SMF 19A	SMF 19B	SMF 19C	SMF 19D	FPC 19A	FPC 19B
Location (Station), Side	1699+00, RT	1699+00, RT	1700+00, LT	1705+00, LT	1705+00, RT	1711+00, LT
Pond/FPC ROW Area (Ac.)	0	0	0	0.00	0.00	0
Easement ROW Area (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00
Total ROW Area (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00
No. of Parcels	0	0	0	0	0	0
No. of Property Owners	0	0	0	0	0	0
Land Use	-	-	-	-	-	-
Additional inflow Pipe Length (ft)	0	0	0	0	0	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Additional Outfall Pipe Length(ft)	0	0	0	0	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00
Total Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Parameter	Pond Alte	Floodplains	
Faranieter	SMF 20A	SMF 20B	FPC 20
Location (Station), Side	1730+00, LT	1745+00, RT	1735+00, LT
Pond/FPC ROW Area (Ac.)	7.81	9.63	1.88
Easement ROW Area (Ac.)	1.21	1.01	0.00
Total ROW Area (Ac.)	9.02	10.64	1.88
No. of Parcels	2	2	1
No. of Property Owners	2	2	1
	(1) Pasture	(1) Pasture	(1) Pasture
Land Use	(1) Vacant Acerage	(1) Chruch	(I) Fasture
Additional inflow Pipe Length (ft)	0	309	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$55,620.00	\$0.00
Additional Outfall Pipe Length(ft)	880	650	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$79,200.00	\$58,500.00	\$0.00
Wetland Impacts (Ac.)	0.72	0.69	0.00
Wetland Mitigation Cost (\$ 120k/acre)	\$86,400.00	\$82,800.00	\$0.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00
Total Cost	\$165,600.00	\$196,920.00	\$0.00

Parameter	Pond Alternative			Floodplains	
Parameter	SMF 21A	SMF 21B	SMF 21C	FPC 21A	FPC 21B
Location (Station), Side	1755+00, RT	1763+00, RT	1752+00, LT	1755+00, LT	1766+00, LT
Pond/FPC ROW Area (Ac.)	7.78	6.67	6.70	1.66	1.28
Easement ROW Area (Ac.)	0.00	0.75	0.00	0.00	0.20
Total ROW Area (Ac.)	7.78	7.42	6.70	1.66	1.48
No. of Parcels	1	1	1	1	1
No. of Property Owners	1	1	1	1	1
Land Use	(1) Pasture	(1) Pasture	(1) Pasture	(1) Pasture	(1) Aviation Authority
Additional inflow Pipe Length (ft)	0	540	0	0	0
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$97,200.00	\$0.00	\$0.00	\$0.00
Additional Outfall Pipe Length(ft)	0	0	0	0	0
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Wetland Impacts (Ac.)	0.34	0.96	0.00	0.00	0.18
Wetland Mitigation Cost (\$ 120k/acre)	\$40,800.00	\$115,200.00	\$0.00	\$0.00	\$21,600.00
Floodplain Impacts (Ac.)	0.00	0.00	0.00	0.00	0.00
Total Cost	\$40,800.00	\$212,400.00	\$0.00	\$0.00	\$21,600.00

Basin 22/23

Parameter	Pond Alternative				
Parameter	SMF 22A	SMF 23A	SMF 23B	SMF 22/23	
Location (Station), Side	1798+00, LT	1821+00, LT	1825+00, LT	1823+00, LT	
Pond/FPC ROW Area (Ac.)	4.35	3.12	2.82	4.33	
Easement ROW Area (Ac.)	0.64	0.00	0.00	0.00	
Total ROW Area (Ac.)	4.99	3.12	2.82	4.33	
No. of Parcels	17	3	3	3	
No. of Property Owners	17	1	3	1	
Land Use	(16) Single Family R. (1) HO Association	(1) Dairies/FeedIts (2) Poul/Bees/Fish	(3) Mobile Home	(1) Dairies/FeedIts (2) Poul/Bees/Fish	
Additional inflow Pipe Length (ft)	400	0	0	0	
Added Pipe Cost (48" RCP @ \$180/LF)	\$72,000.00	\$0.00	\$0.00	\$0.00	
Additional Outfall Pipe Length(ft)	0	0	0	0	
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00	\$0.00	\$0.00	
Wetland Impacts (Ac.)	0.64	0.00	0.00	0.00	
Wetland Mitigation Cost (\$ 120k/acre)	\$76,800.00	\$0.00	\$0.00	\$0.00	
Floodplain Impacts (Ac.)	0.00	0.00	0.00	0.00	
Total Cost	\$148,800.00	\$0.00	\$0.00	\$0.00	

Parameter	Pond Alternative			
Faranteter	SMF 24A	SMF 24B		
Location (Station), Side	1838+00, LT	1838+00, RT		
Pond/FPC ROW Area (Ac.)	1.83	1.83		
Easement ROW Area (Ac.)	0.00	0.00		
Total ROW Area (Ac.)	1.83	1.83		
No. of Parcels	1	3		
No. of Property Owners	1	2		
	(1) Vacant Comm.	(2) Vacant Comm.		
Land Use		(1) FDOT Vacant		
Additional inflow Pipe Length (ft)	0	0		
Added Pipe Cost (48" RCP @ \$180/LF)	\$0.00	\$0.00		
Additional Outfall Pipe Length(ft)	0	0		
Added Pipe Cost (24" RCP @ \$90/LF)	\$0.00	\$0.00		
Wetland Impacts (Ac.)	0.00	0.00		
Wetland Mitigation Cost (\$ 120k/acre)	\$0.00	\$0.00		
Floodplain Impacts (Ac.)	0.00	0.00		
Total Cost	\$0.00	\$0.00		

Pond Alternative				
SMF 25A	SMF 25B	SMF 25C		
1854+00, LT	1857+00, LT	1860+00, LT		
1.86	2.81	2.63		
0.00	0.00	0.00		
1.86	2.81	2.63		
4	4	4		
2	3	4		
(2) Single Family R.	(3) Single Family R.	(3) Single Family R.		
(2) FDOT Vacant	(1) Vacant	(1) Vacant		
0	0	0		
\$0.00	\$0.00	\$0.00		
514	235	0		
\$46,260.00	\$21,150.00	\$0.00		
0.00	0.00	0.00		
\$0.00	\$0.00	\$0.00		
0.00	0.00	0.00		
\$46,260.00	\$21,150.00	\$0.00		
	1854+00, LT 1.86 0.00 1.86 4 2 (2) Single Family R. (2) FDOT Vacant 0 \$0.00 \$1.86 0 \$0.00 \$14 \$46,260.00 0.00 \$0.00 \$0.00	SMF 25A SMF 25B 1854+00, LT 1857+00, LT 1.86 2.81 0.00 0.00 1.86 2.81 4 4 2 3 (2) Single Family R. (3) Single Family R. (2) FDOT Vacant (1) Vacant 0 0 \$0.00 \$0.00 \$14 235 \$46,260.00 \$21,150.00 0.00 0.00 \$0.00 \$0.00 \$0.00 \$0.00		

FDOT Short List Meeting

POND SITING SHORT LIST MEETING I-75 (SR 93A) PD&E From S. of US 301 to N. of Bruce B. Downs Blvd. HILLSBOROUGH COUNTY, FDOT DISTRICT 7

FPID 419235-3-22-01



HILLSBOROUGH COUNTY, FDOT DISTRICT 7



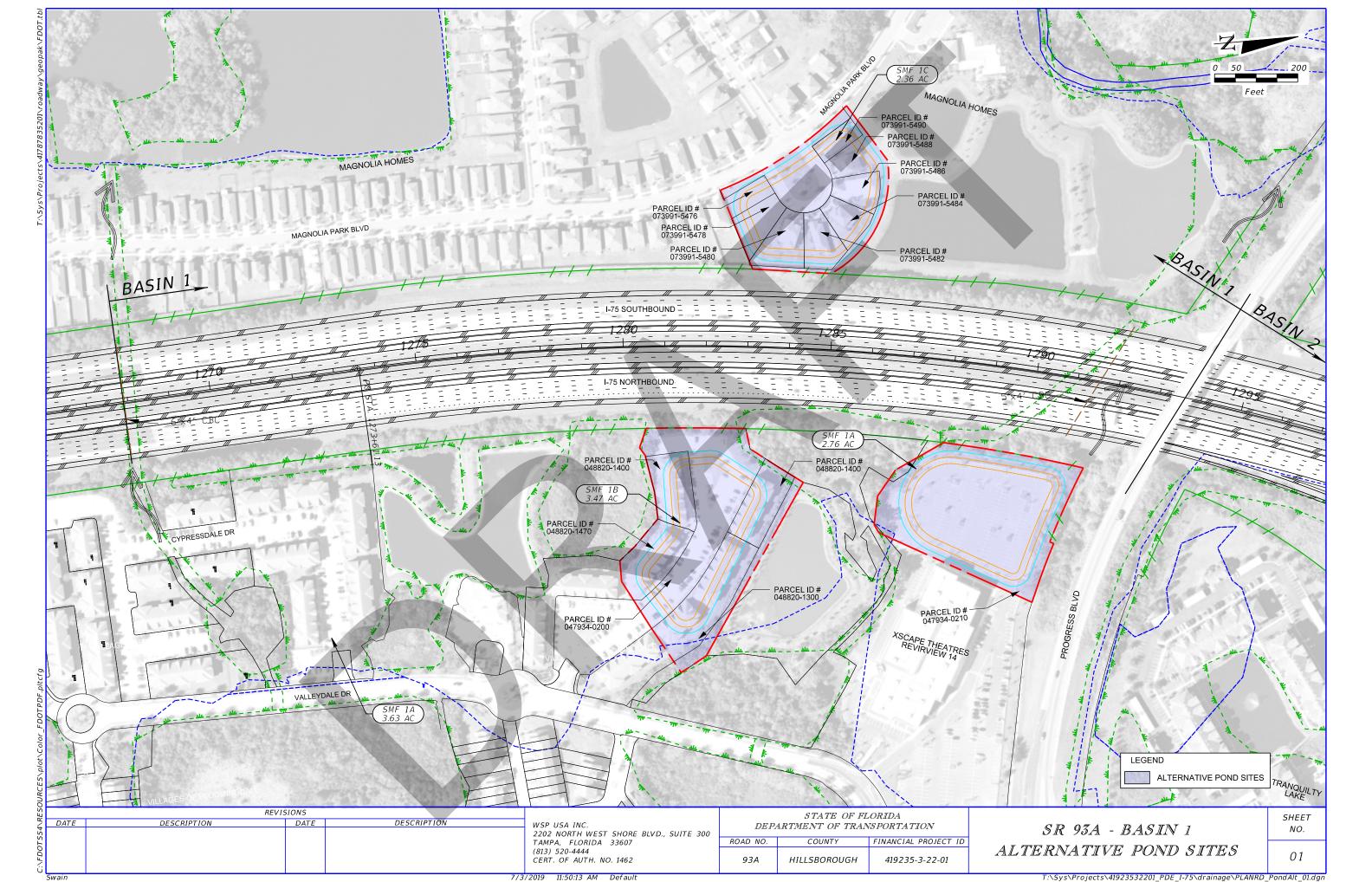
Project Refresher

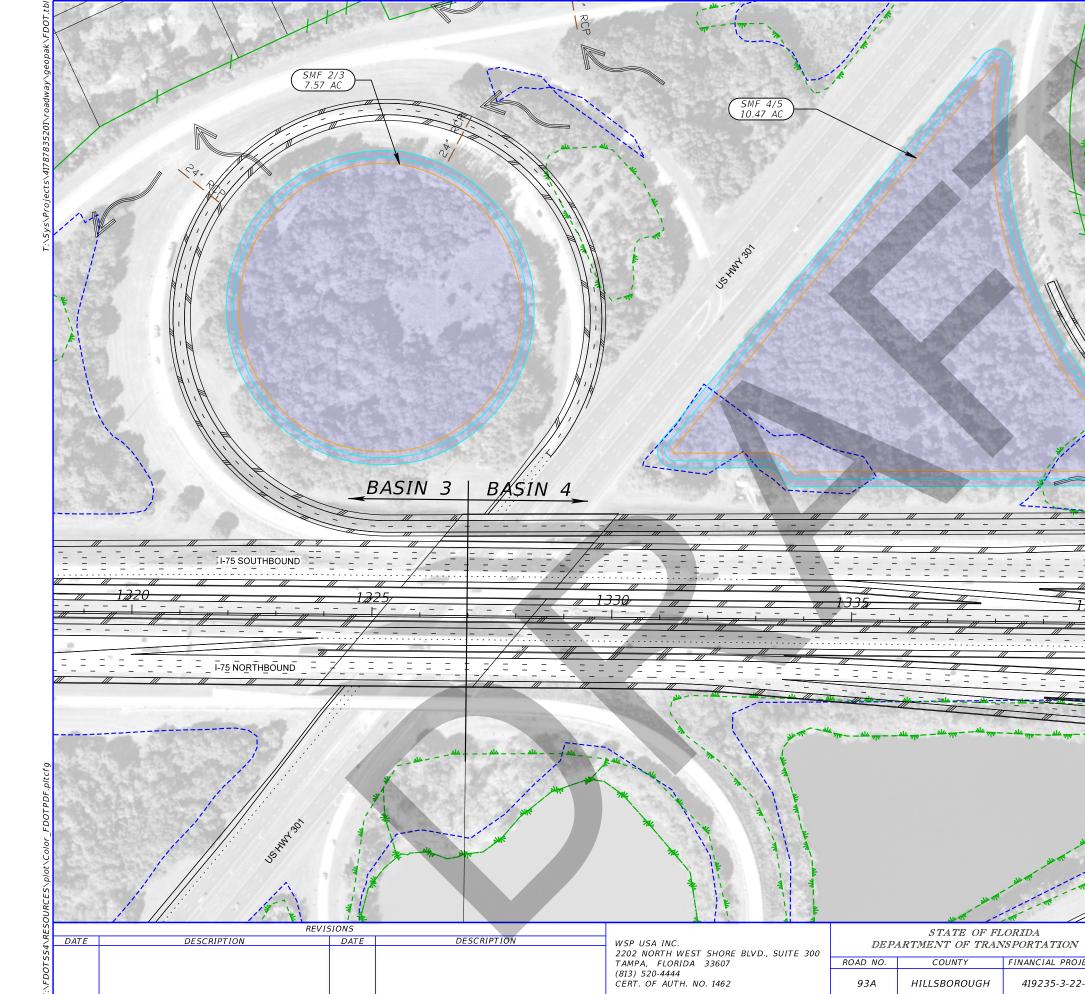
- 2 contiguous I-75 Projects (aka. Sec. 9 &10)
 - Section 9
 - 17.8 miles

Drainage Status

- Long List Meeting- 6/7/19
- Revisions Made/ R/W Cost Request- 7/3/19
- Long List Meeting Minutes- 7/8/19
- Preliminary A,B,C's start (46 Sites)- 7/10/19
- Cost Estimates Received- 9/23/19
- Short List Meeting- 9/27/19







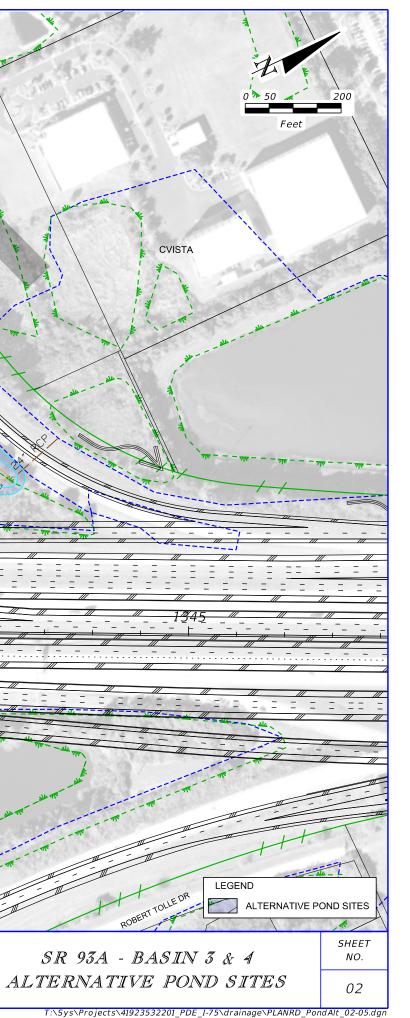


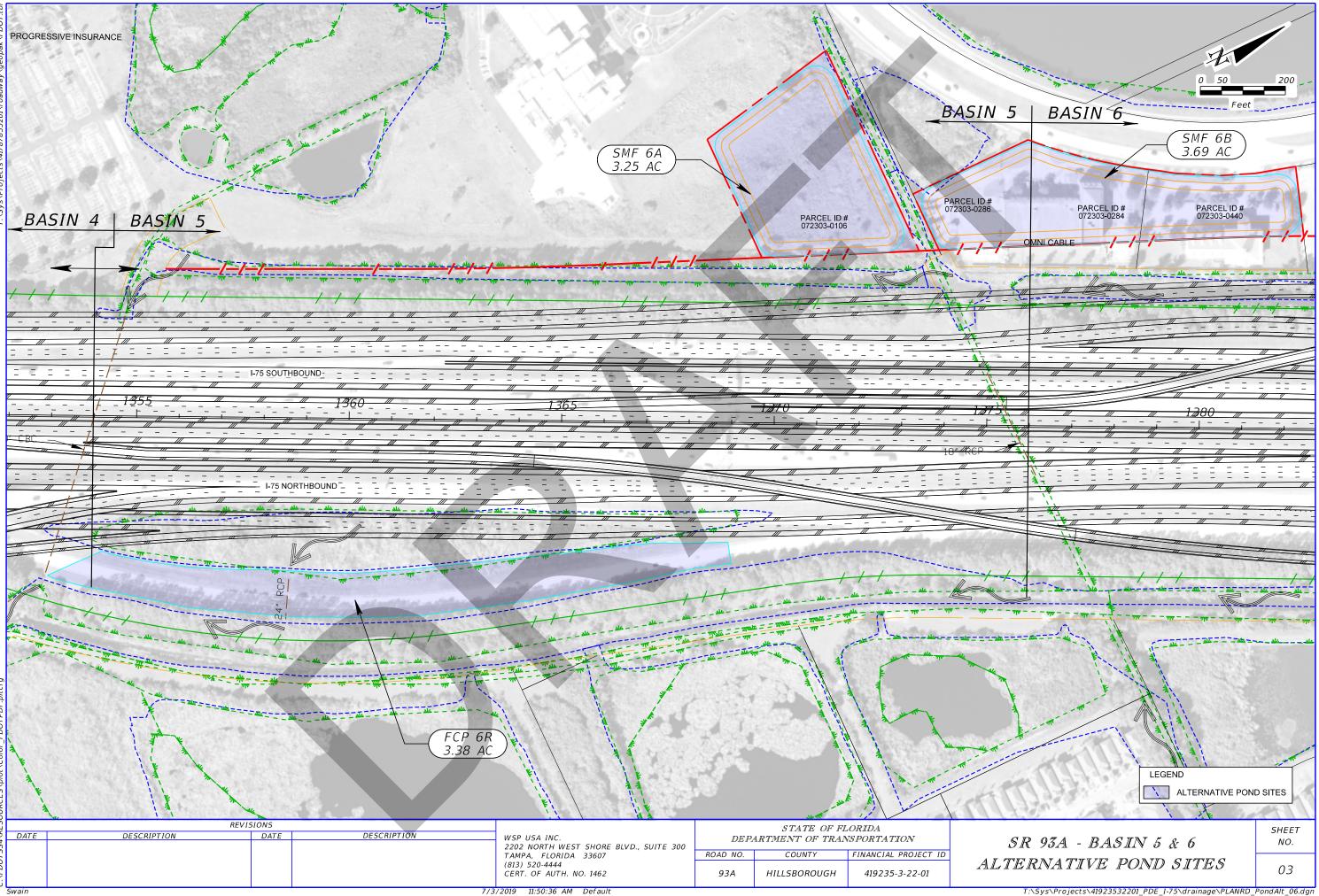
FINANCIAL PROJECT ID 419235-3-22-01

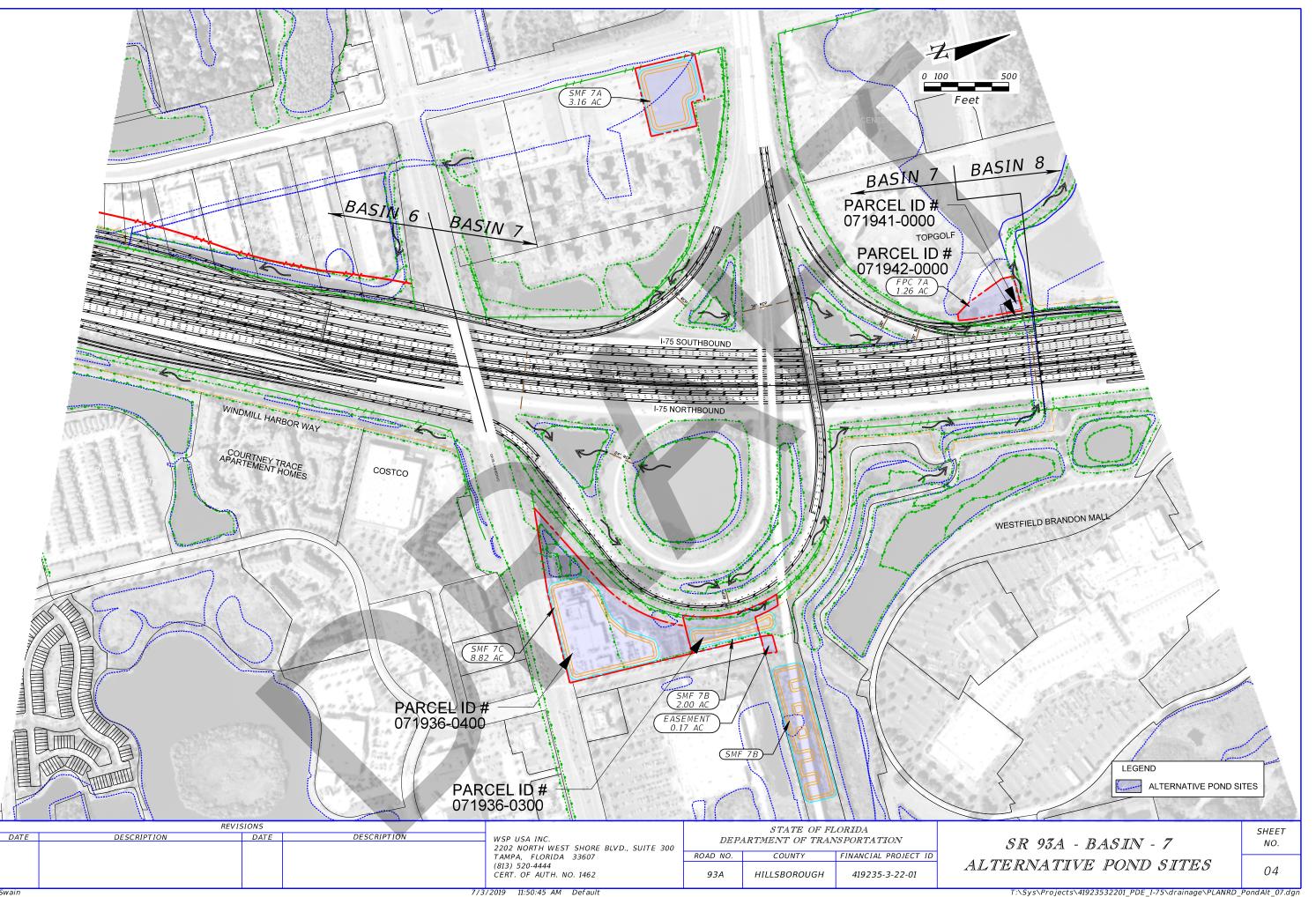
COUNTY

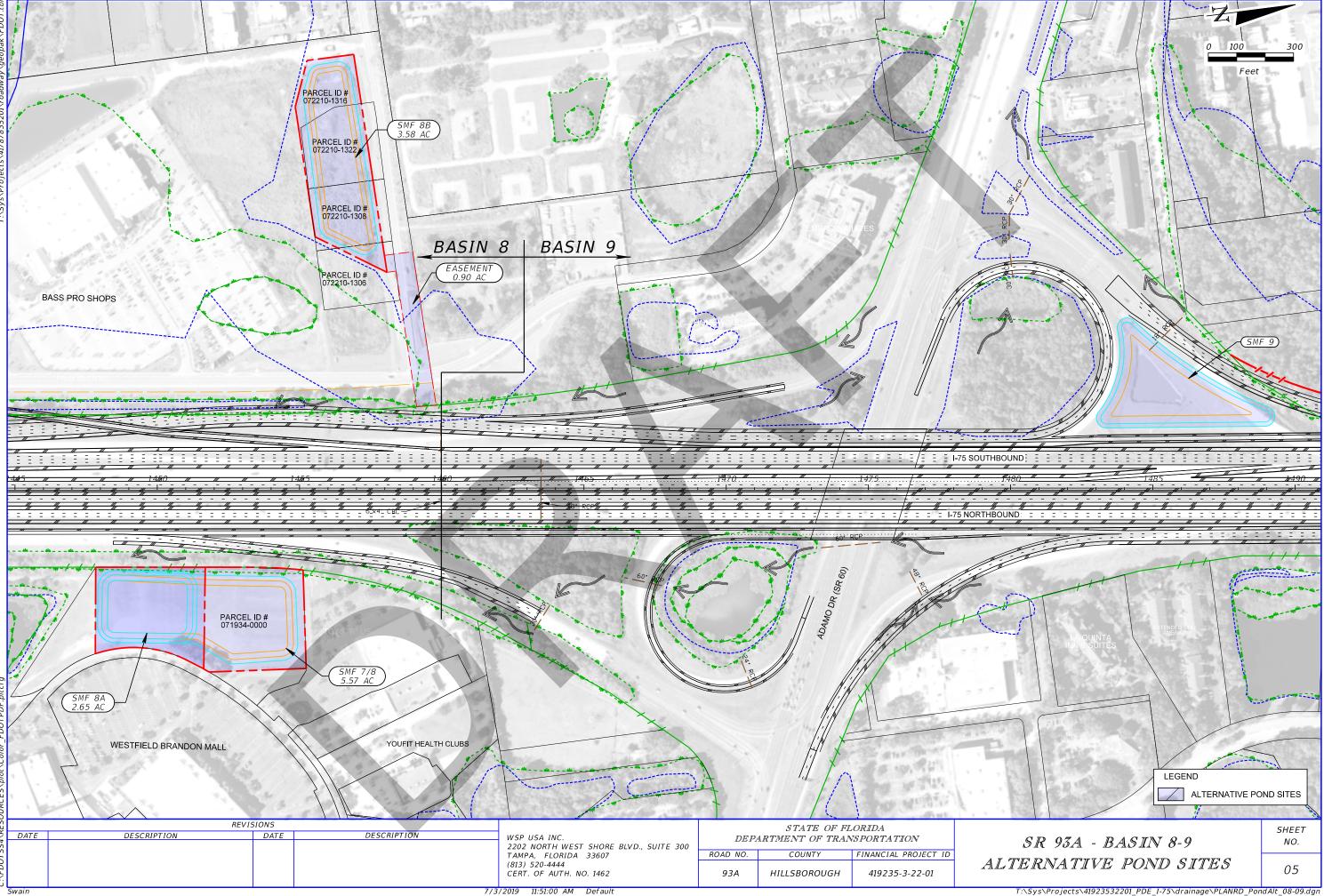
HILLSBOROUGH

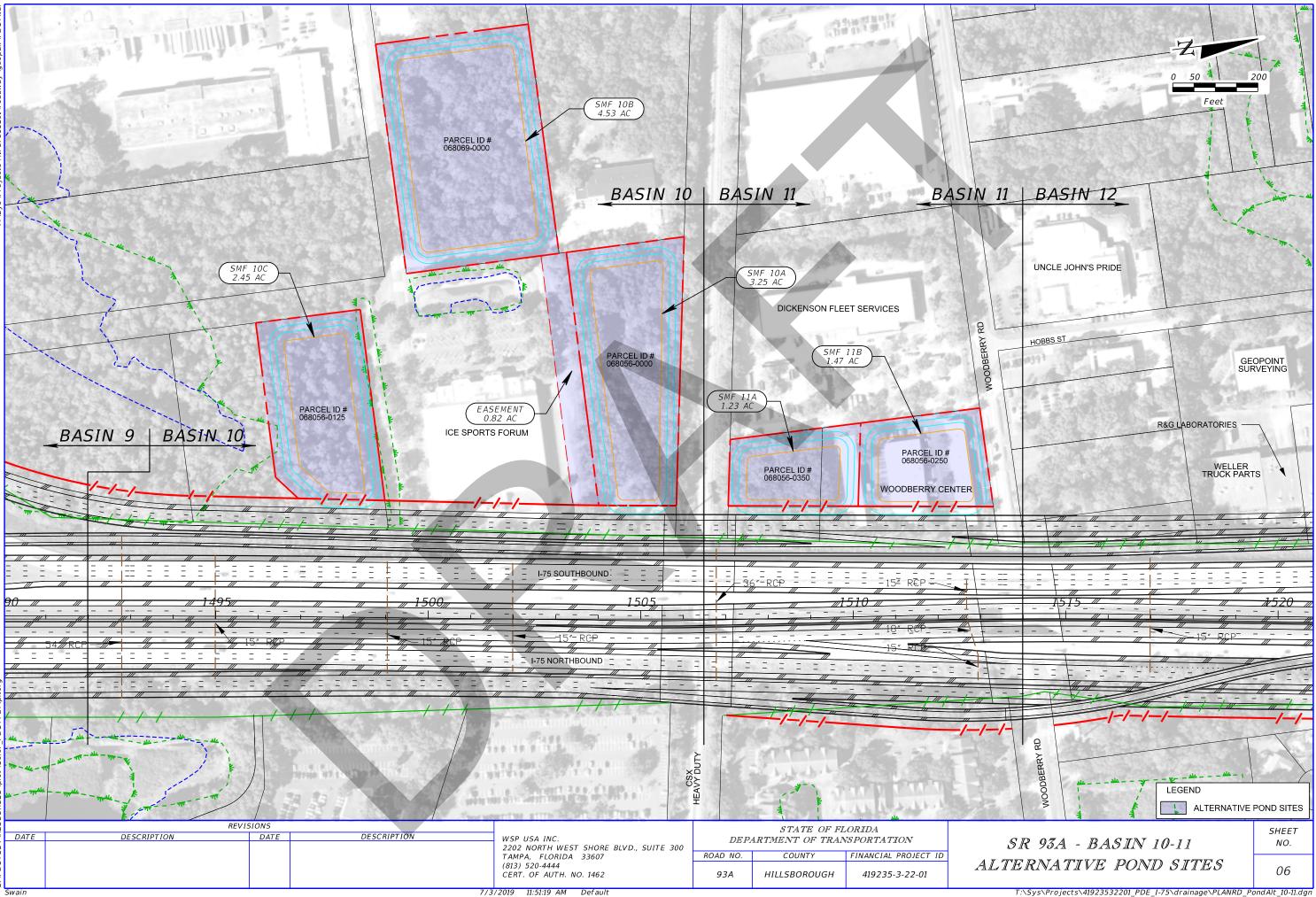
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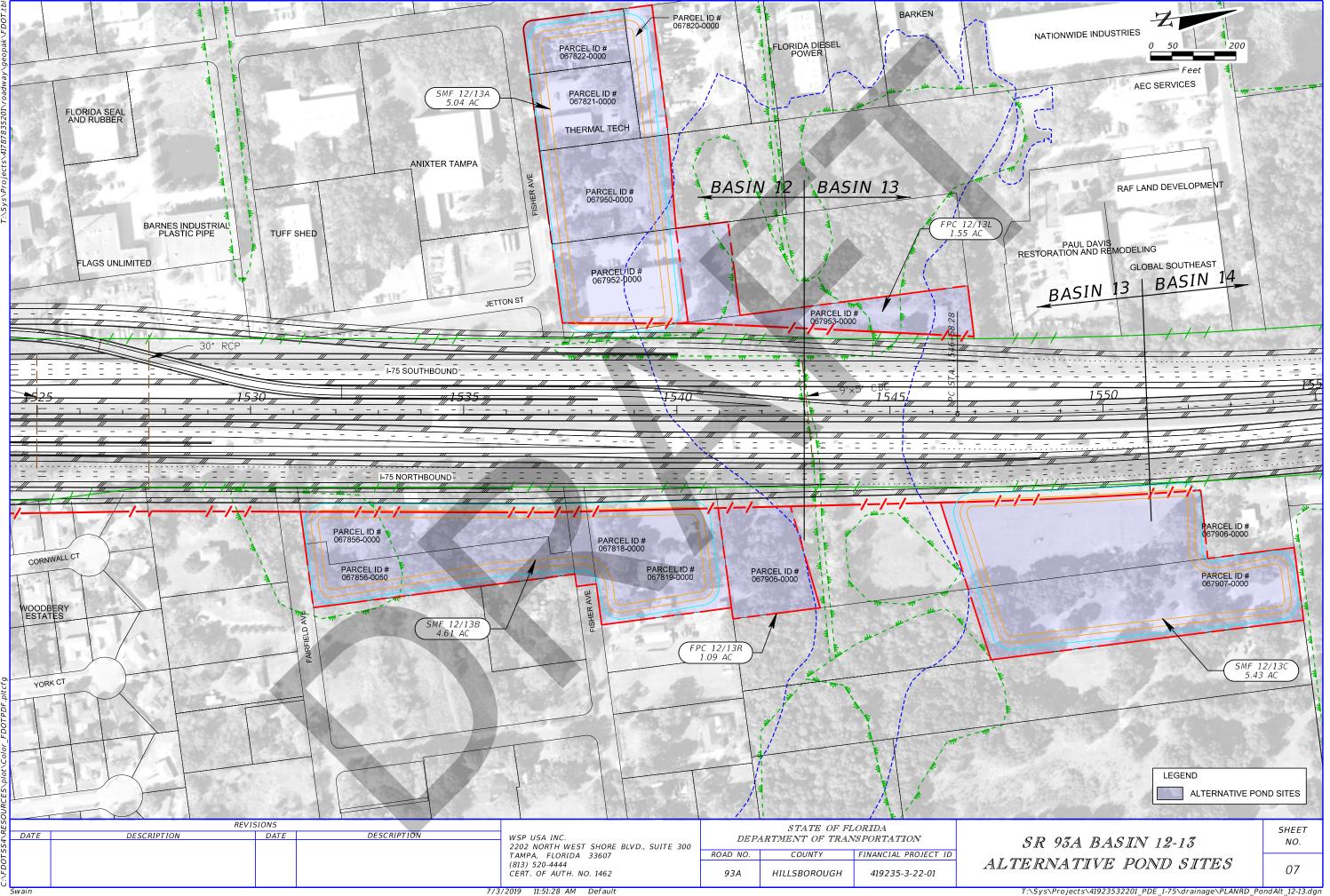


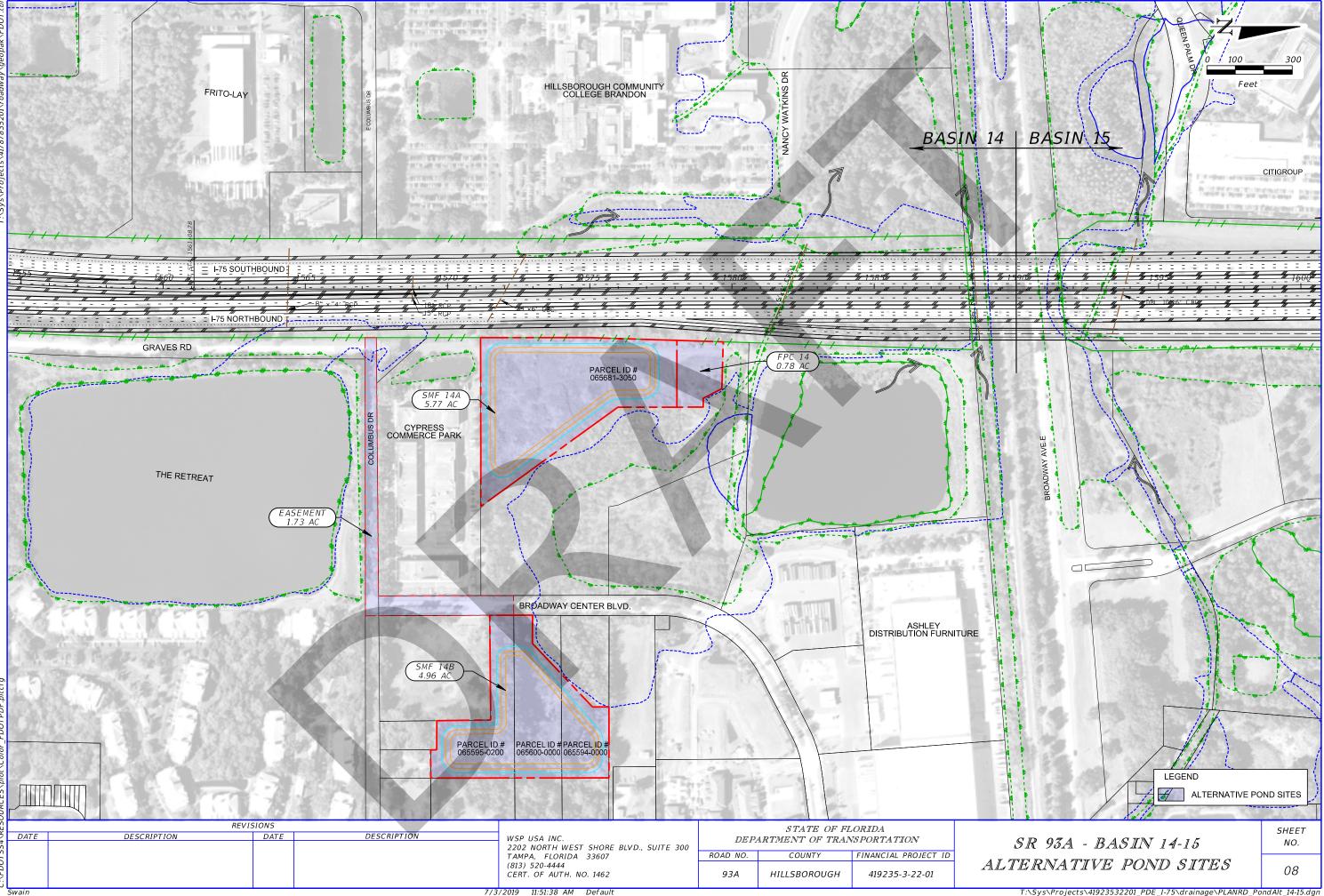


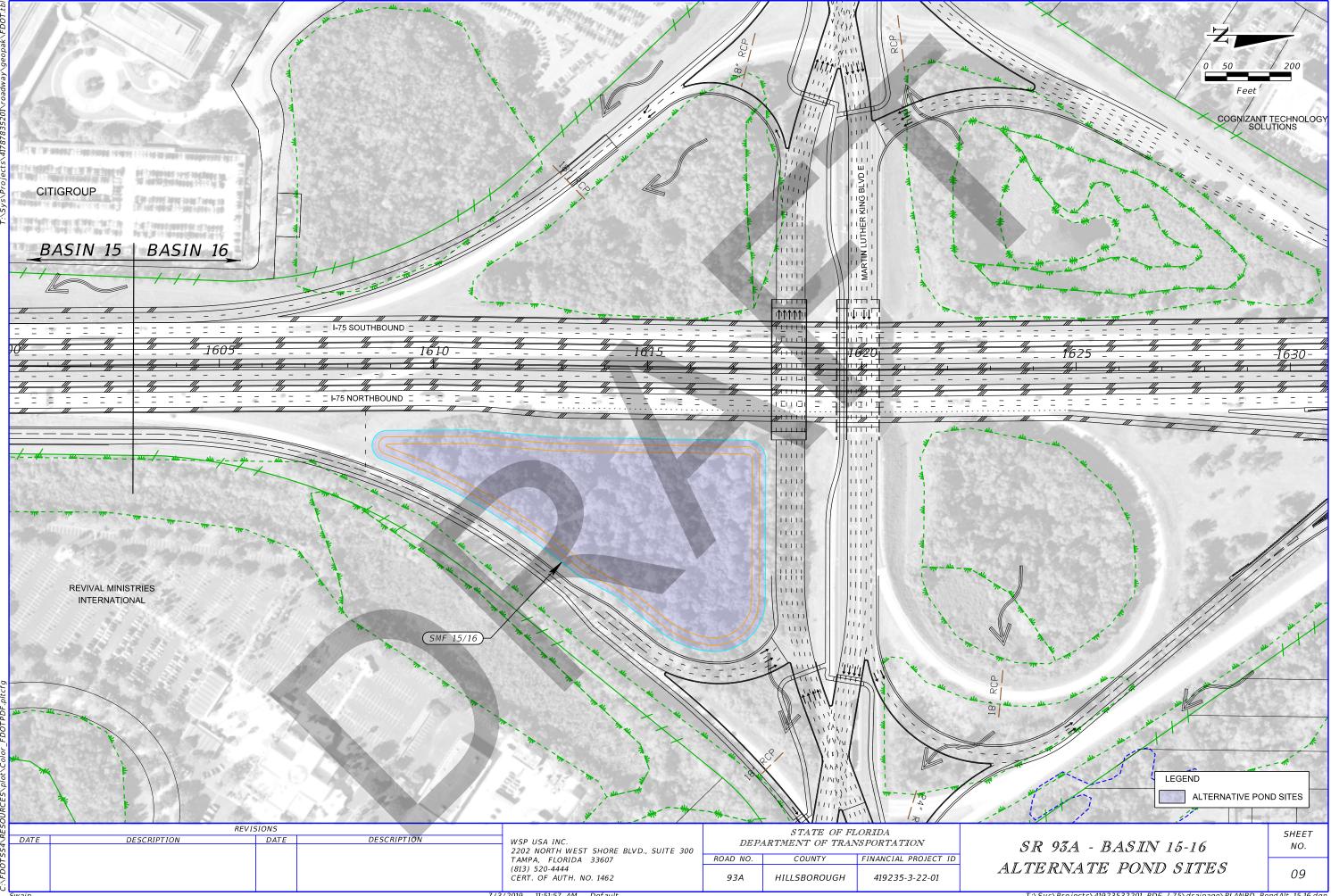






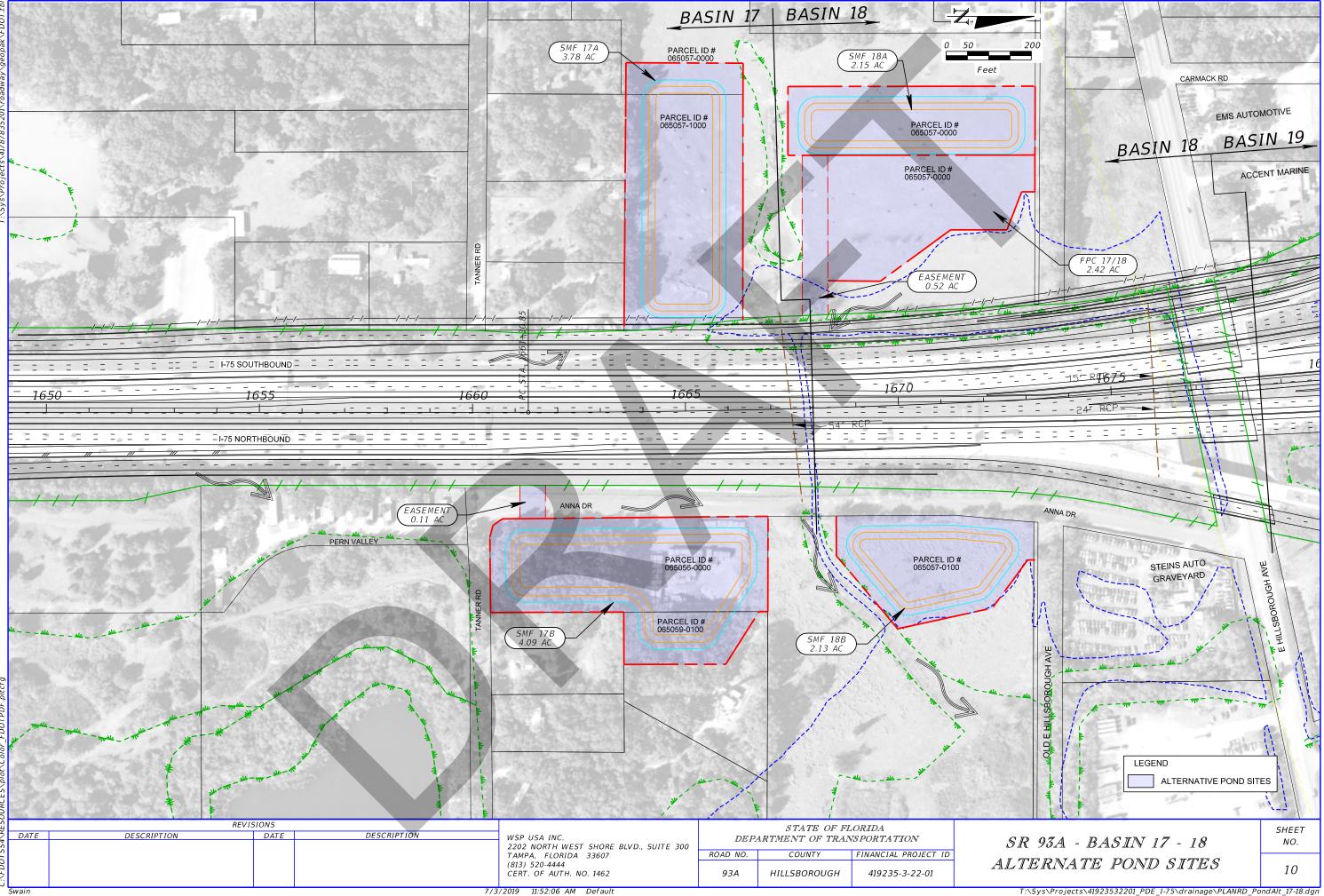




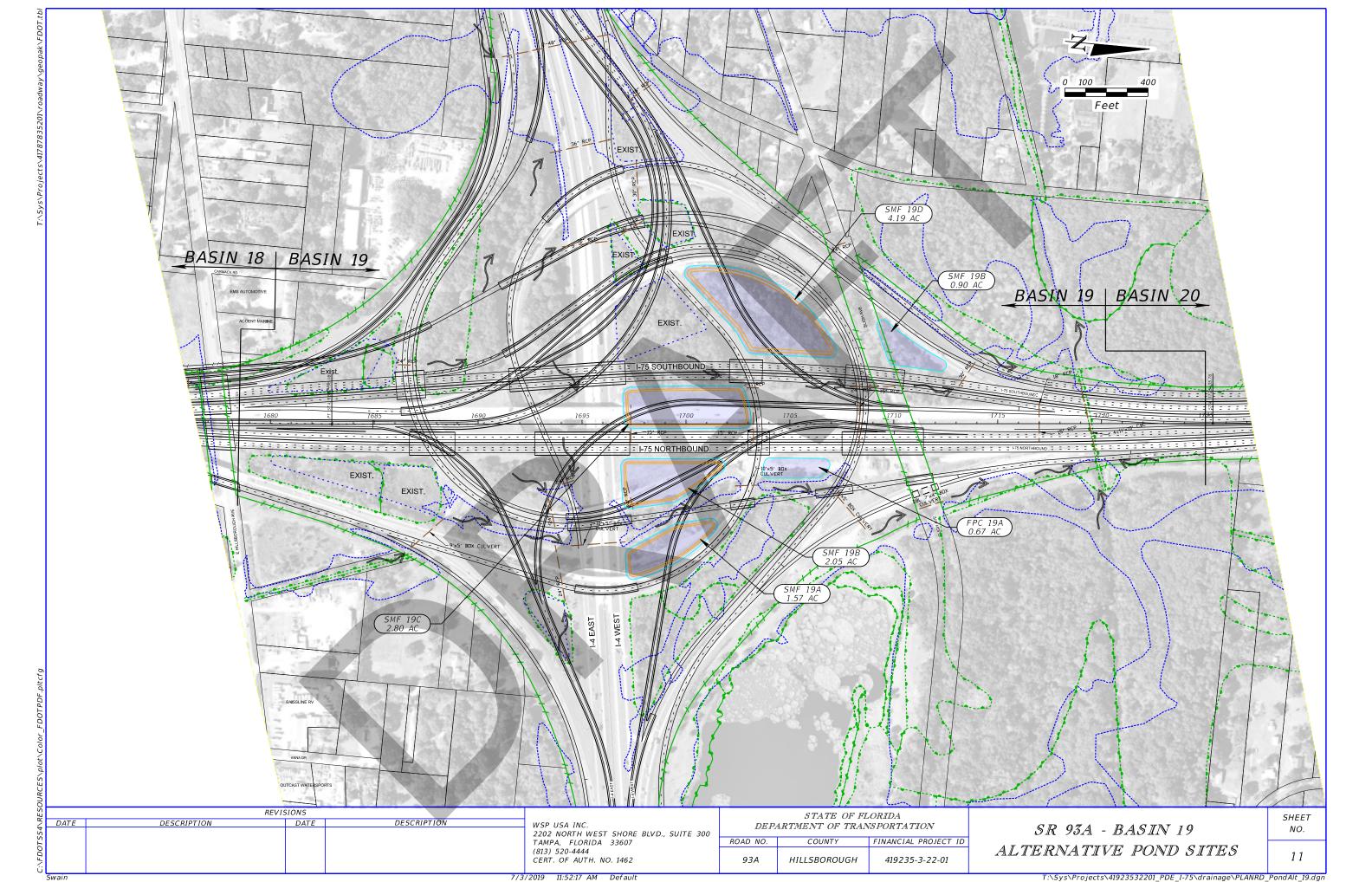


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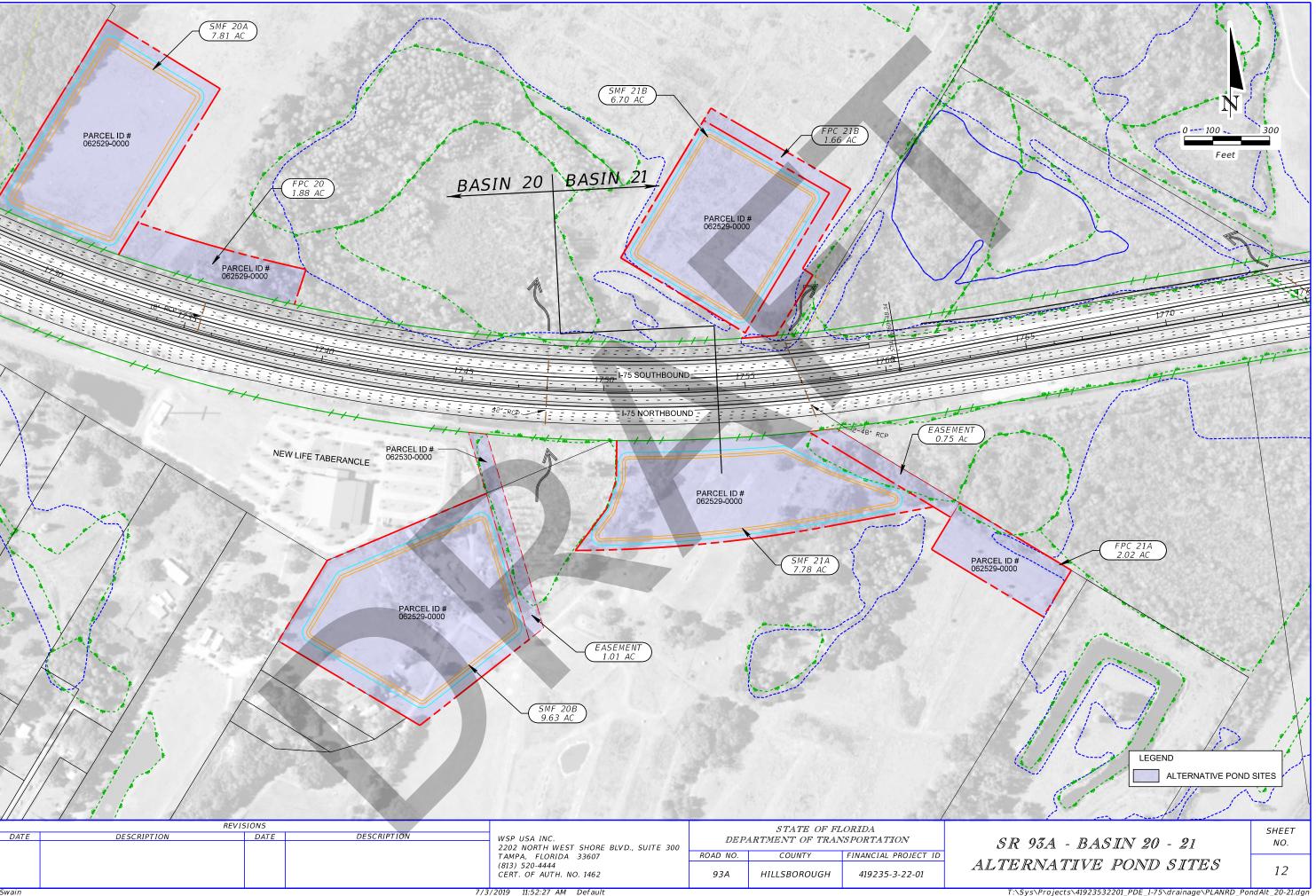
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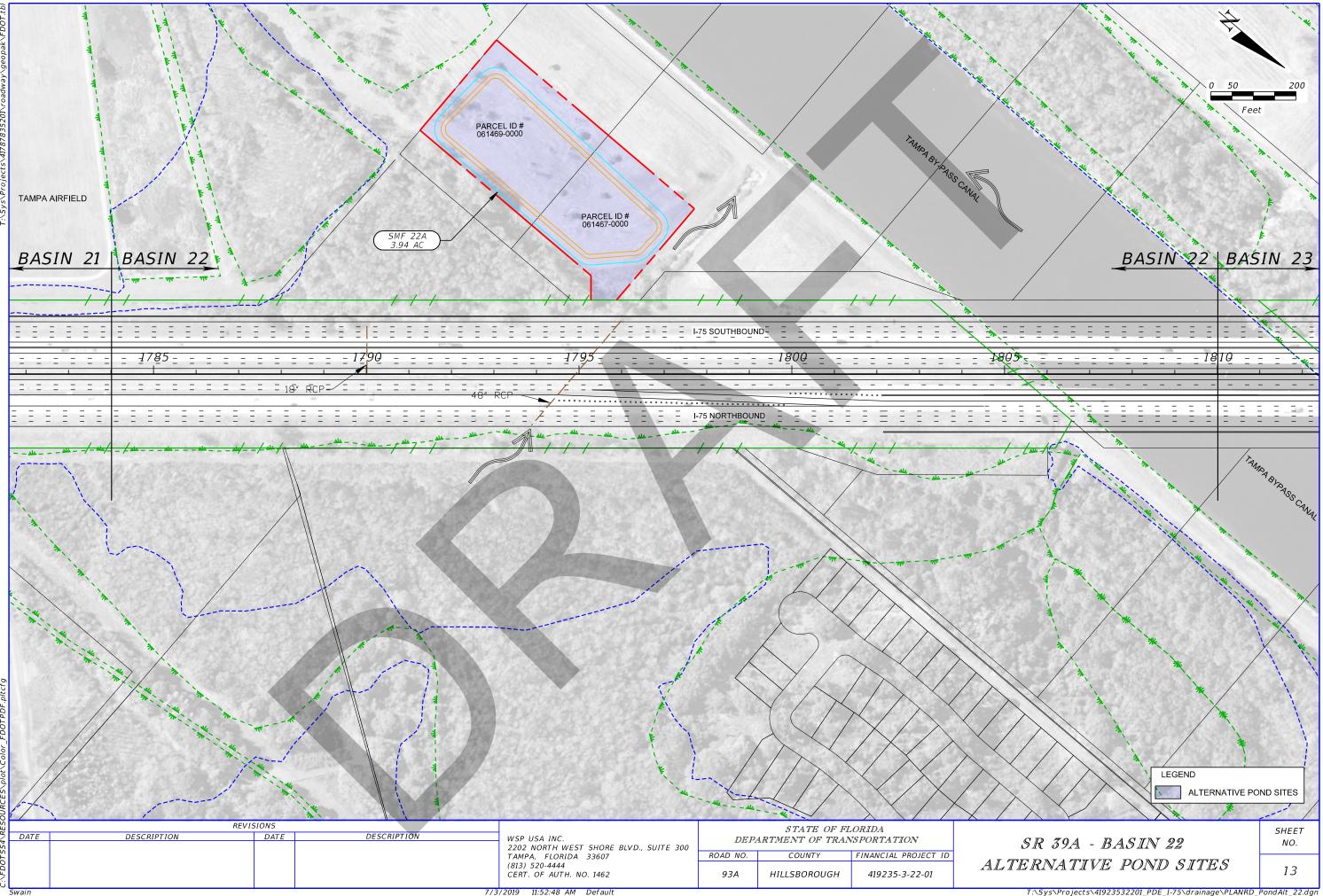


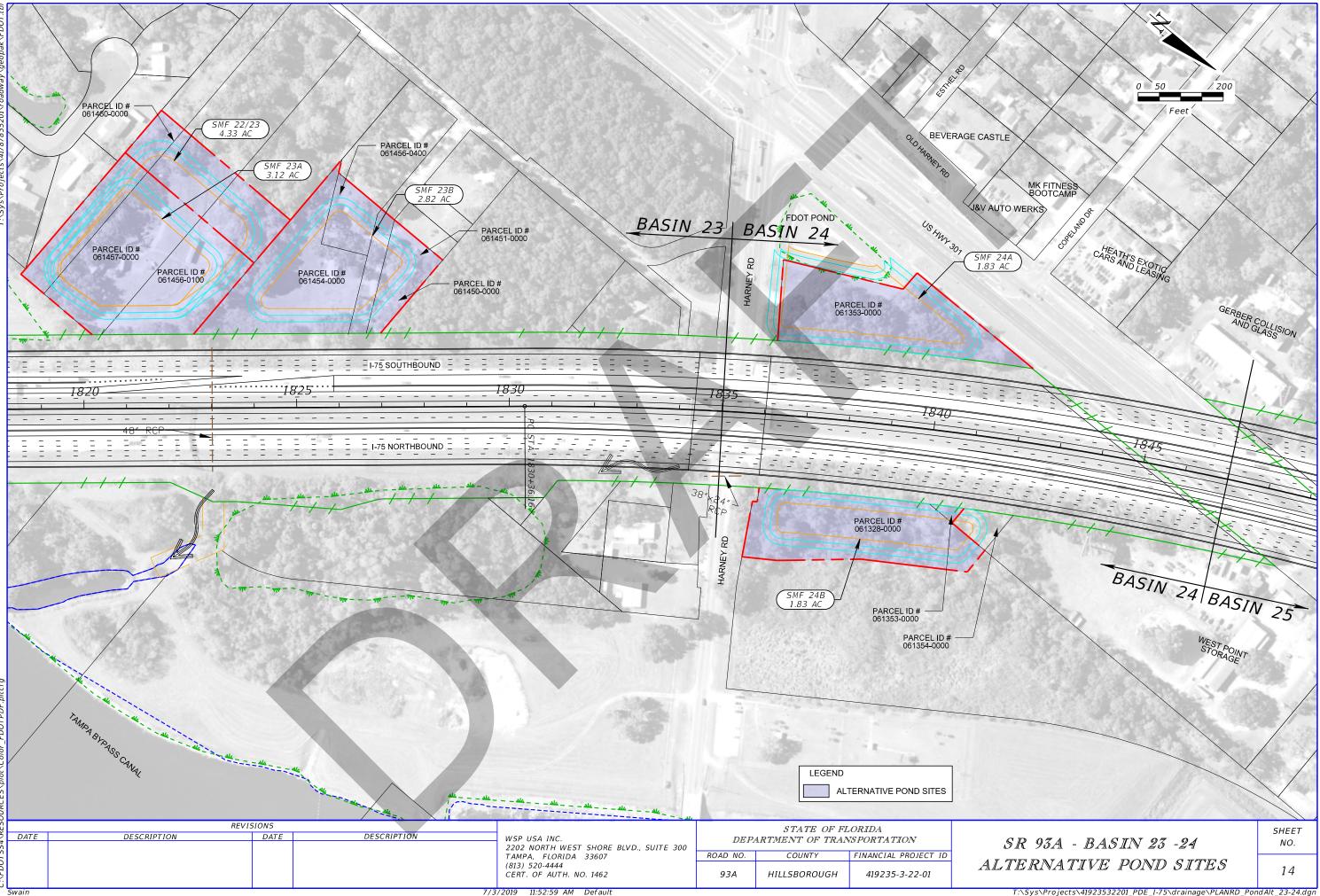
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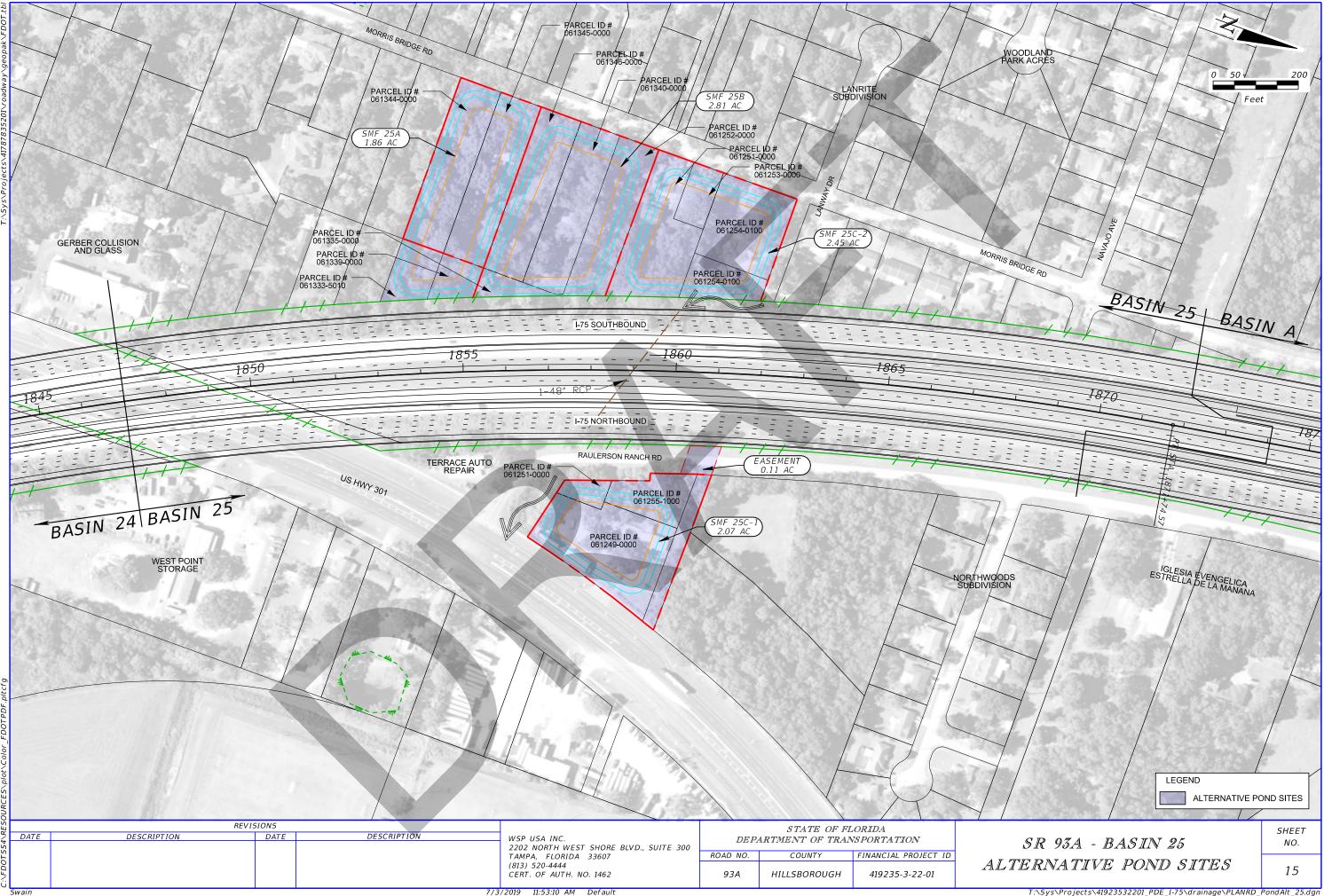










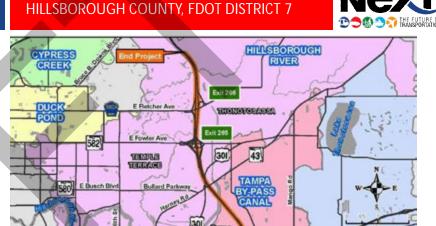


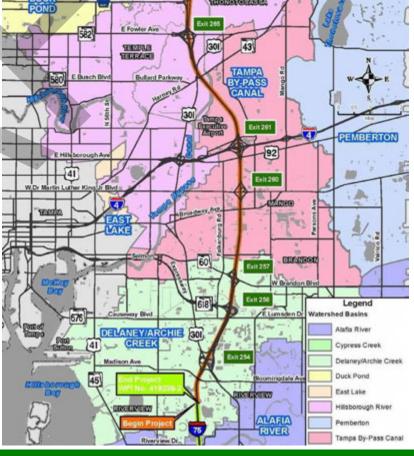
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I-75 (SR 93A) From S. of US 301 to N. of Bruce B. Downs Boulevard

PSR Schedule

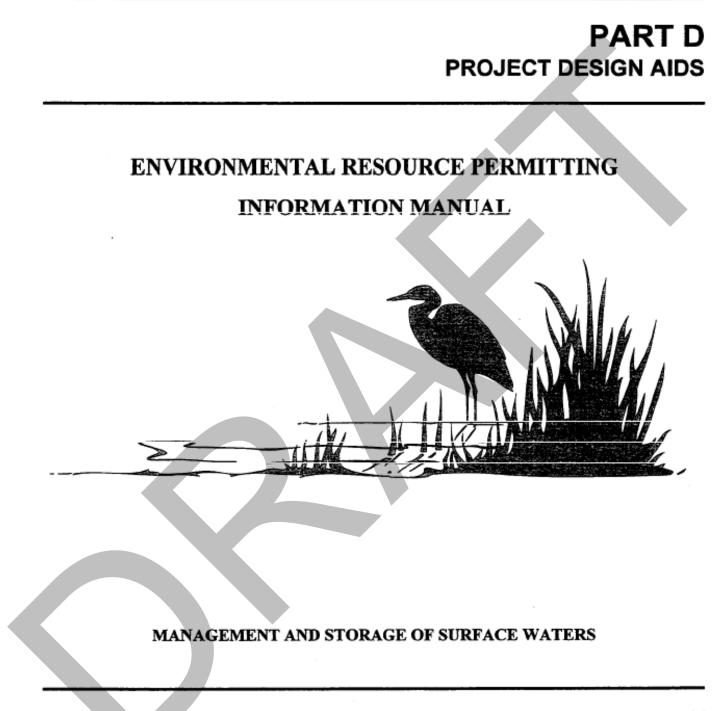
- Next Steps
 - Approximately 21 Preferred Pond/FPC Sites
 - A,B,C's on Preferred Pond Sites (mid Nov)
 - Update PSR with A,B,C's
 - Submit Draft PSR



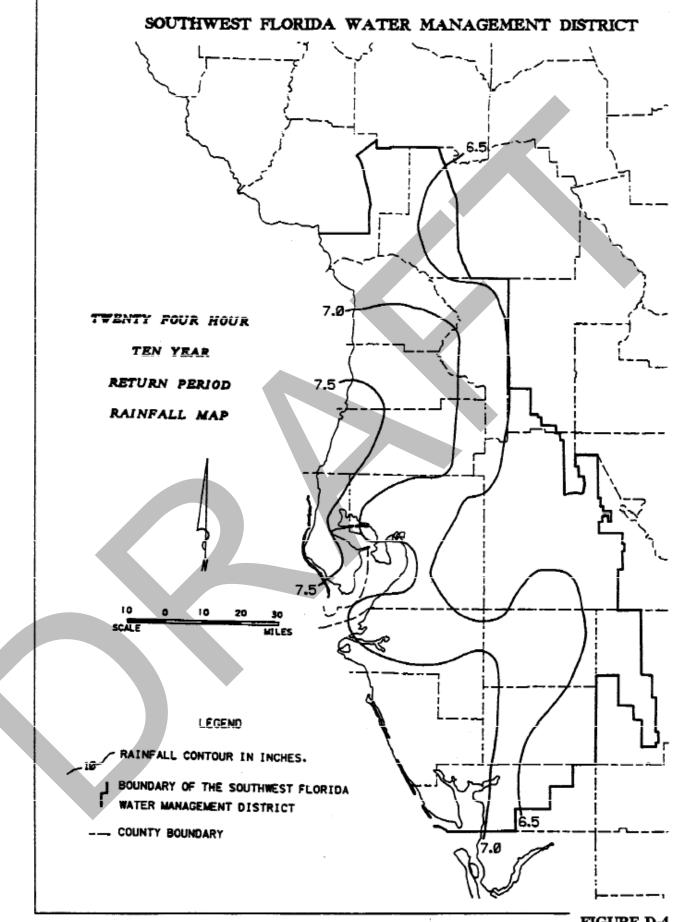


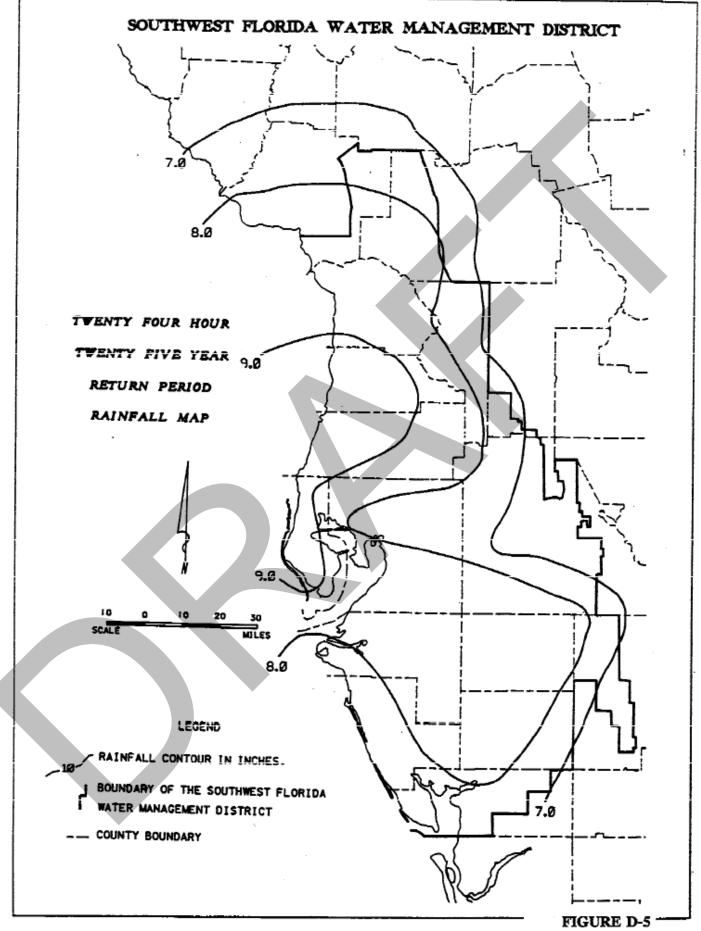
Appendix F Proposed Pond Sizing Calculations Rainfall

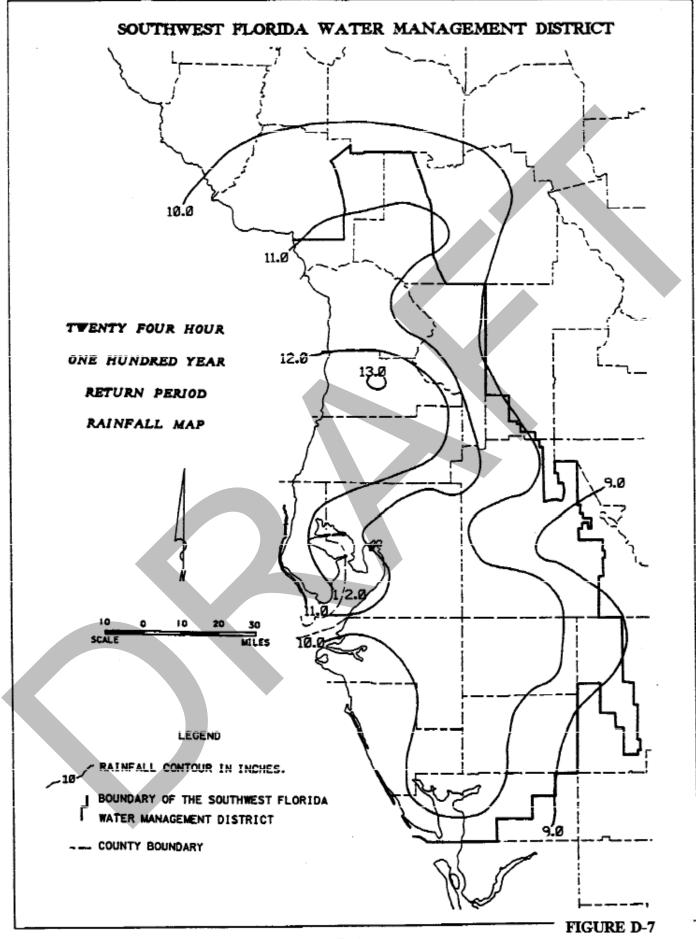
Southwest Florida Water Management District



JULY 1996







Proposed Pond Calculations

Basins 1-25

Pond Name: SMF-1A

Basin Name: 1 Pre-Condition CN Calc.

	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	a	-	98	9.09	890.8
	Pervious Area		A/D	49	12.62	618.4
	Pervious Area		B/D	69	1.17	80.7
	Pervious Area					
	Grass at Pond		A / A/D	49	2.12	103.9
					25.00	67.8
Post-Condition CN	Calc.					
	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	a	-	98	15.93	1561.1
	Pervious Area		A/D	49	6.36	311.6
	Pervious Area		B/D	69	0.59	40.7
	Pervious Area		0	0	0	0.0
	Grass at Pond		A / A/D	49	0.74	36.3
	Water at Pond		-	100	1.38	138.0
			•	100	25.00	83.5
ter Quantity Calcs.						
Soil Storage	S-pre	4.76	S-post	1.97		
een eterage		1.70		1.07	1	
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)
10-Yr / 24-Hr	7	3.38	5.08	7.05	10.59	3.54
25-Yr / 24-Hr	8	4.21	6.04	8.76	12.58	3.81
100-Yr / 24-Hr	11	6.82	8.94	14.20	18.63	4.42
100 117 24 11	11	0.02	0.04	14.20	10.00	7.72
nd SHWT Determination	on					
Avg. Ground Elev.=	24.00	1		EL		
prog. Oroania Elot.			IESE SHVVI	Flev =	1 23.00	
Avg. SHWT Depth=	1.00		Est. SHWT SHWT Ele		23.00 21.58	(Permitted)
ter Quality Calcs. New Imp. Area =	1.00	OFW (Y or		v. Used = 4.50 6 additional	21.58	
ter Quality Calcs.	1.00		SHWT Ele 18%	v. Used = 4.50 6 additional	21.58	(Permitted) 0.57
ter Quality Calcs. New Imp. Area = Req. Treat Area =	1.00 6.84 N 0.57	OFW (Y or	SHWT Ele 18%	v. Used = 4.50 6 additional	21.58	
ter Quality Calcs. New Imp. Area = Req. Treat Area =	1.00 6.84 0.57	OFW (Y or ac-ft	SHWT Ele 18% N) if Y, 509	v. Used = 4.50 % additional Provided T	21.58 treatment reat Area =	0.57
ter Quality Calcs. New Imp. Area = Req. Treat Area =	1.00 6.84 N 0.57	OFW (Y or ac-ft	SHWT Ele 18%	v. Used = 4.50 % additional Provided T	21.58 treatment reat Area =	0.57
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL.	1.00 6.84 0.57	OFW (Y or ac-ft e	SHWT Ele 18% N) if Y, 509 Area 1.	v. Used = 4.50 6 additional Provided T (ac) 38	21.58 treatment reat Area = Cummulat	0.57
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc	1.00 6.84 0.57 s. Stag	OFW (Y or ac-ft e 8	SHWT Ele 18% N) if Y, 509 Area 1.	v. Used = 4.50 6 additional Provided T (ac)	21.58 treatment reat Area = Cummulat (a 0	0.57 ive Storage c-ft)
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL.	1.00 6.84 0.57 s. Stag	OFW (Y or ac-ft e 8 9	SHWT Ele 18% N) if Y, 509 Area 1.	v. Used = 4.50 6 additional Provided T (ac) 38	21.58 treatment reat Area = Cummulat (ar 0 0	0.57 ive Storage c-ft) .00
ter Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL.	1.00 6.84 0.57 s. Stag 21.5 21.9	OFW (Y or ac-ft e 8 9 6	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1.	v. Used = 4.50 6 additional Provided T (ac) 38 42	21.58 treatment reat Area = Cummulat (a 0 0 0 3	0.57 ive Storage c-ft) .00 .57
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL.	1.00 6.84 N 0.57 s. Stag 21.5 21.9 23.9	OFW (Y or ac-ft e 8 9 6 2	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1.	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61	21.58 treatment reat Area = Cummulat (ar 0 0 0 3 3 3	0.57 ive Storage c-ft) .00 .57 .54
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	1.00 6.84 N 0.57 s. Stag 21.5 21.9 23.9 23.9 24.1 24.5	OFW (Y or ac-ft 8 9 6 2 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1.	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65	21.58 treatment reat Area = Cummulat (ar 0 0 0 3 3 3 4	0.57 ive Storage c-ft) .00 .57 .54 .81 .42
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	1.00 6.84 N 5 0.57 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	OFW (Y or ac-ft 8 9 6 2 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. 1. 1. 1.	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61	21.58 treatment reat Area = Cummulat (ar 0 0 0 3 3 4 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	1.00 6.84 N 0.57 s. Stag 21.5 21.9 23.9 23.9 24.1 24.5	OFW (Y or ac-ft 8 9 6 2 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. 1. 1. 1.	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74	21.58 treatment reat Area = Cummulat (ar 0 0 0 0 3 3 4 4 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 23.9 23.9 24.1 24.5 25.5 25.5	OFW (Y or ac-ft 8 9 6 2 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 2.	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth=	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 23.9 23.9 24.1 24.5 25.5 25.5	OFW (Y or ac-ft 8 9 6 2 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 2.	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc.	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 23.9 23.9 24.1 24.5 25.5 25.5 25.5	OFW (Y or ac-ft 8 9 6 2 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 2. Attenuat	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc.	1.00 6.84 N 0.57 5. 21.57 21.9 23.9 23.9 23.9 24.1 24.5 25.5 25.5 25.5 25.5	OFW (Y or ac-ft 8 9 6 2 0 0 0 0 0 2 2 0 0 0 2 2 0 0 0 2 2 0 0 0 2 0 0 0 0 2 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 2. Attenual	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Outside Berm Treatment Depth= sin Hydraulics Calc.	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 24.1 24.5 25.5 25.5 25.5 25.5 25.5 25.5 20.41	OFW (Y or ac-ft 8 9 6 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 2. Attenuat	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 6	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Outside Berm Treatment Depth= sin Hydraulics Calc.	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 24.1 24.5 25.5 25.5 25.5 25.5 25.5 25.5 25.5	OFW (Y or ac-ft	SHWT Eler 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 2. Attenuat	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12 ion Depth=	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 2.51	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depthe sin Hydraulics Calc. Less 1 for Distance from	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 24.1 24.5 25.5 25.5 25.5 25.5 25.5 25.5 25.5	OFW (Y or ac-ft e 8 9 6 2 0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Eler 18% N) if Y, 509 Area 1. </td <td>v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12</td> <td>21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 2.51</td> <td>0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12</td>	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 2.51	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12
ter Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depthe sin Hydraulics Calc. Less 1 for Distance from Allowable 10-year	1.00 6.84 N 0.57 5. 21.5 21.9 23.9 24.1 24.5 25.5 25.5 25.5 25.5 25.5 25.5 25.5	OFW (Y or ac-ft	SHWT Eler 18% N) if Y, 509 Area 1. </td <td>v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12 ion Depth=</td> <td>21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 2.51</td> <td>0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12</td>	v. Used = 4.50 6 additional Provided T (ac) 38 42 60 61 65 74 12 ion Depth=	21.58 treatment reat Area = Cummulat (a 0 0 0 3 3 4 6 6 2.51	0.57 ive Storage c-ft) .00 .57 .54 .81 .42 .12

Pond Name: SMF-1B

Basin Name: 1 Pre-Condition CN Calc.

Pre-Condition CN C						
	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	ea	-	98	9.09	890.8
	Pervious Area		A/D	49	12.62	618.4
	Pervious Area		B/D	69	1.17	80.7
	Pervious Area					
	Grass at Pond		A / A/D	49	1.95	95.6
					24.83	67.9
Post-Condition CN	Calc.					
	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	ea	-	98	15.93	1561.1
	Pervious Area		A/D	49	6.36	311.6
	Pervious Area		B/D	69	0.59	40.7
	Pervious Area		0	0	0	0.0
	Grass at Pond		A / A/D	49	0.78	38.2
	Water at Pond		-	100	1.17	117.0
	L		4		24.83	83.3
ater Quantity Calcs.						
Soil Storage	S-pre	4.73	S-post	2.00		
een eterage			<u> </u>	2.00		
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)
10-Yr / 24-Hr	7	3.40	5.06	7.03	10.48	3.45
25-Yr / 24-Hr	8	4.22	6.01	8.74	12.45	3.71
100-Yr / 24-Hr	11	6.84	8.92	14.15	18.45	4.30
nd SHWT Determinatio	on					
Avg. Ground Elev.=	25.50		Est. SHWT	Elev. =	24.50	
Avg. SHWT Depth=	25.50 1.00		Est. SHWT SHWT Ele		24.50 21.00	
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area =	1.00	OFW (Y or		v. Used = 4.47 % additional	21.00	
Avg. SHWT Depth=	1.00		SHWT Ele 18%	v. Used = 4.47 % additional	21.00	0.60]a
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area =	1.00 6.84 N 0.57	OFW (Y or	SHWT Ele 18%	v. Used = 4.47 % additional	21.00	0.60 a
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area =	1.00 6.84 N 0.57	OFW (Y or	SHWT Ele 18%	v. Used = 4.47 % additional	21.00	
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area =	1.00 6.84 N 0.57	OFW (Y or ac-ft	SHWT Ele 18%	v. Used = 4.47 % additional Provided T	21.00	ive Storage
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description	1.00 6.84 0.57 s. Stag	OFW (Y or ac-ft e	SHWT Ele 18% N) if Y, 509 Area	v. Used = 4.47 % additional Provided T (ac)	21.00 treatment reat Area = Cummulat (ad	ive Storage c-ft)
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL.	1.00 6.84 0.57 s. Stag	OFW (Y or ac-ft e 0	SHWT Ele 18% N) if Y, 509 Area 1.	v. Used = 4.47 % additional Provided T (ac) 17	21.00 treatment reat Area = Cummulat (a 0	<mark>ive Storage</mark> c-ft) .00
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL.	1.00 6.84 0.57 s. 21.0 21.0 21.5	OFW (Y or ac-ft e 0	SHWT Ele 18% N) if Y, 509 Area 1.	v. Used = 4.47 % additional Provided T (ac) 17 22	21.00 treatment reat Area = Cummulat (ar 0 0	tive Storage c-ft) .00 .60
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL.	1.00 6.84 N 0.57 s. Stag 21.0 21.5 23.7	OFW (Y or ac-ft e 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43	21.00 treatment reat Area = Cummulat (a 0 0 0 3	ive Storage c-ft) .00 .60 .51
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	1.00 6.84 N 0.57 s. Stag 21.0 21.5 23.7 23.9	OFW (Y or ac-ft e 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45	21.00 treatment reat Area = Cummulat (ar 0 0 0 3 3 3	ive Storage c-ft) .00 .60 .51 .79
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0	OFW (Y or ac-ft 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46	21.00 treatment reat Area = Cummulat (ac 0 0 0 3 3 3 3	ive Storage c-ft) .00 .60 .51 .79 .94
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	1.00 6.84 N 0.57 s. 21.0 21.5 23.7 23.9 23.9 24.0 25.0	OFW (Y or ac-ft 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. 1. 1. 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46 55	21.00 treatment reat Area = Cummulat (ar 0 0 0 3 3 3 3 5	ive Storage c-ft) .00 .60 .51 .79 .94 .44
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0	OFW (Y or ac-ft 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. 1. 1. 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46	21.00 treatment reat Area = Cummulat (ar 0 0 0 3 3 3 3 5	ive Storage c-ft) .00 .60 .51 .79 .94
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0 25.0 25.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46 55	21.00 treatment reat Area = Cummulat (a 0 0 0 3 3 3 5 5 5	ive Storage c-ft) .00 .60 .51 .79 .94 .44 .44
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc.	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0 25.0 25.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0	SHWT Eler 18% N) if Y, 50% Area 1.	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46 55 95	21.00 treatment reat Area = Cummulat (a 0 0 0 3 3 3 5 5 5	ive Storage c-ft) .00 .60 .51 .79 .94 .44 .44
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc. Less 1 foot	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0 25.0 25.0 25.0 25.0 25.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Eler 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. Attenuat	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46 55 95	21.00 treatment reat Area = Cummulat (a 0 0 0 3 3 3 5 5 5	ive Storage c-ft) .00 .60 .51 .79 .94 .44 .44
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc. Less 1 foot	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0 25.0 25.0 25.0 5 0.50 EOP in Basin = ot of clearance=	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Eler 18% N) if Y, 509 Area 1. 1. 1. 1. 1. 1. 1. Attenuat	v. Used = 4.47 % additional Provided T (ac) 17 22 43 45 46 55 95	21.00 treatment reat Area = Cummulat (a 0 0 0 3 3 3 5 5 2.50	ive Storage c-ft) .00 .60 .51 .79 .94 .44 .44
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc. Less 1 foo Distance from I Allowable 10-year	1.00 6.84 N 0.57 s. 21.0 21.0 21.5 23.7 23.9 24.0 25.0 25.0 25.0 25.0 5 0.50 EOP in Basin = 0.50 EOP in Basin = bt of clearance= LEOP to Pond= Losses =	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Eler 18% N) if Y, 509 Area 1. </td <td>v. Used = 4.47 6 additional Provided T (ac) 17 22 43 45 46 55 95 tion Depth=</td> <td>21.00 treatment reat Area = Cummulat (a 0 0 0 3 3 3 5 5 2.50</td> <td>ive Storage c-ft) .00 .60 .51 .79 .94 .44 .44</td>	v. Used = 4.47 6 additional Provided T (ac) 17 22 43 45 46 55 95 tion Depth=	21.00 treatment reat Area = Cummulat (a 0 0 0 3 3 3 5 5 2.50	ive Storage c-ft) .00 .60 .51 .79 .94 .44 .44

Pond Volume Calcs. Basin Name: 1

Pond Name: SMF-1C

Pre-Condition CN C	alc.	-					
	Description		HSG	CN	Area (ac)	Avg. CN	1
	Impervious Are	ea	-	98	9.09	890.8	1
	Pervious Area		A/D	49	12.62	618.4	
	Pervious Area		B/D	69	1.17	80.7	
	Pervious Area						
	Grass at Pond		A / A/D	49	1.94	95.1	
				•	24.82	67.9	
Post-Condition CN	Calc.						4
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	15.93	1561.1	
	Pervious Area		A/D	49	6.36	311.6	
	Pervious Area		B/D	69	0.59	40.7	
	Pervious Area		0	0	0	0.0	
	Grass at Pond		A / A/D	49	0.70	34.3	1
	Water at Pond		-	100	1.24	124.0	1
			•		24.82	83.5	
Water Quantity Calcs.						,	4
Soil Storage	S-pre	4.73	S-post	1.98			
5					-		
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	1
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.40	5.08	7.03	10.51	3.48	
25-Yr / 24-Hr	8	4.22	6.03	8.73	12.48	3.74	
100-Yr / 24-Hr	11	6.84	8.94	14.14	18.48	4.34	
						-	-
Pond SHWT Determination	on						
Avg. Ground Elev.=	21.50		Est. SHW1	Elev. =	20.50	1	
Avg. SHWT Depth=	1.00		SHWT Ele		19.00	1	
				_		1	
Water Quality Calcs.							
New Imp. Area =	6.84	ac	18%	4.47]		
			N) if Y, 509	& additional	treatment		
Req. Treat Area =		ac-ft	, .		reat Area =	0.63	ac-ft
·							4
Pond Stage Storage Calc	s.						
				()	Cummulat	tive Storage	
Description	Stag	е	Area	i (ac)	(a	c-ft)	
SHWT EL.	19.0	0	1.	24		.00	1
Weir Crest EL.	19.5	0	1.	28	0	.63	1
DHW10 EL.	21.6	0	1.	46	3	.51	1
DHW 25 EL.	21.8	0	1.	48	3	.81	1
1 foot Clearance	22.0			50		.10	
Inside Berm	23.0			58		.64	
Outside Berm	23.0	0		94		.64	1
					!		1
Treatment Depth=	0.50		Attenuat	tion Depth=	2.50		
				•		1	
Basin Hydraulics Calc.							
-	EOP in Basin =	26.0					
	ot of clearance=	25.0					
	LEOP to Pond=	1600					
	Losses =	1.28		e Slope = 0.	0008 ft/ft)		
Allowable 10-year		23.7	•	, .			
-	HGL at Pond =	21.6					
		21.0					

Pond Name: SMF 2/3

Basin Name: 2/3 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	15.88	1556.2
Pervious Area	A/D	49	9.74	477.3
Pervious Area	B/D	80	0.51	40.8
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	7.57	370.9
	-		33.70	72.6

Post-Condition CN Calc.

e al el				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	26.13	2560.7
Pervious Area	A/D	49	0	0.0
Pervious Area	B/D	80	0	0.0
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	1.21	59.3
Water at Pond	-	100	6.36	636.0
			33.70	96.6

Water Quantity Calcs. Soil Storage

Storage	S-pre	3.78	S-post	0.35
	-	-	-	

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.89	6.60	10.92	18.53	7.61
25-Yr / 24-Hr	8	4.76	7.59	13.36	21.33	7.96
100-Yr / 24-Hr	11	7.48	10.59	21.01	29.74	8.73

Pond SHWT Determination

Avg. Ground Elev.=	28.0
Avg. SHWT Depth=	1.00

Est. SHWT Elev. =	27.0	
SHWT Elev. Used =	27.0	

Water Quality Calcs.

 New Imp. Area
 10.25 ac
 18% 6.07

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 0.85 ac-ft
 Provided Treat Area = 0.85 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	27.00	6.36	0.00
Weir Crest EL.	27.13	6.38	0.85
DHW10 EL.	28.18	6.56	7.63
DHW 25 EL.	28.23	6.57	7.97
1 foot Clearance	29.00	6.71	13.07
Inside Berm	30.00	6.88	19.86
Outside Berm	30.00	7.57	19.86

Treatment Depth= 0.13

Attenuation Depth= 1.87

Basin Hydraulics Calc.

LEOP in Basin =	35.0
Less 1 foot of clearance=	34.0
Distance from LEOP to Pond=	1400 ft
Losses =	1.12 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	32.9
10-year HGL at Pond =	28.2 Go

	me: 4 <u>&5</u>		P	ond Name:	SMF-4/5		
	Pre-Condition CN C						
		Descriptio		HSG	CN	Area (ac)	Avg. CN
		Impervious		-	98	30.86	3024.3
		Pervious A		A/D	49	55.44	2716.6
		Pervious A		A/D	49	0	0.0
		Pervious A		B/D	80	0.93	74.4
		Grass at P	ona	A/D	49	10.47	513.0
	Post-Condition CN (97.70	64.8
	Post-Condition CN	Descriptio	2		CN		Avg. CN
		-		HSG	CN 98	Area (ac) 56.01	5489.0
		Impervious Pervious A		A/D	49	26.87	1316.6
		Pervious A				0	
				A/D B/D	49 80	4.35	0.0 348.0
		Pervious A Grass at P			49	4.35 2.22	348.0 108.8
		Water at P		A/D	100	8.25	825.0
		water at P	unu	-	100	8.25 97.70	825.0 82.8
ator Ou	antity Calcs.					91.10	02.0
	Soil Storage	S-pre	5.44	S-post	2.08		
	Soli Storage	S-pre	J.44	<u>3-µ03</u> (2.00	1	
		Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff
	Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)
	10-Yr / 24-Hr	7	3.08	5.00	25.07	40.73	15.66
	25-Yr / 24-Hr	8	3.87	5.95	31.50	48.45	16.96
	100-Yr / 24-Hr	11	6.40	8.85	52.11	72.01	19.90
	Avg. Ground Elev.= Avg. SHWT Depth=	29.5 0.98		Est. SHWT SHWT Ele		28.5 27.0	
	rug. ontre bopar	0.00	1			21.0	
ater Qu	ality Calcs.						
	New Imp. Area =	25.15	lac	15%	14.66]	
				N) if Y, 509			
	Req. Treat Vol. =		ac-ft	, ,		Treat Vol. =	2.49
	·						
ond Sta	ge Storage Calcs.						
	Description	Sta	age	Δrea	(ac)		ulative
						Storage	
	SHWT EL.		.00		25	0.	
	Weir Crest EL.		.30		33		49
	DHW10 EL.	28	.90		79		.18
			10	I 8	84		.95
	DHW 25 EL.	29					
	DHW 25 EL. 1 foot Clearance	30	.00	9.	10	26	
	DHW 25 EL. 1 foot Clearance Inside Berm	30 31	.00	9. 9.	10 38	35	.26
	DHW 25 EL. 1 foot Clearance	30 31	.00	9. 9.	10	35	
	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm	30 31 31	.00 .00 .00	9. 9. 10	10 38 .47	35 35	.26 .26
	DHW 25 EL. 1 foot Clearance Inside Berm	30 31 31	.00 .00 .00	9. 9. 10	10 38	35 35	.26 .26
	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth=	30 31 31	.00 .00 .00	9. 9. 10	10 38 .47	35 35	.26 .26
asin Hyd	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= draulics Calc.	30 31 31 = 0.30	.00 .00 .00	9. 9. 10 Attenuat	10 38 .47	35 35	.26 .26
asin Hyd	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= draulics Calc. LEO	30 31 31 - 0.30 P in Basin =	.00 .00 .00] 33.0	9. 9. 10 Attenuat	10 38 .47	35 35	.26 .26
asin Hyd	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth- draulics Calc. LEO Less 1 foot of	30 31 31 = 0.30 P in Basin = f clearance=	.00 .00 .00] 33.0 32.0	9. 9. 10 Attenuat	10 38 .47	35 35	.26 .26
asin Hyd	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= draulics Calc. LEO	30 31 31 0.30 P in Basin = f clearance= DP to Pond=	.00 .00 .00] 33.0 32.0 3000	9. 9. 10 Attenuat	10 38 .47 tion Depth=	35 35 1.80	.26 .26
nsin Hyd	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= draulics Calc. LEO Less 1 foot of Distance from LEC	30 31 31 = 0.30 P in Basin = f clearance= DP to Pond= Losses =	.00 .00 .00] 33.0 32.0 3000 2.40	9. 9. 10 Attenuat	10 38 .47	35 35 1.80	.26 .26
asin Hyd	DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= draulics Calc. LEO Less 1 foot of Distance from LEC Allowable 10-year HC	30 31 31 = 0.30 P in Basin = f clearance= DP to Pond= Losses =	.00 .00 .00] 33.0 32.0 3000 2.40	9. 9. 10 Attenuat	10 38 .47 tion Depth=	35 35 1.80	.26 .26

Pond Volume Calcs. Basin Name: 6

Pond Name: SMF-6A

Pre-Condition CN C	alc							
Fre-Condition CN C		Description		CN	Area (aa)	Area (ac) Ave CN		
	Impervious		HSG	98	Area (ac) 16.91	Avg. CN 1657.2		
	Pervious A							
			A/D	49	20.22	990.8		
	Pervious A		A/D	49	0	0.0		
	Pervious A		B/D	80	1.28	102.4		
	Grass at P	ond	A/D	49	2.94	144.1		
	. .				41.35	70.0		
Post-Condition CN			1100					
	Descriptio		HSG		Area (ac)	Avg. CN		
			- A (D	98	31.07	3044.9		
	Pervious Area Pervious Area		A/D	49	6.63	324.9		
			A/D	49	0	0.0		
	Pervious A		B/D	80	0.71	56.8		
	Grass at P		A/D	49	0.98	48.0		
	Water at P	ond	-	100	1.96	196.0		
					41.35	88.8		
ater Quantity Calcs.		4.00	0	4.07	1			
Soil Storage	S-pre	4.29	S-post	1.27				
	Р	Ding	Dinast	\/[D]mre	VIDInest			
Storm Event	-	R-pre	R-post	V[R]pre	V[R]post	V[R]diff		
10 Vr / 04 Ur	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)		
10-Yr / 24-Hr	7	3.62	5.68	12.47	19.58	7.11		
25-Yr / 24-Hr	8	4.46	6.66	15.38	22.95	7.56		
100-Yr / 24-Hr	11	7.13	9.61	24.57	33.14	8.56		
Avg. SHWT Depth=	1.00		SHWT Ele		27.5			
New Imp. Area =	14.16	ac	15%	6.20				
	N	OFW (Y or	N) if Y, 509	% additional	treatment			
Req. Treat Vol. =	1.18	ac-ft		Provided ⁻	Treat Vol. =	1.18	ac-ft	
ond Stage Storage Calc	S.				0	0.		
Description	Sta	age	Area	(ac)	Cummulat (ad			
SHWT EL.	27	.50	1	96	0			
Weir Crest EL.		.00		03		.00		
DHW10 EL.		.80		34		.10		
DHW 25 EL.		.00		36		.10		
1 foot Clearance		.00		36		.57		
Inside Berm		.00						
			2.48 2.94		9.99 9.99			
Outside Berm	32	.00	Ζ.	34	9	.99		
Treatment Depth=	0.59]	Attenuat	ion Depth=	2.91			
asin Hydraulics Calc.								
	P in Basin =	33.0						
Less 1 foot of		32.0						
Distance from LEC								
	Losses =	1.20		e Slope = 0.	0008 ft/ft)			
Allowable 10-year HG				, olope – 0.				
10-year HG	I at Dand -	30.80	<u>C</u> _					

Pond Volume Calcs. Basin Name: 6

Pond Name: SMF-6B

Pre-Condition CN C	alc.						
	Descriptio	n	HSG	CN	Area (ac)	Avg. CN	
	Impervious	Area	-	98	16.91	1657.2	
	Pervious A	rea	A/D	49	20.22	990.8	
	Pervious A	rea	A/D	49	0	0.0	
	Pervious A	rea	B/D	80	1.28	102.4	
	Grass at Po	ond	A/D	49	2.95	144.6	
					41.36	70.0	
Post-Condition CN							
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	31.07	3044.9	
	Pervious A		A/D	49	6.63	324.9	
	Pervious A	rea	A/D	49	0	0.0	
	Pervious A	rea	B/D	80	0.71	56.8	
	Grass at Po		A/D	49	0.99	48.5	
	Water at Po	ond	-	100	1.96	196.0	
					41.36	88.8	
ater Quantity Calcs.			_				
Soil Storage	S-pre	4.29	S-post	1.27		, ,	
		Dana	Durat)//Dlass	VIDINAL		
Storm Event	P	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
10 Vr / 24 Ur	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.62	5.68	12.47	19.58	7.11	
25-Yr / 24-Hr	8	4.46	6.66	15.38	22.95	7.56	
100-Yr / 24-Hr	11	7.13	9.61	24.57	33.14	8.56	
and SUMT Data main at						,	
und an wit Determinatio	on						
ond SHWT Determination			Est. SHWT	Elev. =	27.5		
Avg. Ground Elev.= Avg. SHWT Depth=	28.5 1.00		Est. SHWT SHWT Ele		27.5 27.5		
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area =	28.5 1.00 14.16 N	OFW (Y or		v. Used = 6.20 6 additional	27.5 treatment		ŗ
Avg. Ground Elev.= Avg. SHWT Depth=	28.5 1.00 14.16 N		SHWT Ele 15%	v. Used = 6.20 6 additional	27.5	1.18	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= /ater Quality Calcs. New Imp. Area = Req. Treat Vol. =	28.5 1.00 14.16 N 1.18	OFW (Y or	SHWT Ele 15%	v. Used = 6.20 6 additional	27.5 treatment	1.18	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. =	28.5 1.00 14.16 N 1.18 S.	OFW (Y or ac-ft	SHWT Ele 15% N) if Y, 509	v. Used = 6.20 6 additional Provided ⁻	27.5 treatment Freat Vol. =		ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= /ater Quality Calcs. New Imp. Area = Req. Treat Vol. =	28.5 1.00 14.16 N 1.18 S.	OFW (Y or	SHWT Ele 15%	v. Used = 6.20 6 additional Provided ⁻	27.5 treatment freat Vol. =	ive Storage	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= dater Quality Calcs. New Imp. Area = Req. Treat Vol. = Description	28.5 1.00 14.16 N = 1.18 :s.	OFW (Y or ac-ft age	SHWT Ele 15% N) if Y, 509 Area	v. Used = 6.20 6 additional Provided ⁻ (ac)	27.5 treatment Freat Vol. = Cummulat	ive Storage c-ft)	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Vol. = ond Stage Storage Calc Description SHWT EL.	28.5 1.00 14.16 N 1.18 :s. Stz 27	OFW (Y or ac-ft age 50	SHWT Ele 15% N) if Y, 509 Area 1.	v. Used = 6.20 6 additional Provided ⁻ (ac) 96	27.5 treatment Freat Vol. = Cummulat (a	<mark>ive Storage</mark> c-ft)	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Vol. = ond Stage Storage Calc Description SHWT EL. Weir Crest EL.	28.5 1.00 14.16 N 1.18 5. Sta 27 28	OFW (Y or ac-ft age .50	SHWT Ele 15% N) if Y, 509 Area 1. 2.	v. Used = 6.20 6 additional Provided (ac) 96 03	27.5 treatment Freat Vol. = Cummulat (ar 0	<mark>ive Storage</mark> c-ft) .00 .18	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= fater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calco Description SHWT EL. Weir Crest EL. DHW10 EL.	28.5 1.00 14.16 N 1.18 :s. Sta 27 27 28 30	OFW (Y or ac-ft .50 .09 .81	SHWT Ele 15% N) if Y, 509 Area 1. 2.	v. Used = 6.20 6 additional Provided (ac) 96 03 34	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7	ive Storage c-ft) .00 .18 .12	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	28.5 1.00 14.16 N 1.18 5. Sta 27 27 28 30 30 31	OFW (Y or ac-ft 50 09 81 .00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2.	v. Used = 6.20 6 additional Provided ⁻ (ac) 96 03 34 36	27.5 treatment Treat Vol. = Cummulat (ad 0 1 7 7	ive Storage <u>c-ft</u>) .00 .18 .12 .57	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance	28.5 1.00 14.16 N 1.18 :s. Sta 27 28 30 31 31	OFW (Y or ac-ft 50 09 81 .00 .00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2.	v. Used = 6.20 6 additional Provided ⁻ (ac) 96 03 34 36 36 36	27.5 treatment Γreat Vol. = Cummulat (ac 0 1 7 7 7 7	ive Storage ft) .00 .18 .12 .57 .57	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	28.5 1.00 14.16 N = 1.18 :s. Sta 27 27 28 30 31 31 31 31 32	OFW (Y or ac-ft 50 09 81 .00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2. 2.	v. Used = 6.20 6 additional Provided ⁻ (ac) 96 03 34 36	27.5 treatment Freat Vol. = Cummulat (ac 0 1 7 7 7 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance	28.5 1.00 14.16 N = 1.18 :s. Sta 27 27 28 30 31 31 31 31 32	OFW (Y or ac-ft .50 .09 .81 .00 .00 .00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2. 2.	v. Used = 6.20 6 additional Provided ⁻ (ac) 96 03 34 36 36 48	27.5 treatment Freat Vol. = Cummulat (ac 0 1 7 7 7 9	ive Storage ft) .00 .18 .12 .57 .57	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	28.5 1.00 14.16 N 1.18 5. Stz 27 27 28 30 30 31 31 31 32 32	OFW (Y or ac-ft 50 09 81 00 00 00 00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	v. Used = 6.20 6 additional Provided ⁻ (ac) 96 03 34 36 36 48	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth=	28.5 1.00 14.16 N 1.18 5. Stz 27 27 28 30 30 31 31 31 32 32	OFW (Y or ac-ft 50 09 81 00 00 00 00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	v. Used = 6.20 6 additional Provided (ac) 96 03 34 36 36 36 48 95	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= asin Hydraulics Calc.	28.5 1.00 14.16 N 1.18 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	OFW (Y or ac-ft 50 50 09 81 .00 .00 .00 .00	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2. 2. 2. Attenual	v. Used = 6.20 6 additional Provided (ac) 96 03 34 36 36 36 48 95	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= asin Hydraulics Calc. LEO	28.5 1.00 14.16 N 1.18 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	OFW (Y or ac-ft .50 .09 .81 .00 .00 .00 .00 .00 .33.0	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. 2. Attenual	v. Used = 6.20 6 additional Provided (ac) 96 03 34 36 36 36 48 95	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= asin Hydraulics Calc. LEO	28.5 1.00 14.16 N 1.18 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	OFW (Y or ac-ft .50 .09 .81 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. Attenual	v. Used = 6.20 6 additional Provided (ac) 96 03 34 36 36 36 48 95	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= asin Hydraulics Calc. LEO	28.5 1.00 14.16 N 1.18 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	OFW (Y or ac-ft .50 .09 .81 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. 2. Attenuat	v. Used = 6.20 6 additional Provided ⁻ (ac) 96 03 34 36 36 36 48 95 : ion Depth=	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= Vater Quality Calcs. New Imp. Area = Req. Treat Vol. = Cond Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= asin Hydraulics Calc. LEO	28.5 1.00 14.16 N 1.18 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	OFW (Y or ac-ft .50 .09 .81 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	SHWT Ele 15% N) if Y, 509 Area 1. 2. 2. 2. Attenual ft (Assume	v. Used = 6.20 6 additional Provided (ac) 96 03 34 36 36 36 48 95	27.5 treatment Treat Vol. = Cummulat (ac 0 1 7 7 9 9 9	ive Storage ft) .00 .18 .12 .57 .57 .99	ac-ft

Floodplain Calculations Basin Name: 6

Floodplain Name: FPC-6R

Floodplain Calculations Total Impacts=

Total Impacts=	2.64 acres
Additional 20% Safety Factor = Required Compensation Site =	0.20 3.17 acres

Pond Name: SMF-7A

Basin Name: 7 Pre-Condition CN Calc.

Pre-Condition CN (Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	27.36	2681.3	
	Pervious Area		A/D	49	55.46	2717.5	
	Pervious Area		B/D	69	20.51	1415.2	
	Pervious Area				-		
	Grass at Pond		A / A/D	49	2.62	128.4	
					105.95	65.5	
Post-Condition CN	Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	40.00	3920.0	
	Pervious Area		A/D	49	46.23	2265.3	
	Pervious Area		B/D	69	17.10	1179.9	
	Pervious Area		0	0	0	0.0	
	Grass at Pond		A / A/D	49	0.97	47.5	
	Water at Pond		-	100	1.65	165.0	
	Water at r ona			100	105.95	71.5	
ater Quantity Calcs.					100.00	71.0	
Soil Storage	S-pre	5.26	S-post	3.98			
Ooli Otorage	<u>o-pie</u>	0.20	0-0031	0.30			
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.16	3.78	27.86	33.36	5.50	
25-Yr / 24-Hr	8	3.95	4.64	34.91	40.96	6.05	
100-Yr / 24-Hr	11	6.51	7.34	57.45	64.80	7.35	
100 117 24 11	11	0.01	1 1.04	07.40	04.00	1.00	
ond SHWT Determinati	on						
Avg. Ground Elev.=	29.30		Est. SHWT	Flev =	28.30	1	
Avg. SHWT Depth=			SHWT Ele		24.00		
<u> </u>						1	
ater Quality Calcs.							
New Imp. Area =	12.64	lac	18%	19.07	1		
				% additional			
Req. Treat Area		ac-ft	,,,		reat Area =	1.18	
rioq. moat/ nou				i lotidoù i	lour, "ou		
ond Stage Storage Cal	cs.						
		_		()	Cummulat	tive Storage	
Description	Stag	е	Area (ac)		(ac-ft)		
SHWT EL.	24.0		1.65		0.00		
Weir Crest EL.	24.7	0	1.72		1.18		
DHW10 EL.	27.1	0	1.98		5.62		
DHW 25 EL.	27.4	0	2.01		6.22		
1 foot Clearance	28.0		2.07		7.45		
Inside Berm	29.0		2.18		9.58		
Outside Berm	29.0			62		.58	
Treatment Depth	= 0.70		Attenuat	tion Depth=	3.30		
in equinom Boptin	0.70	l	7	aon Dopui-	0.00	I	
asin Hydraulics Calc.							
	LEOP in Basin =	31.0					
	ot of clearance=	30.0					
	LEOP to Pond=	3500					
	LEOP to Pond= Losses =	2.80		e Slope = 0.	0008 ft/ft)		
Allowable 10 yes		2.80	•	- Jope - 0.	0000 11/11)		
Allowable 10-yea	r HGL at Pond =	27.2					
11-1/63		27.1	90				

Pond Name: SMF-7B

Basin Name: 7 Pre-Condition CN Calc.

Pre-Condition CN	Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	27.36	2681.3	1
	Pervious Area		A/D	49	55.46	2717.5	1
	Pervious Area		B/D	69	20.51	1415.2	
	Pervious Area						1
	Grass at Pond		A / A/D	49	4.52	221.5	1
					107.85	65.2	1
Post-Condition CN	Calc.						-
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	40.00	3920.0	
	Pervious Area		A/D	49	46.23	2265.3	
	Pervious Area		B/D	69	17.10	1179.9	1
	Pervious Area		0	0	0	0.0	1
	Grass at Pond		A / A/D	49	2.52	123.5	1
	Water at Pond		-	100	2.00	200.0	1
					107.85	71.3	1
Vater Quantity Calcs.							1
Soil Storage	S-pre	5.33	S-post	4.03			
		0.00			1		
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	1
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.13	3.75	28.10	33.74	5.64	1
25-Yr / 24-Hr	8	3.92	4.61	35.24	41.46	6.22	1
100-Yr / 24-Hr	11	6.47	7.31	58.11	65.68	7.57	1
100 117 24 11		0.47	1.01	00.11	00.00	1.01	1
ond SHWT Determinat	ion						
Avg. Ground Elev.=		1	Est. SHW1	Elev =	27.00	1	
Avg. SHWT Depth=			SHWT Ele		25.50	1	
	1.00			v. 03eu –	20.00	1	
Nater Quality Calcs.							
New Imp. Area	= 12.64		18%	19.41	1		
New Imp. Area -			• N) if Y, 50				
Deg. Treat Area			N) II Y, 50		reat Area =	1.05	
Req. Treat Area	- 1.05	ac-ft		Provided 1	real Area =	1.25]ac-
and Stave Stavers Cal							
ond Stage Storage Cal	CS.				Cummula	tive Storage	1
Description	Stag	е	Area (ac)		(ac-ft)		
SHWT EL.	25.5	0	2.00		0.00		1
Weir Crest EL.	26.1		2.18		1.25		1
DHW10 EL.	27.9			73		5.68	1
DHW 25 EL.	28.1		2.79		6.23		1
1 foot Clearance	28.5			91		7.20 7.37	1
Inside Berm	29.5			22			-
Outside Berm	29.5			52	10.44 10.44		-
Outside Berni	29.5	0	4.	.52		J.44	1
	- 0.00	I	A 44		0.40	1	
Treatment Depth	= 0.60		Attenua	tion Depth=	2.40]	
Basin Hydraulics Calc.		04.0					
	LEOP in Basin =	31.0					
	oot of clearance=	30.0					
Distance from	LEOP to Pond=	2500					
	Losses =	2.00	•	e Slope = 0.	0008 ft/ft)		
Allowable 10-yea	ar HGL at Pond =	28.0					
10-yea	ar HGL at Pond =	27.9	Go				

Pond Name: SMF-7C

Basin Name: 7 Pre-Condition CN Calc.

Pre	e-Condition CN Ca	alc.						
		Description		HSG	CN	Area (ac)	Avg. CN	
		Impervious Are	ea	-	98	27.36	2681.3	1
		Pervious Area		A/D	49	55.46	2717.5	1
		Pervious Area		B/D	69	20.51	1415.2	
		Pervious Area						
		Grass at Pond		A / A/D	49	5.16	252.8	1
						108.49	65.1	1
Po	st-Condition CN (Calc.						1
		Description		HSG	CN	Area (ac)	Avg. CN	
		Impervious Are	ea	-	98	40.00	3920.0	
		Pervious Area		A/D	49	46.23	2265.3	
		Pervious Area		B/D	69	17.10	1179.9	
		Pervious Area		0	0	0	0.0	1
		Grass at Pond		A / A/D	49	1.37	67.1	1
		Water at Pond		-	100	3.79	379.0	1
		Trator at rona			100	108.49	72.0	
Water O	uantity Calcs.					100.10	12.0	1
	il Storage	S-pre	5.35	S-post	3.89			
00	li otorage		0.00	0-0031	0.05	1		
		Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	1
	Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
	10-Yr / 24-Hr	7	3.12	3.83	28.18	34.62	6.44	
	25-Yr / 24-Hr	8	3.91	4.69	35.35	42.44	7.09	
	100-Yr / 24-Hr	11	6.45	7.41	58.33	66.95	8.62	
	100-11/24-11		0.45	1 1.41	00.00	00.33	0.02	1
Pond SH	IWT Determinatio	'n						
	g. Ground Elev.=	31.00	l	Est. SHWT	Elev =	30.00	I	
	g. SHWT Depth=	1.00		SHWT Ele		27.00		
	g. Shiwi Depin-	1.00			v. 03eu -	21.00	1	
Wator O	uality Calcs.							
	New Imp. Area =	12.64		18%	19.53	1		
	New Imp. Area –				% additional			
	Req. Treat Area =		ac-ft	N) II 1, 50.		reat Area =	1.05	ac-ft
	Ney. Heat Alea -	1.05	ac-n		FIUNDED	ieal Alea –	1.05	
Dond St	ago Storago Calo							
Pond St	age Storage Calcs	5.				Cummulat	tive Storage	1
	Description	Stag	е	Area (ac)				
	WT EL.	27.0	0	3.79		(ac-ft) 0.00		4
	eir Crest EL.	27.2						4
	IW10 EL.	28.6		3.84 4.07		1.05 6.44		4
								4
	IW 25 EL.	28.8			10			4
	oot Clearance	30.0			31	12.15		4
	ide Berm	31.0			48	16.54		4
Ou	tside Berm	31.0	0	5.	16	16	6.54]
							•	
	Treatment Depth=	0.28		Attenua	tion Depth=	2.72		
Basin H	ydraulics Calc.							
	Ľ	EOP in Basin =	31.0					
	Less 1 foo	t of clearance=	30.0					
	Distance from L	_EOP to Pond=	1500	ft				
		Losses =	1.20		e Slope = 0.	0008 ft/ft)		
	Allowable 10-year		28.8	•		,		
	•	HGL at Pond =	28.6					
	. e year		20.0					

Floodplain Calculations Basin Name: 7

Floodplain Name: FPC-7

*Floodplain Calculations

upiani calculations		
	Impacts=	1.02 acres
Additional 20% Saf	fety Factor =	0.20
Required Compens	ation Site =	1.22 acres

*Note: Impact along I-75 southbound exit rampa. Impacts and compensation based on plan view area.

Pond Volume Calcs. Basin Name: 8

Pond Name: SMF-8A

Pre-Condition CN C	alc.						
	Description		HSG	CN	Area (ac)	Avg. CN	1
	Impervious Are	ea	-	98	10.07	986.9	1
	Pervious Area		A/D	49	15.42	755.6	1
	Pervious Area		А	49	0.00	0.0	
	Pervious Area						1
	Grass at Pond		A / A/D	49	1.95	95.6	1
			•		27.44	67.0	1
Post-Condition CN	Calc.						-
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	18.14	1777.7	
	Pervious Area		A/D	49	7.35	360.2	
	Pervious Area		A	49	0.00	0.0	
	Pervious Area		0	0	0	0.0	1
	Grass at Pond		A / A/D	49	0.79	38.7	1
	Water at Pond		-	100	1.16	116.0	1
					27.44	83.5	1
Water Quantity Calcs.							•
Soil Storage	S-pre	4.93	S-post	1.97			
Ū.	·						
Storm Event	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	1
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.31	5.09	7.56	11.64	4.08	1
25-Yr / 24-Hr	8	4.12	6.04	9.42	13.82	4.40	1
100-Yr / 24-Hr	11	6.71	8.95	15.35	20.46	5.11	1
l.							-
Pond SHWT Determination	on						
Avg. Ground Elev.=	30.00		Est. SHW1	Elev. =	29.00		
Avg. SHWT Depth=	1.00		SHWT Ele	v. Used =	25.00		
						•	
Water Quality Calcs.							
New Imp. Area =	8.07	ac	18%	4.94			
	N	OFW (Y or	[•] N) if Y, 509	% additiona	l treatment		
Req. Treat Area =	0.67	ac-ft		Provided T	reat Area =	0.71	ac-ft
							-
Pond Stage Storage Calc	s.						
Description	Stag	_	Area		Cummulat	tive Storage	
Description	Slay	e	Alea	(ac)	(ac-ft)		
SHWT EL.	25.0	0	1.	16	0.00]
Weir Crest EL.	25.6		1.	21	0.71]
DHW10 EL.	28.2	0	1.	44	4	.15	1
DHW 25 EL.	28.4	0	1.	45	4	.44	1
1 foot Clearance	29.0	0	1.	50	5.33		1
Inside Berm	30.0	0	1.	59	6.88		1
Outside Berm	30.0	0	1.	95	6.88		1
			•		•		•
Treatment Depth=	0.60		Attenuat	tion Depth=	3.40	1	
				•			
Basin Hydraulics Calc.							
-	EOP in Basin =	31.0					
	ot of clearance=	30.0					
Distance from	LEOP to Pond=	850					
	Losses =	0.68		e Slope = 0.	0008 ft/ft)		
Allowable 10-year	HGL at Pond =	29.3	· ·	-	,		
	HGL at Pond =	28.2					
,							

Pond Name: SMF-8B

Basin Name: 8 Pre-Condition CN Calc.

Pre-Condition CN C	alc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	10.07	986.9]
	Pervious Area		A/D	49	15.42	755.6	
	Pervious Area		Α	49	0.00	0.0	
	Pervious Area						
	Grass at Pond	Grass at Pond		49	2.72	133.3	1
	I		A / A/D	-	28.21	66.5	1
Post-Condition CN	Calc.						1
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	18.14	1777.7	
	Pervious Area		A/D	49	7.35	360.2	
	Pervious Area		Α	49	0.00	0.0	
	Pervious Area		0	0	0	0.0	1
	Grass at Pond		A / A/D	49	1.06	51.9	1
	Water at Pond		-	100	1.66	166.0	1
			-	100	28.21	83.5	
Nater Quantity Calcs.					20.21	00.0	1
Soil Storage	S-pre	5.04	S-post	1.97			
con clorage	J-pie	0.04	0-0031	1.37			
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	1
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.25	5.08	7.65	11.95	4.30	
25-Yr / 24-Hr	8	4.06	6.04	9.55	14.19	4.64	
100-Yr / 24-Hr	11	6.64	8.94	15.61	21.02	5.40	
100-11/24-11		0.04	0.94	13.01	21.02	0.40	1
Pond SHWT Determination	ND .						
Avg. Ground Elev.=	26.50	l	Est. SHWT	Elev =	25.50	1	
Avg. SHWT Depth=	1.00		SHWT Ele		23.50		
Avg. Shivi Deptil-	1.00			v. 0seu –	24.00	l	
Water Quality Calcs.							
New Imp. Area =	8.07		18%	5.08	1		
New Imp. Area –			N) if Y, 50%				
Req. Treat Area =		ac-ft	N) II 1, 505		reat Area =	0.95	ac-ft
Req. Treat Area -	0.07	ac-n		FIUNICEU	ieal Alea –	0.05	
Pond Stage Storage Calc	e						
					Cummulat	tive Storage	1
Description	Stag	е	Area (ac)		(ac-ft)		
SHWT EL.	24.5	0	1.	1.66		0.00	
Weir Crest EL.	25.0			73		.85	1
DHW10 EL.	26.9			98		.37	1
DHW 25 EL.	27.1			00	4.76		1
1 foot Clearance	27.5			06			1
Inside Berm	28.5			<u>19</u>	5.58 7.70		1
Outside Berm	28.5			72	7.70		{
Outside Beilli	20.5	0	۷.	12		.70	1
Treatment Depth=	0.50	1	Attopuot	ian Danth-	2.50	1	
freatment Deptil-	0.50		Allenua	tion Depth=	2.50		
Basin Hydraulics Calc.							
-	EOD in Pasin -	01 0					
	EOP in Basin =	31.0					
	ot of clearance=	30.0					
Distance from	LEOP to Pond=	1800		01 -	0000 5150		
A.I	Losses =	1.44	•	e Slope = 0.	0008 ft/ft)		
Allowable 10-year		28.6					
10-year	HGL at Pond =	26.9	Go				

Pond Name: SMF-7/8

Basin Name: 8 Pre-Condition CN Calc.

Pre-Condition CN C							
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	37.43	3668.1	
	Pervious Area		A/D	49	91.39	4478.1	
	Pervious Area		А	49	0.00	0.0	
	Pervious Area						
	Grass at Pond		A / A/D	49	4.28	209.7	
			•		133.10	62.8	
Post-Condition CN							
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	58.14	5697.7	
	Pervious Area	Pervious Area		49	70.68	3463.3	
	Pervious Area		A	49	0.00	0.0	
	Pervious Area		0	0	0.00	0.0	
	Grass at Pond		A / A/D	49	1.41	69.1	
	Water at Pond		-	100	2.87	287.0	
			4		133.10	71.5	
ater Quantity Calcs.							
Soil Storage	S-pre	5.93	S-post	3.99			
		_					
Storm Event	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	2.88	3.78	31.93	41.89	9.96	
25-Yr / 24-Hr	8	3.64	4.64	40.42	51.43	11.02	
100-Yr / 24-Hr	11	6.12	7.34	67.86	81.38	13.52	
nd SHWT Determinati	on						
Ha Olivi Botolillati							
Avg. Ground Elev.=			Est. SHWT	Elev. =	29.00		
Avg. Ground Elev.= Avg. SHWT Depth=	30.00 1.00		Est. SHWT SHWT Ele		29.00 25.00		
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area =	30.00 1.00 20.71	OFW (Y or		v. Used = 23.96 % additional	25.00 treatment		I
Avg. SHWT Depth=	30.00 1.00 20.71		SHWT Ele 18%	v. Used = 23.96 % additional	25.00	1.75	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area :	30.00 1.00 20.71 N = 1.73	OFW (Y or	SHWT Ele 18%	v. Used = 23.96 % additional	25.00 treatment	1.75	ac-
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc	30.00 1.00 20.71 N = 1.73 cs.	OFW (Y or ac-ft	SHWT Ele 18% N) if Y, 509	v. Used = 23.96 % additional Provided T	25.00 treatment reat Area = Cummulat	ive Storage	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description	30.00 1.00 20.71 = 1.73 cs. Stag	OFW (Y or ac-ft e	SHWT Ele 18% N) if Y, 509 Area	v. Used = 23.96 % additional Provided T (ac)	25.00 treatment reat Area = Cummulat	ive Storage c-ft)	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL.	30.00 1.00 20.71 = 1.73 cs. Stag 25.0	OFW (Y or ac-ft e 0	SHWT Ele 18% N) if Y, 509 Area 2.	v. Used = 23.96 % additional Provided T (ac) 87	25.00 treatment reat Area = Cummulat (a	<mark>ive Storage</mark> c-ft) .00	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL.	30.00 1.00 20.71 = 1.73 cs. Stag 25.0 25.0	OFW (Y or ac-ft e 0	SHWT Ele 18% N) if Y, 509 Area 2. 2.	v. Used = 23.96 % additional Provided T (ac) 87 96	25.00 treatment reat Area = Cummulat (a 0 1	<mark>ive Storage</mark> c-ft) .00 .75	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL.	30.00 1.00 20.71 N = 1.73 cs. Stag 25.0 25.6 28.2	OFW (Y or ac-ft e 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 3.	v. Used = 23.96 % additional Provided T (ac) 87 96 38	25.00 treatment reat Area = Cummulat (a 0 1 9	ive Storage c-ft) .00 .75 .99	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	30.00 1.00 20.71 N = 1.73 cs. Stag 25.0 25.0 25.6 28.2 28.6	OFW (Y or ac-ft e 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 3. 3. 3.	v. Used = 23.96 % additional Provided T (ac) 87 96 38 44	25.00 treatment reat Area = Cummulat (a 0 1 9 1	ive Storage c-ft) .00 .75 .99 I.36	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	30.00 1.00 20.71 N = 1.73 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0	OFW (Y or ac-ft 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 3. 3. 3. 3. 3.	v. Used = 23.96 % additional Provided T (ac) 87 96 38 44 50	25.00 treatment reat Area = Cummulat (a 0 1 9 1 1 2	ive Storage c-ft) .00 .75 .99 1.36 2.74	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	30.00 1.00 20.71 N 1.73 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 28.2 28.0 29.0 30.0 30.00	OFW (Y or ac-ft 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 3. 3. 3. 3. 3. 3. 3.	v. Used = 23.96 % additional Provided T (ac) 87 96 38 44 50 66	25.00 treatment reat Area = Cummulat (a 0 1 9 1 1 2 12	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	30.00 1.00 20.71 N = 1.73 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0	OFW (Y or ac-ft 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 3. 3. 3. 3. 3. 3. 3.	v. Used = 23.96 % additional Provided T (ac) 87 96 38 44 50	25.00 treatment reat Area = Cummulat (a 0 1 9 1 1 2 12	ive Storage c-ft) .00 .75 .99 1.36 2.74	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	30.00 1.00 1.00 20.71 N 1.73 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 28.2 28.6 29.0 30.0 30.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 3. 3. 3. 3. 4.	v. Used = 23.96 % additional Provided T (ac) 87 96 38 44 50 66	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 16 16	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth	30.00 1.00 1.00 20.71 N 1.73 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 28.2 28.6 29.0 30.0 30.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 3. 3. 3. 3. 4.	v. Used = 23.96 % additional Provided T Provided T (ac) 87 96 38 44 50 66 28	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 16 16	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depthe sin Hydraulics Calc.	30.00 1.00 20.71 N 1.73 25.0 25.0 25.0 25.0 25.6 28.2 28.6 29.0 30.0 30.0 30.0 30.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 3. 3. 3. 3. 4.	v. Used = 23.96 % additional Provided T Provided T (ac) 87 96 38 44 50 66 28	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 16 16	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depthe sin Hydraulics Calc.	30.00 1.00 1.00 20.71 N 1.73 25. 25.0 25.0 25.0 25.6 28.2 28.6 29.0 30.0 30.0 50.0 20.71 0.60 EOP in Basin =	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 50% Area 2. 3. 3. 3. 4. Attenuation	v. Used = 23.96 % additional Provided T Provided T (ac) 87 96 38 44 50 66 28	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 16 16	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Outside Berm Ireatment Depthe sin Hydraulics Calc.	30.00 1.00 1.00 20.71 N 1.73 25. 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 28.2 28.6 29.0 30.0 30.0 0 60 29.0 30.0 20.71 0 1.73 25.0 25.0 26.0 28.0 29.0 30.0 0 0 0 0 0 0 0 0 0 0 0 0 0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 50% Area 2. 2. 3. 3. 3. 4. Attenual	v. Used = 23.96 % additional Provided T Provided T (ac) 87 96 38 44 50 66 28	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 16 16	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Outside Berm Ireatment Depthe sin Hydraulics Calc.	30.00 1.00 1.00 20.71 N 1.73 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 28.2 29.0 30.0 30.0 0 30.0 0 50 29.0 30.0 0 50 29.0 30.0 50 29.0 30.0 50 29.0 30.0 50 29.0 30.0 50 29.0 50 29.0 50 29.0 50 29.0 50 20.71 20.71 50 20.71 50 20.71 50 20.71 50 20.71 50 20.71 20.71 50 20.71 20.71 50 20.71 20.71 50 20.0	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 50% Area 2. 2. 3. 3. 4. Attenual ft	v. Used = 23.96 % additional Provided T (ac) 87 96 38 44 50 66 28 tion Depth=	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 10 10 10 10 10 10 10 10 10 10 10 10 10	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac
Avg. SHWT Depth= ater Quality Calcs. New Imp. Area = Req. Treat Area = nd Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Outside Berm Ireatment Depthe sin Hydraulics Calc.	30.00 1.00 1.00 20.71 N 1.73 25. 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 28.2 28.6 29.0 30.0 0 30.0 0 5.0 20.71 0 25.0 25.0 25.0 28.2 28.6 29.0 30.0 0 30.0 0 25.0 28.6 29.0 30.0 0 30.0 0 30.0 25.0 28.6 29.0 30.0 0 30.0 25.0 28.6 29.0 30.0 20.7 28.6 29.0 30.0 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.0 20	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 50% Area 2. 2. 3. 3. 4. Attenuat ft (Assume	v. Used = 23.96 % additional Provided T Provided T (ac) 87 96 38 44 50 66 28	25.00 treatment reat Area = Cummulat (a 0 1 1 9 1 1 2 10 10 10 10 10 10 10 10 10 10 10 10 10	ive Storage c-ft) .00 .75 .99 1.36 2.74 5.33 5.33	ac-

Pond Name: SMF-9

Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	31.63	3099.7
Pervious Area	C/D	79	0	0.0
Pervious Area	A/D	49	65.85	3226.7
Pervious Area	Α	49	0	0.0
Grass at Pond (Infield Pond)	A / A/D	49	0	0.0
		•	07/8	64.0

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	49.49	4850.0
Pervious Area	C/D	79	0	0.0
Pervious Area	A/D	49	45.12	2210.9
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	1.47	72.0
Water at Pond	-	100	1.40	140.0
			97.48	74.6

Water Quantity Calcs.

Soil Storage

5.41 S-post 3.40

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.09	4.11	25.12	33.37	8.25
25-Yr / 24-Hr	8	3.88	5.00	31.54	40.59	9.05
100-Yr / 24-Hr	11	6.42	7.76	52.14	63.04	10.90

Pond SHWT Determination

Avg. Ground Elev.=	36.0	Est. SHWT Elev. =
Avg. SHWT Depth=	0.98	SHWT Elev. Used =

S-pre

Water Quality Calcs.

17.86 ac New Imp. Area = 18% 17.55 N OFW (Y or N) if Y, 50% additional treatment Req. Treat Vol. = 1.49 ac-ft Provided Treat Vol. = 1.62 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	35.00	1.40	0.00
Weir Crest EL.	36.10	1.55	1.62
DHW10 EL.	39.80	2.06	8.32
DHW 25 EL.	40.20	2.12	9.15
1 foot Clearance	40.50	2.16	9.79
Inside Berm	41.50	2.30	12.03
Outside Berm	42.56	2.87	14.77

Treatment Depth= 1.10 Attenuation Depth= 4.40

35.0

35.0

LEOP in Basin =	42.0
Less 1 foot of clearance=	41.0
Distance from LEOP to Pond=	1500 ft
Losses =	1.20 (Assume Slope = 0.0008 ft/ft)
Allowable 10-year HGL at Pond =	39.8
10-year HGL at Pond =	39.8 Go

Pond Name: SMF-10A

Basin Name: 10 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	4.28	419.4
Pervious Area	A	49	5.78	283.2
Pervious Area	A/D	49	4.73	231.8
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	2.78	136.2
			17.57	60.9

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	13.07	1280.9
Pervious Area	A	49	0.95	46.6
Pervious Area	A/D	49	0.77	37.7
Pervious Area	A	49	0	0.0
Grass at Pond	A / A/D	49	1.07	52.4
Water at Pond	-	100	1.71	171.0
			17.57	90.4

Water Quantity Calcs.

Soil Storage	S-pre	6.41

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	2.70	5.87	3.95	8.60	4.65
25-Yr / 24-Hr	8	3.44	6.85	5.03	10.04	5.00
100-Yr / 24-Hr	11	5.86	9.82	8.57	14.38	5.81

S-post

Pond SHWT Determination

Avg. Ground Elev.=	45.5
Avg. SHWT Depth=	2.75

Est. SHWT Elev. =	42.8	
SHWT Elev. Used =	42.8	

1.06

Water Quality Calcs.

 New Imp. Area
 8.79 ac
 18% 3.16

 N OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 0.73 ac-ft
 Provided Treat Area = 0.73 ac-ft

Pond Stage Storage Calcs.

	Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
S	SHWT EL.	42.75	1.71	0.00
۷	Veir Crest EL.	43.17	1.76	0.73
C	DHW10 EL.	45.24	2.03	4.65
E	0HW 25 EL.	45.41	2.05	5.00
1	foot Clearance	46.00	2.13	6.24
Ir	nside Berm	47.00	2.26	8.44
C	Outside Berm	47.00	2.78	8.44

Treatment Depth= 0.42

Attenuation Depth= 2.83

LEOP in Basin =	66.0
Less 1 foot of clearance=	65.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	64.8
10-year HGL at Pond =	45.2 Go

Pond Name: SMF-10B

Basin Name: 10 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	4.28	419.4
Pervious Area	Α	49	5.78	283.2
Pervious Area	A/D	49	4.73	231.8
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	3.84	188.2
	-		18.63	60.3

Post-Condition CN Calc.

2010.				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	13.07	1280.9
Pervious Area	A	49	0.95	46.6
Pervious Area	A/D	49	0.77	37.7
Pervious Area	A	80	0	0.0
Grass at Pond	A / A/D	49	0.94	46.1
Water at Pond	-	100	2.90	290.0
			18.63	91.3

Water Quantity Calcs.

Soil Storage	S-pre	6.60	S-post	1.06

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	2.70	5.87	3.95	8.60	4.65
25-Yr / 24-Hr	8	3.44	6.85	5.03	10.04	5.00
100-Yr / 24-Hr	11	5.86	9.82	8.57	14.38	5.81

Pond SHWT Determination

Avg. Ground Elev.=	40.0
Avg. SHWT Depth=	1.00

Est. SHWT Elev. =	39.0	
SHWT Elev. Used =	39.0	

Water Quality Calcs.

 New Imp. Area
 8.79 ac
 18% 3.35

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 0.73 ac-ft
 Provided Treat Area = 0.73 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	39.00	2.90	0.00
Weir Crest EL.	39.25	2.93	0.73
DHW10 EL.	40.55	3.11	4.66
DHW 25 EL.	40.66	3.12	5.00
1 foot Clearance	41.00	3.17	6.07
Inside Berm	42.00	3.30	9.30
Outside Berm	42.00	3.84	9.30

Treatment Depth= 0.25

Attenuation Depth= 1.75

LEOP in Basin =	66.0
Less 1 foot of clearance=	65.0
Distance from LEOP to Pond=	660 ft
Losses =	0.53 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	64.5
10-year HGL at Pond =	40.6 Go

Pond Name: SMF-10C

Basin Name: 10 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	4.28	419.4
Pervious Area	Α	49	5.78	283.2
Pervious Area	A/D	49	4.73	231.8
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	2.07	101.4
	-		16.86	61.4

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	13.07	1280.9
Pervious Area	Α	49	0.95	46.6
Pervious Area	A/D	49	0.77	37.7
Pervious Area	A	80	0	0.0
Grass at Pond	A / A/D	49	0.88	43.1
Water at Pond	-	100	1.19	119.0
			16.86	90.6

Water Quantity Calcs.

Soil Storage	S-pre	6.28	S-post	1.06	

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	2.70	5.87	3.95	8.60	4.65
25-Yr / 24-Hr	8	3.44	6.85	5.03	10.04	5.00
100-Yr / 24-Hr	11	5.86	9.82	8.57	14.38	5.81

Pond SHWT Determination

Avg. Ground Elev.=	36.0
Avg. SHWT Depth=	1.00

Est. SHWT Elev. =	35.0
SHWT Elev. Used =	35.0

Water Quality Calcs.

 New Imp. Area
 8.79 ac
 18% 3.03

 N OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 0.73 ac-ft
 Provided Treat Area = 0.73 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	35.00	1.19	0.00
Weir Crest EL.	35.60	1.25	0.73
DHW10 EL.	38.43	1.52	4.65
DHW 25 EL.	38.66	1.54	5.00
1 foot Clearance	39.00	1.50	5.52
Inside Berm	40.00	1.67	7.10
Outside Berm	40.00	2.07	7.10

Treatment Depth= 0.60

Attenuation Depth= 3.40

LEOP in Basin =	66.0
Less 1 foot of clearance=	65.0
Distance from LEOP to Pond=	100 ft
Losses =	0.08 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	64.9
10-year HGL at Pond =	38.4 Go
•	

Pond Name: SMF-11A

Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	2.64	258.7
Pervious Area	Α	49	2.35	115.2
Pervious Area	A/D	49	2.35	115.2
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	1.16	56.8
			8.50	64.2

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.34	719.3
Pervious Area	A	49	0	0.0
Pervious Area	A/D	49	0	0.0
Pervious Area	A	80	0	0.0
Grass at Pond	A / A/D	49	0.60	29.4
Water at Pond	-	100	0.56	56.0
			8.50	94.7

Water Quantity Calcs.

Soil Storage	S-pre
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Ρ V[R]post V[R]diff **R-pre R-post** V[R]pre Storm Event (in) (in) (in) (ac-ft) (ac-ft) (ac-ft) 10-Yr / 24-Hr 7 3.02 6.37 2.14 4.51 2.37 25-Yr / 24-Hr 8 3.81 7.36 2.70 5.21 2.52 100-Yr / 24-Hr 11 10.35 4.48 7.33 2.85 6.32

S-post

5.57

Pond SHWT Determination

Avg. Ground Elev.=	49.0
Avg. SHWT Depth=	2.75

Est. SHWT Elev. =	46.3	
SHWT Elev. Used =	46.3	

0.56

Water Quality Calcs.

 New Imp. Area =
 4.70 ac
 18%
 1.53

 N OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area =
 0.39 ac-ft
 Provided Treat Area =
 0.39 ac-ft

Pond Stage Storage Calcs.

	Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
Ś	SHWT EL.	46.25	0.56	0.00
Ī	Neir Crest EL.	46.92	0.61	0.39
[DHW10 EL.	49.75	0.80	2.37
1	DHW 25 EL.	49.93	0.81	2.52
-	1 foot Clearance	50.00	0.81	2.57
Ī	nside Berm	51.00	0.88	3.42
0	Outside Berm	51.00	1.16	3.42

Treatment Depth= 0.67

Attenuation Depth= 3.08

LEOP in Basin =	77.0
Less 1 foot of clearance=	76.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	75.8
10-year HGL at Pond =	49.8 Go

Pond Name: SMF-11B

Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	2.64	258.7
Pervious Area	Α	49	2.35	115.2
Pervious Area	A/D	49	2.35	115.2
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	1.36	66.6
			8.70	63.9

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.34	719.3
Pervious Area	A	49	0	0.0
Pervious Area	A/D	74	0	0.0
Pervious Area	A	80	0	0.0
Grass at Pond	A / A/D	49	0.57	27.9
Water at Pond	-	100	0.79	79.0
			8.70	95.0

Water Quantity Calcs.

Soil Storage

5.66 **S-post** 0.56

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.02	6.37	2.14	4.51	2.37
25-Yr / 24-Hr	8	3.81	7.36	2.70	5.21	2.52
100-Yr / 24-Hr	11	6.32	10.35	4.48	7.33	2.85

Pond SHWT Determination

Avg. Ground Elev.=	49.0
Avg. SHWT Depth=	1.87

S-pre

Est. SHWT Elev. =	47.1	
SHWT Elev. Used =	47.1	

Water Quality Calcs.

 New Imp. Area
 4.70 ac
 18%
 1.57

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 0.39 ac-ft
 Provided Treat Area =
 0.39 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	47.13	0.79	0.00
Weir Crest EL.	47.61	0.82	0.39
DHW10 EL.	49.81	0.98	2.37
DHW 25 EL.	49.97	0.99	2.52
1 foot Clearance	50.00	0.99	2.55
Inside Berm	51.00	1.06	3.58
Outside Berm	51.00	1.36	3.58

Treatment Depth= 0.48

Attenuation Depth= 2.39

LEOP in Basin =	77.0
Less 1 foot of clearance=	76.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	75.8
10-year HGL at Pond =	49.8 Go

Basin Name: 12/13 Pre-Condition CN Calc

Pond Name: SMF-12/13A

alc.				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	9.83	963.3
Pervious Area	A / AD	49	24.45	1198.1
Pervious Area	B/D	80	1.27	101.6
Pervious Area				0.0
Grass at Pond	A/D	49	4.64	227.4
	-		40.19	62.0

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	31.3	3067.4
Pervious Area	A / AD	49	4.06	198.9
Pervious Area	B/D	80	0.19	15.2
Pervious Area				0.0
Grass at Pond	A/D	49	1.41	69.1
Water at Pond	-	100	3.23	323.0
			40.19	91.4

Water Quantity Calcs.

Soil Storage	S-pre	6.14	S-post	0.94
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Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	2.80	5.99	9.37	20.05	10.68
25-Yr / 24-Hr	8	3.55	6.97	11.90	23.35	11.46
100-Yr / 24-Hr	11	6.00	9.95	20.10	33.31	13.21

Pond SHWT Determination

Avg. SHWT Depth=	1.00	SHWT Elev. Used =

Water Quality Calcs.

New Imp. Area =	21.47 ac	13% 5.22	
	N OFW (Y c	or N) if Y, 50% additional treatment	
Req. Treat Vol. =	1.79 ac-ft	Provided Treat Vol. =	1.80 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	44.00	3.23	0.00
Weir Crest EL.	44.55	3.33	1.80
DHW10 EL.	47.06	3.76	10.70
DHW 25 EL.	47.26	3.80	11.46
1 foot Clearance	47.30	3.81	11.61
Inside Berm	48.30	3.98	15.50
Outside Berm	48.30	4.64	15.50

Treatment Depth= 0.55

Attenuation Depth= 2.71

44.0 44.0

LEOP in Basin =	51.8
Less 1 foot of clearance=	50.8
Distance from LEOP to Pond=	500 ft
Losses =	0.40 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	50.4
10-year HGL at Pond =	47.06 Go

Pond Name: SMF-12/13B

Pre-Condition CN	oulo.						
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious	Area	-	98	9.83	963.3	
	Pervious A		A / AD	49	24.45	1198.1	
	Pervious A	rea	B/D	80	1.27	101.6	
	Pervious A	rea				0.0	
	Grass at Po	Grass at Pond		49	4.56	223.4	
					40.11	62.0	
Post-Condition CN							
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	31.3	3067.4	
	Pervious A		A / AD	49	4.06	198.9	
	Pervious A		B/D	80	0.19	15.2	
	Pervious A			10	4.70	0.0	
	Grass at Po		A / AD	49	1.70	83.3	
	Water at P	ond	-	100	2.86	286.0	
					40.11	91.0	
ater Quantity Calcs.		0.40	0	0.01			
Soil Storage	S-pre	6.13	S-post	0.94			
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	2.80	5.99	9.37	20.05	10.68	
25-Yr / 24-Hr	8	3.55	6.97	11.90	23.35	11.46	
100-Yr / 24-Hr	11	6.00	9.95	20.10	33.31	13.21	
100 117 2111		0.00	0.00	20.10	00.01	10.21	
nd SHWT Determinat	ion						
nd SHWT Determinat Avg. Ground Elev.=			Est. SHWT	Elev. =	46.5		
Avg. Ground Elev.= Avg. SHWT Depth=	49.0		Est. SHWT SHWT Ele [,]		46.5 46.5		
Avg. Ground Elev.=	49.0 2.50 = 21.47 N	ac		v. Used = 5.21 6 additiona	46.5	1.81	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area	= <u>21.47</u> = <u>1.79</u>	ac OFW (Y ol	SHWT Ele	v. Used = 5.21 6 additiona	46.5 treatment Treat Vol. =[ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol.	49.0 2.50 = 21.47 = 1.79 cs.	ac OFW (Y ol	SHWT Ele	v. Used = 5.21 % additiona Provided	46.5 I treatment Treat Vol. =[ive Storage	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. and Stage Storage Cal Description	49.0 2.50 = 21.47 N = 1.79 cs.	ac OFW (Y or ac-ft age	SHWT Ele 13% N) if Y, 509 Area	v. Used = 5.21 6 additiona Provided (ac)	46.5 I treatment Treat Vol. =[Cummulat	ive Storage ft)	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL.	49.0 2.50 = 21.47 = 1.79 cs. Sta 46	ac OFW (Y or ac-ft age .50	SHWT Eler 13% N) if Y, 509 Area 2.	v. Used = 5.21 6 additiona Provided (ac) 86	46.5 I treatment Treat Vol. = Cummulat (ac	<mark>ive Storage</mark> <mark>5-ft)</mark> 00	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. and Stage Storage Cal Description SHWT EL. Weir Crest EL.	49.0 2.50 = 21.47 = 1.79 cs. Sta 46 47	ac OFW (Y or ac-ft age .50 .12	SHWT Eler 13% N) if Y, 509 Area 2. 2.	v. Used = 5.21 6 additiona Provided (ac) 86 97	46.5 I treatment Treat Vol. =[Cummulat (ac 0.	ive Storage c-ft) 00 81	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL.	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49	ac OFW (Y or ac-ft age .50 .12 .87	SHWT Eler 13% N) if Y, 509 Area 2. 2. 3.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48	46.5	ive Storage c-ft) 00 81 0.69	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50	ac OFW (Y or ac-ft age .50 .12 .87 .09	SHWT Ele 13% N) if Y, 509 Area 2. 3. 3. 3.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53	46.5	ive Storage c-ft) 00 81 0.69 .46	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50	ac OFW (Y or ac-ft .50 .12 .87 .09 .30	SHWT Elev 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 3.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56	46.5	ive Storage :-ft) .00 .81 .69 .46 .21	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 50	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30	SHWT Elev 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 3. 3.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 50	ac OFW (Y or ac-ft .50 .12 .87 .09 .30	SHWT Elev 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 3. 3.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56	46.5	ive Storage :-ft) .00 .81 .69 .46 .21	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30	SHWT Elev 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 4.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30	SHWT Elev 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 4.	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75 56	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth sin Hydraulics Calc.	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30	SHWT Eler 13% N) if Y, 509 Area 2. 3. 3. 3. 3. 4. Attenuat	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75 56	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth sin Hydraulics Calc.	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51 = 0.62	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30	SHWT Eler 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 4. Attenuat	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75 56	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth sin Hydraulics Calc. Less 1 foot of	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51 = 0.62 DP in Basin = of clearance=	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30 .30 .30 .30 .30	SHWT Eler 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 4. Attenuat	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75 56	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth sin Hydraulics Calc.	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51 = 0.62 DP in Basin = of clearance=	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30	SHWT Eler 13% N) if Y, 509 Area 2. 2. 3. 3. 4. Attenuat ft	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75 56 56 56	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= ater Quality Calcs. New Imp. Area Req. Treat Vol. Ind Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth sin Hydraulics Calc. Less 1 foot of	49.0 2.50 = 21.47 N = 1.79 cs. Sta 46 47 49 50 50 51 51 = 0.62 DP in Basin = of clearance= OP to Pond= Losses =	ac OFW (Y or ac-ft .50 .12 .87 .09 .30 .30 .30 .30 .30 .30 .30	SHWT Elev 13% N) if Y, 509 Area 2. 2. 3. 3. 3. 4. Attenuat ft (Assume	v. Used = 5.21 6 additiona Provided (ac) 86 97 48 53 56 75 56	46.5	ive Storage -ft) 00 81 .69 .46 .21 .86	ac-ft

Pond Name: SMF-12/13C

Pre-Condition CN							
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious	s Area	-	98	9.83	963.3	
	Pervious A	rea	A / AD	49	24.45	1198.1	
	Pervious A	rea	B/D	80	1.27	101.6	
	Pervious A	rea				0.0	
	Grass at P	ond	A / AD	49	5.17	253.3	
					40.72	61.8	
Post-Condition CN	Calc.						
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	31.3	3067.4	
	Pervious A	rea	A / AD	49	4.06	198.9	
	Pervious A	rea	B/D	80	0.19	15.2	
	Pervious A					0.0	
	Grass at P		A / AD	49	1.43	70.1	
	Water at P	ond	-	100	3.74	374.0	
					40.72	91.5	
er Quantity Calcs.							
Soil Storage	S-pre	6.18	S-post	0.94			
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	2.80	5.99	9.37	20.05	10.68	
25-Yr / 24-Hr	8	3.55	6.97	11.90	23.35	11.46	
100-Yr / 24-Hr	11	6.00	9.95	20.10	33.31	13.21	
Avg. Ground Elev.=	47.5		Est. SHWT		45.5		
Avg. SHWT Depth=	47.5		Est. SHWT SHWT Ele		45.5 45.5		
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs.	47.5		SHWT Ele	v. Used =	45.5		
Avg. Ground Elev.= Avg. SHWT Depth=	47.5 2.00 = 21.47]]ac	SHWT Ele 13%	v. Used = 5.29	45.5		
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area =	47.5 2.00 = 21.47 N]]ac OFW (Y or	SHWT Ele 13%	v. Used = 5.29 % additional	45.5	1 82	ac ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs.	47.5 2.00 = 21.47 N]]ac	SHWT Ele 13%	v. Used = 5.29 % additional	45.5	1.82	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area =	47.5 2.00 = 21.47 N = 1.79]]ac OFW (Y or	SHWT Ele 13%	v. Used = 5.29 % additional	45.5	1.82	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal	47.5 2.00 = 21.47 = 1.79 cs.]]ac _OFW (Y or]ac-ft	SHWT Ele 13% N) if Y, 509	v. Used = 5.29 % additional Provided	45.5 treatment Treat Vol. =	ive Storage	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description	47.5 2.00 = 21.47 N = 1.79 cs.] OFW (Y or]ac-ft age	SHWT Ele 13% N) if Y, 509 Area	v. Used = 5.29 % additional Provided	45.5 treatment Treat Vol. = Cummulat	ive Storage c-ft)	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL.	47.5 2.00 = 21.47 = 1.79 cs. St 45] OFW (Y or]ac-ft <mark>age</mark> 5.50	SHWT Ele 13% N) if Y, 509 Area 3.	v. Used = 5.29 % additional Provided (ac) 74	45.5 treatment Treat Vol. = Cummulat (ac	<mark>ive Storage</mark> c-ft)	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL.	47.5 2.00 = 21.47 = 1.79 cs. Sta 45] OFW (Y or]ac-ft age 5.50	SHWT Ele 13% N) if Y, 509 Area 3. 3.	v. Used = 5.29 % additional Provided (ac) 74 83	45.5 treatment Treat Vol. = Cummulat (ad 0	ive Storage c-ft) .00 .82	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL.	47.5 2.00 = 21.47 N = 1.79 cs. St 45 45 45 45] OFW (Y or]ac-ft age 5.50 5.98 3.18	SHWT Ele 13% N) if Y, 509 Area 3. 3. 4.	v. Used = 5.29 % additional Provided (ac) 74 83 23	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 10	ive Storage c-ft) .00 .82 .68	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	47.5 2.00 = 21.47 N = 1.79 cs. Sta 45 45 48 48]ac OFW (Y or]ac-ft 5.50 5.98 3.18 3.37	SHWT Ele 13% N) if Y, 50 Area 3. 3. 4. 4.	v. Used = 5.29 % additional Provided (ac) 74 83 23 26	45.5 treatment Treat Vol. = Cummulat (ad 0 1 1 10 11	ive Storage c-ft) .00 .82 .68 .48	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	47.5 2.00 = 21.47 N = 1.79 cs. Sta 45 45 45 45 45 45] OFW (Y or]ac-ft age 5.50 5.98 5.18 5.37 5.40	SHWT Ele 13% N) if Y, 50° Area 3. 4. 4. 4. 4. 4.	v. Used = 5.29 % additional Provided 74 83 23 26 27	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 1 1 1 1	ive Storage <u>c-ft)</u> .00 .82 .68 .48 .61	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	47.5 2.00 = 21.47 N = 1.79 cs. Sta 45 45 45 45 48 48 48 48 48]ac OFW (Y or]ac-ft 5.50 5.98 3.18 3.37 3.40 0.40	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	v. Used = 5.29 % additional Provided 74 83 23 26 27 45	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 11 11	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	47.5 2.00 = 21.47 N = 1.79 cs. Sta 45 45 45 45 48 48 48 48 48] OFW (Y or]ac-ft age 5.50 5.98 5.18 5.37 5.40	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	v. Used = 5.29 % additional Provided 74 83 23 26 27	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 11 11	ive Storage <u>c-ft)</u> .00 .82 .68 .48 .61	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	47.5 2.00 = 21.47 = 1.79 cs. 5t 45 45 45 45 48 48 48 48 48 48 48 48]ac OFW (Y or]ac-ft 3.50 5.98 3.18 3.37 3.40 0.40 0.40	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 5.	v. Used = 5.29 % additional Provided 74 83 23 26 27 45	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth in Hydraulics Calc.	= 21.47 $= 21.47$ $= 1.79$ $cs.$ $= 45$ 45 45 45 45 48 48 48 48 48 48 48 48]ac OFW (Y or]ac-ft age 5.50 5.98 3.18 3.37 3.40 0.40	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 4. 5. Attenua	v. Used = 5.29 % additional Provided 74 83 23 26 27 45 17	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth in Hydraulics Calc.	47.5 2.00 = 21.47 N = 1.79 cs. Sta 45 45 45 45 48 48 48 48 48 48 48 48 48 49 49 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9]ac OFW (Y or]ac-ft .98 	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 4. 5. Attenua	v. Used = 5.29 % additional Provided 74 83 23 26 27 45 17	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth in Hydraulics Calc. Less 1 foot of	47.5 2.00 = 21.47 N = 1.79 cs. St 45 45 45 45 45 45 45 45 45 45]ac OFW (Y or]ac-ft <u>age</u> 5.50 5.98 5.18 5.37 5.40 0.40 0.40] 51.8 50.8	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 5. Attenuar	v. Used = 5.29 % additional Provided 74 83 23 26 27 45 17	45.5 treatment Treat Vol. = Cummulat (ac 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth in Hydraulics Calc.	47.5 2.00 = 21.47 N = 1.79 cs. Cs. Sta 45 45 45 45 45 45 45 45 45 45]ac OFW (Y or]ac-ft age 5.50 5.98 3.18 3.37 3.40 0.40 0.40] 51.8 50.8 400	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 5. Attenuar	v. Used = 5.29 % additional Provided 74 83 23 26 27 45 17 tion Depth=	45.5 treatment Treat Vol. = Cummulat (ad 0 1 1 10 11 11 15 15 2.39	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth in Hydraulics Calc. Less 1 foot co Distance from LE	47.5 2.00 = 21.47 N = 1.79 cs. Cs. Sta 45 45 45 45 45 45 45 45 45 45]ac OFW (Y or]ac-ft age 5.50 5.98 3.18 3.37 3.40 0.40 0.40] 51.8 50.8 400 0.32	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 4. 4. 4. 4. 5. Attenuar ft (Assume	v. Used = 5.29 % additional Provided 74 83 23 26 27 45 17	45.5 treatment Treat Vol. = Cummulat (ad 0 1 1 10 11 11 15 15 2.39	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft
Avg. Ground Elev.= Avg. SHWT Depth= er Quality Calcs. New Imp. Area = Req. Treat Vol. d Stage Storage Cal Description SHWT EL. DERVIDEL. DHW 10 EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth in Hydraulics Calc. Less 1 foot of Distance from LE Allowable 10-year Ho	47.5 2.00 = 21.47 N = 1.79 cs. Cs. Sta 45 45 45 45 45 45 45 45 45 45]ac OFW (Y or]ac-ft 3.50 5.98 5.18 5.37 5.40 0.40 0.40 0.40] 51.8 50.8 400 0.32 50.5	SHWT Ele 13% N) if Y, 509 Area 3. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 5. Attenuar ft (Assume)	v. Used = 5.29 % additional Provided 74 83 23 26 27 45 17 tion Depth=	45.5 treatment Treat Vol. = Cummulat (ad 0 1 1 10 11 11 15 15 2.39	ive Storage ft) .00 .82 .68 .48 .61 .97	ac-ft

	culations 12/13	Floodplain Name	FPC-12/13R	
Floodplain Cal				
	Total Impacts=	0.76 acres	_	
Additior	al 20% Safety Factor =	0.20		
	Compensation Site =	0.91 acres		
Basin Name:	12/13	Floodplain Name	FPC-12/13L	
Floodplain Cal	culations			
	Total Impacts=	0.88 acres	_	
Addition	al 20% Safety Factor =	0.20		
Required	Compensation Site =	1.06 acres		

Pond Name: SMF-14A

Basin Name: 14 Pre-Condition CN Calc.

Pre-Condition CN C	alc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	10.23	1002.5	
	Pervious Area		A/D	49	17.94	879.1	
	Pervious Area		Α	49	3.47	170.0	
	Pervious Area						
	Grass at Pond		A / A/D	49	4.30	210.7	
					35.94	62.9	
Post-Condition CN	Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	a	-	98	24.03	2354.9	
	Pervious Area		A/D	49	6.38	312.6	
	Pervious Area		A	49	1.23	60.3	
	Pervious Area		0	0	0	0.0	
	Grass at Pond		A / A/D	49	1.26	61.7	
	Water at Pond		-	100	3.04	304.0	
			•	1 100	35.94	86.1	
ter Quantity Calcs.							
Soil Storage	S-pre	5.89	S-post	1.62			
5							
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	2.90	5.37	8.67	16.10	7.42	
25-Yr / 24-Hr	8	3.66	6.34	10.97	18.99	8.02	
100-Yr / 24-Hr	11	6.14	9.27	18.40	27.77	9.37	
er Quality Calcs. New Imp. Area =			18%				
	N	OFW (Y or	N) if Y, 509	% additional	treatment		
Req. Treat Area =	1.15	ac-ft		Provided T	reat Area =	2.17	
d Stage Storage Calc	s.						
Description	Stag	е	Area (ac)		Cummulative Storage (ac-ft)		
SHWT EL.	35.0	0	3	04		.00	
Weir Crest EL.	35.7			15		.00	
DHW10 EL.	37.4			42		.17 .75	
DHW 10 EL.	37.4						
	37.5			43		.09	
1 foot Clearance				51 67		.83	
	39.00		3.67			3.42	
Inside Berm			4.30		13.42		
	39.0 39.0		4.	30		.72	
Inside Berm	39.0	0		tion Depth=			
Inside Berm Outside Berm Treatment Depth=	39.0	0				<i></i>	
Inside Berm Outside Berm Treatment Depth= in Hydraulics Calc.	39.0 0.70	0	Attenuat				
Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc.	39.0 0.70 EOP in Basin =	0 40.0	Attenuat				
Inside Berm Outside Berm Treatment Depth= sin Hydraulics Calc. Less 1 for	EOP in Basin =	0 40.0 39.0	Attenuat				
Inside Berm Outside Berm Treatment Depth= in Hydraulics Calc. Less 1 for	EOP in Basin = ot of clearance= LEOP to Pond=	0 40.0 39.0 100	Attenuat	tion Depth=	2.30		
Inside Berm Outside Berm Treatment Depth= in Hydraulics Calc. Less 1 foo Distance from	EOP in Basin = ot of clearance= LEOP to Pond= Losses =	0 40.0 39.0 100 0.08	Attenuat ft (Assume		2.30		
Inside Berm Outside Berm Treatment Depth= n Hydraulics Calc. Less 1 for Distance from Allowable 10-year	EOP in Basin = ot of clearance= LEOP to Pond= Losses =	0 40.0 39.0 100	Attenuat ft (Assume	tion Depth=	2.30		

Basin Name: 14

Pond Name: SMF-14B

Pre-Condition C.N.C.	aic.					
Pre-Condition CN C	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	a	-	98	10.23	1002.5
	Pervious Area		A/D	49	17.94	879.1
	Pervious Area		A	49	3.47	170.0
	Pervious Area				0.11	
	Grass at Pond		A / A/D	49	3.54	173.5
				40	35.18	63.2
Post-Condition CN	Calc.				00.10	00.2
	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	a	-	98	24.03	2354.9
	Pervious Area		A/D	49	6.38	312.6
	Pervious Area		A	49	1.23	60.3
	Pervious Area		0	0	0	0.0
	Grass at Pond		A / A/D	49	1.18	57.8
	Water at Pond		-	100	2.36	236.0
				100	35.18	85.9
r Quantity Calcs.						00.0
Soil Storage	S-pre	5.81	S-post	1.64		
		0.01				
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)
10-Yr / 24-Hr	7	2.93	5.35	8.58	15.69	7.12
25-Yr / 24-Hr	8	3.70	6.32	10.84	18.52	7.69
100-Yr / 24-Hr	11	6.18	9.25	18.13	27.11	8.98
	on 38.50 1.00		Est. SHWT SHWT Ele		37.50 34.00	
Avg. Ground Elev.= Avg. SHWT Depth= r Quality Calcs. New Imp. Area =	38.50 1.00	ac		v. Used =	34.00	
Avg. SHWT Depth=	38.50 1.00 13.80		SHWT Ele	v. Used = 6.33	34.00	
Avg. SHWT Depth= r Quality Calcs.	38.50 1.00 13.80		SHWT Ele 18%	v. Used = 6.33 % additiona	34.00	3.71
Avg. SHWT Depth= Quality Calcs. New Imp. Area = Req. Treat Area =	38.50 1.00 13.80 N 1.15	OFW (Y or	SHWT Ele 18%	v. Used = 6.33 % additiona	34.00	3.71
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area =	38.50 1.00 13.80 N 1.15	OFW (Y or	SHWT Ele 18%	v. Used = 6.33 % additiona	34.00 I treatment reat Area =	
Avg. SHWT Depth= Quality Calcs. New Imp. Area = Req. Treat Area =	38.50 1.00 13.80 N 1.15	OFW (Y or ac-ft	SHWT Ele 18%	v. Used = 6.33 % additiona Provided T	34.00	<mark>ive Storage</mark>
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description	38.50 1.00 13.80 N 1.15 s. Stag	OFW (Y or ac-ft e	SHWT Ele 18% N) if Y, 509 Area	v. Used = 6.33 % additiona Provided T	34.00 I treatment Treat Area = Cummulat	ive Storage c-ft)
Avg. SHWT Depth= Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL.	38.50 1.00 13.80 N 1.15 s. Stag 34.0	OFW (Y or ac-ft e	SHWT Ele 18% N) if Y, 509 Area 2.	v. Used = 6.33 % additiona Provided T (ac) 36	34.00 I treatment reat Area = Cummulat (a	<mark>ive Storage</mark> c-ft) .00
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL.	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5	OFW (Y or ac-ft e 0	SHWT Ele 18% N) if Y, 509 Area 2. 2.	v. Used = 6.33 % additiona Provided T	34.00 I treatment reat Area = Cummulat (ar 0 3	<mark>ive Storage</mark> c-ft) .00 .71
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = I Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL.	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8	OFW (Y or ac-ft e 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2.	v. Used = 6.33 % additiona Provided T (ac) 36 58 77	34.00 I treatment reat Area = Cummulat (a 0 3 7	ive Storage c-ft) 00 .71 .19
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0	OFW (Y or ac-ft e 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2.	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80	34.00 I treatment reat Area = Cummulat (a 0 3 7 7 7	ive Storage c-ft) 00 71 19 74
Avg. SHWT Depth= Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0	OFW (Y or ac-ft 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2.	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 80	34.00 treatment reat Area = Cummulat (ac 0 3 7 7 7 7	ive Storage c-ft) .00 .71 .19 .74 .74
Avg. SHWT Depth= • Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0	OFW (Y or ac-ft 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= • Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 37.0 38.0	OFW (Y or ac-ft 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 6.33 % additiona Provided T 9 (ac) 36 58 77 80 80 95	34.00	ive Storage c-ft) .00 .71 .19 .74 .74
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 37.0 38.0	OFW (Y or ac-ft 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 3.	v. Used = 6.33 % additiona Provided T 9 (ac) 36 58 77 80 80 95	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth=	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 37.0 38.0	OFW (Y or ac-ft 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 3.	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 80 95 54	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= n Hydraulics Calc.	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 38.0 1.50	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 3. Attenual	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 80 95 54	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= h Hydraulics Calc.	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 38.0 38.0 38.0 5 1.50 EOP in Basin =	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 3. Attenual	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 80 95 54	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= h Hydraulics Calc. Less 1 foot	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 38.0 37.0 38.0 38.0 50 1.50 EOP in Basin = ot of clearance=	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2. 2. 3. Attenual	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 80 95 54	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= r Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= n Hydraulics Calc. Less 1 foo	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 38.0 1.50 EOP in Basin = t of clearance= _EOP to Pond=	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2. 3. Attenual ft	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 95 54 tion Depth=	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth= Hydraulics Calc. Less 1 foo Distance from I	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 38.0 1.50 EOP in Basin = t of clearance= EOP to Pond= Losses =	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2. 3. Attenual ft (Assume	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 80 95 54	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62
Avg. SHWT Depth= Quality Calcs. New Imp. Area = Req. Treat Area = Stage Storage Calc Description SHWT EL. Veir Crest EL. DHW 10 EL. DHW 25 EL. I foot Clearance nside Berm Dutside Berm Treatment Depth= Hydraulics Calc. Less 1 foo Distance from I Allowable 10-year	38.50 1.00 13.80 N 1.15 s. Stag 34.0 35.5 36.8 37.0 37.0 38.0 1.50 EOP in Basin = t of clearance= EOP to Pond= Losses =	OFW (Y or ac-ft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHWT Ele 18% N) if Y, 509 Area 2. 2. 2. 2. 2. 2. 2. 3. Attenual ft (Assume)	v. Used = 6.33 % additiona Provided T (ac) 36 58 77 80 80 95 54 tion Depth=	34.00	ive Storage c-ft) .00 .71 .19 .74 .74 .62

Floodplain Calculations Basin Name: 14

Floodplain Name: FPC-14

*Floodplain Calculations

Impacts=	0.24 acres
Additional 20% Safety Factor =	0.20
Required Compensation Site =	0.29 acres

*Note: Impact along I-75 southbound exit rampa. Impacts and compensation based on plan view area.

Basin Name: 15/16

Pond Name: SMF-15/16

Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	28.01	2745.0
Pervious Area	A/D	49	1.59	77.9
Basin 15		73.4	10.80	792.7
Pervious Area	Α	49	14.28	699.7
Grass at Pond	A/D	49	6.27	307.2
			60.95	75.8

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	43.88	4300.2
Basin 15	-	92.7	10.8	1001.2
Pervious Area	C/D	74	0	0.0
Pervious Area	А	80	0	0.0
Grass at Pond	A/D	49	1.72	84.3
Water at Pond	-	100	4.55	455.0
			60.95	95.8

Water Quantity Calcs.

Soil Storage

3.19 **S-post** 0.44

18%

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	4.24	6.50	21.54	33.03	11.49
25-Yr / 24-Hr	8	5.14	7.50	26.10	38.09	11.99
100-Yr / 24-Hr	11	7.93	10.49	40.26	53.30	13.04

Pond SHWT Determination

Avg. Ground Elev.=	37.0
Avg. SHWT Depth=	2.26

Est. SHWT Elev. =	34.74	
SHWT Elev. Used =	34.74	

10.97

Water Quality Calcs.

Basin 15 Imp. Area = Basin 16 Imp. Area =

15.87 ac 4.47 ac

S-pre

Req. Treat Vol. =

1.70 ac-ft

N OFW (Y or N) if Y, 50% additional treatment

Provided Treat Area = 1.70 ac-ft

Pond Stage Storage Calcs.

Descripti	ion	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.		34.74	4.55	0.00
Weir Crest EL		35.11	4.63	1.70
DHW10 EL.		37.13	5.06	11.49
DHW 25 EL.		37.23	5.08	11.99
1 foot Clearar	ice	38.00	5.24	15.96
Inside Berm		39.00	5.45	21.30
Outside Berm		39.00	6.27	21.30

Treatment Depth= 0.37

Attenuation Depth= 2.89

Basin Hydraulics Calc.

LEOP in Basin =39.0Less 1 foot of clearance=38.0Distance from LEOP to Pond=400 ftLosses =0.32 (Assume Slope = 0.0008 ft/ft)Allowalbe 10-year HGL at Pond =37.710-year HGL at Pond =37.1 Go

Pond Name: SMF-17A

Basin Name: 17 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.96	780.1
Pervious Area	A	49	11.39	558.1
Pervious Area	A/D	49	0.60	29.4
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	2.47	121.0
	-		22.42	66.4

Post-Condition CN Calc.

e al ol				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	19.95	1955.1
Pervious Area	A	49	0	0.0
Pervious Area	A/D	74	0	0.0
Pervious Area	A	80	0	0.0
Grass at Pond	A / A/D	49	0.95	46.6
Water at Pond	-	100	1.52	152.0
			22.42	96.1

Water Quantity Calcs.

Soil Storage

5.06 **S-post** 0.41

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.25	6.53	6.06	12.20	6.14
25-Yr / 24-Hr	8	4.05	7.53	7.57	14.06	6.49
100-Yr / 24-Hr	11	6.63	10.52	12.38	19.66	7.27

Pond SHWT Determination

Avg. Ground Elev.=	40.0
Avg. SHWT Depth=	1.00

S-pre

Est. SHWT Elev. =	39.0	
SHWT Elev. Used =	36.0	

Water Quality Calcs.

 New Imp. Area
 11.99 ac
 18% 4.04

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 1.00 ac-ft
 Provided Treat Area = 1.00 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	36.00	1.52	0.00
Weir Crest EL.	36.65	1.58	1.00
DHW10 EL.	39.63	1.87	6.14
DHW 25 EL.	39.81	1.89	6.49
1 foot Clearance	40.00	1.90	6.85
Inside Berm	41.00	2.00	8.80
Outside Berm	41.00	2.47	8.80

Treatment Depth= 0.65

Attenuation Depth= 3.36

LEOP in Basin =	60.0
Less 1 foot of clearance=	59.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	58.8
10-year HGL at Pond =	39.6 Go
-	

Pond Name: SMF-17B

Basin Name: 17 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.96	780.1
Pervious Area	A	49	11.39	558.1
Pervious Area	A/D	49	0.60	29.4
Pervious Area	A	49	0	0.0
Grass at Pond	A, A/D	49	2.79	136.7
	-		22.74	66.2

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	19.95	1955.1
Pervious Area	Α	49	0	0.0
Pervious Area	A/D	74	0	0.0
Pervious Area	A	80	0	0.0
Grass at Pond	A, A/D	49	1.14	55.9
Water at Pond	-	100	1.65	165.0
			22.74	95.7

Water Quantity Calcs.

Soil Storage S-pre

5.12 **S-post** 0.41

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.25	6.53	6.06	12.20	6.14
25-Yr / 24-Hr	8	4.05	7.53	7.57	14.06	6.49
100-Yr / 24-Hr	11	6.63	10.52	12.38	19.66	7.27

Pond SHWT Determination

Avg. Ground Elev.=	39.0
Avg. SHWT Depth=	1.75

Est. SHWT Elev. =	37.3	
SHWT Elev. Used =	37.3	

Water Quality Calcs.

 New Imp. Area
 11.99 ac
 18% 4.09

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area
 1.00 ac-ft
 Provided Treat Area = 1.00 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	37.25	1.65	0.00
Weir Crest EL.	37.84	1.73	1.00
DHW10 EL.	40.54	2.08	6.14
DHW 25 EL.	40.71	2.10	6.49
1 foot Clearance	41.00	2.14	7.11
Inside Berm	42.00	2.27	9.31
Outside Berm	42.00	2.79	9.31

Treatment Depth= 0.59

Attenuation Depth= 3.16

LEOP in Basin =	60.0
Less 1 foot of clearance=	59.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	58.8
10-year HGL at Pond =	40.5 Go

Pond Name: SMF-18A

Basin Name: 18 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	5.25	514.5
Pervious Area	A/D	49	3.31	162.2
Pervious Area	C/D	74	2.20	162.8
Pervious Area	Α	49	0	0.0
Grass at Pond	A/D	49	1.61	78.9
			12.37	74.2

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	10.76	1054.5
Pervious Area	A/D	49	0	0.0
Pervious Area	C/D	74	0	0.0
Pervious Area	А	80	0	0.0
Grass at Pond	A/D	49	0.83	40.7
Water at Pond	-	100	0.78	78.0
			12.37	94.8

Water Quantity Calcs.

Soil Storage

3.47 **S-post** 0.54

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	4.07	6.39	4.19	6.58	2.39
25-Yr / 24-Hr	8	4.95	7.38	5.11	7.61	2.50
100-Yr / 24-Hr	11	7.71	10.37	7.95	10.69	2.74

Pond SHWT Determination

Avg. Ground Elev.=40.0Avg. SHWT Depth=1.00

S-pre

Est. SHWT	Elev. =	39.0	
SHWT Elev	/. Used =	36.0	

Water Quality Calcs.

 New Imp. Area =
 5.51 ac
 18%
 2.23

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area =
 0.46 ac-ft
 Provided Treat Area =
 0.46 ac-ft

Pond Stage Storage Calcs.

	Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
- [SHWT EL.	36.00	0.78	0.00
Ī	Weir Crest EL.	36.57	0.84	0.46
Ī	DHW10 EL.	38.62	1.05	2.39
Ī	DHW 25 EL.	38.72	1.06	2.50
	1 foot Clearance	39.00	1.09	2.80
	nside Berm	40.00	1.19	3.94
-	Outside Berm	40.00	1.61	3.94

Treatment Depth= 0.57

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Attenuation Depth= 2.43
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LEOP in Basin =	56.0
Less 1 foot of clearance=	55.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	54.8
10-year HGL at Pond =	38.6 Go

Pond Name: SMF-18B

Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	5.25	514.5
Pervious Area	A/D	49	3.31	162.2
Pervious Area	C/D	74	2.20	162.8
Pervious Area	Α	49	0	0.0
Grass at Pond	C/D & A/D	62	1.46	90.5
			12.22	76.1

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	10.76	1054.5
Pervious Area	A/D	49	0	0.0
Pervious Area	C/D	74	0	0.0
Pervious Area	Α	80	0	0.0
Grass at Pond	C/D & A/D	62	0.65	40.3
Water at Pond	-	100	0.81	81.0
			12.22	96.2

Water Quantity Calcs.

Soil Storage

3.14 **S-post** 0.54

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	4.07	6.39	4.19	6.58	2.39
25-Yr / 24-Hr	8	4.95	7.38	5.11	7.61	2.50
100-Yr / 24-Hr	11	7.71	10.37	7.95	10.69	2.74

Pond SHWT Determination

Avg. Ground Elev.=40.0Avg. SHWT Depth=1.00

S-pre

Est. SHWT Elev. =	30.0	
SHWT Fley, Used =	36.0	
SHWT Elev. Useu -	30.0	

Water Quality Calcs.

 New Imp. Area =
 5.51 ac
 18%
 2.20

 N
 OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Area =
 0.46 ac-ft
 Provided Treat Area =
 0.46 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	36.00	0.81	0.00
Weir Crest EL.	36.55	0.85	0.46
DHW10 EL.	38.61	1.02	2.39
DHW 25 EL.	38.72	1.03	2.50
1 foot Clearance	39.00	1.05	2.79
Inside Berm	40.00	1.13	3.88
Outside Berm	40.00	1.46	3.88

Treatment Depth= 0.55

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Attenuation Depth= 2.45
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LEOP in Basin =	56.0
Less 1 foot of clearance=	55.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowalbe 10-year HGL at Pond =	54.8
10-year HGL at Pond =	38.6 Go

Floodplain Calculations Basin Name: 18

Floodplain Name: FPC-17/18

*Floodplain Calculations

Impacts=	1.77 acres
Additional 20% Safety Factor =	0.20
Required Compensation Site =	2.12 acres

*Note: Includes impacts from Basin 17 and Basin 18. Impacts and compensation based on plan view area.

Basin Name: 19

Pre-Condition CN Calc.

Pond Name: SMF-19A, SMF-19B, & SMF-19C

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	16.88	1653.8
Pervious Area	A/D	49	1.57	76.7
Pervious Area	B/D	80	0.47	37.6
Pervious Area	C/D	74	13.62	1007.5
Grass at Pond	A/D	49	6.42	314.6
		_	38.95	79.3

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	32.53	3187.5
Pervious Area	A/D	49	0.00	0.0
Pervious Area	B/D	80	0.00	0.0
Pervious Area	C/D	74	0.00	0.0
Grass at Pond	A/D	49	1.99	97.5
Water at Pond	-	100	4.43	443.0
			38.95	95.7

Water Quantity Calcs.

Soil Storage

2.60 **S-post** 0.45

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	4.62	6.49	15.00	21.07	6.06
25-Yr / 24-Hr	8	5.55	7.49	18.01	24.30	6.29
100-Yr / 24-Hr	11	8.39	10.48	27.24	34.02	6.77

Pond Name: SMF-19A, SMF-19B, & SMF-19C

S-pre

Pond SHWT Determination

Avg. Ground Elev.=	27.0	Est. SHWT E	lev. =	26.0	
Avg. SHWT Depth=	1.00	SHWT Elev.	Used =	26.0	

18%

Water Quality Calcs.

 New Imp. Area
 15.65
 ac

 N
 OFW (Y
 Req. Treat Vol. =
 1.30
 ac-ft

N OFW (Y or N) if Y, 50% additional treatment 30 ac-ft Provided Treat Area = 1.30 ac-ft

7.01

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	26.00	4.43	0.00
Weir Crest EL.	26.29	4.53	1.30
DHW10 EL.	27.31	4.86	6.06
DHW 25 EL.	27.35	4.88	6.29
1 foot Clearance	27.00	4.76	4.60
Inside Berm	28.00	5.09	9.52
Outside Berm	28.00	6.42	9.52

Treatment Depth= 0.29

Attenuation Depth= 0.71

Basin Hydraulics Calc.

LEOP in Basin = Less 1 foot of clearance= Distance from LEOP to Pond= Losses = Allowalbe 10-year HGL at Pond = 10-year HGL at Pond =

35.0 34.0 1000 ft 0.80 (Assume Slope = 0.0008 ft/ft) 33.2 27.3 Go

Pond Name: SMF-19D

Basin Name: 19 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	16.88	1653.8
Pervious Area	A/D	49	1.57	76.7
Pervious Area	B/D	80	0.47	37.6
Pervious Area	C/D	74	13.62	1007.5
Grass at Pond	A/D	49	4.59	224.9
			37.12	80.8

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	32.53	3187.5
Pervious Area	A/D	49	0.00	0.0
Pervious Area	B/D	80	0.00	0.0
Pervious Area	C/D	74	0.00	0.0
Grass at Pond	A/D	49	1.82	89.2
Water at Pond	-	100	2.77	277.0
			37.12	95.7

Water Quantity Calcs.

Soil Storage

S-pre 2.37 S-post 0.44

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	4.79	6.49	14.81	20.08	5.28
25-Yr / 24-Hr	8	5.72	7.49	17.70	23.17	5.46
100-Yr / 24-Hr	11	8.59	10.48	26.57	32.43	5.85

Pond Name: SMF-19D

Pond SHWT Determination

Avg. Ground Elev.=	29.5	Est. SHWT Elev. =	28.5
Avg. SHWT Depth=	1.00	SHWT Elev. Used =	28.5

Water Quality Calcs.

 New Imp. Area =
 15.65 ac
 18% 6.68

 N OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Vol. =
 1.30 ac-ft
 Provided Treat Area =
 1.30 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	28.50	2.77	0.00
Weir Crest EL.	28.96	2.89	1.30
DHW10 EL.	30.26	3.23	5.28
DHW 25 EL.	30.32	3.24	5.47
1 foot Clearance	30.50	3.29	6.06
Inside Berm	31.50	3.55	9.48
Outside Berm	31.50	4.59	9.48

Treatment Depth= 0.46

Attenuation Depth= 1.54

Basin Hydraulics Calc.

LEOP in Basin =	3
Less 1 foot of clearance=	3
Distance from LEOP to Pond=	1(
Losses =	0
Allowalbe 10-year HGL at Pond =	3
10-year HGL at Pond =	3

35.0 34.0 1000 ft 0.80 (Assume Slope = 0.0008 ft/ft) 33.2 30.3 **Go** Floodplain Calculations Basin Name: 19

Floodplain Name: FPC-19A & FPC-19B

*Floodplain Calculations

Impacts=	1.82 acres
Additional 20% Safety Factor =	0.20
Required Compensation Site =	2.18 acres

Pond Name: SMF-20A

Basin Name: 20 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.57	741.9
Pervious Area	C/D	79	0.97	76.6
Pervious Area	A/D	49	14.64	717.4
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	6.43	315.1
			29.61	62.5

Post-Condition CN Calc.

oulo.				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	20.03	1962.9
Pervious Area	C/D	79	2.38	188.0
Pervious Area	A/D	49	0.77	37.7
Pervious Area	A	49	0	0.0
Grass at Pond	A / A/D	49	1.35	66.2
Water at Pond	-	100	5.08	508.0
			29.61	93.3

Water Quantity Calcs.

Soil Storage

S-pre

6.00 **S-post** 0.72

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	2.85	6.21	7.04	15.32	8.28
25-Yr / 24-Hr	8	3.61	7.20	8.92	17.76	8.85
100-Yr / 24-Hr	11	6.08	10.18	15.00	25.13	10.13

Pond SHWT Determination

Avg. Ground Elev.=	25.0
Avg. SHWT Depth=	0.98

Est. SHWT Elev. =	24.0
SHWT Elev. Used =	18.0

Water Quality Calcs.

 New Imp. Area
 12.46 ac
 18% 5.33

 N OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Vol. =
 1.04 ac-ft
 Provided Treat Vol. =
 1.53 ac-ft

Pond Stage Storage Calcs.

	Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHV	VT EL.	18.00	5.08	0.00
Wei	r Crest EL.	18.30	5.13	1.53
DHV	V10 EL.	19.60	5.37	8.36
DHV	V 25 EL.	19.70	5.39	8.90
1 foo	ot Clearance	20.50	5.54	13.27
Insid	de Berm	21.50	5.72	18.90
Outs	side Berm	21.50	6.43	18.90

Treatment Depth= 0.30

Attenuation Depth= 2.20

LEOP in Basin =	23.0
Less 1 foot of clearance=	22.0
Distance from LEOP to Pond=	3000 ft
Losses =	2.40 (Assume Slope = 0.0008 ft/ft)
Allowable 10-year HGL at Pond =	19.6
10-year HGL at Pond =	19.6 Go

Pond Name: SMF-20B

Basin Name: 20 Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.57	741.9
Pervious Area	C/D	79	0.97	76.6
Pervious Area	A/D	49	14.64	717.4
Pervious Area	Α	49	0.00	0.0
Grass at Pond	A / A/D	49	7.38	361.6
	-		30.56	62.1

Post-Condition CN Calc.

oulo.				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	20.03	1962.9
Pervious Area	C/D	79	2.38	188.0
Pervious Area	A/D	49	0.77	37.7
Pervious Area	Α	49	0.00	0.0
Grass at Pond	A / A/D	49	1.22	59.8
Water at Pond	-	100	6.16	616.0
			30.56	93.7

Water Quantity Calcs.

Soil Storage

6.11 **S-post** 0.72

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	2.85	6.21	7.04	15.32	8.28
25-Yr / 24-Hr	8	3.61	7.20	8.92	17.76	8.85
100-Yr / 24-Hr	11	6.08	10.18	15.00	25.13	10.13

Pond SHWT Determination

Avg. Ground Elev.=	27.0
Avg. SHWT Depth=	6.56

S-pre

Est. SHWT Elev. =	20.4
SHWT Elev. Used =	18.5

Water Quality Calcs.

 New Imp. Area =
 12.46 ac
 18% 5.50

 N OFW (Y or N) if Y, 50% additional treatment

 Req. Treat Vol. =
 1.04 ac-ft
 Provided Treat Vol. =
 1.24 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	18.50	6.16	0.00
Weir Crest EL.	18.70	6.20	1.24
DHW10 EL.	19.90	6.43	8.81
DHW 25 EL.	19.95	6.44	9.13
1 foot Clearance	20.00	6.45	9.46
Inside Berm	21.00	6.64	16.00
Outside Berm	21.00	7.38	16.00

Treatment Depth= 0.20

Attenuation Depth= 1.30

LEOP in Basin =	23.0
Less 1 foot of clearance=	22.0
Distance from LEOP to Pond=	2600 ft
Losses =	2.08 (Assume Slope = 0.0008 ft/ft)
Allowable 10-year HGL at Pond =	19.9
10-year HGL at Pond =	19.9 Go

Floodplain Calculations Basin Name: 20

Floodplain Name: FPC-20

Floodplain Calculations Total Impacts=

Total Impacts=	1.30 acres
Additional 20% Safety Factor =	0.20
Required Compensation Site =	1.56 acres

Basin Name: 21 Pond Name: SMF-21A Pre-Condition CN Calc. $\begin{array}{c c c c c c c c c c c c c c c c c c c $
Description HSG CN Area (ac) Avg. CN Impervious Area - 98 7.72 756.9 Pervious Area C/D 79 12.25 967.8 Pervious Area A/D 49 4 196.0 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 4.0 0.0 Grass at Pond A / A/D 49 6.03 295.5 30.00 73.9 346.8 Pervious Area C/D 79 4.39 346.8 Pervious Area A/D 49 1.43 70.1 Pervious Area A/D 49 1.32 64.7 Water Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 91.0 Water Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 10.07 14.86 4.79 25.5/100.7 14.86 4.79 25.5/100.7 14.86 4.79 25.77/24.11 17.32
Impervious Area - 98 7.72 756.9 Pervious Area C/D 79 12.25 967.8 Pervious Area A/D 49 4 196.0 Pervious Area A/D 49 4 196.0 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 6.03 295.5 30.00 73.9 30.00 73.9 Post-Condition CN Calc. Description HSG CN Area (ac) Avg. CN Impervious Area - 98 18.15 1778.5 Pervious Area A/D 49 1.43 70.1 Pervious Area A/D 49 0 0.0 Grass at Pond A / A/D 49 1.32 64.7 Water Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 Storm Event P R-pre R-post V[R]pre V[R]prost V[R]diff
Pervious Area C/D 79 12.25 967.8 Pervious Area A/D 49 4 196.0 Pervious Area A 49 0 0.0 Grass at Pond A /A/D 49 6.03 295.5 30.00 73.9 Post-Condition CN Calc. Description HSG CN Area (ac) Avg. CN Impervious Area - 98 18.15 1778.5 Pervious Area C/D 79 4.39 346.8 Pervious Area A/D 49 1.43 70.4 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 1.32 64.7 Water at Pond - 100 4.71 471.0 30.00 91.0 30.00 91.0 91.0 Spre 3.54 S-post 0.98 Sol (in Crit / 100.7 14.86 4.79 25-Yr
Pervious Area A/D 49 4 196.0 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 0 0.0 Bescription HSG CN Area (ac) Avg. CN Impervious Area - 98 18.15 1778.5 Pervious Area C/D 79 4.39 346.8 Pervious Area A/D 49 1.43 70.1 Pervious Area A 49 0 0.0 Grass at Pond - 100 4.71 471.0 30.00 91.0 Viriant at Pond - 100 4.71 Vater Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 Storm Event P R-pre R-post VIR]pre VIR]post VIR]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 </td
Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 6.03 295.5 30.00 73.9 Post-Condition CN Calc. Description HSG CN Area (ac) Avg. CN Impervious Area - 98 18.15 1778.5 Pervious Area - 98 14.35 1778.5 Pervious Area - 98 14.39 346.8 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 1.43 70.1 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 1.32 64.7 Water Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 Storm Event P R-pre R-post V[R]pre V[R]prost V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24
Grass at Pond A / A/D 49 6.03 295.5 30.00 73.9 Post-Condition CN Calc. Description HSG CN Area (ac) Avg. CN Impervious Area - 98 18.15 1778.5 Pervious Area C/D 79 4.39 346.8 Pervious Area A/D 49 1.43 70.4 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 1.32 64.7 Water at Pond - 100 4.71 471.0 30.00 91.0 91.0 91.0 91.0 Vater Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 Storm Event P R-pre R-post V[R]post V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 17.32 5.05
Storm Event P R-pre R-post V[R]pre V[R]post V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 5.61 Vater Quality Calcs. Sound Elev.= 20.0 4.93 12.27 17.32 Vater Quality Calcs. Sound Elev.= 20.0 A/A/D 49 1.32 64.7 Water at Pond - 100 4.71 471.0 30.00 91.0
Storm Event P R-pre R-post V[R]pre V[R]pre V[R]pre Vater Quantity Calcs. Solid Storage S-pre 3.54 S-post 0.98 1.43 70.1 Vater Quantity Calcs. Solid Storage S-pre 3.54 S-post 0.98 0.98 Vater Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 Storm Event P R-pre R-post V[R]pre V[R]post V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 17.32 5.05 100-Yr / 24-Hr 11 7.66 9.90 19.15 24.75 5.61 Vond SHWT Determination Avg. Ground Elev.= 20.0 Avg. SHWT Depth= 0.98 SHWT Elev. Used = 18.5 Vater Quality Calcs. NoFW (Y or N) if Y, 50% additional treatment Req. Treat Vol. = 0.87 0.95 0.95 ond Stage Storage Calcs.
Description HSG CN Area (ac) Avg. CN Impervious Area - 98 18.15 1778.5 Pervious Area C/D 79 4.39 346.8 Pervious Area A/D 49 1.43 70.1 Pervious Area A 49 0 0.0 Grass at Pond A / A/D 49 1.32 64.7 Water at Pond - 100 4.71 471.0 30.00 91.0 30.00 91.0 Arter Quantity Calcs. Soil Storage S-pre 3.54 S-post 0.98 Storm Event (in) (in) (in) (ac-ft) (ac-ft) (ac-ft) 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 17.32 5.05 100-Yr / 24-Hr 11 7.66 9.90 19.15 24.75 5.61 ond SHWT Determination Avg. Gr
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Storm Event P R-pre R-post V[R]pre V[R]post V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 17.32 5.05 100-Yr / 24-Hr 11 7.66 9.90 19.15 24.75 5.61 Ond SHWT Determination Avg. Ground Elev.= 20.0 Est. SHWT Elev. = 19.0 Avg. SHWT Depth= 0.98 SHWT Elev. Used = 18.5 Area (ac) Cummulative Storage (ac-ft) M OFW (Y or N) if Y, 50% additional treatment 0.95 is N OFW (Y or N) if Y, 50% additional treatment Req. Treat Vol. = 0.87 ac-ft Provided Treat Vol. = 0.95 is Ond Stage Storage Calcs. Description Stage Area (ac) Cummulative Storage (ac-ft) SHWT EL. 18.50 4.71 0.00 0.95
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Soil Storage S-pre 3.54 S-post 0.98 Storm Event P R-pre R-post V[R]pre V[R]post V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 17.32 5.05 100-Yr / 24-Hr 11 7.66 9.90 19.15 24.75 5.61 ond SHWT Determination Est. SHWT Elev. = 19.0 SHWT Elev. Used = 18.5 Vag. Ground Elev.= 20.0 Avg. SHWT Depth= 0.98 Est. SHWT Elev. Used = 18.5 Vater Quality Calcs. NoFW (Y or N) if Y, 50% additional treatment Req. Treat Vol. = 0.87 0.95 Ond Stage Storage Calcs. Description Stage Area (ac) Cummulative Storage (ac-ft) SHWT EL. 18.50 4.71 0.00 Weir Crest EL. 18.70 4.82
Storm Event P R-pre R-post V[R]pre V[R]post V[R]diff 10-Yr / 24-Hr 7 4.03 5.94 10.07 14.86 4.79 25-Yr / 24-Hr 8 4.91 6.93 12.27 17.32 5.05 100-Yr / 24-Hr 11 7.66 9.90 19.15 24.75 5.61 ond SHWT Determination Est. SHWT Elev. = 19.0 SHWT Elev. = 19.0 SHWT Elev. 9.0 SHWT Elev. 9.0 SHWT Elev. 9.0 SHWT Elev. 18.5 Vision of the second
Storm Event (in) (in) (in) (ac-ft) (ac-ft) (ac-ft) $10-Yr/24-Hr$ 7 4.03 5.94 10.07 14.86 4.79 $25-Yr/24-Hr$ 8 4.91 6.93 12.27 17.32 5.05 $100-Yr/24-Hr$ 11 7.66 9.90 19.15 24.75 5.61 ond SHWT Determination Avg. Ground Elev.= 20.0 Est. SHWT Elev. = 19.0 Avg. SHWT Depth= 0.98 SHWT Elev. Used = 18.5 //ater Quality Calcs. N OFW (Y or N) if Y, 50% additional treatment Req. Treat Vol. = 0.87 ac-ft Provided Treat Vol. = 0.95 ac-ft ond Stage Storage Calcs. Image: Storage Calcs. 4.71 0.00 $(ac-ft)$ SHWT EL. 18.50 4.71 0.00 $(ac-ft)$ 0.95 DHW10 EL. 19.50 4.93 4.82 4.82
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100-Yr / 24-Hr 11 7.66 9.90 19.15 24.75 5.61 ond SHWT Determination Avg. Ground Elev.= 20.0 Est. SHWT Elev. = 19.0 Avg. SHWT Depth= 0.98 Est. SHWT Elev. = 19.0 SHWT Depth= 0.98 SHWT Elev. Used = 18.5 /ater Quality Calcs. N OFW (Y or N) if Y, 50% additional treatment Req. Treat Vol. = 0.87 ac-ft Provided Treat Vol. = 0.95 ac-ft ond Stage Storage Calcs. Area (ac) Cummulative Storage (ac-ft) SHWT EL. 18.50 4.71 0.00 Weir Crest EL. 18.70 4.75 0.95 DHW10 EL. 19.50 4.93 4.82
Description Stage Area (ac) Cummulative Storage (ac-ft) SHWT EL. 18.50 4.71 0.00
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Description Stage Area (ac) Cummulative Storage (ac-ft) SHWT EL. 18.50 4.71 0.00 Weir Crest EL. 18.70 4.75 0.95 DHW10 EL. 19.50 4.93 4.82
Description Stage Area (ac) Cummulative Storage (ac-ft) SHWT EL. 18.50 4.71 0.00 Weir Crest EL. 18.70 4.75 0.95 DHW10 EL. 19.50 4.93 4.82
Weir Crest EL. 18.70 4.75 0.95 DHW10 EL. 19.50 4.93 4.82
DHW10 EL. 19.50 4.93 4.82
1 foot Clearance 19.70 4.97 5.81
Inside Berm 20.70 5.19 10.89
Outside Berm 20.70 6.03 10.89
Treatment Depth= 0.20 Attenuation Depth= 1.00
asin Hydraulics Calc.
LEOP in Basin = 22.9
Less 1 foot of clearance= 21.9
Distance from LEOP to Pond= 3000 ft
Losses = 2.40 (Assume Slope = 0.0008 ft/ft) Allowable 10-year HGL at Pond = 19.5

10-year HGL at Pond = 19.5 **Go**

Basin Name: 21		D	ond Name:	SME-21P		
Pre-Condition CN C	alc	F		SIVIL-ZID		
	Descriptio	n	HSG	CN	Area (ac)	Avg. CN
	Impervious		-	98	7.72	756.9
	Pervious A		C/D	79	12.25	967.8
	Pervious A		A/D	49	4	196.0
	Pervious A		A	49	0	0.0
	Grass at P			-	-	
	Grass at P	onu	A / A/D	49	5.91	289.6
Deet Condition CN	Cala				29.88	74.0
Post-Condition CN		-				
	Descriptio		HSG	CN	Area (ac)	Avg. CN
	Impervious		-	98	18.15	1778.5
	Pervious A		C/D	79	4.47	353.1
	Pervious A		A/D	49	1.43	70.1
	Pervious A		A	49	0	0.0
	Grass at P		A / A/D	49	1.04	51.0
	Water at P	ond	-	100	4.87	487.0
					29.96	91.5
ater Quantity Calcs.						
Soil Storage	S-pre	3.52	S-post	0.98		
-	r	•				
Charme Essent	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)
10-Yr / 24-Hr	7	4.03	5.94	10.07	14.86	4.79
25-Yr / 24-Hr	8	4.91	6.93	12.27	17.32	5.05
100-Yr / 24-Hr	11	7.66	9.90	19.15	24.75	5.61
/ater Quality Calcs. New Imp. Area <i>=</i> Req. Treat Vol. =	N		18% N) if Y, 509	% additional		0.98 a
ond Stage Storage Calc						
	,5.	_			Cummulat	ive Storage
Description	Sta	age	Area	(ac)		;-ft)
SHWT EL.	18	.50	4.	87		00
Weir Crest EL.		.70	4.90		0.98	
DHW10 EL.		.50	5.04		4.95	
DHW 25 EL.		.70	5.07		5.97	
1 foot Clearance				07	5.97	
Inside Berm		19.70				.12
Outside Berm	20.70 20.70		5.24 5.91			.12
Outside Berni	20	.70	J.	31		.12
Treatment Depth=	0.20]	Attenuat	ion Depth=	1.00	
asin Hydraulics Calc. LEOI Less 1 foot of Distance from LEC Allowable 10-year HG	OP to Pond= Losses =	22.9 21.9 3000 2.40 19.5	ft (Assume	e Slope = 0.	0008 ft/ft)	
	iL at Pond =	19.5				

Floodplain Calculations Basin Name: 21

Floodplain Name: FPC-21A and FPC 21B

Floodplain Calculations				
Total Impacts=				

-	Total Impacts=	1.38 acres		
	al 20% Safety Factor = Compensation Site =	0.20 1.65 acres		

Pond Name: SMF-22A

Basin Name: 22 Pre-Condition CN Calc.

	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	ea	-	98	6.90	676.2
	Pervious Area		A/D	49	2.15	105.4
	Pervious Area		C/D	79	11.63	918.8
	Pervious Area					
	Grass at Pond	Grass at Pond		49	2.81	137.7
			C/D		23.49	78.2
Post-Condition CN						
	Description		HSG	CN	Area (ac)	Avg. CN
	Impervious Are	ea	-	98	15.52	1521.0
	Pervious Area		A/D	49	0.80	39.2
	Pervious Area		C/D	79	4.36	344.4
	Pervious Area		0	0	0	0.0
	Grass at Pond		C/D	49	0.81	39.7
	Water at Pond		-	100	2.00	200.0
					23.49	91.3
ater Quantity Calcs.						
Soil Storage	S-pre	2.78	S-post	0.95		
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)
10-Yr / 24-Hr	7	4.50	5.97	8.81	11.69	2.88
25-Yr / 24-Hr	8	5.42	6.96	10.61	13.62	3.01
100-Yr / 24-Hr	11	8.25	9.93	16.15	19.44	3.30
100-11/24-11	11	0.25	3.35	10.15	13.44	0.00
nd SHWT Determinati	on					
Avg. Ground Elev.=	17.00		Est. SHW	Elev. =	16.00	
Avg. SHWT Depth=	1.00				10.00	
	1.00		SHWT Ele		16.00	
ater Quality Calcs. New Imp. Area =	8.62 N	ac OFW (Y o		v. Used = 4.23 % additiona	16.00	
ater Quality Calcs.	8.62 N	ac	SHWT Ele	v. Used = 4.23 % additiona	16.00	0.72
ater Quality Calcs. New Imp. Area =	8.62 N = 0.72	ac OFW (Y o	SHWT Ele	v. Used = 4.23 % additiona	16.00 treatment reat Area =	
ater Quality Calcs. New Imp. Area = Req. Treat Area	8.62 N = 0.72	ac OFW (Y o ac-ft	SHWT Ele 18% r N) if Y, 500	v. Used = 4.23 % additiona	16.00	ive Storage
ater Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description	= 8.62 N = 0.72 CS. Stag	ac OFW (Y o ac-ft e	SHWT Ele 18% r N) if Y, 50 Area	v. Used = 4.23 % additiona Provided T a (ac)	16.00 I treatment Treat Area =	ive Storage c-ft)
ater Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL.	= 8.62 N = 0.72 cs. Stag 16.0	ac OFW (Y o ac-ft <mark>e</mark> 0	SHWT Ele 18% r N) if Y, 50 Area 2	v. Used = 4.23 % additiona Provided T a (ac) .00	16.00 I treatment Treat Area = Cummulat (a 0	<mark>ive Storage</mark> c-ft) .00
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL.	= 8.62 N = 0.72 cs. Stag 16.00 16.30	ac OFW (Y o ac-ft e 0 6	SHWT Ele 18% r N) if Y, 50 Area 2 2	v. Used = 4.23 % additiona Provided T a (ac) .00 .04	16.00 I treatment Treat Area = Cummulat (ar 0 0	t <mark>ive Storage</mark> c-ft) .00 .72
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL.	= 8.62 N = 0.72 CS. Stag 16.00 16.30 17.30	ac OFW (Y o ac-ft e 0 6 8	SHWT Ele 18% r N) if Y, 50 Area 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17	16.00 I treatment Treat Area = Cummulat (a 0 0 2	ive Storage c-ft) .00 .72 .88
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	 8.62 N 0.72 cs. 16.00 16.30 17.31 17.44 	ac OFW (Y o ac-ft e 0 6 8 4	SHWT Ele 18% r N) if Y, 50° Area 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18	I treatment reat Area = Cummulat (ar 0 0 2 3	ive Storage c-ft) .00 .72 .88 .01
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	8.62 N 0.72 CS. Stag 16.00 16.30 17.30 17.40 17.50	ac OFW (Y o ac-ft e 0 6 8 4 0	SHWT Ele 18% r N) if Y, 50° Area 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19	I treatment reat Area = Cummulat (au 0 0 2 3 3 3	ive Storage c-ft) .00 .72 .88 .01 .14
ater Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	8.62 N 0.72 cs. 16.00 16.30 17.30 17.40 17.50 18.50	ac OFW (Y o ac-ft e 0 6 8 4 0 0	SHWT Ele 18% r N) if Y, 50° Area 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31	16.00	ive Storage c-ft) .00 .72 .88 .01 .14 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL. 1 foot Clearance	8.62 N 0.72 CS. Stag 16.00 16.30 17.30 17.40 17.50	ac OFW (Y o ac-ft e 0 6 8 4 0 0	SHWT Ele 18% r N) if Y, 50° Area 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19	16.00	ive Storage c-ft) .00 .72 .88 .01 .14
ater Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	8.62 N = 0.72 cs. Stag 16.00 16.30 17.30 17.40 17.50 18.50 18.50	ac OFW (Y o ac-ft 0 6 8 4 0 0 0	SHWT Ele 18% r N) if Y, 500 Area 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31	16.00	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = Ind Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth	8.62 N = 0.72 cs. Stag 16.00 16.30 17.30 17.40 17.50 18.50 18.50	ac OFW (Y o ac-ft 0 6 8 4 0 0 0	SHWT Ele 18% r N) if Y, 500 Area 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81	16.00	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depthersion	8.62 N = 0.72 cs. Stag 16.00 16.30 17.30 17.40 17.50 18.50 18.50	ac OFW (Y o ac-ft 0 6 8 4 0 0 0	SHWT Ele 18% N) if Y, 50° Area 2. <td>v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81</td> <td>16.00</td> <td>tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39</td>	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81	16.00	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depthe sin Hydraulics Calc.	8.62 N 0.72 cs. Stag 16.00 16.30 16.30 17.31 17.44 17.50 18.50 0.36	ac OFW (Y o ac-ft 0 6 8 4 0 0 0	SHWT Ele 18% N) if Y, 50° Area 2. <td>v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81</td> <td>16.00</td> <td>tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39</td>	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81	16.00	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depther sin Hydraulics Calc.	 8.62 N 0.72 cs. 16.00 16.30 17.33 17.44 17.50 18.50 18.50 = 0.36 LEOP in Basin = 	ac OFW (Y o ac-ft e 0 6 8 4 0 0 0 0	SHWT Ele 18% N) if Y, 50° Area 2. <td>v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81</td> <td>16.00</td> <td>tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39</td>	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81	16.00	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depther sin Hydraulics Calc.	8.62 N = 0.72 cs. Stag 16.0 16.3 17.3 17.4 17.5 18.5 18.5 0.36 EOP in Basin = ot of clearance=	ac OFW (Y or ac-ft 0 0 6 8 4 0 0 0 0 0 19.0 18.0	SHWT Ele 18% N) if Y, 50° Area 2. 3. 4. 5. 6. 6.	v. Used = 4.23 % additiona Provided T a (ac) .00 .04 .17 .18 .19 .31 .81	16.00 I treatment reat Area = Cummulat (a 0 2 3 5 1.15	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39
ater Quality Calcs. New Imp. Area = Req. Treat Area = and Stage Storage Calc Description SHWT EL. Weir Crest EL. DHW10 EL. DHW10 EL. DHW25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depther sin Hydraulics Calc.	 8.62 N 0.72 cs. 16.00 16.3 17.3 17.4 17.5 18.50 19.50 19.50	ac OFW (Y or ac-ft 0 0 6 8 4 0 0 0 0 0 19.0 18.0 400	SHWT Ele 18% N) if Y, 500 Area 2 2 2 2 2 Attenua	v. Used = 4.23 % additiona Provided T a (ac) 00 .04 .17 .18 .19 .31 .81 tion Depth=	16.00 I treatment reat Area = Cummulat (a 0 2 3 5 1.15	tive Storage c-ft) .00 .72 .88 .01 .14 .39 .39

Pond Name: SMF-23A

Pre-Condition CN C	alc.	-					
	Description		HSG	CN	Area (ac)	Avg. CN	1
	Impervious Are	ea	-	98	6.76	662.5	1
	Pervious Area		A/D	49	4.66	228.3	
	Pervious Area		C/D	79	8.14	643.1	
	Pervious Area		Α	49	1.33	65.2	
	Grass at Pond		A / A/D	49	2.11	103.4	1
			•	•	23.00	74.0	
Post-Condition CN (_
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	15.76	1544.5	
	Pervious Area		A/D	49	1.69	82.8	
	Pervious Area		C/D	79	2.95	233.1	
	Pervious Area		A	49	0.49	23.8	
	Grass at Pond		A / A/D	49	0.73	35.8	
	Water at Pond		-	100	1.38	138.0	
					23.00	89.5	
Water Quantity Calcs.							
Soil Storage	S-pre	3.51	S-post	1.17			
		David	Durat	MD			1
Storm Event	P	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
10-Yr / 24-Hr	(in)	<mark>(in)</mark> 4.04	<mark>(in)</mark> 5.76	(ac-ft) 7.75	(ac-ft) 11.05	(ac-ft) 3.30	
25-Yr / 24-Hr	7 8					3.48	
100-Yr / 24-Hr	0 11	4.93 7.68	6.75 9.71	9.44 14.72	12.93 18.60	3.88	-
100-11/24-11		7.00	9.71	14.72	18.00	5.00	
Pond SHWT Determinatio	n -						
Avg. Ground Elev.=	18.00		Est. SHW1	Flev =	17.60	I	
Avg. SHWT Depth=	0.40		SHWT Ele		16.00		
	0.10				ple Terrace	1	
Water Quality Calcs.						, lane	
New Imp. Area =	9.00	ac	18%	4.14]		
·			[•] N) if Y, 50 ^o				
Req. Treat Area =		ac-ft			reat Area =	0.84	ac-ft
Pond Stage Storage Calc	s.						_
Description	Stag	۵	Δrea	(ac)		tive Storage	
			Area (ac)		(ac-ft)		
SHWT EL.	16.0			38		0.00	
Weir Crest EL.	16.6			43		.84	4
DHW10 EL.	18.3			59		5.41	4
DHW 25 EL.	18.4			60		5.57	4
1 foot Clearance	19.0			65		.55	4
Inside Berm	20.00			74		.24	4
Outside Berm	20.0	0	2.	11	6	5.24]
	0.00	1			0.40	1	
Treatment Depth=	0.60		Attenua	tion Depth=	2.40	l	
Basin Hydraulics Calc.		26.0					
	EOP in Basin =	26.0					
	t of clearance=	25.0					
Distance from L	EOP to Pond= Losses =	800 0.64		e Slope = 0.	0008 #/#\		
Allowable 10-year		24.4	``	= 010pe - 0.			
•	HGL at Pond =	24.4 18.3					
io-year		10.3	30				

Pond Name: SMF-23B

Basin Name: 23 Pre-Condition CN Calc.

Pre-Condition Cl	N Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	6.76	662.5	1
	Pervious Area		A/D	49	4.66	228.3	
	Pervious Area		C/D	79	8.14	643.1	
	Pervious Area		А	49	1.33	65.2	
	Grass at Pond		A / A/D	49	1.73	84.8	1
					22.62	74.4	1
Post-Condition (CN Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	15.76	1544.5	
	Pervious Area		A/D	49	1.69	82.8	
	Pervious Area		C/D	79	2.95	233.1	
	Pervious Area		A	49	0.49	23.8	
	Grass at Pond		A / A/D	49	0.69	33.8	1
	Water at Pond		-	100	1.04	104.0	1
					22.62	89.4	
Water Quantity Calcs.							•
Soil Storage	S-pre	3.43	S-post	1.18			
-					-		
Charme Event	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr		4.09	5.75	7.71	10.85	3.14	i i
25-Yr / 24-Hr	8	4.98	6.73	9.38	12.69	3.31	
100-Yr / 24-Hr	r 11	7.74	9.70	14.58	18.27	3.69	1
	I						
Pond SHWT Determin	ation						
Avg. Ground Elev			Est. SHW1	Elev. =	18.90		
Avg. SHWT Dept			SHWT Ele		16.00		
					ple Terrace		
Water Quality Calcs.							
New Imp. Area	a = 9.00	lac	18%	4.07	7		
			N) if Y, 50°				
Req. Treat Are		ac-ft	,,		reat Area =	0.86	ac-ft
							1
Pond Stage Storage C	alcs.						
					Cummula	tive Storage	1
Description	Stag	e	Area	ı (ac)	(a	c-ft)	
SHWT EL.	16.0	0	1.	04	0	.00]
Weir Crest EL.	16.8	0	1.	11	0	.86]
DHW10 EL.	18.8	0	1.	28	3	.25]
DHW 25 EL.	18.9	0	1.	29	3	.37	
1 foot Clearance	19.0	0	1.	30	3	.50	1
Inside Berm	20.0	0	1.	38	4	.84	1
Outside Berm	20.0	20.00		73	4	.84	1
			•				
Treatment Dep	oth= 0.80		Attenua	tion Depth=	2.20]	
		•					
Basin Hydraulics Calc							
• •	LEOP in Basin =	26.0					
Less 1	foot of clearance=						
	om LEOP to Pond=						
	Losses =			e Slope = 0.	.0008 ft/ft)		
Allowable 10-v	ear HGL at Pond =		``	1 - 0	/		
-	ear HGL at Pond =						
10 y		10.0					

Pond Name: SMF-22/23

Pre-Condition CN (Calc.						
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	13.66	1338.7	
	Pervious Area		A/D	49	6.78	332.2	
	Pervious Area		C/D	79	19.82	1565.8	
	Pervious Area		A	49	1.31	64.2	
	Grass at Pond		A / A/D	49	3.19	156.3	
	-				44.76	77.2	
Post-Condition CN	Calc.						I
	Description		HSG	CN	Area (ac)	Avg. CN	
	Impervious Are	ea	-	98	31.28	3065.4	
	Pervious Area		A/D	49	2.50	122.5	
	Pervious Area		C/D	69	7.31	504.4	
	Pervious Area		A	49	0.48	23.5	
	Grass at Pond		A / A/D	49	0.92	45.1	
	Water at Pond		-	100	2.27	227.0	
					44.76	89.1	
Water Quantity Calcs.							1
Soil Storage	S-pre	2.95	S-post	1.22			
	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	4.39	5.72	16.38	21.33	4.95	
25-Yr / 24-Hr	8	5.30	6.70	19.78	24.98	5.21	
100-Yr / 24-Hr	11	8.11	9.66	30.26	36.02	5.75	
		-					1
Pond SHWT Determinati	on						
Avg. Ground Elev.=	18.00	1	Est. SHW1	FElev. =	17.70	1	
Avg. SHWT Depth=	0.30		SHWT Ele		16.00		
					ple Terrace	Plans	
Water Quality Calcs.							
New Imp. Area =	17.62	lac	18%	8.06	1		
			N) if Y, 50°				
Req. Treat Area		ac-ft	,,		reat Area =	1.62	ac-ft
·							1
Pond Stage Storage Cal	cs.						
						tive Storage	
Description	Stag	е	Area	ı (ac)		c-ft)	
SHWT EL.	16.0	0	2.	.27		.00	
Weir Crest EL.	16.7			.35		.62	
DHW10 EL.	18.4	0		.54		.77	ĺ
DHW 25 EL.	18.5			.55		.03	
1 foot Clearance	19.0			.61		.32	
Inside Berm	20.0			.72		.98	
Outside Berm	20.00			.19		.98	
		-					1
Treatment Depth	= 0.70		Attenua	tion Depth=	2.30	i	
		1	,	aon Bopai		i	
Basin Hydraulics Calc.							
-	LEOP in Basin =	26.0					
	ot of clearance=	25.0					
	LEOP to Pond=						
Bistanio nom	Losses =			e Slope = 0.	0008 ft/ft)		
Allowable 10-yea		24.4	•				
-	r HGL at Pond =	18.4					
ie yea		10.1					

Basin Name: 24 Pre-Condition CN Calc.

Pond Name: SMF-24A

oulo.				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	4.15	406.7
Pervious Area	A / A/D	49	3.78	185.2
Pervious Area	A/D	49	0	0.0
Pervious Area	А	49	0	0.0
Grass at Pond	A / A/D	49	1.84	90.2
			9.77	69.8

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.93	777.1
Pervious Area	A / A/D	49	0	0.0
Pervious Area	A/D	49	0	0.0
Pervious Area	A	49	0	0.0
Grass at Pond	A / A/D	49	0.56	27.4
Water at Pond	-	100	1.28	128.0
			0.77	05 5

Water Quantity Calcs.

Soil Storage

4.32 S-post 0.48

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.60	6.46	2.93	5.26	2.33
25-Yr / 24-Hr	8	4.44	7.46	3.62	6.07	2.45
100-Yr / 24-Hr	11	7.10	10.45	5.78	8.51	2.72

Pond SHWT Determination

Avg. Ground Ele	v.= 32.5	
Avg. SHWT Dep	th= 5.40	

S-pre

3.78 ac

0.32 ac-ft

0.60

Est. SHWT Elev. =	27.1
SHWT Elev. Used =	27.1

Water Quality Calcs.

New Imp. Area =

Req. Treat Vol. =

15% 1.47 N OFW (Y or N) if Y, 50% additional treatment Provided Treat Vol. =

0.78 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	27.10	1.28	0.00
Weir Crest EL.	27.70	1.32	0.78
DHW10 EL.	28.84	1.41	2.34
DHW 25 EL.	29.32	1.44	3.02
1 foot Clearance	30.60	1.54	4.93
Inside Berm	31.60	1.61	6.50
Outside Berm	32.10	1.84	7.37

Treatment Depth=

Attenuation Depth= 1.62

LEOP in Basin =	54.0
Less 1 foot of clearance=	53.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowable 10-year HGL at Pond =	52.8
10-year HGL at Pond =	28.84 Go

Basin Name: 24 Pre-Condition CN Calc.

Pond Name: SMF-24B

Salt.				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	4.15	406.7
Pervious Area	A / A/D	49	3.78	185.2
Pervious Area	A/D	49	0	0.0
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	1.50	73.5
			9.43	70.6

Post-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	7.93	777.1
Pervious Area	A / A/D	49	0	0.0
Pervious Area	A/D	49	0	0.0
Pervious Area	Α	49	0	0.0
Grass at Pond	A / A/D	49	0.79	38.7
Water at Pond	-	100	0.71	71.0
			0/3	94.0

Water Quantity Calcs.

Soil Storage

4.17 S-post 0.48

Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
10-Yr / 24-Hr	7	3.60	6.46	2.93	5.26	2.33
25-Yr / 24-Hr	8	4.44	7.46	3.62	6.07	2.45
100-Yr / 24-Hr	11	7.10	10.45	5.78	8.51	2.72

Pond SHWT Determination

Avg. Ground Elev.=	30.0	
Avg. SHWT Depth=	2.00	

S-pre

3.78 ac

0.32 ac-ft

0.44

Est. SHWT Elev. =	28.0
SHWT Elev. Used =	28.0

Water Quality Calcs.

New Imp. Area =

Req. Treat Vol. =

15% 1.41 N OFW (Y or N) if Y, 50% additional treatment Provided Treat Vol. =

0.32 ac-ft

Pond Stage Storage Calcs.

Description	Stage	Area (ac)	Cummulative Storage (ac-ft)
SHWT EL.	28.00	0.71	0.00
Weir Crest EL.	28.44	0.75	0.32
DHW10 EL.	30.76	0.98	2.33
DHW 25 EL.	30.88	0.99	2.45
1 foot Clearance	31.00	1.00	2.57
Inside Berm	32.00	1.10	3.62
Outside Berm	32.00	1.50	3.62

Treatment Depth=

Attenuation Depth= 2.44

LEOP in Basin =	54.0
Less 1 foot of clearance=	53.0
Distance from LEOP to Pond=	200 ft
Losses =	0.16 (Assume Slope = 0.0008 ft/ft)
Allowable 10-year HGL at Pond =	52.8
10-year HGL at Pond =	30.76 Go

Pond Name: SME-25A

10-year HGL at Pond =

42.28 Go

Basin Name: 25		P	ond Name:	SMF-25A			
Pre-Condition CN C							
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	6.99	685.0	
	Pervious A		A / A/D	49	10.71	524.8	
	Pervious A		A/D	49	0	0.0	
	Pervious A		A	49	0	0.0	
	Grass at P	ond	A / A/D	49	1.98	97.0	r
					19.68	66.4	
Post-Condition CN							
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	17.7	1734.6	
	Pervious A		A / A/D	49	0	0.0	
	Pervious A	rea	A/D	49	0	0.0	
	Pervious A		A	49	0	0.0	
	Grass at P	ond	A / A/D	49	0.99	48.5	
	Water at P	ond	-	100	0.99	99.0	
					19.68	95.6	
Water Quantity Calcs.							
Soil Storage	S-pre	5.06	S-post	0.46			
Storm Event	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.25	6.48	5.32	10.63	5.31	
25-Yr / 24-Hr	8	4.05	7.48	6.65	12.26	5.62	
100-Yr / 24-Hr	11	6.63	10.47	10.87	17.17	6.30	
Avg. Ground Elev.= Avg. SHWT Depth= Water Quality Calcs. New Imp. Area =	N] ac OFW (Y or	Est. SHWT SHWT Ele 15% N) if Y, 509	v. Used = 2.95 % additiona	Itreatment	0.90	oo ft
Req. Treat Vol. =	0.89	ac-ft		Provided	Treat Vol. =	0.89	ac-ti
Pond Stage Storage Calc	s.						
Description	Sta	age	Area	(ac)		ive Storage	
						<mark>c-ft)</mark>	
SHWT EL.		.90		99		.00	
Weir Crest EL.		.76		08		.89	
DHW10 EL.		.28		44		.31	
DHW 25 EL.		.49		46		.62	
1 foot Clearance		.50		46		.63	
Inside Berm		.50		56		.14	
Outside Berm	43	.50	1.	98	7	.14	
Treatment Depth=	0.86]	Attenua	tion Depth=	3.73		
Basin Hydraulics Calc.							
Less 1 foot of Distance from LEC	P to Pond= Losses =	1.12	ft (Assume	e Slope = 0.	.0008 ft/ft)		
Allowable 10-year HG	L at Pond =	43.9					

Pond Volume Calcs. Basin Name: 25

Pond Name: SME-258

10-year HGL at Pond =

39.12 Go

Basin Name: 25		P	ond Name:	SMF-25B			
Pre-Condition CN C	-		-				
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	6.99	685.0	
	Pervious A		A / A/D	49	10.71	524.8	
	Pervious A		A/D	49	0	0.0	
	Pervious A		A	49	0	0.0	
	Grass at P	ond	A / A/D	49	2.19	107.3	
					19.89	66.2	
Post-Condition CN			-				
	Descriptio		HSG	CN	Area (ac)	Avg. CN	
	Impervious		-	98	17.7	1734.6	
	Pervious A		A / A/D	49	0	0.0	
	Pervious A		A/D	49	0	0.0	
	Pervious A		A	49	0	0.0	
	Grass at P		A / A/D	49	0.94	46.1	
	Water at P	ond	-	100	1.25	125.0	
					19.89	95.8	
Water Quantity Calcs.							
Soil Storage	S-pre	5.10	S-post	0.46			
Storm Event	Р	R-pre	R-post	V[R]pre	V[R]post	V[R]diff	
Storm Event	(in)	(in)	(in)	(ac-ft)	(ac-ft)	(ac-ft)	
10-Yr / 24-Hr	7	3.25	6.48	5.32	10.63	5.31	
25-Yr / 24-Hr	8	4.05	7.48	6.65	12.26	5.62	
100-Yr / 24-Hr	11	6.63	10.47	10.87	17.17	6.30	
Avg. Ground Elev.= Avg. SHWT Depth= Water Quality Calcs. New Imp. Area =]]ac	Est. SHWT SHWT Ele 15% N) if Y, 509	v. Used = 2.98			
Req. Treat Vol. =]ac-ft			Treat Vol. =	0.89 a	ıc-ft
Pond Stage Storage Calc	s.						
			A		Cummulat	ive Storage	
Description	56	age	Area	(ac)	(a	c-ft)	
SHWT EL.	35	.40	1.	25	0	.00	
Weir Crest EL.	36	.09	1.	32	0	.89	
DHW10 EL.	39	.12	1.	61	5	.32	
DHW 25 EL.	39	.31	1.	63	5	.62	
1 foot Clearance	40	.00	1.	69	6	.77	
Inside Berm	41	.00		79	1	.51	
Outside Berm	41	.00	2.	19		.51	
Treatment Depth=	- 0.69]	Attenua	tion Depth=	3.22		
Basin Hydraulics Calc.							
-	P in Basin =	46.0					
Less 1 foot of	f clearance=	45.0					
Distance from LEC							
	Losses =			e Slope = 0.	.0008 ft/ft)		
Allowable 10-year HG	GL at Pond =		· ·	•	,		
	at Pond =						

Basin Name: 25

Pond Name: SMF-25C-1 / 2

Pre-Condition CN Calc.

Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	6.99	685.0
Pervious Area	A / A/D	49	10.71	524.8
Pervious Area	A/D	49	0	0.0
Pervious Area	А	49	0	0.0
Grass at Pond	A / A/D	49	1.20	58.8
			18.90	67.1

Post-Condition CN Calc.

Juivi				
Description	HSG	CN	Area (ac)	Avg. CN
Impervious Area	-	98	17.7	1734.6
Pervious Area	A / A/D	49	0	0.0
Pervious Area	A/D	49	0	0.0
Pervious Area	A	49	0	0.0
Grass at Pond	A / A/D	49	0.55	27.0
Water at Pond	-	100	0.65	65.0
			18.90	96.6

Water Quantity Calcs.

Soil Storage

S-pre

4.90 **S-post** 0.46

	Storm Event	P (in)	R-pre (in)	R-post (in)	V[R]pre (ac-ft)	V[R]post (ac-ft)	V[R]diff (ac-ft)
	10-Yr / 24-Hr	7	3.25	6.48	5.32	10.63	5.31
ſ	25-Yr / 24-Hr	8	4.05	7.48	6.65	12.26	5.62
[100-Yr / 24-Hr	11	6.63	10.47	10.87	17.17	6.30

Pond SHWT Determination

Avg. Ground Elev.=36.5Avg. SHWT Depth=6.50

Est. SHWT Elev. =	= 30.0
SHWT Elev. Used	= 30.0

Water Quality Calcs.

New Imp. Area =4.28 ac15%2.84N OFW (Y or N) if Y, 50% additional treatmentReq. Treat Vol. =0.36 ac-ftProvided Treat Vol. =0.36 ac-ft

Pond Stage Storage Calcs. (SMF-25C-1)

	0.		Cummulative Storage
Description	Stage	Area (ac)	(ac-ft)
SHWT EL.	30.00	0.65	0.00
Weir Crest EL.	30.54	0.69	0.36
DHW10 EL.	32.84	0.84	2.12
DHW 25 EL.	33.00	0.85	2.25
1 foot Clearance	33.00	0.85	2.25
Inside Berm	34.00	0.92	3.14
Outside Berm	34.00	1.20	3.14
Treatment Depth=	0.54	Attenuation Depth=	2.46
LEOF	P in Basin = 46.0)	
Less 1 foot of	clearance= 45.0)	
Distance from LEO	P to Pond= 800) ft	
	Losses = 0.64	(Assume Slope = 0.	0008 ft/ft)
Ilowable 10-year HG	L at Pond = 44.4		
10-year HGI	L at Pond = 32.84	Go	
SHWT Determinatio			
Avg. Ground Elev.=	41.0	Est. SHWT Elev. =	36.0
Avg. SHWT Depth=	5.00	SHWT Elev. Used =	36.0
er Quality Calcs.			
New Imp. Area =	6.43 ac	15% 2.84	
New Imp. Area –		r N) if Y, 50% additional	
Req. Treat Vol. =			Treat Vol. = 0.54
I Stage Storage Calc	s. (SMF-25C-2)		~
Description	Stage	Area (ac)	Cummulative Storage
			(ac-ft)
SHWT EL.	36.00	1,13	0.00
Weir Crest EL.	36.47	1.17	0.54
DHW10 EL.	38.57	1.34	3.18
DHW 25 EL.	38.71	1.35	3.37
1 foot Clearance	39.00	1.38	3.76
	10.00	- 4 40	= 10

Treatment Depth= 0.47

Inside Berm

Outside Berm

Attenuation Depth= 2.24

5.18

5.18

LEOP in Basin = Less 1 foot of clearance= Distance from LEOP to Pond= Losses = Allowable 10-year HGL at Pond = 10-year HGL at Pond =

1.46

1.81

45.0 800 ft

46.0

40.00

40.00

0.64 (Assume Slope = 0.0008 ft/ft)

44.4 38.57 **Go**

Proposed Pond Calculations

Basin Ramp 1 Infield

Pond Volume Calcs.

Basin Name: 1B, 1C, & Ramp 1 Infield Pre-Condition CN Calc.

Pond Name: Ramp 1 Infield

	Description		HS	G	CN	Area (ac)	Avg. CN					
	Roadway Impe		-		-	-	-					
	Bruce B. Down	s Blvd.	-		98	1.03	100.9					
	I-75 NB/SB		-		98	2.14	209.7					
	I-75 Off-Ramp	(Ramp 1)	-		98	0.63	61.7					
	Pervious (Gras	s Good)	B/I	C	80	5.08	406.4					
	Pond Site (NW	L/Wetland)	B/I	D	100	4.40	440.0					
	·、	,				13.28	91.8					
Post-Condition CN Calc.												
	Description		HS	G	CN	Area (ac)	Avg. CN					
	Roadway Impe	rvious	-		-	-	-					
	Bruce B. Down		-		98	4.4	431.2					
	I-75 NB/SB		-		98	2.14	209.7					
	I-75 Off-Ramp	(Ramp 1)	-		98	0.63	61.7					
Additional Pavement from												
Proposed Widening	I-75 SB Widen	ing/Ramp H-2	-		98	1.56	152.9					
,	Pervious (Gras	s Good)	B/D	2	80	4.31	344.8					
	Pond Site (NW		B/E		100	4.10	410.0					
		<u>_,</u>			100	17.14	94.0					
Water Quantity Calcs.							0.10					
Soil Storage	S-pre	0.90	S-pc	nst	0.64							
een eterage		0.00	<u> </u>	JJL	0.01							
	Р	R-pre	R-pc	oet .	V[R]pre	V[R]post	V[R]diff					
Storm Event	(in)	(in)	(in		(ac-ft)	(ac-ft)	(ac-ft)					
10-Yr / 24-Hr	7	6.03	6.2		8.61	8.97	0.36					
25-Yr / 24-Hr		7.02	7.2		10.02	10.39	0.30					
100-Yr / 24-Hr	8		10.2		14.27		0.37					
100-11/24-Hi	11	9.99	10.2	20	14.27	14.66	0.39					
Band SHWT Determination												
Pond SHWT Determination					Elev. =							
Avg. Ground Elev.=	-				-	-						
Avg. SHWT Depth=	· ·		SHWI	Elev	v. Used =	42.50	(Permitted)					
Water Ovelite Oalas												
Water Quality Calcs.	47.44			400/	0.00	1						
Basin Area		ac		18%	3.09	l						
Treat 1" over Basin Area				,								
		OFW (Y or N) if		add								
Req. I reat Area	= 1.43		r, 50%	uuu								
		Req. Treat Area = 1.43 ac-ft Provided Treat Area = 1.44 ac										
		ac-ft	Y, 50%	uuu			1.44	ac-ft				
Pond Stage Storage Calcs.		ac-ft	Y, 50%	, uuu		reat Area =		ac-ft				
					Provided T	reat Area =	ive Storage	ac-ft				
Description	St	age		Area	Provided T (ac)	reat Area = Cummulat	ive Storage c-ft)	ac-ft				
Description SHWT EL.	St 42	age 2.50		<mark>Area</mark> 4.(Provided T (ac) 02	reat Area = Cummulat (ad	<mark>ive Storage</mark> c-ft) .00	ac-ft				
Description SHWT EL. Weir Crest EL.	St 42	age		<mark>Area</mark> 4.(Provided T (ac)	reat Area = Cummulat (ad	ive Storage c-ft)	ac-ft				
Description SHWT EL.	St 42 42	age 2.50		<mark>Area</mark> 4.1 4.2	Provided T (ac) 02	reat Area = Cummulat (ad 0	<mark>ive Storage</mark> c-ft) .00	ac-ft				
Description SHWT EL. Weir Crest EL.	St 42 42 42	age 2.50 2.85		<mark>Area</mark> 4.1 4.2	Provided T (ac) 02 10	reat Area = Cummulat (ac 0. 1. 1.	ive Storage <mark>c-ft)</mark> .00 .44	ac-ft				
Description SHWT EL. Weir Crest EL. DHW10 EL.	St 42 42 42 42 42 42 43	age 2.50 2.85 2.95		Area 4.(4.7 4.7 4.7	Provided T (ac) 02 10 12	reat Area = Cummulat (ac 0. 1. 1. 2.	ive Storage c-ft) .00 .44 .83	ac-ft				
Description SHWT EL. Weir Crest EL. DHW10 EL. DHW 25 EL.	St 42 42 42 42 42 43 43	age 2.50 2.85 2.95 3.00		Area 4.(4.) 4. 4.	Provided T (ac) 02 10 12 13	reat Area = Cummulat (ac 0. 1. 1. 2. 8.	ive Storage c-ft) .00 .44 .83 .04	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance	St 42 42 42 42 42 42 43 44 44 44 45	age 2.50 2.85 2.95 3.00 4.50		Area 4.1 4.2 4.2 4.2 4.2	Provided T (ac) 02 10 12 13 47	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	St 42 42 42 42 42 42 43 44 44 44 45	age 2.50 2.85 2.95 3.00 5.50 5.50		Area 4.1 4.2 4.2 4.2 4.2	Provided T (ac) 02 10 12 13 47 70	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm	St 42 42 42 42 42 42 42 42 42 42 42 42 42	age 2.50 2.85 2.95 3.00 1.50 5.50 5.50		Area 4.1 4.2 4.2 4.2 4.2 5.2	Provided T (ac) 02 10 12 13 47 70 59	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm	St 42 42 42 42 42 42 42 42 42 42 42 42 42	age 2.50 2.85 2.95 3.00 1.50 5.50 5.50		Area 4.1 4.2 4.2 4.2 4.2 5.2	Provided T (ac) 02 10 12 13 47 70	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth	St 42 42 42 42 42 42 42 42 42 42 42 42 42	age 2.50 2.85 2.95 3.00 1.50 5.50 5.50		Area 4.1 4.2 4.2 4.2 4.2 5.2	Provided T (ac) 02 10 12 13 47 70 59	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc.	St 42 42 42 42 42 42 42 42 42 42 44 44 45 = 0.35	age 2.50 2.85 2.95 3.00 4.50 5.50 3.50	Atte	Area 4.1 4.2 4.2 4.2 4.2 5.2	Provided T (ac) 02 10 12 13 47 70 59	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc.	St 42 42 42 42 42 42 42 42 42 42 42 44 44	age 2.50 2.85 2.95 3.00 4.50 5.50 3.50 45.5	Atte	Area 4.1 4.2 4.2 4.2 4.2 5.2	Provided T (ac) 02 10 12 13 47 70 59	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for	St 42 42 42 42 43 44 45 = 0.35	age 2.50 2.85 2.95 3.00 4.50 5.50 5.50 44.5	Atte	Area 4.1 4.2 4.2 4.2 4.2 5.2	Provided T (ac) 02 10 12 13 47 70 59	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for	St 42 42 42 43 44 45 46 46 46 47 48 49 49 40	age 2.50 2.85 2.95 3.00 4.50 5.50 3.50 3.50 44.5 44.5 1200	Atte	Area 4. 4. 4. 4. 5. 5. 8 8 9	Provided T (ac) 02 10 12 13 47 70 59 ion Depth=	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.65	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for Distance from	St 42 42 42 43 44 45 = 0.35	age 2.50 2.85 2.95 3.00 4.50 5.50 3.50 3.50 44.5 1200 0.96	Atte	Area 4. 4. 4. 4. 5. 5. 8 8 9	Provided T (ac) 02 10 12 13 47 70 59	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.65	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for Distance from Allowable 10-year	St 42 42 42 43 44 45 46 46 46 46 47 48 49 44 45 46 46 47 46 47 46 47 46 47 46 46 47 46 47 46 47 47 48 49 40 40 40 40 40 40 41 42 42 43 44 45 46 47 47 48 49	age 2.50 2.85 2.95 3.00 4.50 5.50 3.50 3.50 44.5 1200 0.96 43.5	Atte	Area 4. 4. 4. 4. 5. 5. 8 8 9	Provided T (ac) 02 10 12 13 47 70 59 ion Depth=	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.65	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for Distance from Allowable 10-year	St 42 42 42 43 44 45 = 0.35	age 2.50 2.85 2.95 3.00 4.50 5.50 3.50 3.50 44.5 1200 0.96	Atte	Area 4. 4. 4. 4. 5. 5. 8 8 9	Provided T (ac) 02 10 12 13 47 70 59 ion Depth=	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.65	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for Distance from Allowable 10-year 10-year	St 42 42 42 42 43 43 44 45 46 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35	age 2.50 2.85 2.95 3.00 4.50 5.50 5.50 3.50 44.5 1200 0.96 43.5 43.0	ft (Ass Go	Area 4. 4. 4. 4. 5. 5. 8 8 9	Provided T (ac) 02 10 12 13 47 70 59 ion Depth=	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.65	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				
Description SHWT EL. Weir Crest EL. DHW 10 EL. DHW 25 EL. 1 foot Clearance Inside Berm Outside Berm Treatment Depth Basin Hydraulics Calc. Less 1 for Distance from Allowable 10-year	St 42 42 42 42 43 43 44 45 46 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35 = 0.35	age 2.50 2.85 2.95 3.00 4.50 5.50 5.50 3.50 44.5 1200 0.96 43.5 43.0	ft (Ass Go	Area 4. 4. 4. 4. 5. 5. 8 8 9	Provided T (ac) 02 10 12 13 47 70 59 ion Depth=	reat Area = Cummulat (ac 0. 1. 1. 2. 8. 1.3 1.65	ive Storage c-ft) .00 .44 .83 .04 .49 3.08	ac-ft				

Appendix G FDOT Right-of-Way Cost Estimates



					RTMENT OF				HDR#:	10169256-7.12
FM#: County: State Rd.:	419235-3 Hillsborough SR 93A		Alternate: Segment: FAP#:		SMF 1A N/A N/A			District: Date:		Seven 28-Aug-19
Project Des. Parcels Commercial Residential			o N of Bruce B.	Dov			Estimated R Business Residential	C.E. Sequence elocatees:	<u>1</u>	N/A
Unimproved Total Parcels		<u>0</u> 1					Signs Special Total Reloca	itees	0	
R/W SUPPORT 1. Direct Labo		SE 41) (Parcels						Arnount		
2. Indirect Ove		(Parcels	<u> </u>	x x	<u> 20,000 = </u>	Rate) Rate)		20,000		
3. R/W OPS (PHA	SE 4B)			-				TOTAL PHASE	Statement of the local division of the local	\$20,000
4. Appraisal I	Fees Through	Trial ees Through T				1		x 30,000 =	Amount 30,000	
6. Court Repo	orter & Process	s Servers	50%	x	1 =	1	-	x 19,000 = x 500 =		
7. Expert With 8. Mediators	ness		<u>75%</u> 75%	x x	<u>1</u> =	1	_	x 30,000 =	30,000	
9. Demolition	, Asb. Abate.,	Survey, etc.	15%	*		0	Imprvmet 3			
10. Miscellane 11. Appraisal F						0	Per Project > Parcels >			
12.							Faiceis)	5,000 = TOTAL PHASE	and a second s	\$81,900
R/W LAND COS								Amount	Subtotal	
13. Land, Impr and Cost t	ovements & Se o Cure Amoun		-	x	120% *	Docian	plan stage =	-		
14. Water Rete		•	11,568,356	x		_	-	= <u>0</u>) 13,882,000		*
15. SUBTOTAL						(Lines 1	3 &14)		13,882,000	
16. Admin. Set 17. Litigation A	-		<u> </u>	x x		Line 15) Line 15)		= <u>0</u> = 6,246,900		
18. Business D	Damages (Clain	ns	1	x	0)	Line 15)				
19. Bus. Dama			25%	x	\$2,000,000)		÷			
20. Owner App 21. Owner CPA			1	X X	\$15,000) \$16,000)		-	15,000		
22. Defend.Att				x	33%)			= <u>16,000</u> = 2,226,500		
23. Owner Exp	ert Witn (Com		1	+		18,000		18,000		
24. Other Cond 25. SUBTOTAL			1	x	\$1,000	/l inos 1	= 6 thru 24) =	1,000	44 000 400	
26.						(Lines I	6 uiru 24) -	TOTAL PHASE	11,023,400	\$24,905,400
* Design contil (1) PD&E	ngency for des E plans - 120%	sign plan stage (2) 30% plans	- 115% (3) 60	% pl	ans - 110% (4)	90% plan	is -105% (5)	268 Date -100%		421,000,100
R/W ACQUISIT			 N.M.S.C. MISCON 					(
27. Acquisition RELOCATION			\$20,000	X	0	-		TOTAL PHASE	42	\$0
28. Owner	Replacement		\$30,000	X	Number 0	=	Amount 0			
29. Tenant	Move Costs		\$25,000	x	0	=	0			
30. Residentia 31. Business/F			\$5,000	x	0	=	0			
32. Personal P			\$40,000 \$3,000	x x	<u>1</u> 0	=	40,000			
33. (Lines 28 tl					i i i i i i i i i i i i i i i i i i i			TOTAL PHASE	45	\$40,000
34. Relocation 35.	Services Cost	_	_		\$4,000	(Not in I	Phase Total)			
36.						·				
37.							(All Phases)	TOTAL ESTIM	ATE	\$25,047,300
Real Estate: Bus. Dam. :	Roger D. Pate Alfred J. Tho		Signed: Signed:	P	action	10.	-0	Date: Date:	09/10/19	
Relocation:	Roger D. Patt	ton	Signed:	2	-1001SDE	- 4.4	nonpen	Date:	09/10/19	
Overall Review	: Alfred J. Tho	mpson	Signed:			a.g.	Thompso	Date:	09/10/19	
Cost Estimate	Sequence #:	Dated:		In t	he Amount of \$	V	· · ·	Data Input Comp	letion Date:	
REMARKS:	Administrativ	ve Settlement a	nd Litigation A	ward	ls have been ad	justed to	reflect one o	wnership. Adm	inistrative	
	settlement is	considered to	be zero, while	litiga	ition is factored	at 4 5%.				
	This pond sit	e will impact a	new theatre co	mpl	ex.					
The following i		stimator's conf cates the most		bove	estimate:					
v			erage confiden							
X			erage confiden or no confiden							
				_						
The following in Work Program	ndicates the D Update:	epartment's pu	rpose for this e Gaming 1:	estin	nate:	Special	Burnossi	v	Dono to Ditt	5
Comments:			_ summy 1			opecial	Purpose: _	X	Docs to RW:	

					RTMENT OF				HDR#:	
FM#:	419235-3		Alternate:		SMF 1B			District:		10169256-7.12
County:	Hillsborou	gh	Segment:		N/A			Date:		Seven 28-Aug-19
State Rd.: Project Des	SR 93A		FAP#:		N/A			C.E. Sequence		N/A
Parcels	Gross M	BA) S. of US 301 t let	o N of Bruce B.	Dov	vns					
Commercia		0			14		Estimated R Business	elocatees:		
Residential	57	57		٣			Residential	2	28	
Unimproved	0	0					Signs		0	
Total Parcel	s 57	57					Special		0	
the second se	RT COSTS (PH						Total Reloca		84	
1. Direct La		(Parcels	57	x	20,000 =	Dete)		Amount		
2. Indirect		(Parcels	57		20,000 ~	Rate) Rate)		1,140,000		
3.				~		(ato)		TOTAL PHASE	41	\$1,140,000
R/W OPS (P	HASE 4B)							and it is a second s	Name of Street, or other Designation of Street, or other Desig	\$1,140,000
4. Apprais	al Fees Throug	h Trial				57	Parcels a	x 30,000 =	Amount 1,710,000	
5. Busines	s Damage CPA	Fees Through T				0	Claims x		0	
	eporter & Proc	ess Servers	50%	х	57 =	29	Parcels x	c 500 =	14,500	
7. Expert 1 8. Mediato			<u>75%</u>	X	=	43	Parcels x		1,290,000	
	ion, Asb. Abate	Survey etc	75%	x	57 =	43 5	Parcels x		103,200	
10. Miscella	neous Contrac	its				5	Imprvmet x Per Project x		75,000	
11. Apprais	al Fee Review					20	Parcels x		100,000	
12.								TOTAL PHASE		\$3,292,700
	OSTS (PHASE							and the second design of the	Subtotal	10,202,700
		Severance Dama	ages						GUDIOLAI	
and Co	st to Cure Amo	unt	0	x	120% *	Design	plan stage =	. 0		
14. Water R	etention & Mit.	(1 Pond)	6,175,765	x			w/o R/W Acq)			
	FAL (151,153)					(Lines 1			7,410,900	
	Settlement: (Fa		20%	x	<u>60%</u> of	f Line 15)	=	889,300		
	n Awards (Fa		45%	x	40% of	f Line 15)	=	1,334,000		
	s Damages (Cla		0	X	()		=	0		
	mages Incr (Fa		25%	x	<u>\$)</u>		=	0		
	Appr. Fees (Pa CPA Fees (Cla		57	×	\$15,000)		=	855,000		
		arms n of Lines 16, 17 & 19)	0	x	\$16,000)		=	0		
	Expert Witn (Co			x	33%)		=	733,700		
	ondemn. Costs		0	+		x <u>18,000</u>	=	0		
25. SUBTOT			57	x	\$1,000		= 6 thru 24) =	57,000		
26.						(LINES I	o unu 24) -	TOTAL PHASE	3,869,000	014 070 000
* Design co.	ntingency for a	lesign plan stage	:						+3	\$11,279,900
(1) PD	&E plans - 120	% (2) 30% plans	- 115% (3) 60	% pla	ans - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUIS	ITION CONSU	LTANT (PHASE 4	2)							- HE CHARTER CONTRACT
	tion Consultant-		\$20,000	x	0			TOTAL PHASE	12	\$0
RELOCATIO	N COSTS (PHA	SE 45)								
	Replaceme	ent Housing			Number		Amount			
28. Owner 29. Tenant			\$30,000	x	28	=	840,000			
29. Tenant	Move Cost		\$25,000	X	28	=	700,000			
30. Residen		3	\$5,000	x	56	=	280.000			
31. Busines			\$40,000	Ŷ	28	-	<u>280,000</u> 1,120,000			
32. Persona			\$3,000	x	0	=	0			
33. (Lines 2						2		TOTAL PHASE	15	\$2,940,000
	on Services Co	st			\$294,000	(Not in F	Phase Total)			
35.										
36. 37.						2				
Real Estate:	D = =						(All Phases)	TOTAL ESTIMA	TE	\$18,652,600
Real Estate: Bus. Dam. :	Roger D. P. Alfred J. TI		Signed:	1	a ention	10	-0	Date:	09/10/19	
Relocation:	Roger D. P.		Signed: Signed:			a.y. J.	hampsin	Date:	09/10/19	
	ew: Alfred J. Th	nompson	Signed:	_	PORTON	19.0	TO	Date:	09/10/19	
						a.y	hompson		09/10/19	
and the second se	te Sequence #:	Dated:		In t	he Amount of \$	v	И р	ata Input Comple	tion Date:	
REMARKS:										
	This pond	impacts a large c	ondominium co	ompl	ex.					
										1
>										
									~	
					the state of the s					
The followin	g indicates the	estimator's confi	idence in the at	ove	estimate:					
		dicates the most								
X	Type C - in	dicates above ave	erage confident	e Se						
	Type D - ind	dicates the least	or no confidenc	.e						
				-						
The following	g indicates the	Department's pu	rpose for this e	stim	ate:					
Work Progra	m Update:		Gaming 1:			Special	Purpose:	ХС	ocs to RW:	
Comments:										

X

					RTMENT OF RIGHT OF V				HDR#:	10169256-7.12
FM#:	419235-3		Alternate:		SMF 1C			District:		Seven
County: State Rd.:	Hillsboroug SR 93A	h	Segment: FAP#:		N/A			Date:		28-Aug-19
Project Des.) S. of US 301 t		Do	N/A wns			C.E. Sequence	Ð	N/A
Parcels	Gross Ne	t					Estimated R	elocatees:		
Commercial Residential	0	8					Business		0	
Unimproved	1	1					Residential Signs		8	
Total Danala		_					Special		0	
Total Parcels R/W SUPPORT	9	9					Total Reloca	atees	8	
1. Direct Labo		(Parcels	9	x	20,000 =	Rate)		Amount		
2. Indirect Ove		(Parcels	9	x	0 =	Rate)		<u>180,000</u> 0		
3.								TOTAL PHASE	E 41	\$180,000
R/W OPS (PHA									Amount	
4. Appraisal F 5. Business D	ees Through amage CPA I	Trial Fees Through T	rial			9		x 30,000 =		
6. Court Repo	orter & Proces	s Servers	50%	x	9 =	0 5	-	x 19,000 = x 500 =	_	
7. Expert Witr	ness		75%	x	9 =	7		x 30,000 =		
8. Mediators 9. Demolition	, Asb. Abate.,	Current at a	75%	х	9 =	7		x 2,400 =	16,800	
10. Miscellane	ous Contracts	Survey, etc.				8 0	Imprvmet 2 Per Project 2			
11. Appraisal F	ee Review					3		x 5,000 =		
12.								TOTAL PHASE		\$634,300
R/W LAND COS	•				1 A			Amount	Subtotal	
13. Land, Impro			•							
14. Water Rete	o Cure Amou		2,628,900	x			plan stage =			•
15. SUBTOTAL		r Fona)	2,020,900	x	120% (0	(Lines 1	w/o R/W Acq)3,154,700	2 454 700	
16. Admin. Set		or	20%	x	60% of	Line 15)		= 378,600	3,154,700	
17. Litigation A			45%	x		Line 15)		= 567,800		
18. Business D			0	x	0)					
19. Bus. Dama			25%	x	\$)		-	=0		
20. Owner App 21. Owner CPA			9	X	<u>\$15,000</u>)		-	= <u>135,000</u>		
22. Defend.Atty) 946,400	X X	\$16,000) 33%)		-	= 0		
23. Owner Exp			, <u> </u>	÷		18,000		= <u>312,300</u> = <u>18,000</u>		
24. Other Cond	lemn. Costs	• •	9	x	\$1,000			= 9,000		
25. SUBTOTAL	-					(Lines 1	6 thru 24) =		1,420,700	
26.								TOTAL PHASE	43	\$4,575,400
Design contin (1) PD&E	igency for de plans - 120%	sign plan stage (2) 30% plans): - 115% (3) 60	% D	lans - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITI				-						
27. Acquisition			\$20,000	x	Q			TOTAL PHASE	42	\$0
RELOCATION C								Rectauring Contraction		
28. Owner	Replacemen	t Housing	\$20.000		Number		Amount			
29. Tenant			\$30,000 \$25,000	X	8	=	240,000			
	Move Costs			~		- -				
30. Residential			\$5,000	x	8	=	40,000			
31. Business/F 32. Personal P			\$40,000 \$3,000	X X	0		0			
33. (Lines 28 th			43,000	^	<u>U</u>	-	0	TOTAL PHASE	45	\$280,000
34. Relocation		t			\$28,000	(Not in F	Phase Total)	TOTALTING		\$200,000
35.										
36. 37.							(All DL	TOTAL POTIS		
Real Estate:	Roger D. Pat	ttop	Signed:	1-1	aland	and the second	(All Phases)	TOTAL ESTIM		\$5,669,700
Bus. Dam. :	Alfred J. The		Signed:	-	mus	10, 1	Thomas	Date: Date:	09/10/19	
Relocation:	Roger D. Pat	tton	Signed:	F	Detter	- 7. 4	nonpor	Date:	09/10/19	
Overall Review:	: Alfred J. Tho	ompson	Signed:			2.J. V	Chempson	🔍 🗌 Date:	09/10/19	
Cost Estimate S	Sequence #:	Dated:		Int	the Amount of \$	0	· /	Data Input Comp	letion Date	
REMARKS:								uta input oomp	iction bate.	
			2							
								ж.		
The following in	ndicates the e	stimator's cont	idence in the a	hove	estimato:					
	Type A - indi	icates the most	confidence	5010	e countate.					
	Type B - indi	icates above av	erage confiden	ice						
X	I ype C - indi Type D - indi	icates below av icates the least	erage confiden	ce						
	- 1946 D - 110	icales the least	or no connaen	ue.						
The following in	ndicates the D	epartment's pu		estin	nate:					
Work Program	Update:		Gaming 1:			Special	Purpose:	x	Docs to RW:	
Comments:										



			STRICT SEV				SPORTATI		HDR#:	10169256-7.12
FM#: County:	419235-3 Hillsboroug	h	Alternate: Segment:		SMF 6A N/A			District: Date:		Seven 28-Aug-19
State Rd.: Project Des.	SR 93A I-75 (SR 93A) S. of US 301 (FAP#: to N of Bruce B	Dov	N/A			C.E. Sequenc	e	N/A
Parcels	Gross Ne	<u>t -</u>			115		Estimated R	elocatees:		
Commercial Residential	1	1					Business		0	
Unimproved	0	0					Residential Signs		0	
Total Parcels	1				(4)		Special		0	
R/W SUPPOR		1		-			Total Reloca		0	
1. Direct Lab		(Parcels	1	x	20,000 =	Rate)		Amount 20,000		
2. Indirect Ov	rhead	(Parcels	1		0 =	,		0		
3.	-							TOTAL PHAS	E 41	\$20,000
R/W OPS (PHA		Trial							Amount	
	Fees Through Damage CPA I	Trial Fees Through 1	frial			1 0	Parcels x Claims x			
6. Court Rep	orter & Proces	s Servers	50%	x	1 =	1	Parcels x		-	
7. Expert Wit 8. Mediators			75%	х	1=	1	Parcels x			
	n, Asb. Abate.,	Survey etc	75%	x	1=	1 0	Parcels x	-,	-,	
10. Miscellane	ous Contracts	Garvey, etc.				0	Imprvmet x Per Project x			
11. Appraisal	Fee Review					Ō	Parcels x	5,000 =	. 0	
12.								TOTAL PHASE	E 4B	\$62,900
R/W LAND CO								Amount	Subtotal	
13. Land, Imp and Cost	rovements & S to Cure Amou		ages 0		4000/ +	Deci	plan at:			
14. Water Ret			2,026,560	x			<i>plan stage</i> = w/o R/W Acq)			•
15. SUBTOTA				^	(0	(Lines 1		2,431,900	2,431,900	
16. Admin. Se		or	20%	x	0% of	f Line 15)		0	2,431,300	
17. Litigation			45%	x		f Line 15)		1,094,400		
18. Business			0	x	()		=	0		
19. Bus. Dama 20. Owner Ap			25%	x	\$ •)		-	0		
21. Owner CP.			1	X X	\$15,000) \$16,000)			15,000		
22. Defend.Att				Ŷ	33%)			361,200		0
23. Owner Exp			1	÷		x 18,000		18,000		
24. Other Con			1	x	\$1,000			1,000		
25. SUBTOTA	L					(Lines 1	6 thru 24) =		1,489,600	
26. * Design conti	ngency for de	sign plan stage						TOTAL PHASE	43	\$3,921,500
(1) PD&	E plans - 120%	(2) 30% plans	44E0/ (2) CO			r				
		A CONTRACTOR OF THE	5 - 115% (3) 00	1% pla	ans - 110% (4)	90% plan	is -105% (5) 2	268 Date -100%		
	ION CONSULT	ANT (PHASE 4)% pla	ans - 110% (4)	90% plan	is -105% (5) 2	268 Date -100%		
27. Acquisitio	ION CONSULT	ANT (PHASE 4 % of parcels)% pla x	ans - 110% (4) 0	90% plan	is -105% (5) 2	268 Date -100%		\$0
	ION CONSULT n Consultant-50 COSTS (PHAS	ANT (PHASE 4 0% of parcels E 45)	2)		0	90% plan				\$0
27. Acquisitio RELOCATION	ION CONSULT	ANT (PHASE 4 0% of parcels E 45)	\$20,000	x	0 Number		Amount			\$0
27. Acquisitio	ION CONSULT n Consultant-50 COSTS (PHAS	ANT (PHASE 4 0% of parcels E 45)	2)		0	90% plan = =	Amount 0			\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs	ANT (PHASE 4 0% of parcels E 45)	2) \$20,000 \$30,000 \$25,000	x	0 Number 0		Amount			\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs	ANT (PHASE 4 0% of parcels E 45)	2) \$20,000 \$30,000 \$25,000 \$5,000	x x x x	0 Number 0 0		Amount 0 0			\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm	ANT (PHASE 4 0% of parcels E 45)	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0		Amount 0 0 0			\$0
 Acquisitio RELOCATION Owner Tenant Residentia Business/I Personal F (Lines 28 t 	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm Property hru 32)	ANT (PHASE 4 0% of parcels E 45) t Housing	2) \$20,000 \$30,000 \$25,000 \$5,000	x x x x	0 Number 0 0 0 0		Amount 0 0	TOTAL PHASE		
 Acquisitio RELOCATION Owner Tenant Residentia Business/I Personal F (Lines 28 t Relocation 	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm Property hru 32)	ANT (PHASE 4 0% of parcels E 45) t Housing	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0 0		Amount 0 0 0			\$0 \$0 \$0
 Acquisitio RELOCATION Owner Tenant Residentia Business/I Personal F (Lines 28 t) Relocation 35. 	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm Property hru 32)	ANT (PHASE 4 0% of parcels E 45) t Housing	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0 0 0		Amount 0 0 0 0 0	TOTAL PHASE		
 Acquisitio RELOCATION Owner Tenant Residentia Business/I Personal F (Lines 28 t) Relocation 35. 36. 	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm Property hru 32)	ANT (PHASE 4 0% of parcels E 45) t Housing	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0 0 0		Amount 0 0 0 0 0 Phase Total)	TOTAL PHASE	E 42	\$0
 Acquisitio RELOCATION Owner Tenant Residentia Business/I Personal F (Lines 28 t Relocation Relocation 35. 36. 37. 	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos	TANT (PHASE 4 0% of parcels E 45) t Housing	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000 \$3,000	x x x x	0 Number 0 0 0 0 0 0 80		Amount 0 0 0 0 0 Phase Total)	TOTAL PHASE	E 42	
 Acquisitio RELOCATION Owner Tenant Residentia Business/I Personal F (Lines 28 t) Relocation 35. 36. 	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm Property hru 32)	TANT (PHASE 4 0% of parcels E 45) t Housing t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$3,000 \$3,000 Signed:	x x x x	0 Number 0 0 0 0 0		Amount 0 0 0 0 0 Phase Total)	TOTAL PHASE	E 42 E 45 ATE 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation:	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat	t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000 \$3,000	x x x x	0 Number 0 0 0 0 0 0 80		Amount 0 0 0 0 0 Phase Total)	TOTAL PHASE	E 42	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. :	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat	t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000	x x x x	0 Number 0 0 0 0 0 0 \$0		Amount 0 0 0 0 0 Phase Total)	TOTAL PHASE	E 42 E 45 ATE 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review	ION CONSULT n Consultant-5(COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos <u>Roger D. Pat</u> Alfred J. Tho Roger D. Pat	t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000 \$3,0	x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 E 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation:	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat (Construction of the second Roger D. Pat Alfred J. Tho Roger D. Pat	TANT (PHASE 4 0% of parcels E 45) t Housing t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000 \$3,0	x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
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27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat Alfred J. Tho Roger D. Pat Sequence #:	TANT (PHASE 4 0% of parcels E 45) t Housing t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,000 \$3,0	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat Alfred J. Tho Roger D. Pat Sequence #:	TANT (PHASE 4 0% of parcels E 45) t Housing t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000 \$3,0	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
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27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat Alfred J. Tho Roger D. Pat Sequence #:	TANT (PHASE 4 0% of parcels E 45) t Housing t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000 \$3,0	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat Alfred J. Tho Roger D. Pat Sequence #:	TANT (PHASE 4 0% of parcels E 45) t Housing t t t t t t t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000 \$3,0	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/ 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate REMARKS:	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I arm roperty hru 32) Services Cos Roger D. Pat Alfred J. Tho Roger D. Pat Alfred J. Tho Sequence #: Administrati settlement is	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Patt Alfred J. Tho Roger D. Patt Alfred J. Tho Sequence #: Administrati settlement is ndicates the e _ Type A - indi	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/ 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate REMARKS:	ION CONSULT in Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Patt Alfred J. Tho Roger D. Patt : Alfred J. Tho Sequence #: Administrati settlement is	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/ 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate REMARKS:	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Patt Alfred J. Tho Roger D. Patt Alfred J. Tho Roger D. Patt Alfred J. Tho Sequence #: Administrati settlement is ndicates the e Type A - indi Type B - indi	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/ 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate REMARKS:	ION CONSULT n Consultant-50 COSTS (PHAS Replacemen Move Costs I Farm Property hru 32) Services Cos Roger D. Patt Alfred J. Tho Roger D. Patt Alfred J. Tho Roger D. Patt Alfred J. Tho Sequence #: Administrati settlement is ndicates the e Type A - indi Type B - indi	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/I 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate REMARKS: The following i	ION CONSULT n Consultant-50 COSTS (PHAS Replacement Move Costs I arm Property hru 32) Services Cost Roger D. Patt Alfred J. Tho Roger D. Patt A	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	Number 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0
27. Acquisitio RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/ 32. Personal F 33. (Lines 28 t 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate REMARKS: The following i	ION CONSULT n Consultant-50 COSTS (PHAS Replacement Move Costs I arm Property hru 32) Services Cost Roger D. Patt Alfred J. Tho Roger D. Patt A	ANT (PHASE 4 2% of parcels E 45) t Housing t t t t t t t t t t t t t	2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	Number 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F 	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	E 42 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	\$0

					RTMENT OF RIGHT OF W				HDR#:	10169256-7.12
FM#: County: State Rd.:	419235-3 Hillsbord SR 93A	bugh	Alternate: Segment: FAP#:		SMF 6B N/A N/A			District: Date: C.E. Sequence)	Seven 28-Aug-19 N/A
Project Des. Parcels Commercial Residential Unimproved	Gross 0 0 0	93A) S. of US 301 to Net 0 0 0 0 0	o N of Bruce B.	Dow	/ns		Estimated Re Business Residential Signs Special		0 0 0 0	
Total Parcels R/W SUPPORT	0 COSTS (F	0 2HASE 41)				-	Total Reloca		0	
1. Direct Labo	r Cost	(Parcels	0	x	20,000 =	Rate)		Amount 0		
2. Indirect Ove 3.	erhead	(Parcels	0	x	0 =	Rate))	0		
R/W OPS (PHA	SE 4B)							TOTAL PHASE	Amount	\$0
4. Appraisal F						0	Parcels x		0	
6. Court Repo	orter & Pro	PA Fees Through T ocess Servers	riai 50%	х.	0 =	-3 0	Claims x Parcels x		-57,000	
7. Expert Witr 8. Mediators	ness		75%	x	=	0	Parcels x	30,000 =	Ő	
9. Demolition	, Asb. Aba	ate., Survey, etc.	75%	X	=	0	Parcels x Imprvmet x	-,	0	
10. Miscellane	ous Contr	acts				ŏ	Per Project x			
11. Appraisal F 12.	ee Review	N				0	Parcels x	5,000 =	0	
R/W LAND COS	STS (PHAS	SE 43)				_	_	TOTAL PHASE		-\$57,000
13. Land, Impre	ovements	& Severance Dama	ages					Amount	Subtota!	
and Cost t	o Cure An	nount	0	×	120% *	Design	plan stage =	0		
14. Water Rete			2,001,621	x	120% (0		w/o R/W Acq)	2,401,900		
15. SUBTOTAL 16. Admin. Set			20%	x	60%	(Lines 1 f Line 15)			2,401,900	
17. Litigation A			45%	x		f Line 15)		288,200		
18. Business D			0	x	0)		-			
19. Bus. Dama 20. Owner App			25%	x	\$ (1,450,000))		=	-004,000		
21. Owner CPA		Claims		X X	<u>\$15,000</u>) \$16,000)			-48,000		
		Sum of Lines 16, 17 & 19		x	33%)			118,100		
23. Owner Exp	ert Witn (Comm.+Unimp.)	0	+]		x 18,000	=	0		
24. Other Cond 25. SUBTOTAL		sts	0	×	\$1,000		=	0		
26.	-					(Lines 1	6 thru 24) =	TOTAL PHASE	-1,021,900	\$1,380,000
* Design contii	ngency fo	r design plan stage							40	\$1,380,000
	plans - 1	20% (2) 30% plans	s - 115% (3) 609	% pla	ans - 110% (4) §	0% plans	5 -105% (5) 2	68 Date -100%		
		nt-50% of parcels	\$20,000	x	0			TOTAL PHASE	40	
RELOCATION				-				TOTAL PHASE	. 42	\$0
28. Owner		ment Housing			Number		Amount			
29. Tenant			\$30,000 \$25,000	X X	0	=	0			
	Move Co	sts		^		-	U			
30. Residential 31. Business/F			\$5,000	×	0	=	0			
32. Personal P	roperty		\$3,000	X X	0	=				
33. (Lines 28 th								TOTAL PHASE	45	\$0
34. Relocation 35.	Services	Cost		-	\$0	(Not in	Phase Total)			
36.										
37.							(All Phases)	TOTAL ESTIM	ATE	\$1,323,000
Real Estate: Bus. Dam. :	Roger D.		Signed:	P	action		1	Date:	09/10/19	
Relocation:	Roger D.		_Signed: Signed:	T	The state	c.y. 7-	Kongson	Date: Date:	09/10/19	
Overall Review			_Signed:	-	an year	4. T.	homosom	Date:	09/10/19	
Cost Estimate S	Sequence	#: Dated:		In +	he Amount of \$	0	1			
REMARKS:		mate for SMF 6B in				line dam	ages have her	ata Input Comp	drivowou ante:	Page for
	Farcerz	serves more than c	one property. Th	e es	stimate assumes	the drive	way entrance	will be moved	to accommodat	te the
	property	to the north.								
	The main	nline taking creates	significant bus	ines	s and severance	amage	s. Selection	of this pond mai	kes the busines	agnemeth as
	go away	and therefore nega	itive numbers a	re sl	hown in Lines 5,	18, 19 &	21.	1		
The following in	ndicates t	he estimator's conf indicates the most	idence in the ab	ove		1.1.4-				
	_Type B -	indicates above av	erage confidence	e			000,000			
X	Type C -	indicates below av	erage confidence	e) + \$1,323,	000 = \$6,3	323,000
	туре D -	indicates the least	or no confidenc	e	Se	ee Atta	ached e-m	nail		
The following in	ndicates ti	he Department's pu	rpose for this e	stim	ate:					
Work Program Comments:	Update:		Gaming 1:			Special	Purpose:	X	Docs to RW:	
comments:										

From: McTeer, Bill [mailto:Bill.Mcteer@dot.state.fl.us]
Sent: Wednesday, October 30, 2019 2:07 PM
To: Littlefield, John <<u>John.Littlefield@wsp.com</u>>; roger.patton@hdrinc.com; Brad Flom <<u>BFLOM@HNTB.com</u>>
Cc: Henzel, Ashley <<u>Ashley.Henzel@dot.state.fl.us</u>>; Bogen, Kirk <<u>Kirk.Bogen@dot.state.fl.us</u>>; Gordillo, Steve
<<u>Steve.Gordillo@wsp.com</u>>; Steve Maierle <<u>smaierle@hntb.com</u>>; Shiffman, Lindsay M. <<u>Lindsay.Shiffman@wsp.com</u>>;
Thompson, Alfred <<u>Alfred.Thompson@hdrinc.com</u>>

Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Looks good from here. If later down the road we have to update ponds we will do a new estimate. But I think for now you are good.

Bill McTeer, CSM, CPM Right of Way Cost Estimate Coordinator Fl. Department of Transportation District VII <u>bill.mcteer@dot.state.fl.us</u> (813) 975 6735

From: Littlefield, John [mailto:John.Littlefield@wsp.com]

Sent: Wednesday, October 30, 2019 1:33 PM

To: McTeer, Bill <<u>Bill.Mcteer@dot.state.fl.us</u>>; <u>roger.patton@hdrinc.com</u>; Brad Flom <<u>BFLOM@HNTB.com</u>> Cc: Henzel, Ashley <<u>Ashley.Henzel@dot.state.fl.us</u>>; Bogen, Kirk <<u>Kirk.Bogen@dot.state.fl.us</u>>; Gordillo, Steve <<u>steve.gordillo@wsp.com</u>>; Steve Maierle <<u>smaierle@hntb.com</u>>; Shiffman, Lindsay M. <<u>Lindsay.Shiffman@wsp.com</u>>; Thompson, Alfred <<u>Alfred.Thompson@hdrinc.com</u>>

Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Bill,

If you are saying I can add \$5M to SMF 6B, that works for me. As mentioned I will add text to the current estimate for my report. This puts the total cost at:

SMF 6A- \$4,004,400 - <u>Preferred</u> SMF 6B- \$1,323,000 + \$5,000,000= \$6,323,000

This works for me.

John Littlefield Supervising Engineer



Phone: 813.520.4347 Email: john.littlefield@wsp.com Please note I have a new email address.

WSP USA 2202 West Shore Blvd, Suite 300 Tampa, FL 33607

wsp.com

WSP | Parsons Brinckerhoff is now WSP.

From: McTeer, Bill [mailto:Bill.Mcteer@dot.state.fl.us]
Sent: Wednesday, October 30, 2019 1:26 PM
To: roger.patton@hdrinc.com; Brad Flom <<u>BFLOM@HNTB.com</u>>; Littlefield, John <<u>John.Littlefield@wsp.com</u>>
Cc: Henzel, Ashley <<u>Ashley.Henzel@dot.state.fl.us</u>>; Bogen, Kirk <<u>Kirk.Bogen@dot.state.fl.us</u>>; Gordillo, Steve
<<u>Steve.Gordillo@wsp.com</u>>; Steve Maierle <<u>smaierle@hntb.com</u>>; Shiffman, Lindsay M. <<u>Lindsay.Shiffman@wsp.com</u>>; Thompson, Alfred <<u>Alfred.Thompson@hdrinc.com</u>>
Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

I am not sure we need a new estimate on these locations. If SMF 6B were to have the mainline takings removed we would roughly estimate the additional cost of improvements and damages at around \$5,000,000. Can we not just put this email with the pond sites in your report and add it on your worksheet with a star or something?

Bill McTeer, CSM, CPM Right of Way Cost Estimate Coordinator Fl. Department of Transportation District VII <u>bill.mcteer@dot.state.fl.us</u> (813) 975 6735

From: Patton, Roger [mailto:Roger.Patton@hdrinc.com]
Sent: Wednesday, October 30, 2019 1:17 PM
To: Brad Flom <<u>BFLOM@HNTB.com</u>>; Littlefield, John <<u>john.littlefield@wsp.com</u>>; McTeer, Bill
<<u>Bill.Mcteer@dot.state.fl.us</u>>
Cc: Henzel, Ashley <<u>Ashley.Henzel@dot.state.fl.us</u>>; Bogen, Kirk <<u>Kirk.Bogen@dot.state.fl.us</u>>; Gordillo, Steve
<<u>steve.gordillo@wsp.com</u>>; Steve Maierle <<u>smaierle@hntb.com</u>>; Shiffman, Lindsay M. <<u>Lindsay.Shiffman@wsp.com</u>>;
Thompson, Alfred <<u>Alfred.Thompson@hdrinc.com</u>>
Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

EXTERNAL SENDER: Use caution with links and attachments.

Good afternoon all:

The pond siting Short List Meeting Summary list calls out "SMF 6B", but the ROW maps shows what was actually 6A's location on the original ROW Maps.

FYI, 6B would actually result in a higher cost without the mainline take due to the substantial commercial improvements.

SMF 6A is the site we assume is to be included in the estimate.

Please advise if 6A is not the preferred site.

Thank you,

Roger D. Patton *Real Estate Services Agent III*

HDR

4830 W. Kennedy Blvd, Suite 400 Tampa, Florida 33609-2548 D 813-262-2716

roger.patton@hdrinc.com

hdrinc.com/follow-us

From: Brad Flom [mailto:BFLOM@HNTB.com] Sent: Wednesday, October 30, 2019 12:57 PM

To: Littlefield, John <<u>John.Littlefield@wsp.com</u>>; Bill McTeer (<u>Bill.McTeer@dot.state.fl.us</u>) <<u>Bill.McTeer@dot.state.fl.us</u>>; Cc: Patton, Roger <<u>Roger.Patton@hdrinc.com</u>>; Ashley Henzel <<u>Ashley.Henzel@dot.state.fl.us</u>>; Bogen, Kirk (<u>Kirk.Bogen@dot.state.fl.us</u>>; Gordillo, Steve <<u>Steve.Gordillo@wsp.com</u>>; Steve Maierle <<u>SMaierle@HNTB.com</u>>; Shiffman, Lindsay M. <<u>Lindsay.Shiffman@wsp.com</u>>; Subject: RE: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Bill- in anticipation that SMF 6A is the preferred pond site, our Preliminary ROW Maps (dated 10/11/19) provided to you a couple of weeks ago for estimating show the ROW needed for SMF 6A on Sheet No. 5. (Parcel 72303-0106: 186,296 SF).

Brad Flom, P.E.

Program Manager FDOT D7, Tampa Bay Next Program Consultant Direct: (813) 906-4989 Mobile: (407) 415-4785 Brad.Flom@dot.state.fl.us

10770 N. 46th St Bldg F- Suite 200 Tampa, FL 33617



From: Littlefield, John <<u>John.Littlefield@wsp.com</u>>
Sent: Wednesday, October 30, 2019 12:01 PM
To: Bill McTeer (Bill.McTeer@dot.state.fl.us) <<u>Bill.McTeer@dot.state.fl.us</u>>
Cc: Patton, Roger <<u>Roger.Patton@hdrinc.com</u>>; Ashley Henzel <<u>Ashley.Henzel@dot.state.fl.us</u>>; Bogen, Kirk
(<u>Kirk.Bogen@dot.state.fl.us</u>) <<u>Kirk.Bogen@dot.state.fl.us</u>>; Gordillo, Steve <<u>Steve.Gordillo@wsp.com</u>>; Steve Maierle
<<u>SMaierle@HNTB.com</u>>; Brad Flom <<u>BFLOM@HNTB.com</u>>; Shiffman, Lindsay M. <<u>Lindsay.Shiffman@wsp.com</u>>
Subject: I-75 419235-3/Section 9 - Revised R/W Cost Estimate for SMF 6A & SMF 6B

Bill,

There has been a recent design change to the I-75 roadway alignment to warrant an updated ROW cost estimate for SMF 6A & SMF 6B. The biggest change is that SMF 6B will no longer require a roadway take along the property. We believe this will change the preferred pond option. Can you please provide an update ROW cost for these two pond sites. Please see the revised ROW graphic. We have coordinated this task with Ashley Henzel.

SMF 6A is 3.31 acres with a 0.09 ac easement on one parcel. SMF 6B is 3.43 acres on three parcels.

Thank you.

John Littlefield Supervising Engineer



Phone: 813.520.4347 Email: john.littlefield@wsp.com Please note I have a new email address.

WSP USA 2202 West Shore Blvd, Suite 300 Tampa, FL 33607

wsp.com

WSP | Parsons Brinckerhoff is now WSP.



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This e-mail and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. If you are NOT the intended recipient and receive this communication, please delete this message and any attachments. Thank you.



					RTMENT OF				HDR#:	10169256-7.12
FM#: County: State Rd.:	419235-3 Hillsborough SR 93A		Alternate: Segment: FAP#:		SMF 7A & FPC N/A N/A			District: Date:		Seven 28-Aug-19
Project Des.	1-75 (SR 93A)		o N of Bruce B.	. Dov				C.E. Sequence)	N/A
Parcels Commercial	Gross Net	1	14				Estimated R Business	elocatees;	1	
Residential Unimproved	0	0					Residential Signs		0	
Total Parcels	2	2					Special		0	
R/W SUPPORT							Total Reloca	Amount	1	
1. Direct Labo 2. Indirect Ov		(Parcels (Parcels	2	x x	<u>20,000</u> = 0 =	Rate) Rate)		40,000		
3.				^		nale)		0 TOTAL PHASE	41	\$40,000
R/W OPS (PHA 4. Appraisal	SE 4B) Fees Through '	Trial				2	Parcels		Amount	
5. Business I	Damage CPA F	ees Through T				0		x 30,000 = x 19,000 =	60,000 0	
6. Court Repo 7. Expert Wit	orter & Process ness	s Servers	<u> </u>	X X	2=	1 2		x 500 = x 30,000 =		
8. Mediators			75%	x	2=	2		x 30,000 = x 2,400 =		
10. Miscellane	, Asb. Abate., s ous Contracts	Survey, etc.				1 0	Imprvmet a Per Projecta			
11. Appraisal I 12.	Fee Review					1	Parcels	5,000 =	5,000	
R/W LAND COS	STS (PHASE 43	8)						TOTAL PHASE		\$145,300
13. Land, Impr	ovements & Se	everance Dama	ages					Amount	Subtotal	
	o Cure Amoun	-	0	x			plan stage =			
14. Water Rete 15. SUBTOTAI		Pona)	16,553,672	x	120% (0	Parcels (Lines 1	w/o R/W Acq) 19,864,400	19,864,400	
16. Admin. Set	tlements (Facto		20%	x		Line 15)	=	2,383,700	13,004,400	
17. Litigation A 18. Business [<u> </u>	X		Line 15)				
19. Bus. Dama			25%	X X	<u> </u>					
20. Owner App			2	x	\$15,000)		-	=		
21. Owner CP/ 22. Defend.Att			0 5,959,300	X X	<u>\$16,000</u>) 33%)		-	- 1 000 000		
23. Owner Exp	ert Witn (Com		1	÷		18,000		= <u>1,966,600</u> = 36,000		
24. Other Cond 25. SUBTOTAI			2	x	\$1,000		-	2,000		
26.	-					(Lines 1	6 thru 24) =	TOTAL PHASE	7,993,900	\$27,858,300
* Design conti	ngency for des	ign plan stage	4450/ (0) 00						5	\$27,050,500
R/W ACQUISIT				76 pi	ans - 110% (4)	90% pian	is -105% (5)	268 Date -100%		
27. Acquisition	n Consultant-50	% of parcels	\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION	COSTS (PHASE Replacement				Number		A			
28. Owner	ropidoement	nousing	\$30,000	x		=	Amount 0			
29. Tenant	Move Costs		\$25,000	x	0	=	0			
30. Residentia	1		\$5,000	x	0	=	0			8
31. Business/F 32. Personal P			\$40,000	X X	1	=	40,000			
33. (Lines 28 ti	hru 32)		40,000	î	0	-	0	TOTAL PHASE	45	\$40,000
34. Relocation 35.	Services Cost				\$4,000	(Not in F	Phase Total)			
36.										
37. Real Estates	Decard P. P. 1		<u>.</u>	-			(All Phases)	TOTAL ESTIM		\$28,083,600
Real Estate: Bus. Dam. :	Roger D. Patt Alfred J. Tho		_Signed: Signed:	TA	denon	Q T	7	_ Date: Date:	09/10/19 09/10/19	
Relocation:	Roger D. Patt	on	Signed:	F	Diztion	1. 1	nonfor	Date:	09/10/19	
Overall Review	: Alfred J. Tho	mpson	_Signed:		a	.J. T	hompson	_ Date:	09/10/19	
Cost Estimate	the second s	Dated:			he Amount of \$	u	′ c	Data Input Comp	letion Date:	
REMARKS:	Parcel 2 is a	new Woodspri	ngs Suites Hote	el						
	•									
15										
The feller 1 1										
The following i	Type A - indic	stimator's conf ates the most	idence in the al confidence	bove	estimate:					
v	Type B - indic	ates above av	erage confiden							
X			erage confiden or no confiden							
The following in Work Program	ndicates the De Update:	epartment's pu	rpose for this e Gaming 1:	estin	nate:	Special	Purpose:	x	Docs to RW:	
Comments:	-					Special	. arpose	^		

			LORIDA DE						HDR#:	40450055 7 40
FM#:	419235-3		Alternate:		SMF 7B			District:	HDIN W .	10169256-7.12 Seven
County: State Rd.:	Hillsboroug SR 93A	h	Segment: FAP#:		N/A N/A			Date:		28-Aug-19
Project Des.			to N of Bruce B	. Dow				C.E. Sequence	N	N/A
Parcels Commercial	Gross Ne 2	<u>t</u>					Estimated R	Relocatees:		
Residential	ō	0					Business Residential		1	
Unimproved	0	0					Signs		0	
Total Parcels	2	2					Special Total Reloca	atees	<u> </u>	
R/W SUPPORT		SE 41)					Total Heroet	Amount		
1. Direct Labo 2. Indirect Ove		(Parcels (Parcels	2		20,000 =	Rate)		40,000		
3.	emeau	(Faiceis	2	x	0 =	Rate)	× .	0 TOTAL PHASE	44	¢ 40.000
R/W OPS (PHA	SE 4B)							TOTAL PHASE	Amount	\$40,000
4. Appraisal F	Fees Through	Trial				2	Parcels 2	x 30,000 =	60,000	
5. Business [6. Court Repo	Damage CPA I	Fees Through 1	Frial 50%		·	0		x 19,000 =	0	
7. Expert Witi	ness		75%	x	<u>2</u> = 2 =	1 2	-	x 500 = x 30,000 =	500 60,000	
8. Mediators 9. Demolition	, Asb. Abate.,	Suprav. etc.	75%	x	2 =	2		x 2,400 =	4,800	
10. Miscellane	ous Contracts	Survey, etc.				1 0	Per Project >		15,000 0	
11. Appraisal F	Fee Review					1	Parcels >	5,000 =	5,000	
12.								TOTAL PHASE	4B	\$145,300
R/W LAND COS 13. Land, Impre			aues					Amount	Subtotal	
	to Cure Amou		ages 0	x	120% *	Desian	plan stage =	- 0		
14. Water Rete		Pond)	3,263,415	x			w/o R/W Acq			
15. SUBTOTAL				-		(Lines 1	3 &14)		3,916,100	
16. Admin. Set 17. Litigation A			<u> </u>	Х.		Line 15)		403,300		
18. Business D				×.	0 0)	Line 15)		104,000		-
19. Bus. Dama			25%	x	\$ -)			240		
20. Owner App			2	×	\$15,000)		- a - 18	=		
21. Owner CPA 22. Defend.Atty			0 1,174,800	×	<u>\$16,000</u>) 33%)		-	0		
23. Owner Exp			2	× _		(18,000		= <u>387,700</u> = 36,000		
24. Other Cond	demn. Costs	• /	2	x	\$1,000		-	2,000		
25. SUBTOTAL 26.	-					(Lines 1	6 thru 24) =		1,630,500	
	ngency for de	sign plan stage						TOTAL PHASE	43	\$5,546,600
(1) PD&E	plans - 120%	(2) 30% plans	s - 115% (3) 60	% pla	ns - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITI 27. Acquisition			COLOR STRUCTURES					1		
RELOCATION C			\$20,000	x	0			TOTAL PHASE	42	\$0
	Replacemen				Number		Amount			
28. Owner 29. Tenant			\$30,000 \$25,000	X	0	2	0			
-o, ionant	Move Costs			x	U	3 #	0			
30. Residential 31. Business/F			\$5,000	×	0	=	0			
32. Personal P			\$40,000	X X	1	-	40,000			
33. (Lines 28 th	hru 32)					1.000	U	TOTAL PHASE	45	\$40,000
34. Relocation	Services Cos	£			\$4,000	(Not in F	Phase Total)	6		110,000
35. 36.										
37.							(All Phases)	TOTAL ESTIMA	TE	\$5,771,900
Real Estate:	Roger D. Pat			122	action	-		Date:	09/10/19	
Bus. Dam. : Relocation:	Alfred J. Tho Roger D. Pat		Signed: Signed:	THE	Detton	a.g. 7	hongen	Date:	09/10/19	
Overall Review:			_Signed:	1	reach	2.9.	Thurson	Date: Date:	09/10/19	
Cost Estimate S	Sequence #:	Datad		1- 44		0	1			
REMARKS:	sequence #:	Dated:		in th	e Amount of \$	14	D	ata Input Compl	etion Date:	
		·								
		, ,								
The following in	ndicates the e	stimator's conf	fidence in the a	bove	estimate:					
The following in	Type A - indi	cates the most	confidence		estimate:					
The following in X	Type A - indi Type B - indi Type C - indi	cates the most cates above av cates below av	confidence verage confiden verage confiden	ce ce	estimate:	-				
	Type A - indi Type B - indi Type C - indi	cates the most cates above av cates below av	confidence verage confiden	ce ce	estimate:	-				
x	Type A - Indi Type B - Indi Type C - Indi Type D - Indi	cates the most cates above av cates below av cates the least	confidence verage confiden verage confiden or no confiden	ce ce ce		-				
	_Type A - indi _Type B - indi _Type C - indi _Type D - indi 	cates the most cates above av cates below av cates the least	confidence verage confiden verage confiden or no confiden urpose for this e	ce ce ce		Special	Purpose:	X	Docs to RW:	

			PARTMENT OF				HDR#:	
FM#:	419235-3	Alternate:	SMF 7C		JILSIIM	District:	HUK#.	10169256-7.12
County:	Hillsborough	Segment:	N/A			District: Date:		Seven 28-Aug-19
State Rd.:	SR 93A	FAP#:	N/A			C.E. Sequence	•	N/A
Project Des.	I-75 (SR 93A) S. of US	301 to N of Bruce B	Downs					
Parcels Commercial	Gross Net				Estimated R	elocatees:		
Residential	0 0				Business Residential		1	
Unimproved	0 0				Signs		0	
					Special		0	
Total Parcels	0 0				Total Reloca	tees	1	
R/W SUPPORT	COSTS (PHASE 41)					Amount		
1. Direct Labo	(x20,000 =	Rate))	0		
2. Indirect Ove	erhead (Parcels	. 0	x =	Rate)		0		
3.					1	TOTAL PHASE	E 41	\$0
R/W OPS (PHA					_		Amount	
4. Appraisal F	ees Through Trial			0	Parcels x			
5. Business D	amage CPA Fees Thro	ough Trial	• 575	0	Claims x		-	
7. Expert With	orter & Process Server			0	Parcels x		-	
8. Mediators	1033	75% 75%		0 0	Parcels x		-	
	, Asb. Abate., Survey, d	etc. Plus \$100 000	· · _ ·	6	Parcels x Imprvmet x	<pre> 2,400 = 15,000 = </pre>	_	
10. Miscellane	ous Contracts			0	Per Project x			
11. Appraisal F	ee Review			ō	Parcels x	· ·		
12.						TOTAL PHASE	and the second se	\$190,000
R/W LAND COS	STS (PHASE 43)					Amount	Subtotal	
	ovements & Severance	Damages					Subiviai	
	o Cure Amount	0	x 120%	Desian	plan stage =	. 0		
14. Water Rete	ntion & Mit. (1 Pond)	12,198,212			w/o R/W Acq)			-
15. SUBTOTAL	. (358,234)			(Lines 1			14,637,900	
	tlement: (Factor	20%	x 0% o	f Line 15)	· · ·	0	14,007,000	
	wards (Factor	45%		f Line 15)		6,587,100		
)amages (Claims	0			-			
19. Bus. Dama	ges Incr (Factor	25%			=			
20. Owner App	r. Fees (Parcels	0			-			
	Fees (Claims	0			=	0		
22. Defend.Atty	Fees (Sum of Lines 16,	17 & 19) 6,587,100				2,173,700		
23. Owner Exp	ert Witn (Comm.+Unim	ıp.) 0	+ 0)	x 18,000		0		
24. Other Cond		0	x \$1,000			0		
25. SUBTOTAL	-			(Lines 1	16 thru 24) =		8,760,800	
26.						TOTAL PHASE	and the second s	\$23,398,700
* Design contin	ngency for design plan	stage:						
	plans - 120% (2) 30%		0% plans - 110% (4)	90% plar	ns -105% (5)	268 Date -100%		
	ON CONSULTANT (PH							
	Consultant-50% of pare	cels \$20,000	x 0			TOTAL PHASE	E 42	\$0
RELOCATION	COSTS (PHASE 45)							
28. Owner	Replacement Housing	3	Number		Amount			
29. Tenant		\$30,000 \$25,000	-	=	0			
	Move Costs	420,000	×	-	0			
30. Residential		\$5,000	x 0	=	0			
31. Business/F		\$40,000	x 1	=	240,000			
32. Personal P		\$3,000	x 0	=	0			28
33. (Lines 28 tl						TOTAL PHASE	45	\$240,000
34. Relocation	Services Cost		\$24,000	(Not in	Phase Total)			
35.								
36.						1		
37.		-			(All Phases)	TOTAL ESTIM	ATE	\$23,828,700
Real Estate:	Roger D. Patton	Signed:	Haddon		4	Date:	09/10/19	
Bus. Dam. :	Alfred J. Thompson	Signed:	- Andrew B	.y.J	honpson	Date:	09/10/19	
Relocation:	Roger D. Patton : Alfred J. Thompson	Signed:	Figetion	-	, /	Date:	09/10/19	
CVCIAII ICEVIEW	. Ameu J. Mompson	Signed:	(y. te	hongson	Date:	09/10/19	
Cost Estimate	Sequence #:	Dated:	In the Amount of \$	U	/	ata Innut Com	Intina Data	
REMARKS:	Administrative Settle				reflect	Data Input Comp	Dietion Date:	
	settlement is conside	red to be zero, while	litigation is factore	ijusted to 1 at 45%	o reflect one of	wnership. Adm	inistrative	
				at 40 /0.				
	This pond site is a Ca	dillac and Alfa Rom	eo/Fiat dealership.					
	The state of the state							
	This estimate for SMI	F 7C assumes the ma	ainline taking impact	s to the r	emainder.			
					× .			
The following in	ndicates the estimator	s confidence in the c	ahovo ostimato					
The following in	ndicates the estimator Type A - indicates the	s confidence in the a	above estimate:					
The following in	Type A - indicates the	most confidence						
The following in	_Type A - indicates the _Type B - indicates ab _Type C - indicates be	e most confidence ove average confider low average confider	nce nce					
	Type A - indicates the Type B - indicates ab	e most confidence ove average confider low average confider	nce nce					
x	_Type A - indicates the _Type B - indicates ab _Type C - indicates be _Type D - indicates the	e most confidence ove average confide low average confide e least or no confider	nce nce nce				-	
X The following in	_Type A - indicates the _Type B - indicates ab _Type C - indicates be _Type D - indicates the 	e most confidence ove average confide low average confide e least or no confider nt's purpose for this	nce nce nce				-	
X The following in Work Program	_Type A - indicates the _Type B - indicates ab _Type C - indicates be _Type D - indicates the	e most confidence ove average confide low average confide e least or no confider nt's purpose for this	nce nce nce	Special	Purpose:	x	Docs to RW:	
X The following in	_Type A - indicates the _Type B - indicates ab _Type C - indicates be _Type D - indicates the 	e most confidence ove average confide low average confide e least or no confider nt's purpose for this	nce nce nce	Special	Purpose:	Х	_Docs to RW:	



					RTMENT OF				HDR#:	
FM#:	419235-3		Alternate:		SMF 8A			District:	HUK#:	10169256-7.12 Seven
County:	Hillsborough		Segment:		N/A			Date:		28-Aug-19
State Rd.: Project Des.	SR 93A I-75 (SR 93A) S.	of LIC 204 +	FAP#:	Dev	N/A			C.E. Sequence		N/A
Parcels	Gross Net	. 01 03 301 0	ON OI Bruce B.	. Dov	vns		Estimated R	Pelocatees	· · · · · · · · · · · · · · · · · · ·	
Commercial	0 0						Business	010001003,	0	
Residential Unimproved	0 0						Residential		0	
Chimpioved							Signs Special		0	
Total Parcels	11						Total Reloca	atees	0	
R/W SUPPORT	COSTS (PHASE	41)						Amount		
1. Direct Labo	· · ·	arcels	1		20,000 =	Rate)		20,000		
2. Indirect Ove	ernead (P	arcels	1	x	=	Rate)		0		
R/W OP'S (PHA								TOTAL PHASE	41	\$20,000
	Se ab) Fees Through Tri	al				1	Parcels	x 30,000 =	Amount	
5. Business D	amage CPA Fee	s Through T	rial			Ö		× 30,000 = × 19,000 =	30,000 0	
	orter & Process S	ervers	50%	x	=	1	-	x 500 =	•	
7. Expert Witi 8. Mediators	ness			x	=	1		x 30,000 =	30,000	
	, Asb. Abate., Su	rvev. etc.	75%	x	1=	1	Parcels) Imprvmet	x 2,400 =	2,400	
10. Miscellane	ous Contracts	,,				ŏ	Per Project >		00	
11. Appraisal F	ee Review					0	Parcels >		0	
12.								TOTAL PHASE	4B	\$62,900
R/W LAND COS		_						Amount	Subtotal	
	ovements & Seve	erance Dama	-					A		
	o Cure Amount ntion & Mit. (1 Pc	and)	2 506 245	x			plan stage =			
15. SUBTOTAL		na)	2,506,215	x	120% (0		w/o R/W Acq)3,007,500		
	tlement: (Factor		20%	x	0% of	(Lines 1 Line 15)		-	3,007,500	
	wards (Factor		45%	x	0% of			= <u>0</u> = 1,353,400		
18. Business D	amages (Claims		0	x	0)		_			
	ges Incr (Factor		25%	x	\$ -)		-			
	r. Fees (Parcels		1	x	\$15,000)		=	= 15,000		
	Fees (Claims		0	×	<u>\$16,000</u>)		=	=0		
	Fees (Sum of Lin			x	33%)		-	446,600		
24. Other Cond	ert Witn (Comm Iemn_Costs	+onimp.)	0	+ x	<u>1</u>) x \$1,000	18,000		18,000		
25. SUBTOTAL				^	\$1,000	(Lines 1	= 6 thru 24) =	1,000	1,834,000	
26.						(TOTAL PHASE	and the second se	\$4,841,500
* Design contin	ngency for design	n plan stage								44,041,000
		1 0001								
) 30% plans	- 115% (3) 60	% pla	ans - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
R/W ACQUISITI	ON CONSULTAN) 30% plans	- 115% (3) 60 2)			90% plan	is -105% (5)			2
R/W ACQUISITI 27. Acquisition	ON CONSULTAN Consultant-50%) 30% plans IT (PHASE 42 of parcels	- 115% (3) 60)% pla x	ans - 110% (4) : 0	90% plan	s -105% <i>(</i> 5)	268 Date -100%	42	\$0
R/W ACQUISITI 27. Acquisition	ON CONSULTAN Consultant-50% (COSTS (PHASE 4) 30% plans IT (PHASE 42 of parcels 5)	- 115% (3) 60 2)		0	90% plan			42	\$0
R/W ACQUISITI 27. Acquisition	ON CONSULTAN Consultant-50%) 30% plans IT (PHASE 42 of parcels 5)	- 115% (3) 60 2) \$20,000	x	0 Number	90% plan	Amount		42	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C	ON CONSULTAN Consultant-50% COSTS (PHASE 4 Replacement He) 30% plans IT (PHASE 42 of parcels 5)	- 115% (3) 60 2)	x	0	90% plan = =			42	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant	ON CONSULTAN Consultant-50% COSTS (PHASE 4 Replacement He Move Costs) 30% plans IT (PHASE 42 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000	x x x	0 Number	=	Amount 0		42	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential	ON CONSULTAN Consultant-50% d COSTS (PHASE 4 Replacement He Move Costs) 30% plans IT (PHASE 4 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000	x x x x	0 Number 0 0	=	Amount 0 0		42	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P	ON CONSULTAN Consultant-50% d COSTS (PHASE 4 Replacement He Move Costs arm roperty) 30% plans IT (PHASE 4 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x x x	0 Number	=	Amount 0 0		42	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32)) 30% plans IT (PHASE 4 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000	x x x x	0 Number 0 0 0	=	Amount 0 0 0	TOTAL PHASE		15
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Refocation	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32)) 30% plans IT (PHASE 4 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x x x	0 Number 0 0 0		Amount 0 0 0			\$0 \$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35.	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32)) 30% plans IT (PHASE 4 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x x x	0 Number 0 0 0 0 0		Amount 0 0 0 0	TOTAL PHASE		15
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Refocation 35. 36.	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32)) 30% plans IT (PHASE 4 of parcels 5)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x x x x x x	0 Number 0 0 0 0 0		Amount 0 0 0 0 0 0 Phase Total)	TOTAL PHASE	45	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37.	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement Ho Move Costs arm roperty rru 32) Services Cost) 30% plans IT (PHASE 4) of parcels 5) ousing	- 115% (3) 60 2) \$20,000 \$25,000 \$25,000 \$40,000 \$3,000	x x x x x x	0 Number 0 0 0 0 0 \$0		Amount 0 0 0 0 0 0 Phase Total)	TOTAL PHASE	45 ATE	15
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement Ho Move Costs arm roperty aru 32) Services Cost) 30% plans IT (PHASE 4: of parcels 5) ousing	- 115% (3) 60 2) \$20,000 \$25,000 \$40,000 \$3,000 \$3,000	x x x x x x	0 Number 0 0 0 0 0		Amount 0 0 0 0 0 0 Phase Total)	TOTAL PHASE	45 ATE 09/10/19	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Refocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton) 30% plans IT (PHASE 4: of parcels 5) busing	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000	x x x x x x	0 Number 0 0 0 0 0 \$0		Amount 0 0 0 0 0 0 Phase Total)	TOTAL PHASE	45 ATE 09/10/19 09/10/19	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Refocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp) 30% plans IT (PHASE 4: of parcels 5) busing	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000	x x x x x x	0 Number 0 0 0 0 0 0 0 50		Amount 0 0 0 0 0 0 Phase Total)	TOTAL PHASE	45 ATE 09/10/19	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton) 30% plans IT (PHASE 4: of parcels 5) ousing bison	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000	x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 ATE 09/10/19 09/10/19 09/10/19 09/10/19	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Refocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty mu 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton c Alfred J. Thomp) 30% plans IT (PHASE 4: of parcels 5) ousing son bson Dated:	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	= = = (Not in F	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0
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R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S REMARKS:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Sequence #: Administrative S settlement is co) 30% plans IT (PHASE 4: of parcels 5) ousing busin	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	$=$ $=$ $=$ $(Not in F$ $- \sqrt{A}$ \sqrt{A}	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal Pl 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S REMARKS:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Sequence #: Administrative S settlement is co) 30% plans IT (PHASE 4: of parcels 5) ousing busin	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	$=$ $=$ $=$ $(Not in F$ $- \sqrt{A}$ \sqrt{A}	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S REMARKS:	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Sequence #: Administrative S settlement is co) 30% plans IT (PHASE 4: of parcels 5) ousing vson bison Dated: Settlement a nsidered to nator's confi es the most es above ave	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 \$0 \$0 \$0	$=$ $=$ $=$ $(Not in F$ $- \sqrt{A}$ \sqrt{A}	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S REMARKS: The following in	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Sequence #: Administrative S settlement is co) 30% plans IT (PHASE 4: of parcels 5) ousing busin	- 115% (3) 60 2) \$20,000 \$25,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0	$=$ $=$ $=$ $(Not in F$ $- \sqrt{A}$ \sqrt{A}	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S REMARKS: The following in X	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Cost Services Cost) 30% plans IT (PHASE 4: of parcels 5) ousing busin	- 115% (3) 60 2) \$20,000 \$25,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3	x x x x x x x x x x x x x x x x x x x	0 Number 0	$=$ $=$ $=$ $(Not in F$ $- \sqrt{A}$ \sqrt{A}	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0
R/W ACQUISITI 27. Acquisition RELOCATION C 28. Owner 29. Tenant 30. Residential 31. Business/F 32. Personal P 33. (Lines 28 th 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review: Cost Estimate S REMARKS: The following in X	ON CONSULTAN Consultant-50% of COSTS (PHASE 4 Replacement He Move Costs arm roperty aru 32) Services Cost Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Alfred J. Thomp Roger D. Patton Sequence #: Administrative S settlement is co) 30% plans IT (PHASE 4: of parcels 5) ousing busin	- 115% (3) 60 2) \$20,000 \$25,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0	= = = (Not in F 	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	45 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 letion Date:	\$0

Y.		FLORIDA I	DEPARTMENT	F TRANSPORTATION	4		
			-	WAY COST ESTIMA		HDR#:	10169256-7.12
FM#: County:	419235-3 Hilleberruch	Alternate:	SMF 8B		District:		Seven
State Rd.:	Hillsborough SR 93A	Segment: FAP#:	N/A N/A		Date: C.E. Sequence		28-Aug-19
Project Des.		D1 to N of Bruce B. Downs	19/0		c.c. sequence		N/A
Parcels	Gross Net			Estimated R	elocatees:		
Commercial Residential				Business	3	0	
Unimproved	1 1			Residential Signs	2	0	
				Special	0	0	
Total Parcels	1 1			Total Reloc	atees	0	
R/W SUPPORT	COSTS (PHASE 41)				Amount		
1. Direct Labor			x 20,00	0 = Rate)	20,000		
2. Indirect Ove	rhead (Parce	els <u>1</u>	x	0 = Rate)	0		
3.					TOTAL PHASE 41		\$20,00
R/W OPS (PHAS						Amount	
	ees Through Trial amage CPA Fees Through T	rial		1 Parcels 0 Claims	x 30,000 =	30,000	
	ter & Process Servers	50%	x 1	= 1 Parcels	x 19,000 = x 500 =	0 500	
7. Expert Witn		75%	x 1	= 1 Parcels	x 30,000 =	30,000	
8. Mediators		75%	x 1	= 1 Parcels	x 2,400 =	2,400	
9. Demolition, 10. Miscellane	Asb. Abate., Survey, etc.	0		0 Imprvmet	x 15,000 =	0	
11. Appraisal F				0 Per Project 0 Parcels		0	
12.				0 Parcels	x 5,000 =	0	\$62,90
R/W LAND COS	TS (PHASE 43)				Contraction of the local division of the loc	Subtatel	\$02,30
	vements & Severance Dam	ages			Amount	Subtotal	5
	Cure Amount	0	x 120%	% * Design plan stage	= 0		
	ntion & Mit. (1 Pond)	3,017,600	x 120°	6 (0 Parcels w/o R/W Acq)	3,621,100		-
15. SUBTOTAL				(Lines 13 &14)		3,621,100	
16. Admin. Sett		20%		6 of Line 15)	=0		
17. Litigation A		45%		6 of Line 15)	= 1,629,500		
18. Business Da	-	0	81 9 727	<u>o</u>)	=0		
19. Bus. Damag		25%	x <u>\$</u> .		=0		
20. Owner App 21. Owner CPA	•	1	× \$15,00		=		
21. Defend.Atty		1 620 500	x \$16,00		= 0		
	ert Witness (Comm.+Unim)		x <u>33</u> °	<u>∞</u>) 1)x 18,000	= 537,700		
24. Other Condu		p., <u> </u>	x \$1.00		= <u>18,000</u> = 1,000		
25. SUBTOTAL				Lines 16 thru 24)	= 1,000	2,201,200	
26.					TOTAL PHASE 43	Election.	\$5,822,30
* Design contin	ngency for design plan stag		001 101 0001 -1				
and the second se	plans - 120% (2) 30% plans		0% (4) 90% plans -	05% (5) 268 Date - 100%			
and the second	ON CONSULTANT (PHASE Consultant-50% of parcels	\$20,000	x	0	TOTAL PHASE 42		
122.0	OSTS (PHASE 45)	÷=0,000	~		TOTAL THASE 42		
ILLOUATION O	Replacement Housing		Numbe	r Amount			
28. Owner		\$30,000	x		0		
29. Tenant		\$25,000	x	0 =	0		
	Mové Costs						
30. Residential		\$5,000	x	0 =	0		
31. Business/Fa 32. Personal Pr		\$40,000	x	0 =	0		
32. Personal Pr 33. (Lines 28 th		\$3,000	x	<u> </u>	TOTAL PHASE 45		
34. Relocation				0 (Not in Phase Total)	TOTAL PHASE 45		
35.							
36.					-		
37.				(All Phases	TOTAL ESTIMATE		\$5,905,2
Real Estate:	Roger D. Patton	Signed:	FUELEN		Date:	09/10/19	
Bus, Dam. :	Alfred J. Thompson	Signed:		a.J. Thomps	Date:	09/10/19	
Relocation:	Roger D. Patton	Signed:	BORID		Date:	09/10/19	
Overall Review	: Alfred J. Thompson	Signed:		U.J. Thomps	- Date:	09/10/19	
Cost Estimate S	Sequence #:	Dated:	In the Amount of \$	0 /	Data Input Completi	on Date:	
REMARKS:				to reflect one ownership.			
		ed to be zero, while litigati					
	The pond configuration	n impacts 4 vacant lots and	an entry driveway a	nd creates an uneconomic	remnant.		
	It is recommended that	t the engineer consider shi	fting the nond site to	the east in an effort to elin	ninate relocation the r	Iew.	
	driveway, or splitting t		ting the point offer t		initiate rerectating the h		
	It is assumed the easm	ent location is entirely wit	hin the existing righ	t of way of Estuary Lakes D	rive.		
-				e			
ine tollowing i	ndicates the estimator's co Type A - indicates the		mate:				
	Type B - indicates abo						
		w average confidence					
x	ilboo undicarca pere						
X	Type D - indicates the						
	Type D - indicates the	least or no confidence		10			
The following i	Type D - indicates the ndicates the	least or no confidence purpose for this estimate:		Canada Da ma	v		
	Type D - indicates the ndicates the	least or no confidence		Special Purpose:	X	_Docs to RW:	

					RTMENT OF RIGHT OF W				HDR#:	10169256-7.12
FM#: County: State Rd.;	419235-3 Hillsborough		Alternate: Segment:		SMF 7/8 N/A			District: Date:		Seven 28-Aug-19
Project Des.	SR 93A I-75 (SR 93A)	S. of US 301 t	FAP#: o N of Bruce B.	Dov	N/A wns			C.E. Sequence)	N/A
Parcels Commercial	Gross Net						Estimated R	elocatees:		
Residential	1	1					Business		0	
Unimproved	0	0					Residential Signs		0	
X							Special		0	
Total Parcels	1	1					Total Reloca	atees	0	
R/W SUPPORT				-0				Amount		
1. Direct Labo		(Parcels (Parcels	<u> </u>	X X	20,000 =	Rate)		20,000		
3.		(1 010613		^		Rate)		0 TOTAL PHASE	41	\$20,000
R/W OPS (PHA	SE 4B)							TIOTAL PHASE	Amount	\$20,000
4. Appraisal F	ees Through					1	Parcels	x 30,000 =	30,000	
5. Business D						0		x 19,000 =	0	
6. Court Repo 7. Expert Witt		s Servers	<u>50%</u> 75%	X	=	1		x 500 =	500	
8. Mediators	1033		75%	X X	1	1	_	x 30,000 = x 2,400 =	30,000 2, 4 00	
9. Demolition	, Asb. Abate., S	Survey, etc.			· · · · · · · · · · · · · · · · · · ·	0 0	Imprvmet		2,400	
10. Miscellane					14	0	Per Project		Ō	
11. Appraisal F 12.	ee Review					0	Parcels a		0	
							_	TOTAL PHASE	4B	\$62,900
R/W LAND COS								Amount	Subtotal	
13. Land, Impre	ovements & Se o Cure Amoun		-	•-	4000/ +		-1-r -1	_		
14. Water Rete		-	0	x			plan stage =			
15. SUBTOTAL		Policij	4,414,140	x	120% (0	(Lines 1	w/o R/W Acq)5,297,000	5 007 000	
16. Admin. Set		or	20%	x	0% of	Line 15)		= 0	5,297,000	
17. Litigation A			45%	x		Line 15)		= 2,383,700		
18. Business D	amages (Clain	ns	0	x	0)	,		= 0		
19. Bus. Dama			25%	х	\$ -)			= 0		
20. Owner App			1	X	\$15,000)		:	= 15,000		
21. Owner CPA	•		0	x	\$16,000)			=0		
22. Defend.Atty				X	33%)			= 786,600		
23. Owner Exp 24. Other Cond		m.+Unimp.)	1	+		18,000		= 18,000		
25. SUBTOTAL				x	\$1,000	(Lines 1	= 6 thru 24) =	1,000	2 204 200	
26.	-					(Lines i	0 tinu 24)	TOTAL PHASE	3,204,300	\$8,501,300
* Design contin	ngency for des	ign plan stage	:					1	. 40	\$0,501,500
(1) PD&E	plans - 120%	(2) 30% plans	- 115% (3) 60	% pi	ans - 110% (4)	90% plan	ns -105% (5)	268 Date -100%		
R/W ACQUISITI		•								
27. Acquisition			\$20,000	X	00			TOTAL PHASE	42	\$0
RELOCATION	COSTS (PHASI Replacement				Number					
28. Owner	Replacement	Housing	\$30,000	x	Number	-	Amount			
29. Tenant			\$25,000	x	0	=	0			
1520	Move Costs									
30. Residentia			\$5,000	x	0	=	0			
31. Business/F 32. Personal P			\$40,000	X X	0	=	0			
33. (Lines 28 th			\$3,000	^				TOTAL PHASE	45	\$0
34. Relocation					\$0	(Not in I	Phase Total)	TOTALTHADE	. 45	
35.				_						
36.			*							
37.							(All Phases)	TOTAL ESTIM	ATE	\$8,584,200
Real Estate:	Roger D. Patt		_Signed:	F	Betton_	-	-	Date:	09/10/19	
Bus. Dam. : Relocation:	Alfred J. Tho Roger D. Patt		_Signed: Signed:	T	TO AHOUR	y. 10	honpoor	Date:	09/10/19	
Overall Review			Signed:	P	reum	8. 7	Ren and	Date:	09/10/19	
20 21 2						J. 1-			00/10/10	
Cost Estimate S	and the second se	Dated:			the Amount of \$			Data Input Comp		
REMARKS:	Administrativ	e Settlement a	nd Litigation A	war	ds have been ad	justed to	reflect one o	wnership. Adm	inistrative	
	settlement is	considered to	be zero, while	litig	ation is factored	at 45%.				
≥ 4										
The following in	ndicates the o	stimator's conf	idonco in the a	how	octimato					
		cates the most		DOAR	e estimate:					
	Type B - indi	cates above av	erage confiden		۵.					
X			erage confiden		24					
	I ype D - Indi	cates the least	or no confiden	се						
The following in	ndicates the D	onartmont's r	Inners for this	anti-	nato		_			
Work Program	Update:	eharment 2 br	Gamino 1	ะรถก	ndle:	Special	Purpose:	x	Docs to RW:	
Comments:				_		- 000101	pose	~		



			LORIDA DE						HDR#:	10169256-7.12
FM#:	419235-3		Alternate:		SMF 10A			District:		Seven
County: State Rd.:	Hillsborougi SR 93A	h	Segment:		N/A			Date:		28-Aug-19
Project Des.		A) S. of US 301 to	FAP#: o N of Bruce B.		N/A			C.E. Sequence	•	N/A
Parcels	Gross Ne		on or bruce br	0011			Estimated R	elocatees:	14 m	
Commercial	0	0					Business		0	
Residential Unimproved	0	0					Residential		0	
Chimpioved							Signs Special		0	
Total Parcels	0	0					Total Reloca	tees	0	
R/W SUPPORT	COSTS (PHA	SE 41)						Amount		
1. Direct Labo	or Cost	(Parcels	0	x	20,000 =	Rate)		0		
2. Indirect Ove	erhead	(Parcels	0	х _	0 =	Rate)		0		
3.	-							TOTAL PHASE	41	\$0
R/W OPS (PHA		T							Amount	
4. Appraisal F 5. Business F	rees Inrougn Damage CPA i	Fees Through T	rial			0	Parcels x		-	
6. Court Repo	orter & Proces	s Servers	50%	x	0 =	0	Claims x Parcels x		20 C	
7. Expert With			75%	x	0 =	ŏ	Parcels x			
8. Mediators	_		75%	x	0 =	Ō	Parcels x			
9. Demolition 10. Miscellane	, Asb. Abate.,	Survey, etc.				0	Imprvmet >	(15,000 =		
11. Appraisal f		5				0	Per Project x			
12.	CO INCAICA					U	Parcels x	5,000 =	and the second se	
R/W LAND COS	TS /DHART	2)						TOTAL PHASE	and the second se	\$0
13. Land, Impr			2006					Amount	Subtotal	
	overnents a s o Cure Amou		ages 0	÷	4000/ +	Deni	plan -t	· · ·		
14. Water Rete			707,850	×_ x			<i>plan stage</i> = w/o R/W Acq)			•
15. SUBTOTAL			101,000	^ -	(0	Parcels (Lines 1		849,400	040 400	
16. Admin. Set		tor	20%	x	0% of	Line 15)			849,400	
17. Litigation A			45%	х - х	100% of					
18. Business D			0	x	0)	Enile Toj				
19. Bus. Dama	ges Incr (Fac	tor	25%	-	\$ -)		=	0		
20. Owner App		cels	0	x	\$15,000)		_			
21. Owner CP/	•	-	0	x	\$16,000)		-	0		
22. Defend.Atty			382,200	x	33%)			126,100		
23. Owner Exp		nm.+Unimp.)	0	+ _		18,000		. 0		
24. Other Cond 25. SUBTOTAL			0	х_	\$1,000		-			
26.	-		<u>×</u>			(Lines 1	6 thru 24) =	(******* ******	508,300	
100 M 101	ngency for de	sign plan stage						TOTAL PHASE	43	\$1,357,700
	E plans - 120%	6 (2) 30% plans	- 115% (3) 60	% pla	ns - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
R/W ACQUISIT	ION CONSUL	TANT (PHASE 4	2)			C. Posto				
27. Acquisition			\$20,000	x	0			TOTAL PHASE	42	£0
RELOCATION						-		TOTAL PHASE	92	\$0
	Replacemer				Number		Amount			
28. Owner			\$30,000	X	0	=	0			
29. Tenant			\$25,000	x	0	=	0			
30. Residentia	Move Costs		** ***							
31. Business/F		98	\$5,000	x	0	-	0			
32. Personal P			\$3,000	Â.	0	-	0			
33. (Lines 28 th								TOTAL PHASE	45	\$0
34. Relocation	Services Cos	st			\$0	(Not in f	Phase Total)	TOTALTIAO		40
35.									The second second second	
36.										
37.							(All Phases)	TOTAL ESTIM	ATE	\$1,357,700
Real Estate:	Roger D. Pa		Signed:	P	abtion			Date:	09/10/19	
Bus. Dam. : Relocation:	Alfred J. The		_Signed:	-	a	S.T.	hampson	Date:	09/10/19	
Overall Review	Roger D. Pa		_Signed:	1	oration_	-0-		Date:	09/10/19	
	Alled S. The	ompson	_Signed:	-	a	Y.V.	hompson	_ Date: _	09/10/19	
Cost Estimate	Sequence #:	Dated:		in th	e Amount of \$	V.	/ r	ata Input Comp	letion Data:	
REMARKS:		ive Settlement a	nd Litigation A			usted to	reflect one of	wherehip Ad-	injetrative	
	settlement is	s considered to	be zero, while	litigat	ion is factored	at 45%.	Tenect One O	whership. Adm	mstrative	
1	The pond es	stimate includes	impacts from t	the m	ainline taking.					
The following in	ndicates the e	stimator's confi	idence in the al	bove	estimate:		1			
	Type A - ind	icates the most	confidence							
x	Type B - Indi	icates above av	erage confiden	се						
V	Type D - indi	icates below ave	erage confident	Ce						
	- 724 - 110									
The following in	ndicates the D	Department's pu	rpose for this e	stim	ate:				and the second se	
Work Program	Update:		_Gaming 1:			Special	Purpose:	x	Docs to RW:	<u>1</u>
Comments:								~	Dood to RM:	

FM#:	110000 0	DIS	TRICT SEV			AY CC	DST ESTIM	ATE	HDR#:	10169256-7.12
County:	419235-3 Hillsborough		Alternate: Segment:	_	MF 10B /A			District:		Seven
State Rd.:	SR 93A		FAP#:		/A			Date: C.E. Sequence		28-Aug-19 N/A
Project Des.		S. of US 301 to	N of Bruce B.	Down	S			ein ooquonoo		NG K
Parcels Commercial	Gross Net	The second se					Estimated R	elocatees:		
Residential	0	1					Business Residential		0	
Unimproved	Ő	0					Signs		<u>0</u>	
							Special		0	
Total Parcels	1	1					Total Reloca	itees	0	
R/W SUPPORT 1. Direct Labo		-						Amount		
2. Indirect Ove		(Parcels (Parcels	1	x –	<u>20,000</u> = 0 =	Rate) Rate)		20,000		
3.		(^ -		Rate		TOTAL PHASE	41	\$20,000
R/W OPS (PHA	SE 4B)							TOTALTHADE	Amount	\$20,000
4. Appraisal F	Fees Through	Trial				1	Parcels	x 30,000 =	30,000	
5. Business D	Damage CPA F	ees Through T				0	Claims)	x 19,000 =	0	
6. Court Repo 7. Expert Wite	Drier & Proces	s Servers	<u> </u>	× -	<u> </u>	1		x 500 =	500	
8. Mediators	1000		75%	× ×	1 =	1		x 30,000 = x 2,400 =	30,000 2,400	
9. Demolition	, Asb. Abate.,	Survey, etc.		-		o	Imprvmet		2,400	8
10. Miscellane						0	Per Project x	(15,000 =	õ	
11. Appraisal F	ree Review					0	Parcels >	5,000 =	0	
							_	TOTAL PHASE	4B	\$62,900
R/W LAND COS 13. Land, Impr			500					Amount	Subtotal	
	overnents & So o Cure Amoun		ges 0	v	4000/ +	Desire	nian ataa			
14. Water Rete		-	2,253,125	x			<i>plan stage ≠</i> w/o R/W Acq			
15. SUBTOTAL		i ona)	2,200,120	^ _	12076 (0	(Lines 1) 2,703,800	2,703,800	
16. Admin. Set		or	20%	x	60% of	Line 15)		= 324,500	2,703,000	
17. Litigation A			45%	x		Line 15)		486,700		
18. Business D			0	x	0)		-	0.22		
19. Bus. Dama			25%	x	5)		Ŧ	=0		
20. Owner App 21. Owner CPA	-		1	× _	\$15,000)		ŧ	= 15,000		
21. Owner CPA 22. Defend.Atty			0	× _	\$16,000)		-	=0		
23. Owner Exp	ert Witn (Com	TLINES 16, 17 & 19) m. + Unim.c. \	<u>811,200</u> 1	* +	33%)	40.000		= 267,700		
24. Other Cond	demn. Costs	in. · Oninp./	1	x	\$1,000	18,000		= <u>18,000</u> = 1,000		
25. SUBTOTAL				<u> </u>	01,000	(Lines 1	6 thru 24) =		1,112,900	
26.								TOTAL PHASE		\$3,816,700
Design contin (1) PDP	ngency for des	sign plan stage								1010.011.00
				% plan	is - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
R/W ACQUISIT								(
27. Acquisition			\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION	Replacement				Number					
28. Owner		inousing	\$30,000	X		_	Amount 0			
29. Tenant			\$25,000	x	0	=	0			
30. Residential	Move Costs									
31. Business/F	-		\$5,000	× ×	0	=	0			
32. Personal P			\$3,000	x =	0	-	0			
33. (Lines 28 ti	hru 32)			-				TOTAL PHASE	45	\$0
34. Relocation	Services Cost				\$0	(Not in I	Phase Total)			40
35.										
36. 37.										
Contraction of the local division of the loc	Derry D. C.			-			(All Phases)	TOTAL ESTIM	ATE	\$3,899,600
Real Estate: Bus. Dam. :	Roger D. Pate Alfred J. Tho		Signed:	H	action	20-		Date:	09/10/19	
Relocation:	Roger D. Pat		Signed:	13	astru	c.y. 1	hongson	Date:	09/10/19	
Overall Review			Signed:		anna	0.7	handen	Date: Date:	09/10/19	
			-			1.			00/10/13	
Cost Estimate S	Sequence #:	Dated:		In the	Amount of \$			Data Input Comp	letion Date:	
REMARKS:										
	This pond wi	Il impact 3 Parc	els. The perm	anent	easement wil	impact	the remaining	g land on Parcel	2 and the new	d logation will
	cause collate	eral damages to	Parcel 3 due te	o the l	oss of Pride R	oad which	ch is the only	current access	to the property	
	rnis pond as	sumes mainlin	e damages hav	e beer	n applied to Pa	rcel 2				
The following in	ndicates the es	stimator's confi	dence in the at	bove e	stimate:					
	Type A - indic	cates the most	confidence							
v	Type B - india	cates above ave	erage confiden	се						
X	Type C - India Type D - India	cates below ave	erage confidence	ce						
		and the least	or no connaena	6						
The following in	ndicates the D	epartment's ou	pose for this A	stimat	e:		-			
work Program	Update:		Garning 1:	- worringi		Special	Purpose:	х	Docs to RW:	
Comments:										

					RTMENT OF				HDR#:	10169256-7.12
FM#: County:	419235-3		Alternate:		SMF 10C	_		District:		Seven
State Rd.:	Hillsborough SR 93A	l	Segment: FAP#:		N/A N/A			Date: C.E. Sequence		28-Aug-19 N/A
Project Des.			N of Bruce B.	Dov	wns					NA
Parcels Commercial	Gross Net	0					Estimated R Business	elocatees:	0	
Residential	0	0					Residential		0	
Unimproved	0	0					Signs		0	
Total Parcels	o	0					Special Total Reloca	tees	0	
R/W SUPPORT		SE 41)						Amount		
1. Direct Labo 2. Indirect Ove		(Parcels	0	x	20,000 =	Rate)		0		
3.	erneau	(Parcels	0	X	=	Rate)		0 TOTAL PHASE	44	
R/W OPS (PHA								TOTAL PHASE	Amount	\$0
4. Appraisal I	Fees Through	Trial				0	Parcels)	a 30,000 =		
6. Court Rep	Damage CPA F	ees Through T	rial 50%	x	o –	0	Claims >	,	0.54	
7. Expert Wit		3 001 1013	75%	x	0 =	0	Parcels >			
8. Mediators	A.L. AL. /	•	75%	x	0 =	Õ	_	2,400 =		
9. Demolition 10. Miscellane	, Asb. Abate., ous Contracts	Survey, etc.				0	Imprvmet > Per Project x			
11. Appraisal I						0	Per Project x	15,000 = 5,000 =		
12.								TOTAL PHASE		\$0
R/W LAND COS								Amount	Subtotal	
13. Land, Impr	ovements & S to Cure Amour		-							
14. Water Rete			<u>0</u>				plan stage =			
15. SUBTOTAL		Folia)	516,134	x	120% (0	Parcels (Lines 1	w/o R/W Acq)	619,400	640 400	
16. Admin. Set		or	20%	x	0% of	Line 15		- 0	619,400	
17. Litigation			45%	x		Line 15)		and the second second second		
18. Business (19. Bus. Dama	Damages (Clair	ns	0	x)					
20. Owner App			25%	X X	<u>\$ -</u>) \$15,000)			V		
21. Owner CP			0	x	\$16,000)			0		
22. Defend.Att				x	33%)					
23. Owner Exp		m.+Unimp.)	0	+		18,000	-			
24. Other Cond 25. SUBTOTAL			0	x	\$1,000		-	0		
26.	-					(Lines 1	6 thru 24) =	TOTAL DUACE	370,700	
* Design conti	ngency for de	sign plan stage	:					TOTAL PHASE		\$990,100
				% pl	lans - 110% (4)	90% plan	ns -105% (5)	268 Date -100%		
R/W ACQUISIT			The second se							
27. Acquisition		the second se	\$20,000	x	0			TOTAL PHASE	42	\$0
, ALLOCATION (Replacemen				Number		Amount			
28. Owner		, , , , , , , , , , , , , , , , , , ,	\$30,000	X	0	=	0			
29. Tenant	Move Costs		\$25,000	x	0	=	0			
30. Residentia			\$5,000	x	0	=	Ô.			
31. Business/F			\$40,000	x	0	=	0			
32. Personal P 33. (Lines 28 t	roperty		\$3,000	x	0	=	0	0		
34. Relocation					\$0	(Not in)	Dhone Tetall	TOTAL PHASE	45	\$0
35.					20	(NOT III	Phase Total)			
36.								·		
37.	B 5 5			_			(All Phases)	TOTAL ESTIM	ATE	\$990,100
Real Estate: Bus. Dam. :	Roger D. Pat Alfred J. Tho		Signed: Signed:	F	POCHEN_	10-	TO	_ Date: _	09/10/19	
Relocation:	Roger D. Pat	ton	_Signed:	T	apatton	a.y.	hangs	Date: Date:	09/10/19	
Overall Review	: Alfred J. Tho	mpson	Signed:			2	Thingson	Date:	09/10/19	
Cost Estimate	Sequence #:	Dated:		In i	the Amount of \$	Q	1			
REMARKS:					the Amount of \$ ds have been ad		L roflast and	Data Input Comp	letion Date:	
	settlement is	considered to	be zero, while	litiga	ation is factored	at 45%.	renect one o	whership. Adm	inistrative	
				•						
The following i	ndicates the e	stimator's conf	idence in the al	DOVE	estimate:					
	_Type A - indi	cates the most	confidence		16					
×	Type B - indi Type C - indi	cates above av	erage confiden erage confiden	ce	<i>p</i> :					
	Type D - indi	cates the least	erage confident or no confident	ce Ce						
The following in Work Program	ndicates the D	epartment's pu		estin	nate:					
Comments:	opuate:		Gaming 1:	_		Special	Purpose:	X	Docs to RW:	
				_						



Hets: 41923-3 Alternate: SMF 11A District: Swen Project: Project: Project: SMF 11A District: Swen Project: Project: Project: SMF 11A District: Swen Project: District: Swen Strinuted Swence: MA Project: District: Swen Strinuted Swence: MA Project: District: Swen Strinuted Swence: MA Uningrower District: Swence: District: Swence: Uningrower District: Swence: District:			FLORIDA DE DISTRICT SEV						HDR#:	10169256-7.12
Sale 102 PLA NA C.E. Sequence NA Commercial O Structure from the commercial of the commerco	County:	Hillsborough								Seven
Parcela Cross Net Constructual 0 0 0 Constructual 0 × 20000 Reside Amount 0 × 20000 Reside 0 Amount 0 × 20000 Reside 0 0 Amount 0 Parcela × 10000 15.000 0 Amount 0 Parcela × 10000 15.000 0 Balance Damoid Const, Add. Addits, Survey, etc. 0 Parcela × 24000 0 Amount 10011 10011 10011 Parcela × 24000 0 Amount 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 10011 <td< td=""><td></td><td></td><td></td><td>Dow</td><td></td><td></td><td></td><td>C.E. Sequence</td><td>•</td><td>-</td></td<>				Dow				C.E. Sequence	•	-
Optimization 0 Total Relocates 4 1 Direct Loor Coal (Parchi 0 x 0 Rate) -0 -0 1 Direct Loor Coal (Parchi 0 x 0 -0 -0 3 Over Real (Parchi 0 x 0 -0 -0 3 Over Real (Parchi 0 -0 -0 -0 3 Over Real (Parchi -0 -1 Claim x 0,000 -1 0,000 5 Over Real -0 -1 Claim x 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1 0,000 -1	Parcels Commercial Residential	Gross Net 0 0 0 0					Business Residential Signs	elocatees:	0	
1. Direct Labor Cost 9. Indirect Overhale (Parcels 0 x 2000 = Rate) 1. Orient Overhale Fee Rate) 1. Orient Overhale Fee Rate) 1. Over	and the second se						Total Reloca	itees	0	
2. Indirect Overhead (Parcels 0 × 10								Amount		
3. TOTAL PHASE 48) Amount 40 4. Appriated Fees Through Trial 0 Percels X 30,000 = 0 5. Budiess Damage CPA Fees Through Trial 0 Percels X 30,000 = 10 6. Budiess Damage CPA Fees Through Trial 0 Percels X 30,000 = 10 7. Experit Winess Process Servers 72%, X 0 = 0 Percels X 200 = 0 9. Demolition, Asb. Able, Survey, etc. 1 Imprimet X 10,000 0 Percels X 200 = 0 0 10. Mack Settence Contracts X 120%, 10 easign plum dange = 100% </td <td></td> <td> (·</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		(·								
4. Appresize Face Through Trial 5. Busines Barange CAF See Through Trial 5. Court Reporter & Process Servers 7. Collines X 10000 5. Court Reporter & Process Servers 7. Collines X 10000 5. Court Reporter & Process Servers 7. Collines X 10000 5. Court Reporter & Process X 0000 5. Court Reporter X 0000 5. Court Report Reporter X 0000 5. Court Report Reporter X 0000 5. Court Report								ALC: NOT THE OWNER OF THE OWNER OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OWNE	E 41	\$0
5. Business Damage CPA Fores Through Trail -i Claim -i -i 0 6. Business Damage CPA Forest Servers -0 -0 Parcels x 0 -0 0 -0 0 -0 0 -0 0										
6. Court Reports # Process Servers 50%, x 0 a 0 Parcels x 500, a 0 Parcels x 2400, a 0 Parcels x 2400, a 1 10, approxing x 2400, a 1 10, approxing x 2400, a 16, a 10, a<	5. Business Da	mage CPA Fees Thre	ough Trial			-				
8. Mediators 9. M	6. Court Report	ter & Process Server	rs <u>50%</u>			-	_			
9. Demolition, Abb. Abbt, Survey, etc. 10. Miscellaneous Contracts 11. Apprical Fea Review 12. Autor Retrongency Technology (Control (C		955				-				
10. Miscellaneous Contracts 0 Per trojecti x 15.000 = 0 12. Minocellaneous Contracts 0 Percels x 5.000 = 0 13. Land, Improvements & Baverance Damagee and Cost to Care Anount 10 x 120% / Percels x 1000 = 0 13. Land, Improvements & Baverance Damagee and Cost to Care Anount 1120% / Percels x 120% / Percels x 500 = 0 14. Water Retention & Mit. (19 cond) 471,716 x 120% / Percels x 500 = 0 15. Subtront A. (19 cond) 471,716 x 120% / Percels x 565,100 565,100 15. Subtront A. (19 cond) 471,716 x 102% / Vac of Line 15 67,400 565,100 10. More CPA Fees (Parcel 26% / X 40% of Line 15 67,400 565,100 51,000 10. Subtront A. (19 cond) 10 x 1 (19 cond) 1 (19 cond) 1 (19 cond) 6 (19,000 20. Owner Apric Fees (Parcel Laws K) r z re) 10 x 1 (19 cond)	9. Demolition,	Asb. Abate., Survey,	etc. 75%	^ 8	=					
12 TOTAL PHASE 48 \$44,000 RW LAND COSTS (PHASE 43) Amount Subtotal 11. Land, (mprovements & Severance Damages and Costs Cores Amount 0 x 120% / Perceis wio RW Acg) 566,100 14. Water Retention & Mit (1 Ponc) 471,716 x 120% / Perceis wio RW Acg) 566,100 15. SUBTOTAL (55,579) 471,716 x 120% / Perceis wio RW Acg) 566,100 16. Admin. Settement (Factor 20% × x 90% of the 100 /						-	Per Project 2	x 15,000 =	0	
OWLAND COSTS (PHALE 43) Introduct 435 3.4.000 13. Land, Improvements & Sourcance Damages Amount Subtotal 44. Water Resembors & Mill. (1 Pond) 471,715 x 120% (Parcels wire KMAcq) 565,100 14. Water Resembors & Mill. (1 Pond) 471,715 x 120% (Parcels wire KMAcq) 565,100 15. Admin. Settements (ractor) 20% x S0% of Line 15 = 67,900 565,100 15. Building Markets (ractor) 45% x \$ (125,000) = 31,300 = -125,000 16. Building Markets (ractor) 0. x \$ (125,000) = -16,000 = -		e Review				0	Parcels >			
13. Land, Improvements & Severace Danages Data and Cast to Care Anount 0 x 14. Water Relamion & Mil, (1 Pond) 471,716 x 120% (Parcsis wio RM Acg) 566,100 15. SUBTOTAL (53,579) (Lines 13) = 67,900 566,100 16. Admin. Settlement (Factor 20%, x 60%, of Line 15) = 67,900 18. Bus, Danages (Calams -1, x 0,00 = 313,000 20. Owner Appr. Fees (Parcels 0, x 415,000 = - 21. Owner Appr. Fees (Parcels 0, x 415,000 = - - 21. Owner Appr. Fees (Parcels 0, x 415,000 = -		S (PHASE 43)							the second s	-\$4,000
and Cost to Cure Amount and Cost to Cure Amount 0 x 120% + P design plan stage = 0 14. Water Resultion & Mit. (1 Pond) 471,718 x 120% (P denoise who PRM Acc) 566,100 15. SUBTOTAL (53,579) Constraints a St.(4) 57,800 566,100 566,100 16. Admin. Settionenes (Factor 25%, x 60% of Line 19 -101,900 566,100 17. Utigation Awards (Factor 25%, x 50% of Line 19 -102,800 -31,200 18. Business Damages (Calimas -1 x 516,000 -31,200 20. Owner CPA Fees (Pacets Bt, 17,4 119, 138,800 x 335,10 -46,700 -0 20. Owner Expert With (CormUnimp.) 0 x \$15,000 -0 -0 23. Owner Expert With (CormUnimp.) 0 x \$10,000 -0 -0 -0 -0 24. Other Condemont.Costs \$10,000 x \$10,000 -0 -0 -0 -0 25. Costs \$20,000 x 0 -0 -0 -0 -0 31. BosinesrFarm	13. Land, Improv	ements & Severance	e Damages					Amount	Suptotal	
15. SUBTOTAL (53,579) (Lines 13 544) 655,100 16. Admin. Settlement (Factor 25%, x 9% of Line 19) 655,100 17. Lifigation Awards (Factor 25%, x 9% of Line 19) 67,900 18. Business Damages (Calims 1, x 0)	and Cost to	Cure Amount	-	x	120% *	Design	plan stage =	= 0		
16. Admin. Settlements (Factor 20%, x 50% of Line 15 97.800 17. Uligation Awards (Factor 45%, x 50% of Line 15 101.900 18. Busb.Banages (Claims 1, x 0 101.900 19. Busb.Banages (Incline) 11.5000 125.000 20. Owner Appr.Fees (Plance) 1, x 0 11.5000 21. Owner CAP Fees (Claims 1, x 156.000 1.45.000 22. Defend Atty Fees (Sam ot Lines 16, 17 x 19 133.600 1.5000 1.45.000 23. Owner Expont Wini (Comm. Hump.) 0 1.51.000 1.45.000 0 24. Other Condemn. Costs 0 1.51.000 1.6000 0 43.200 25. SUBTOTAL 0 1.50.000 0 1.70TAL PHASE 43 \$609.300 26. Subschortal 50.000 0 1.70TAL PHASE 42 \$0 27. Acquisition Consultant 50% of paceis \$20,000 0 1.70TAL PHASE 42 \$0 27. Acquisition Consultant 50% of paceis \$30,000 4 1.60000 1.70TAL PHASE 42 \$0 28. Owner Keponal Property \$30,000 4 1.60000 1.70TAL PHASE 45 \$160.000			471,716	x	120% (0	Parcels	w/o R/W Acq	566,100		
17. Lifigation Awards (Factor 45%, x 40% of Line 19 = 101.800 18. Busines Damages (Calims -1, x 0 = -125.000 18. Busines Damages (Calims -1, x 515.000 = -125.000 19. Bus, Damages Inci (Factor 25%, x \$ (125.000) = -116.000 20. Owner Appr, Foss (Factor 0, x \$150.000 = -16.000 21. Owner CPA Fees (Calims -1, x \$150.000 = -45.200 22. Defined Atty Feas (Fam Chains 1, 7 ± 19) 138.600 x -45.200 -45.200 23. Owner Expert Win (Corum, +Unimp.) 0 x \$10.000 -45.200 -45.200 24. Other Condemn, Costs -0 x \$10.000 -45.200 -0 -45.200 26. -10 -116.0000 -0 -0 -0 -0 -0 27. Aceptation Consultant-Story of parcels \$20.000 x 0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 0 -0 -0			208/				•		566,100	
18. Business Damages (Claims -1 x 0						-				
19. Bus, Damages Incr (Factor 25% x \$ (125,000,) = -31,300 20. Owner Appr. Fees (Parcines 0 x \$ \$15,000,) = -16,000 21. Owner CPA Fees (Claims -1 x \$ \$16,000,) = -16,000 21. Owner CPA Fees (Claims Est, 17,1 s) 138,500 x -333,1) = -45,700 22. Defind Atty Fees (Sum of Luess 14, 17,4 s) 138,500 x -0 -0 -0 23. Owner Export Win (Comm. Unimp.) 0 x \$ 1000 (Line 16 thru 24) -0 -0 24. Other Condemm. Costs 0 x \$ 1000 Line 16 thru 24 -0 -0 25. SUBTOTAL 0 x \$ 10% (4) 90% plans - 105% (5) 268 Dete - 100% Restore 100% Restore 100% Restore 100% 7. Acquisition Consultant-50% of parcis \$ 20,000 x 0 TOTAL PHASE 42 \$ 0 7. Acquisition Consultant-50% of parcis \$ 20,000 x 0 = 0 0 10 10 10 10 10 10 10 10 10 10 10 10 10 10	18. Business Da	mages (Claims						CONTRACTOR AND A REPORT		
21. Owner CPA Fees (Claims -1 x \$16,000 22. Defined, MY Fees (Sam of Lines 16, 17 ± 19) 138,500 x 3326 23. Owner Export With (Comm.+Unimp.) 0 x 30,00 x 34,700 23. Owner Export With (Comm.+Unimp.) 0 x 3326 x 34,700 24. Other Condemn. Costs 0 x \$1,000 x 34,700 24. Other Condemn. Costs 0 x \$1,000 x 32,000 25. SUBTOTAL 0 x \$1,000 x 32,000 26. Where Costs 123,000 x 0 TOTAL PHASE 43 \$609,300 7. Acquisition Consultant-50% of parcies \$20,000 x 0 TOTAL PHASE 42 \$0 7. Acquisition Consultant-50% of parcies \$20,000 x 0 = 0 0 8. Control \$25,000 x 0 = 0 0 0 100,000 \$1,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$1			25%	x	\$ (125,000))		i i i i i i i i i i i i i i i i i i i			
22. Defend Atty Fees (som of Lines 16, 17 ± 19) 138,500 × 13920 44,700 23. Owner EXPANT With (Comm.+Unimp.) 0 × 0 18,000 0 43,200 23. SUBTOTAL 0 × 130,000 × 0 43,700 24. Other Condemn. Costs 0 × 51,000 × 0 43,200 25. SUBTOTAL 0 × 51,000 × 0 43,200 26. TOTAL PHASE 43 \$609,300 × 0 TOTAL PHASE 43 \$609,300 7. Acquisition Consultant 50% (2) 268 Date - 160% (1) PDASE 450 TOTAL PHASE 42 30 7. Acquisition Consultant 50% (3) of pareois \$20,000 × 0 = 0 0 20. Owner Replacement Housing \$20,000 × 0 = 0 0 0 1004 100,000 30 30 21. Owner Replacement Housing \$20,000 × 0 = 0 0 100,000 30 30 30 30 30 30 30 30 30 30							-	<u> </u>		
23. Owner Expert Win (comm.+Unimp.) 0 + 0 x 18.000 = 0 0 0 x 18.000 = 0 0 0 x 10.000 0 0 x 10.000 0							-	and the second s		
24. Other Condemin. Costs 0 x \$1,000 = 0 25. SUBTOTAL (Lines 16 thru 24) = 0 43,200 26. Design contingency for design plan stage: (D) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100% Status RW ACQUISITION CONSULTANT (PHASE 42) 20,000 x 0 TOTAL PHASE 42 \$0 RELOCATION CONSULTANT (PHASE 42) 20,000 x 0 TOTAL PHASE 42 \$0 RELOCATION CONSULTANT (PHASE 42) \$20,000 x 0 TOTAL PHASE 42 \$0 RELOCATION CONSULTANT (PHASE 43) \$20,000 x 0 = 0 0 30. Residential \$50,000 x 0 = 0 0 150,000 31. Buisness/Farm \$40,000 x 6 = 160,000 100 Lines 28 thru 32) 100 Li	23. Owner Exper	rt Witn (Comm.+Unin				18.000				
26.		mn. Costs	0	x			-			
* Design contingency for design plan stage: (1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100% RW ACQUISITION CONSULTANT (PHARE 42) 27. Acquisition Consultant-50% of parcels \$20,000 x 0 RELOCATION CONSULTANT (PHARE 42) 27. Acquisition Consultant-50% of parcels \$20,000 x 0 RELOCATION CONSULTANT (PHARE 42) 28. Owner 28. Owner 28. Owner 28. Tenant Move Costs 30. Residential 31. Business/Farm 34. 0000 x 0 = 0 31. Business/Farm 34. Relocation Services Cost 34. Relocation: Roger D. Patton Bus, Dam: Aftred J. Thompson Signed: Bus, Dam: Aftred J. Thompson Signed: Bus, Dam: Aftred J. Thompson Signed: Cost Estimate Sequence #: Dated: In the Amount of \$Date: 09/10/19 Date:	1987 M					(Lines 1	6 thru 24) =	1		
(1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans - 105% (5) 268 Date - 100% RW ACQUISITION CONSULTANT (PHASE 42) 27. Acquisition Consultant-Store 800 ACONTOR COSTS (PHASE 43) RELOCATION COSTS (PHASE 44) 28. Owner 29. Tenant 900 Acont 91. Disintest/Farm 92. Tenant 93. Residential 93. Residential 93. Lines 28 (Binr 32) 93. Lines 28 (Binr 32) 94. Relocation Services Cost 95. Signed: 97. Call Phase (Binr 32) 98. Releating (Binr 32) 99. Signed: 90. Call Phase (Binr 32) 91. Bus. Barn: 92. All Phase (Binr 32) 93. Call Phase (Binr 32) 94. Relocation Services Cost 95. All Phase (Binr 32) 96. All Phase (Binr 32) 97. Call Estimate Signed: 97. All Phase (Binr 32) 97. Call Estimate Signed: 97. All Phase (Binr 32) 97. All Phase (Binr 32) 97. Call Estimate Sequence #: 0 tation 10. Cost Estimate Sequence #: 10. The remaining improveme		ency for design plan	stare.					TOTAL PHASE	43	\$609,300
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Overain Review: Affred J. Thompson Signed:	Relocation:	Roger D. Patton	-	T	Tation	.y. v.	nongen		and the second s	
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1788.44		DIS		/EN	RIGHT OF W	VAY CO	OST ESTIM	ATE	HDR#:	10169256-7.12
FM#: County:	419235-3 Hillsborough		Alternate: Segment:		SMF 11B N/A			District:		Seven
State Rd.:	SR 93A		FAP#:		N/A			Date: C.E. Sequence		28-Aug-19 N/A
Project Des. Parcels			o N of Bruce B.	. Dov	wns		r			
Commercial	Gross Net	0					Estimated Re Business	elocatees:	-	
Residential	0	0					Residential	25	<u> </u>	
Unimproved	0	0					Signs		0	
Total Parcels	0	0					Special Total Reloca	toos	0	
R/W SUPPORT	COSTS (PHAS	SE 41)					Total Reloca	Amount	5	
1. Direct Labo		(Parcels	0	x	20,000 =	Rate)		0		
2. Indirect Ov 3.	erhead	(Parcels	0	X	0 =	Rate)		0	A	
R/W OPS (PHA	SE 4B)							TOTAL PHASE		\$0
4. Appraisal	Fees Through	Trial				0	Parcels x		Amount 0	
5. Business I	Damage CPA F	ees Through T				Ō	Claims x		0	
7. Expert Wit	orter & Process	s Servers	<u>50%</u> 75%	X	0 =	0	Parcels x		0	
8. Mediators			75%	X		0	Parcels x Parcels x		0	
9. Demolition 10. Miscellane	, Asb. Abate.,	Survey, etc.				3	Imprvmet x	15,000 =	45,000	
11. Appraisal						0	Per Project x		0	
12.						U	Parcels x	5,000 = TOTAL PHASE	0 4B	£45.000
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13. Land, Impr	rovements & Se	everance Dama	ages						SUDIVISI	
	to Cure Amoun	-	0	x			plan stage =			
14. Water Rete 15. SUBTOTAL	ention & Mit. (1	Pond)	1,542,648	x	120% (0			1,851,200		
16. Admin. Set)r	20%		09/ 0	(Lines 1			1,851,200	
17. Litigation			45%	×		f Line 15) f Line 15)		833,000		
18. Business [Damages (Clain	ns	0	x	0)					
19. Bus. Dama			25%	х	\$ -)		=	0		
20. Owner App 21. Owner CP/	or. Fees (Parco A Fees (Clain		0	×	\$15,000)		Ħ	0		
22. Defend.Att			0 833,000	x	<u>\$16,000</u>) 33%)		-	0		
23. Owner Exp	pert Witn (Com	m.+Unimp.)	0 <u>000</u>	-		x 18,000		<u>274,900</u> 0		
24. Other Con	demn. Costs	• •	0	x	\$1,000			0		
25. SUBTOTAI 26.	L					(Lines 1	6 thru 24) =		1,107,900	
The second se	ngency for des	ian nlan staao						TOTAL PHASE	43	\$2,959,100
	ingeney for dea					· · · · · · · · · · · · · · · · · · ·		the second se		
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R/W ACQUISIT 27. Acquisition RELOCATION (28. Owner 29. Tenant 30. Residentia 31. Business/F 32. Personal P 33. (Lines 28 tl 34. Relocation 35. 36. 37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate : REMARKS:	ION CONSULT. n Consultant-50 COSTS (PHASE Replacement Move Costs i arm Property hru 32) Services Cost Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Roger D. Patt and prorated Indicates the est Type A - indic Type B - indic	(2) 30% plans ANT (PHASE 4 % of parcels 45) Housing 600 mpson on mpson on mpson on mpson e Settlement a considered to sumes the main g improvement portion of the stimator's confi	s = 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$1,0	x x x x x x x x x x x x x x x x x x x	Number 0 0 0 5 0 \$20,000	= = = (Not in F 	Amount 0 0 200,000 0 Phase Total) (All Phases) Champson Champson D reflect one ov	TOTAL PHASE	45 TE 09/10/19 09/10/19 09/10/19 09/10/19 etion Date: histrative	\$0 \$200,000
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					RTMENT OF				HDR#:	10169256-7.12
FM#: County:	419235-3 Hillsborough		Alternate: Segment:		SMF 12/13A &			District: Date:		Seven
State Rd.: Project Des.	SR 93A		FAP#: to N of Bruce B.	Devi	N/A			C.E. Sequence	•	28-Aug-19 N/A
Parcels	Gross Net	_	ON OF Bruce B.	. Dow	/ns		Estimated R	lelocatees:		
Commercial Residential	2	<u>2</u> 1					Business Residential		<u> </u>	
Unimproved		1					Signs		0	
Total Parcels	4"	4					Special Total Reloca	atees	<u> </u>	
R/W SUPPORT 1. Direct Labo		E 41) (Parcels		×	20,000 =	Deta	×.	Amount		
2. Indirect Ove		(Parcels	4	x x	0	Rate) Rate)		80,000		3
3. R/W OPS (PHA	SE 4B)							TOTAL PHASE	Contraction of the local division of the loc	\$80,000
4. Appraisal F	ees Through 1	Frial				4	Parcels	x 30,000 =	Amount 120,000	
5. Business D 6. Court Repo	Damage CPA Fo	ees Through T Servers	rial 50%	x	4 =	-1 2	_	x 19,000 = x 500 =		
7. Expert With 8. Mediators	ness		75%	x	=	3		x 30,000 =		
9. Demolition	, Asb. Abate., S	Survey, etc.	75%	x	=	3	Parcels : Imprvmet	x 2,400 = x 15,000 =		
10. Miscellane 11. Appraisal F		-				Ō	Per Project a	x 15,000 =	0	
12.						1	Parcels 2	TOTAL PHASE		\$264,200
R/W LAND COS								Amount	Subtotal	\$204,200
13. Land, Impr and Cost t	ovements & Se o Cure Amoun		ages 0	~	4008/ +	Desim				
14. Water Rete	ntion & Mit. (1	-	3,733,951	x x			<i>plan stage</i> : w/o R/W Acq			
15. SUBTOTAL	_ (290,204)				((Lines 1		,, , , , 00, 700	4,480,700	
16. Admin. Set 17. Litigation A			<u> </u>	x x		f Line 15) f Line 15)		= 537,700		
18. Business D	Damages (Claim	ns	-1	x	0)	i cine i aj		= <u>806,500</u> = -225,000		
19. Bus. Dama 20. Owner App			25%		\$ (225,000))		-	=		
21. Owner CPA				x	<u>\$15,000</u>) \$16,000)			= <u>60,000</u> = -16,000		
22. Defend.Atty				x	33%)		-	= 425,000		
23. Owner Exp 24. Other Cond		n.+Unimp.)	2	+		x 18,000		= 54,000		
25. SUBTOTAL				x	\$1,000	(Lines 1	6 thru 24) =	= <u>4,000</u> ■	1,589,900	
26. * Docian conti								TOTAL PHASE	the second se	\$6,070,600
(1) PD&E	ngency for des E plans - 120%	(2) 30% plans	s - 115% (3) 60	% pla	ans - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
R/W ACQUISITI	ON CONSULT	ANT (PHASE 4	2)			-				
27. Acquisition RELOCATION	COSTS (PHASE		\$20,000	x	0			TOTAL PHASE	42	\$0
20102	Replacement				Number		Amount			
28. Owner 29. Tenant			\$30,000 \$25,000	××	1	=	30,000			
20 Desidential	Move Costs					-				
30. Residential 31. Business/F	arm		\$5,000	x x		=	5,000			
32. Personal P	roperty		\$3,000	x	1	=	3,000			
33. (Lines 28 th 34. Relocation					\$15,800	(Not in (Phase Total)	TOTAL PHASE	45	\$158,000
35,					\$15,600	(NOT III 1	-nase rotal)			
36. 37.								TOTAL FOTIN	4 100 000	
Real Estate:	Roger D. Patt	on	Signed:	TH	Detton		(All Phases)	TOTAL ESTIM	09/10/19	\$6,572,800
Bus. Dam. : Relocation:	Alfred J. Thor		Signed:			2.9.7	hupson	Date:	09/10/19	
Overall Review	Roger D. Patt Alfred J. Thor		Signed: Signed:	9	action	197	Raugen	Date: Date:	09/10/19 09/10/19	
Cost Estimate S	Sequence #:	Dated:		1		1	The			
REMARKS:	ocquerice #.	Dated.		10.0	he Amount of \$	1.1.		Data Input Comp	letion Date:	
	The mainline	impacts to SN	IF 12/13A and F	PC 1	2/13L are consi	idered in	this estimate).		
	The mainline	taking creates	business and	seve	rance damages	on Parce	el 5. Selectio	on of this pond m	akes the busin	ness damages
	go away and i	ulererore nega	auve numbers a	are sr	nown in Lines 5	, 18, 19 8	. 21 .			
The following in	ndicates the es	timator's conf	idence in the a	bove	estimate:					
	Type A - indic	ates the most	confidence							
	Type P indi-	aton abarra		0.0						
x	Type B - indic Type C - indic	ates below av	erage confiden	ce						
x	Type B - indic Type C - indic	ates below av	erage confiden erage confiden or no confiden	ce						
The following in	_Type B - indic _Type C - indic _Type D - indic 	ates below av ates the least	erage confiden or no confiden	ce ce	ate:					
X The following ir Work Program (Comments:	Type B - indic Type C - indic Type D - indic	ates below av ates the least	erage confiden or no confiden irpose for this e	ce ce	ate:	Special	Purpose:	x	Docs to RW:	

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE HDR#: 10169256-7.12										
FM#: County:	419235-3 Hillsborough		Alternate: Segment:		SMF 12/13B & N/A			District: Date:		Seven 28-Aug-19
State Rd.: Project Des.	SR 93A	S of US 301 f	FAP#: o N of Bruce B.	Dov	N/A			C.E. Sequence)	N/A
Parcels Commercial Residential Unimproved	Gross Net		S N OF BILLE B.	Do			Estimated R Business Residential Signs Special	elocatees:		
Total Parcels	2	2					Total Reloca	atees		
R/W SUPPOR 1. Direct Lab	T COSTS (PHAS or Cost	SE 41) (Parcels	2	x	20,000 =	Rate)		Amount		
2. Indirect Ov 3.	verhead	(Parcels	2	x	0=			40,000 0 TOTAL PHASE	- 44	640.000
R/W OPS (PH/	ASE 4B)					Conception in the		TOTAL PHASE	Amount	\$40,000
5. Business	Fees Through Damage CPA F	ees Through T	rial			2		x 30,000 = x 19,000 =	60,000	
6. Court Rep 7. Expert Wi	orter & Process	s Servers	50%	x	=	1	Parcels :	× 500 =	500	
8. Mediators	i		<u> </u>	x x	2 =	2	Parcels parcels	x 30,000 = x 2,400 =		
9. Demolitio	n, Asb. Abate., S eous Contracts	Survey, etc.				2	Imprvmet	× 15,000 =	30,000	
11. Appraisat	Fee Review					0	Per Project > Parcels			
12.	-							TOTAL PHASE		\$160,300
	STS (PHASE 43 rovements & Se		2006					Amount	Subtotal	
	to Cure Amoun		ages 0	x	120% *	Design	plan stage =	= 0		
	ention & Mit. (1	Pond)	468,704	x			w/o R/W Acq			
15. SUBTOTA	L (241,396) attlement: (Facto		200/			(Lines 1			562,400	
	Awards (Facto		<u> </u>	x x		f Line 15) f Line 15)		67,500 101,200		
	Damages (Clain		0	x	0)		-			
	ages Incr (Facto pr. Fees (Parco		25%	x	\$ -)		-			
21. Owner CP	A Fees (Clain	eis NS	2	x	<u>\$15,000</u>) \$16,000)		-	30,000		
22. Defend.At	ty Fees (Sum of	f Lines 16, 17 & 19		x	33%)			55,700		
23. Owner Ex	pert Witn (Com	m.+Unimp.)	0	+		x 18,000		= 18,000		
24. Other Con 25. SUBTOTA			2	x	\$1,000	// in	-	2,000		
26.						(Lines 1	6 thru 24) =	TOTAL PHASE	274,400	\$836,800
* Design cont	ingency for des	ign plan stage	4459((2) 60	0/ -!				Contraction of the second s		\$030,000
R/W ACQUISIT	TION CONSULT	ANT (PHASE A	2)	% pi	ans - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
27. Acquisitio	on Consultant-50	% of parcels	\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION	COSTS (PHASE								Statement in the statement	40
28. Owner	Replacement	Housing	\$30,000	x	Number	=	Amount			
29. Tenant			\$25,000	x	0	=	<u> </u>			
30. Residentia	Move Costs		\$5,000	×		_	5 000			
31. Business/	Farm		\$40,000	X X	0	=	<u> </u>	*)		
32. Personal I 33. (Lines 28			\$3,000	×	0	=	0	P		
	n Services Cost				\$3,500	(Not in F	Phase Total)	TOTAL PHASE	45	\$35,000
35.					10,000	(not in t	nase rotal)			
36. 37.							(411 51	TOTAL		
Real Estate:	Roger D. Patt	on	Signed:	100	221Ch		(All Phases)	TOTAL ESTIM		\$1,072,100
Bus. Dam. :	Alfred J. Tho	mpson	Signed:	-	school (2.9. J	human	_ Date: Date:	09/10/19	
Relocation: Overall Review	Roger D. Patt v: Alfred J. Tho	mpson	Signed: Signed:	F	Deten		1	Date:	09/10/19	
						y v	hangsu	_ Date:	09/10/19	
Cost Estimate REMARKS:	Sequence #:	Dated:		In t	he Amount of \$	1.24		Data Input Comp	letion Date:	
NEMANNO.	For Pa	arcel's 1 and 4	of the pond sit	e an	d Parcel 1 of th		o ostimoto es	onsiders the imp		
						•••••,		naidera ine imp	acts from the n	nainline take
The following	indicates the es	timator's conf	idence in the at	ove	estimate:					
	Type B - indic	ates the most ates above av	erage confiden	се						
X	Type C - indic	ates below av	erage confident	се						
	_ i ype D - Indic	ates the least	or no confidenc	ce						
The following	The following indicates the Department's purpose for this estimate: Work Program Update: Gaming 1: Special Purpose: X Docs to RW:									
Work Program Comments:	Update:		Gaming 1:			Special	Purpose:	X	Docs to RW:	
				-						

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE HDR#: 10169256-7.12										
FM#: County: State Rd.:	419235-3 Hillsborough SR 93A		Alternate: Segment: FAP#:		SMF 12/13C 8 N/A N/A	FPC 12/1	3R	District: Date:		Seven 28-Aug-19
Project Des. Parcels	I-75 (SR 93A)		to N of Bruce B.	Dow				C.E. Sequence	9	N/A
Commercial	0	0					Estimated R Business	elocatees:	0	
Residential Unimproved		0					Residential		0	
		<u> </u>					Signs Special		0	
Total Parcels R/W SUPPORT	1 COSTS (PHAS	1 SE 41)					Total Reloca		0	
1. Direct Labo	or Cost	(Parcels	1	x	20,000 =	= Rate))	Amount 20,000		
2. Indirect Ov 3.	erhead	(Parcels	1	x	0 :	= Rate)		0	- 41	and the second
R/W OPS (PHA								TOTAL PHASE	Amount	\$20,000
4. Appraisal 5. Business I	Fees Through Damage CPA F	Trial	friat		<u> </u>	1		x 30,000 =	30,000	
6. Court Rep	orter & Process	s Servers	50%	x	1	0 • 1	-	× 19,000 = × 500 =	•	
7. Expert Wit 8. Mediators	ness		75%	x		- 1		x 30,000 =	30,000	
9. Demolition	, Asb. Abate., S	Survey, etc.	75%	x	1•	≈ 1 0	Parcels a Imprvmet a	x 2,400 = x 15,000 =		
10. Miscellane	OUS CONTRACTS					0	Per Project 2	× 15,000 =	i Ö	
12.	CC IVEAICM		1			0	Parcels >	5,000 =	the second se	¢60.000
R/W LAND CO								Amount	Subtotal	\$62,900
13. Land, Impr	rovements & Se to Cure Amoun		-							
14. Water Rete		•	460,072	x x	<u>120%</u>	* Design	plan stage = w/o R/W Acq	= <u>0</u>		
15. SUBTOTA	L (284,011)			^		(Lines 1)552,100	552,100	
16. Admin. Set 17. Litigation			20%	X		of Line 15)	-	66,300		
18. Business [45%	x	<u>40%</u> (of Line 15)				
19. Bus. Dama	iges Incr (Facto	or in the second s	25%	x	\$ -)		-	v		
20. Owner App	or. Fees (Parce	els	1	x	\$15,000)		-	Constant Constant		
21. Owner CP/ 22. Defend.Att) 165,700	x	\$16,000)		-	= <u> </u>		
23. Owner Exp	ert Witn (Com	m.+Unimp.)	0	X ÷	33%)	x_18,000		= <u>54,700</u> = 18,000		
24. Other Con			1	x	\$1,000			= 1,000		
25. SUBTOTAI 26.	_					(Lines 1	6 thru 24) =		254,400	
* Design conti	ngency for des	ign plan stage	o.:					TOTAL PHASE	the second s	\$806,500
(1) PD&	= plans - 120%	(2) 30% plans	s-115% (3) 60	% pla	ans - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
R/W ACQUISIT 27. Acquisition	n Consultant-50	ANT (PHASE 4 % of parcels	\$20,000	x	0			TOTAL PHASE	- 40	
RELOCATION								TOTAL PRASE	42	\$0
28. Owner	Replacement	Housing	520.000		Number		Amount			
29. Tenant			\$30,000 \$25,000	x	0	=	0			
30. Residentia	Move Costs		***							
31. Business/F	arm		\$5,000	X	0		0			
32. Personal P			\$3,000	x	0	=	0			
33. (Lines 28 ti 34. Relocation					\$0	(Not in I	Dhoos Totall	TOTAL PHASE	45	\$0
35.					30	(NOL III I	Phase Total)			
36. 37.								1		
Real Estate:	Roger D. Patt	on	Signed:	1	Detion		(All Phases)	TOTAL ESTIM		\$889,400
Bus. Dam. :	Alfred J. Tho	mpson	_Signed:	4		a.g.	Thomas	Date:	09/10/19	
Relocation: Overall Review	Roger D. Patt		Signed: Signed:	P	DENEM	-8	T, 1	Date:	09/10/19	
Carponer II.		inpoon	_ oigned			a.y.	thingson	Date:	09/10/19	
Cost Estimate	and the second state of th	Dated:			ne Amount of		0	Data Input Comp	letion Date:	
NEMANIS.	This p	ne impacts ha ond site creat	ve been consid es remnant are	ered as wi	in valuation of thing access a	f the pond	d site and FPC	C nainder have be	en eurited	
	· · · · · · · · · · · · · · · · · · ·									
	i ne ar	rea for FPC 12	13R would not	add	costs to this S	MF becau	se it was darr	naged out for the	e SMF 12/13C.	
These				_						
The following in	ndicates the es	timator's conf ates the most	idence in the al	bove	estimate:					
	Type B - indic	ates above av	erage confiden	сө						
<u> </u>	_Type C - indic	ates below av	erage confiden	се						
	- the n - mdic	ares the least	or no confiden	ce						
The following in	ndicates the De	partment's pu		stim	ate:					
Work Program Comments:	Update:		_Gaming 1: _			Special	Purpose: _	X	Docs to RW:	

			LORIDA DE						HDR#:	10169256-7.12
FM#: County: State Rd.:	419235-3 Hillsborough SR 93A	0	Alternate: Segment: FAP#:	N <u>-</u>	SMF 12/13A & N/A N/A	FPC 12/1	3R&L	District: Date: C.E. Sequence)	Seven 28-Aug-19 N/A
Project Des. Parcels Commercial Residential Unimproved Total Parcels	Gross Net 2 1 1 4	2 1 1 4	to N of Bruce B	. Dov	vns		Estimated R Business Residential Signs Special Total Reloca		3 1 0 1 5	
1. Direct Labo 2. Indirect Ov		E 41) (Parcels (Parcels	4	x x	<u> 20,000 </u> = 0 =	,		Amount 80,000 0		
3.								TOTAL PHASE	41	\$80,000
5. Business 6. Court Rep 7. Expert Wit 8. Mediators 9. Demolition	Fees Through T Damage CPA Fe orter & Process tness n, Asb. Abate., S cous Contracts	es Through ⁻ Servers	Trial <u>50%</u> 75% 75%	x x x	<u>4</u> <u>4</u> <u>4</u> =	4 -1 2 3 3 4 0 1	Parcels > Claims > Parcels > Parcels > Parcels > Imprvmet > Per Project × Parcels >	x 19,000 = x 500 = x 30,000 = x 2,400 = x 15,000 = x 15,000 =	Amount 120,000 -19,000 90,000 7,200 60,000 0 5,000	\$264,200
R/W LAND CO	STS (PHASE 43							Amount	Subtotal	\$264,200
 Land, Imprand Cost and Cos	rovements & Se to Cure Amount ention & Mit. (1) L (337,684) ttlements (Facto Damages (Facto Damages (Claim ages Incr (Facto pr. Fees (Parce A Fees (Claim ty Fees (Sum of pert Witn (Comm demn. Costs L ingency for desi E plans - 120%	Verance Dam Pond) r r s s Lines 16, 17 & 19 h.+Unimp.) gn plan stage (2) 30% plans	$ \begin{array}{r} 0 \\ 3,632,431 \\ 20\% \\ 45\% \\ -1 \\ 25\% \\ 4 \\ -1 \\ 25\% \\ 4 \\ -1 \\ 25\% \\ 4 \\ -1 \\ -1 \\ 25\% \\ 4 \\ -1 \\ -1 \\ 25\% \\ 4 \\ -1 \\ 5 \\ -115\% (3) 60 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12$	X X X X X X X X X X X X X X X X X X X	120% ((60% o 40% o 0) \$ (225,000) \$ (2) Parcels (Lines 1 f Line 15) f Line 15) x <u>18,000</u> (Lines 1	= = = = 6 thru 24) =	0 4,358,900 523,100 784,600 -225,000 -56,300 60,000 -16,000 413,000 54,000 4,000	<u>4,358,900</u> 1,541,400	\$5,900,300
and the second sec	n Consultant-50%	Contraction of the local division of the loc	\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION 28. Owner 29. Tenant 30. Residentia 31. Business/F 32. Personal P	arm		\$30,000 \$25,000 \$5,000 \$40,000 \$3,000	x x x x x	Number 1 0 1 3 1		Amount 30,000 0 5,000 120,000 3,000			
33. (Lines 28 t								TOTAL PHASE	45	\$158,000
35. Kelocation	Services Cost				\$15,800	(Not in F	Phase Total)			
36.								1		
Cost Estimate	Roger D. Patto Alfred J. Thom Roger D. Patto : Alfred J. Thom Sequence #:	ipson on	Signed: Signed: Signed: Signed:	Ħ	PCHOIL A.	z. Th. z. T	ngsm kompsn	TOTAL ESTIMA Date: Date: Date: Date: Date:	09/10/19 09/10/19 09/10/19 09/10/19	\$6,402,500
REMARKS:										
X The following in	_Type C - indica _Type D - indica ndicates the De	ites the most ites above av ites below av ites the least partment's pu	confidence erage confidence erage confidence or no confidence urpose for this e	ce ce ce					-12	
Work Program Comments:	Update:		_Gaming 1: _			Special I	Purpose:	X	Docs to RW:	

	RIDA DEPAR					: 10169256-7.12
FM#: 419235-3 Ait	ternate:	SMF 12/13B &			District:	Seven
State Rd.: SR 93A FA	gment: .P#:	N/A N/A			Date: C.E. Sequence	28-Aug-19 N/A
Project Des. I-75 (SR 93A) S. of US 301 to N of Parcels Gross Net	of Bruce B. Dow	/ns		Estimated Re	elocatees:	
Commercial 0 0 Residential 1 1				Business Residential		0
Unimproved 1 1				Signs		0
Total Parcels 2 [®] 2				Special Total Reloca	tees	0
R/W SUPPORT COSTS (PHASE 41) 1. Direct Labor Cost (Parcels	<u>2</u> x	20,000 =	Rate)		Amount 40,000	
2. Indirect Overhead (Parcels	2 x	0 =	Rate)		0	
R/W OPS (PHASE 4B)					TOTAL PHASE 41 Amount	\$40,000
4. Appraisal Fees Through Trial 5. Business Damage CPA Fees Through Trial			2 0	Parcels x Claims x	30,000 = 60,0	
6. Court Reporter & Process Servers	<u>50%</u> x	2=	1	Parcels x	500 = 5	0 500
8. Mediators	75% x 75% x	<u>2</u> = 2 =	2 2	Parcels x Parcels x		00 00
9. Demolition, Asb. Abate., Survey, etc. 10. Miscellaneous Contracts			2 0	Imprvmet x Per Project x	15,000 = 30,0	
11. Appraisal Fee Review 12.			1	Parcels x	5,000 = 5,0	00
R/W LAND COSTS (PHASE 43)		the second second			TOTAL PHASE 4B	\$160,300
13. Land, Improvements & Severance Damages					Amount Subtotal	
and Cost to Cure Amount 14. Water Retention & Mit. (1 Pond)	0 x 1,150,272 x			p <i>lan stage</i> = w/o R/W Acq)	0 1,380,300	
15. SUBTOTAL (312,058)	1,100,272	12076 (0	(Lines 1		1,380,300	00
16. Admin. Settlement: (Factor 17. Litigation Awards (Factor	<u> 20% x</u> 45% x		Line 15)	=	100,000	
18. Business Damages (Claims	<u>45%</u> X	<u> </u>	Line 15)		248,5000	
19. Bus. Damages Incr (Factor 20. Owner Appr. Fees (Parcels	<u>25%</u> x	\$ -)		-	0	
21. Owner CPA Fees (Claims	2 X 0 X	<u>\$15,000</u>) \$16,000)		=	30,000	
22. Defend.Atty Fees (Sum of Lines 16, 17 & 19) 23. Owner Expert Witn (Comm.+Unimp.)	414,100 x	33%)		=	136,700	
24. Other Condemn. Costs	0 + 2 x	<u>1</u>); \$1,000	<u>18,000</u>	-	<u>18,000</u> 2,000	
25. SUBTOTAL			(Lines 1	6 thru 24) 🛛 =	600,8	00
* Design contingency for design plan stage:					TOTAL PHASE 43	\$1,981,100
(1) PD&E plans - 120% (2) 30% plans - 11 R/W ACQUISITION CONSULTANT (PHASE 42)	5% (3) 60% pla	nns - 110% (4)	90% plan	s-105% (5) 2	68 Date -100%	
27. Acquisition Consultant-50% of parcels	\$20,000 x	0			TOTAL PHASE 42	\$0
RELOCATION COSTS (PHASE 45) Replacement Housing						
28. Owner	\$30,000 x	Number 1	=	Amount <u>30,000</u>		
29. Tenant Move Costs	\$25,000 x	0	=	0		
30. Residential 31. Business/Farm	\$5,000 x	1	=	5,000		
32. Personal Property	\$40,000 x \$3,000 x	0	= ;	0		
33. (Lines 28 thru 32) 34. Relocation Services Cost		\$3,500	/Not in D	hase Total)	TOTAL PHASE 45	\$35,000
35.		40,000	(NOT IN P	nase rotal)		
36. 37.				(All Phases)	TOTAL COTINATE	\$2,216,400
55.0.5					IUIAL ESTIMATE	
Real Estate: Roger D. Patton Sign	ned: 📑	Delta		(rai i nuoco)	TOTAL ESTIMATE Date: 09/10/	and the second sec
Real Estate: Roger D. Patton Sig Bus. Dam. : Alfred J. Thompson Sig	ned:	Delion	R.J. J	happ	Date: 09/10/ Date: 09/10/	19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign	Provide the second s	action action	a.g. 7	happ	Date: 09/10/	19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated:	ned: ned: ned:	PORION PORION	a.g. 7	harpson	Date: 09/10/ Date: 09/10/ Date: 09/10/	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: Dated:	ned: ned:	The Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated:	ned: ned:	The Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: Dated:	ned: ned:	The Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: Dated:	ned: ned:	The Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: Dated:	ned: ned:	The Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: The mainline impacts to S	ned: ned: in the above	ne Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: The mainline impacts to Sign The following indicates the estimator's confidence Type A - indicates the most confidence Type B - indicates above average Type B - indicates above average	ned: ned: ned: In the SMF 12/13B and ce in the above fidence e confidence	ne Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: The mainline impacts to S The following indicates the estimator's confidence Type A - indicates the most confidence	ned: ned: ned: In the SMF 12/13B and SMF 12/13B and ce in the above fidence e confidence e confidence	ne Amount of \$	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19
Real Estate: Roger D. Patton Sign Bus. Dam. : Alfred J. Thompson Sign Relocation: Roger D. Patton Sign Overall Review: Alfred J. Thompson Sign Cost Estimate Sequence #: Dated: REMARKS: The mainline impacts to Sign The following indicates the estimator's confidence Type A - indicates the most confidence Type B - indicates above average X Type C - indicates below average X	ned: ned: ned: SMF 12/13B and SMF 12/13B and ce in the above fidence e confidence e confidence o confidence	estimate:	a.g. 7	hays Thayson Di	Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ Date: 09/10/ ata Input Completion Date	19 19 19 19

			LORIDA DE						HDR#:	
FM#:	4192	235-3	Alternate:		SMF 12/13C 8			District:	HDK#;	10169256-7.12 Seven
County:		borough	Segment:		N/A			Date:		Seven 28-Aug-19
State Rd.: Project De	SR 9	ISR 93A) S. of US 301	FAP#:	Dev	N/A			C.E. Sequence		N/A
Parcels	Gro		to N OI BIUCE B	Dov	vns		Estimated R	elocateos:		
Commerci		0 0					Business	010001063.	0	
Residentia Unimprove		0 0					Residential		0	
							Signs Special	2	0	
Total Parc	and the second se	1 1					Total Reloca	itees	0	
		S (PHASE 41)						Amount		
	Labor Cost t Overhead	. (1	X X	<u> </u>	,		20,000		
3.			1	- ^ -	0	= Rate)		0 TOTAL PHASE 4	1	620.000
R/W OPS (Amount	\$20,000
4. Appra	isal Fees T	hrough Trial				1	Parcels x		30,000	
6. Court	ess Damag Reporter &	e CPA Fees Through ⁻ Process Servers				0	Claims x	2	0	
7. Expert	Witness	FIOCESS DEIVERS	<u>50%</u> 75%	X X		• 1 • 1	Parcels x Parcels x		500	
8. Mediat			75%		1 =	- 1	Parcels x	e	30,000 2,400	
9. Demoi 10. Miscel	ition, Asb.	Abate., Survey, etc.				0	Imprvmet 🗙	15,000 =	0	
11. Apprai						0	Per Project x		0	
12.						v	Parcels x	5,000 = TOTAL PHASE 4	B	\$63.000
R/W LAND	COSTS (P	HASE 43)							Statement of the local division in which the local division in the local division in the local division in the	\$62,900
13. Land, I	Improveme	ents & Severance Dam	ages					Anount S	Subtotal	
and C	ost to Cure	Amount	0	x			plan stage =			
14. Water	Retention	& Mit. (1 Pond)	1,141,640	x		0 Parcels	w/o R/W Acq)			
15. SUBTO	DTAL (354,	673)				(Lines 1	· ·	_	1,370,000	
16. Admin 17. Litigat			20%	×		of Line 15)		164,400		
18. Busine			<u> </u>	x	<u>40%</u> c	of Line 15)		246,600		
19. Bus. D			25%	x	<u> </u>		-			
20. Owner	Appr. Fee	s (Parcels	1	x	\$15,000)		2			
21. Owner			0	x	\$16,000)		=	0		
22. Defend	I.Atty Fees	(Sum of Lines 16, 17 & 19		x	33%)		=	135,600		
23. Owner 24. Other	Expert Wi	tn (Comm.+Unimp.)	0	+		x <u>18,000</u>		18,000		
25. SUBTO		COSIS	1	x	\$1,000	() in a d	=	1,000		
26.						(Lines 1	6 thru 24) =	TOTAL PHASE 4	580,600	A4 050 000
 Desian c 	ontingency	/ for design plan stage	e:						<u>.</u>	\$1,950,600
(1) P	D&E plans	- 120% (2) 30% plans	s - 115% (3) 60	% pla	ans - 110% (4)	90% plan	s -105% (5) 2	268 Date -100%		
		ONSULTANT (PHASE 4 ultant-50% of parcels	\$20,000							
		(PHASE 45)	\$20,000	X	0			TOTAL PHASE 4	2	\$0
		acement Housing			Number		Amount			
28. Owner			\$30,000	x	0	=	0			
29. Tenant		Costs	\$25,000	x	0	= ,	0			
30. Reside		00313	\$5,000	x	0		0			
31. Busine			\$40,000	x	0) =	0			
32. Person			\$3,000	x	0	=	0	(mark)		
33. (Lines 34. Reloca								TOTAL PHASE 4	5	\$0
35.	uon Servic	es cosi	_		\$0	(Not in F	hase Total)			
36.										
37.							(All Phases)	TOTAL ESTIMAT	E	\$2,033,500
Real Estate		r D. Patton	Signed:	1-1	action			Date:	09/10/19	
Bus. Dam. Relocation:	2	J. Thompson r D. Patton	_Signed: Signed:	120	D-Brown	a.y.7	houpsur	Date:	09/10/19	
		J. Thompson	_Signed:	9	tom-	19.7	Charles	Date: Date:	09/10/19	
						a.y. v	- and the second	Date,	09/10/19	
Cost Estim					ne Amount of \$		Da	ata Input Complet	ion Date:	
REMARKS:		The mainline impact	ts to SMF 12/13	C an	d the FPC's are	consider	red in this est	imate.		
		The area for FPC 12	/13R would not	add	costs to this SI	IF becaus	se it was dam	aged out for the S	MF 12/13C.	
								-		
762 · · ·										
i ne followi	ng indicate	s the estimator's conf A - indicates the most	idence in the al	bove	estimate:					
	Туре	A - indicates the most B - indicates above av	COMUCE CONFIDENCE	ce						
Х	Туре	C - indicates below av	erage confiden	се						
	Туре	D - indicates the least	or no confident	ce						
The following	ng indicate	s the Department's pu	mone for the	- A1:	- 4					
Work Progr	am Update	s the Department's pu	Gamino 1:	stim	ate:	Special	Purpose:	X De		
Comments:								D	ocs to RW:	

MEMORANDUM

Date:	October 1, 2019	
То:	Bill McTeer, Cos FDOT District Se	et Estimate Coordinator, even, MS 7-900
From:	Roger D. Patton	, Real Estate Services Agent III
Re:	Right of Way Co HDR #10062698 ⁴	
	FM#:	419235-3
	County:	Hillsborough
	Description:	I-75 PD&E
		From South of US 301
		To North of Bruce B. Downs (Pond Sites)
	Purpose:	Special Purpose

In accordance with your request, the cost estimates for Basin 12/13 have been revised for the above referenced project. The estimate considers mainline impacts to the pond sites and SMF's 12/13 A, B, C have been revised to include both right and left FPC's for each pond alternative.

1	BASIN 12/13	Total
	SMF 12/13A & FPC	
	12/13R&L	\$6,402,500
	SMF 12/13B & FPC	
	12/13R&L	\$2,216,400
	SMF 12/13C & FPC	
	12/13R&L	\$2,033,500

Thank you for the opportunity to provide this service, and please feel free to call with question concerns.

hdrinc.com

4830 W. Kennedy Blvd, Tampa, FL 33609-34442548 (813) 282-2300



			LORIDA DE							
FM#:		DI	STRICT SEV	-			DST ESTIN	ATE	HDR#:	10169256-7.12
County:	419235-3 Hillsborough		Alternate: Segment:		SMF 14A & FP N/A	C 14		District: Date:		Seven
State Rd.: Project Des.	SR 93A		FAP#:	ĺ	N/A			C.E. Sequence	•	28-Aug-19 N/A
Parcels	I-75 (SR 93A) S. Gross Net	of US 301	to N of Bruce B	. Dowr	15		Estimated R	Palacatoos		
Commercial	0 0						Business	elocalees:	0	
Residential Unimproved	0 0						Residential		. 0	
							Signs Special		0	
Total Parcels	1 1 COSTS (PHASE 4	4	120				Total Reloca	atees	0	State State State
1. Direct Labo		rcels	1	x	20,000 =	Rate)		Amount 20,000		
2. Indirect Ove	erhead (Pa	rcels	1	-	0 =	· · · · · · · · · · · · · · · · · · ·		0		
3. R/W OPS (PHA								TOTAL PHASE	41	\$20,000
	SE 4B) Fees Through Tria	I				1	Parcels	x 30,000 =	Amount	
5. Business [Damage CPA Fees	Through 1				o		x 30,000 = x 19,000 =	30,000	
6. Court Repo 7. Expert Wit	orter & Process Se ness	rvers	<u> </u>	x x	<u> </u>	1 1	_	K 500 =		
8. Mediators			75%	x	1 =	1	-	x 30,000 = x 2,400 =	30,000 2,400	
9. Demolition 10. Miscellane	, Asb. Abate., Surv	/ey, etc.				0	Imprvmet a	x 15,000 =	0	
11. Appraisal F	ee Review					0	Per Project > Parcels	Site Manager	0	
12.		÷.				-		TOTAL PHASE		\$62,900
	STS (PHASE 43)							Amount	Subtotal	
	ovements & Sever o Cure Amount	ance Dam	ages 0	x	120% *	Dani	plan -t	-		
	ntion & Mit. (1 Por	nd)	855,954	x -			<i>plan stage</i> = w/o R/ W Acq			
15. SUBTOTAL					((Lines 1		<u> </u>	1,027,100	
	tlements (Factor		20%	x _		f Line 15)	=	0		
	wards (Factor Damages (Claims		<u> </u>	x _	<u>100%</u> of 0)	f Line 15)		462,200		
	ges Incr (Factor		25%	_	<u> </u>			= <u>0</u>		
	r. Fees (Parcels		1	× _	\$15,000)		=	15,000		
21. Owner CPA	A Fees (Claims / Fees (Sum of Line	- 40 47 8 40	0	x _	\$16,000)		Ŧ	0		
23. Owner Exp	ert Witn (Comm.+l	s 16, 17 & 19 Jnimp.)) <u>462,200</u> 0	× -+	33%)	x 18,000		<u>152,500</u> 18,000		
24. Other Cond	lemn. Costs		1	x	\$1,000	. 10,000	-	1,000		
25. SUBTOTAL 26.	•					(Lines 1	6 thru 24) =		648,700	
	ngency for design	olan stade						TOTAL PHASE	43	\$1,675,800
(1) PD&E	plans - 120% (2)	30% plans	s-115% (3) 60	% plar	ns - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITE	ON CONSULTANT Consultant-50% of	(PHASE 4	-							
RELOCATION	COSTS (PHASE 45	parcels	\$20,000	x	0			TOTAL PHASE	42	\$0
100	Replacement Ho				Number		Amount			
28. Owner 29. Tenant			\$30,000 \$25,000	X -	0		0			
	Move Costs		\$25,000	X _	U	~	0			
30. Residential 31. Business/F			\$5,000	×	0	=	0			
32. Personal P			\$40,000	x	0	=	0			
33. (Lines 28 th				_				TOTAL PHASE	45	\$0
34. Relocation 35.	Services Cost				\$0	(Not in F	Phase Total)			
36.										
37.							(All Phases)	TOTAL ESTIMA	ATE .	\$1,758,700
Real Estate: Bus. Dam. :	Roger D. Patton		_Signed:	A	action			Date:	09/10/19	
Relocation:	Alfred J. Thomps Roger D. Patton	on	_Signed: Signed:	TI	Datina	y. TA	honpour	Date:	09/10/19	
Overall Review:	Alfred J. Thomps	оп	Signed:	-	A	S. TI	handre	Date: Date:	09/10/19	
Cost Estimate S	Sequence #:	Dated:		In the	Amount of \$	1		ata lanut Comu		
REMARKS:		Duteu.			Amount of a			ata Input Compl	letion Date:	
	Administrative Se	ettlement a	and Litigation A	wards	have been ad	justed to	reflect one of	wnership. Admi	nistrative	
	settlement is con	sidered to	be zero, while	litigati	on is factored	at 45%.				
							2			
The fall	dtara at									
ine tollowing in	dicates the estima Type A - indicates	ator's conf	idence in the al	bove e	stimate:					
	Type B - indicates	s above av	erage confiden	се						
<u> </u>	Type C - indicates Type D - indicates	s below av	erage confiden	се						
	- The D - Indicates	a une least	or no contident	ce						
The following in	dicates the Depar	tment's pu	rpose for this e	stima	te:					
Work Program	Jodate:		Gaming 1:			Special	Purpose:	X	Docs to RW:	
Comments:						opecial	- unpose	<u>_</u>	DUCS ID NW.	

			PARTMENT OF					
FM#: 4192		the second s	EN RIGHT OF W		DSTESTIN		HDR#:	10169256-7.12
	so-s Dorough	Alternate: Segment:	SMF 14B & FP N/A	C 14		District:		Seven
State Rd.: SR 9		FAP#:	N/A			Date: C.E. Sequence		28-Aug-19 N/A
Project Des. I-75 (SR 93A) S. of US 301 t	to N of Bruce B.	Downs			S.E. Boquence		N/A
Parcels Gros	and the second design of the s				Estimated R	elocatees:		
Residential	0 0		1.8		Business		0	
Unimproved	2 2				Residential		0	
					Signs Special	2	0	
Total Parcels	2 2				Total Reloca	tees	0	
R/W SUPPORT COST	S (PHASE 41)					Amount		
1. Direct Labor Cost	(2	x 20,000 =	Rate)		40,000		
2. Indirect Overhead	(Parcels		x 0 =	Rate)		0		
3.						TOTAL PHASE	41	\$40,000
R/W OPS (PHASE 4B)							Amount	,,
4. Appraisal Fees Ti	hrough Trial			2	Parcels >		60,000	
5. Business Damage	e CPA Fees Through T			0	Claims)	19,000 =	0	
6. Court Reporter & 7. Expert Witness	Process Servers		x <u>2</u> =	1	Parcels >	500 =	500	
8. Mediators			x <u>2</u> =	2	Parcels >	S	60,000	
	Abate., Survey, etc.	15%	x <u>2</u> =	2	Parcels >		4,800	
10. Miscellaneous Co	intracts			0	Imprvmet >		0	
11. Appraisal Fee Rev				1	Per Project x Parcels		0	
12.						5,000 =	5,000 4B	£400.000
R/W LAND COSTS (PI	HASE 43)					and the second	Statement of the local division of the local	\$130,300
13. Land, Improveme		2005				Amount	Subtotal	
and Cost to Cure		-	¥ 4000/ ±	Decim	plan star	-		
14. Water Retention &			x <u>120%</u> *	Design	plan stage =	0		~
15. SUBTOTAL (325,3		1,295,855	x <u>120%</u> (0		w/o R/W Acq)	1,555,000		
16. Admin. Settlemen		660/	w	(Lines 1			1,555,000	
17. Litigation Awards				Line 15)		100,000		
18. Business Damage		-		Line 15)	=	279,900		
19. Bus. Damages Ind			x()		=			
			x <u>\$ -</u>)		-			
20. Owner Appr. Fees 21. Owner CPA Fees	6 (Parcels		x\$15,000)		=			
			x <u>\$16,000</u>)		-	0		
22. Defend.Atty Fees			x <u>33%</u>)		:=	153,900		
23. Owner Expert Wit			+)	18,000		36,000		
24. Other Condemn.	Costs	2	x \$1,000		=	2,000		
25. SUBTOTAL				(Lines 1	6 thru 24) =		688,400	
26.						TOTAL PHASE	40	60 242 400
						TOTAL PHASE	43	\$2,243,400
* Design contingency (1) PD&F plans	for design plan stage): - 445% (2) 60%		0.09/	-		43	\$2,243,400
(1) PD&E plans	- 120% (2) 30% plans	s - 115% (3) 60%	6 plans - 110% (4)	90% plan	is -105% (5)		43	\$2,243,400
(1) PD&E plans R/W ACQUISITION CO	- 120% (2) 30% plans	s - 115% (3) 60% 2)		90% plan	is -105% (5)	268 Date -100%		\$2,243,400
(1) PD&E plans R/W ACQUISITION CC 27. Acquisition Const	- 120% (2) 30% plans DNSULTANT (PHASE 4 ultant-50% of parcels	s - 115% (3) 60% 2)	6 plans - 110% (4) x 0	90% plan	ns -105% (5)			\$2,243,400
(1) PD&E plans R/W ACQUISITION CC 27. Acquisition Const RELOCATION COSTS	- 120% (2) 30% plans PNSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45)	s - 115% (3) 60% 2)	x 0	90% plan		268 Date -100%		
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Const RELOCATION COSTS Repla	- 120% (2) 30% plans DNSULTANT (PHASE 4 ultant-50% of parcels	s - 115% (3) 60%	x 0 Number	90% plan	Amount	268 Date -100%		
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Const RELOCATION COSTS Repla 28. Owner	- 120% (2) 30% plans PNSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45)	s - 115% (3) 60% 2) \$20,000 \$30,000	x 0 Number x 0	=	Amount 0	268 Date -100%		
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Const RELOCATION COSTS Repla 28. Owner 29. Tenant	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing	s - 115% (3) 60% 2) \$20,000 \$30,000	x 0 Number	90% plan = =	Amount	268 Date -100%		
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Const RELOCATION COSTS Repla 28. Owner 29. Tenant	- 120% (2) 30% plans PNSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45)	s - 115% (3) 60% (2) \$20,000 \$30,000 \$25,000	x 0 Number x 0 x 0	=	Amount 0 0	268 Date -100%		
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu RELOCATION COSTS Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$30,000 \$25,000 \$5,000	x 0 Number x 0 x 0 x 0	=	Amount 0 0	268 Date -100%		
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu RELOCATION COSTS Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$30,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0	=	Amount 0 0	268 Date -100%		
 PD&E plans R/W ACQUISITION CO Acquisition Consult RELOCATION COSTS Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0	=	Amount 0 0 0	268 Date -100%	42	\$0
 PD&E plans R/W ACQUISITION CO Acquisition Consumption RELOCATION COSTS Replation Resolution Residential Business/Farm Personal Property (Lines 28 thru 32) Relocation Service 	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0	268 Date -100%	42	
 PD&E plans R/W ACQUISITION CO Acquisition Consumers Replation 200 Reconstruction 200 Residential Business/Farm Personal Property (Lines 28 thru 32) Relocation Service 35. 	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0	268 Date -100%	42	\$0
 PD&E plans R/W ACQUISITION CO Acquisition Consumers Replation 200 Reconstruction 200 Residential Business/Farm Personal Property (Lines 28 thru 32) Relocation Servic 35. 36. 	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0	268 Date -100%	42	\$0
 PD&E plans R/W ACQUISITION CO Acquisition Consumption Replation 200 Reconstruction 200 Residential Business/Farm Personal Property (Lines 28 thru 32) Relocation Servic 35. 36. 37. 	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 0 Phase Total)	268 Date -100%	42	\$0 \$0
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Constr RELOCATION COSTS Repla 28. Owner 29. Tenant 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Servic 35. 36. 37. 	- 120% (2) 30% plans ONSULTANT (PHASE 4 ultant-50% of parcels (PHASE 45) Incement Housing Costs	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 0 Phase Total)	268 Date -100% TOTAL PHASE TOTAL PHASE	42 45 ITE	\$0
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption Replay RELOCATION COSTS Replay 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfreed 	120% (2) 30% plans NSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Icement Housing Costs r D. Patton J. Thompson	s - 115% (3) 60% 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$3,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 0 Phase Total)	268 Date -100% TOTAL PHASE TOTAL PHASE	42 45 ITE 09/10/19	\$0 \$0
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- RELOCATION COSTS Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Servic 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge	120% (2) 30% plans DNSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Itecement Housing Costs r D. Patton 1 J. Thompson r D. Patton	s - 115% (3) 60% 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 0 Phase Total)	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Date:	42 45 TE 09/10/19 09/10/19	\$0 \$0
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption Replay RELOCATION COSTS Replay 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfreed 	120% (2) 30% plans DNSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Itecement Housing Costs r D. Patton 1 J. Thompson r D. Patton	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 0 Phase Total)	268 Date -100% TOTAL PHASE TOTAL PHASE	42 45 ITE 09/10/19	\$0 \$0
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption Replation Costs Replation Replation Replation Replation Replation Residential 28. Owner 29. Tenant 29. Tenant 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree 	120% (2) 30% plans NSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Icement Housing Costs r D. Patton d J. Thompson T D. Patton d J. Thompson	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,0	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 0 Phase Total)	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Date: Date:	42 45 TE 09/10/19 09/10/19 09/10/19	\$0 \$0
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption RELOCATION COSTS Replation 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer 	120% (2) 30% plans DNSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs r D. Patton J. Thompson r D. Patton J. Thompson	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,0	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	-	Amount 0 0 0 0 0 Phase Total) (All Phases) hampur	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Date: Date:	42 45 TE 09/10/19 09/10/19 09/10/19 09/10/19	\$0 \$0
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption Replation Costs Replation Replation Replation Replation Replation Residential 28. Owner 29. Tenant 29. Tenant 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree 	120% (2) 30% plans ONSULTANT (PHASE 4 Utant-50% of parcels (PHASE 45) Incement Housing Costs r D. Patton J. Thompson r D. Patton J. Thompson cee #: Dated:	s - 115% (3) 60% (2) \$20,000 \$25,000 \$25,000 \$40,000 \$40,000 \$3	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= $=$ $=$ $(Not in F$ $-9, 7$	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Date: Date: Date: Date:	42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 etion Date:	\$0 \$0 \$2,413,700
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption RELOCATION COSTS Replation 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer 	120% (2) 30% plans DNSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs r D. Patton J. Thompson r D. Patton J. Thompson mce #: Dated: The Parcel for SMF	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000 \$40,000 \$3,	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= $=$ $=$ $(Not in F$ $=$ $-$ $-$ $-$ $-$ $-$ $-$ $-$ $-$ $-$ $-$	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 etion Date:	\$0 \$0 \$2,413,700
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 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption RELOCATION COSTS Replation 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer 	120% (2) 30% plans DNSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs r D. Patton 1 J. Thompson T. D. Patton 1 J. Thompson tee #: Dated: The Parcel for SMF was unavailable. Ba Damages to potentia	s - 115% (3) 60% 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
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 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consult RELOCATION COSTS Replate 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfreet Relocation: Roge Overall Review: Alfreet Cost Estimate Sequer REMARKS: 	120% (2) 30% plans DNSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs r D. Patton 1.J. Thompson r D. Patton 1.J. Thompson mee #: Dated: The Parcel for SMF was unavailable. Ba Damages to potentia The SMF creates an for shape and acces	s - 115% (3) 60% 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption Replation Replati	120% (2) 30% plans 120% (2) 30% plans INSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Incement Housing Costs r D. Patton 1. Thompson The Parcel for SMF was unavailable. Ba Damages to potentia The SMF creates an for shape and acces st the estimator's confi	s - 115% (3) 60% (2) \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Servic 35. 36. 37. Real Estate: Roge- Bus. Dam. : Alfrec Relocation: Roge- Overall Review: Alfrect Cost Estimate Sequer REMARKS: The following indicate Type	120% (2) 30% plans 120% plans 120% (2) 30% plans 120% plans	s - 115% (3) 60% (2) \$20,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$20,000 \$3,0	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer REMARKS: The following indicate Type	120% (2) 30% plans NSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Icement Housing Costs costs r D. Patton d.J. Thompson f.J. Thompson f.J. Thompson d.J.	s - 115% (3) 60% (2) \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$40,000 \$40,000 \$3,0	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer REMARKS: The following indicate Type Type X Type	120% (2) 30% plans Disultant (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs Costs r D. Patton d.J. Thompson f.J. Thompson f.J. Thompson f.J. Thompson d.J.	s - 115% (3) 60% (2) \$20,000 \$22,000 \$22,000 \$22,000 \$40,000 \$3	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 10 7 9 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer REMARKS: The following indicate Type Type X Type	120% (2) 30% plans NSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Icement Housing Costs costs r D. Patton d.J. Thompson f.J. Thompson f.J. Thompson d.J.	s - 115% (3) 60% (2) \$20,000 \$22,000 \$22,000 \$22,000 \$40,000 \$3	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer REMARKS: The following indicate Type X Type X Type	120% (2) 30% plans Disultant (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs Costs r D. Patton d.J. Thompson f.J. Thompson f.J. Thompson f.J. Thompson d.J.	s - 115% (3) 60% (2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,0	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIMA Date: Da	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
 (1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consumption Replation Replati	120% (2) 30% plans NSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs Costs r D. Patton J. Thompson T. Dated: The Parcel for SMF was unavailable. Ba Damages to potentia The SMF creates an for shape and access sthe estimator's conf A - indicates the most B - indicates the least sthe Department's pu	s - 115% (3) 60% (2) \$20,000 \$25,000 \$25,000 \$40,000 \$40,000 \$3	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 Phase Total) (All Phases) Ampm Ampm Ampm he area it app he parcel and	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE Date: Date: Date: Date: Date: Date: Date: Date: Date: Date: Date: data Input Complet t is underway. T ears it may be a damages were a	42 45 TE 09/10/19 09/10/19 09/10/19 09/10/19 etion Date: The developme residential use applied to that	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.
(1) PD&E plans R/W ACQUISITION CO 27. Acquisition Consu- Repla 28. Owner 29. Tenant Move 30. Residential 31. Business/Farm 32. Personal Property 33. (Lines 28 thru 32) 34. Relocation Service 35. 36. 37. Real Estate: Roge Bus. Dam. : Alfree Relocation: Roge Overall Review: Alfree Cost Estimate Sequer REMARKS: The following indicate Type X Type X Type	120% (2) 30% plans NSULTANT (PHASE 4 Itant-50% of parcels (PHASE 45) Iteement Housing Costs Costs r D. Patton J. Thompson T. Dated: The Parcel for SMF was unavailable. Ba Damages to potentia The SMF creates an for shape and access sthe estimator's conf A - indicates the most B - indicates the least sthe Department's pu	s - 115% (3) 60% (2) \$20,000 \$25,000 \$25,000 \$40,000 \$40,000 \$3	x 0 Number x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0	= = = (Not in F - - - - - - - - - - - - - - - - - - -	Amount 0 0 0 0 0 Phase Total) (All Phases) Ampm Ampm Ampm he area it app he parcel and	268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE Date: Date: Date: Date: Date: Date: Date: Date: Date: Date: Date: data Input Complet t is underway. T ears it may be a damages were a	42 45 5 5 6 7 7 7 7 7 8 7 7 8 7 7 8 9 7 10 7 9 9 9 7 10 7 9 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 10 7 9 9 7 9 7 10 7 9 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	\$0 \$0 \$2,413,700 \$2,413,700 nt plan \$.



	FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE HDR#: 10169256-7.12										
FM#: County: State Rd.;	419235-3 Hillsborough SR 93A		Alternate: Segment: FAP#:		SMF 17A N/A N/A			District: Date:		Seven 28-Aug-19	
Project Des. Parcels Commercial	I-75 (SR 93A) Gross Net		o N of Bruce B	. Dow			Estimated R	C.E. Sequenc		N/A	
Residential Unimproved	0	0					Business Residential Signs		0 0		
Total Parcels R/W SUPPORT	1 COSTS (PHAS	1 SE 41)					Special Total Reloca	atees Amount	<u>0</u>		
1. Direct Labo 2. Indirect Ov 3.	or Cost	(Parcels (Parcels	1		<u>20,000</u> = 0 =	Rate) Rate)		20,000			
R/W OPS (PHA	SE 4B)							TOTAL PHAS	E 41 Amount	\$20,000	
5. Business I 6. Court Repo 7. Expert Wit 8. Mediators	, Asb. Abate., s ous Contracts	ees Through 1 s Servers	rial 50% 75% 75%		<u>1</u> = <u>1</u> = <u>1</u> =	1 0 1 1 0 0	Claims a Parcels a Parcels a	x 15,000 = x 5,000 =	30,000 500 30,000 2,400 0 0 0		
R/W LAND COS				2				TOTAL PHAS	and the second s	\$62,900	
 Land, Imprand Cost (1) Water Retering the second seco	A Fees (Claim generation & Mit. (1 - (160,357) titlements (Factor Awards (Factor Damages (Claim ges Incr (Factor A Fees (Parcer A Fees (Claim y Fees (Sum of hert Witn (Com demn. Costs - (Consultant-50) COSTS (PHASE Replacement Move Costs - (Costs) - (Costs	everance Dama t Pond) or or els is Lines 16, 17 & 19 n.+Unimp.) ign plan stage (2) 30% plans ANT (PHASE 4 % of parcels E 45) Housing	0 510,071 20% 45% 0 25% 1 0 183,700 0 183,700 0 1 1 5 - 115% (3) 60	x x + x	120% (0 60% of 0) \$-) \$15,000) \$16,000) 33%)	Parcels (Lines 1 Line 15) Line 15) (Lines 1 (Lines 1 90% plan	6 thru 24)	<pre> 0 612,100 73,500 110,200 0 15,000 0 60,600 18,000 1,000 TOTAL PHASE </pre>	E 42	\$890,400	
35. 36.											
37. Real Estate: Bus. Dam. : Relocation: Overall Review Cost Estimate s REMARKS:		mpson on	Signed: Signed: Signed:	P	RATEN A.S.	y. Thu Y. Th	mpsu-	TOTAL ESTIM Date: Date: Date: Data Input Comp	09/10/19 09/10/19 09/10/19 09/10/19	\$973,300	
The following in X	_Type A - indic _Type B - indic _Type C - indic _Type D - indic	ates the most ates above av ates below av ates the least	confidence erage confiden erage confiden or no confiden rpose for this e	ce ce ce			Ϋ́.				
Comments:			Gaming 1:			Special I	Purpose: _	X	Docs to RW:		

FM#:	DI 419235-3	the second se	EN RIGHT O	F WAY CO	OST ESTIN	ATE	HDR#:	10169256-7.12
County: State Rd.: Project Des.	Hillsborough SR 93A	Alternate: Segment: FAP#:	SMF 17B N/A N/A			District: Date: C.E. Sequence	9	Seven 28-Aug-19 N/A
Parcels	I-75 (SR 93A) S. of US 301 Gross Net	to N of Bruce B	Downs		Estimated F	Relocatees:		
Commercial Residential					Business	-	1	
Unimproved	1 1				Residential Signs		2	
Total Parcels	2 2				Special Total Reloca	atees	0	
R/W SUPPORT 1. Direct Labo	COSTS (PHASE 41)					Amount		
2. Indirect Ove		2		0 = Rate) 0 = Rate)		40,000		
3.						TOTAL PHASE	E 41	\$40,0
R/W OPS (PHA: 4. Appraisal F	ees Through Trial			2	Parcels	x 30,000 =	Amount	
5. Business D 6. Court Repo	amage CPA Fees Through 1 rter & Process Servers			0	Claims	x 30,000 =	,	
7. Expert Witr	less	<u> </u>	x x	= 1 = 2		x 500 = x 30.000 =		
8. Mediators 9. Demolition	Asb. Abate., Survey, etc.	75%	x 2	= 2	Parcels	x 2,400 =	4,800	
10. Miscellaneo	ous Contracts			2	Imprvmet Per Project :			
11. Appraisal F 12.	ee Review			1		5,000 =	5,000	
	TS (PHASE 43)				_	TOTAL PHASE		\$160,3
13. Land, Impro	ovements & Severance Dam	ages				Amount	Subtotal	
	Cure Amount ntion & Mit. (1 Pond)	674.070			plan stage =		e :	
5. SUBTOTAL	(178,160)	671,070	x <u>120%</u>	0 Parcels (Lines 1)	w/o R/W Acq 3 &14)) <u>805,300</u>	805 200	
16. Admin. Sett	lement: (Factor	20%	x 60%	of Line 15)		96,600	805,300	
 Litigation A Business D 	wards (Factor amages (Claims	45%		of Line 15)		145,000		
19. Bus. Damag	ges Incr (Factor	25%	x <u>s</u> -)				
	r. Fees (Parcels	2	× \$15,000	_)		=		
	Fees (Claims Fees (Sum of Lines 16, 17 & 19) 241,600	x \$16,000		-			
23. Owner Expe	ert Witn (Comm.+Unimp.)	1	x <u>33%</u>) x 18,000		13,100		
4. Other Cond 5. SUBTOTAL	emn. Costs	2	x \$1,000		-	2,000		
26.				(Lines 1	6 thru 24) =		389,300	
Design contin	gency for design plan stage					TOTAL PHASE	43	\$1,194,60
W ACQUISITIO	plans - 120% (2) 30% plans	s - 115% (3) 60	% plans - 110% (4) 90% plan	s -105% (5)	268 Date -100%		
7. Acquisition	Consultant-50% of parcels	\$20,000	x o			TOTAL PHASE	42	
RELOCATION C	OSTS (PHASE 45) Replacement Housing							
8. Owner	Replacement Housing	\$30,000	X Number	Y	Amount 0			
9. Tenant	Move Costs	\$25,000	x2	-	50,000			
0. Residential		\$5,000	x 2	=	10,000			
1. Business/Fa 2. Personal Pr		\$40,000	x1	. = .	40,000			
3. (Lines 28 th	ru 32)	\$3,000	x0	2	0	TOTAL PHASE	45	\$400.0
4. Relocation	Services Cost		\$10,000	(Not in P	hase Total)	LIGIAL PHASE	40	\$100,0
5. 6.								
7.					(All Phases)	TOTAL ESTIMA	TE	\$1,494,9
	Roger D. Patton Alfred J. Thompson	Signed:	PORTO			Date:	09/10/19	
Relocation:	Roger D. Patton	Signed: Signed:	EDATO	a.y. 7	horps	Date: Date:	09/10/19 09/10/19	
verall Review:	Alfred J. Thompson	Signed:	- HICIN	a.y. T.	hongen	Date:	09/10/19	
ost Estimate S	equence #: Dated:		In the Amount o	rs (ata Input Compl	otion Date:	
EMARKS:						da input compi	etion Date.	
× .					18			
he following in	dicates the estimator's conf	idence in the ob	NVQ Astimator					
	Type A - indicates the most	confidence						
	Type B - indicates above av Type C - indicates below av	erage confident	ce					
X	- JEA A HIGH CONCION GA	arage connident						
X	Type D - indicates the least	or no confidenc	e					
	Type D - indicates the least dicates the Department's pu							



	FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE HDR#: 10169256-7.12										
FM#: County: State Rd.:	419235-3 Hillsborough SR 93A		Alternate: Segment: FAP#:		SMF 18A N/A			District: Date:		Seven 28-Aug-19	
Project Des.	1-75 (SR 93A)	S. of US 301 to		Dov	N/A vns			C.E. Sequence		N/A	
Parcels Commercial	Gross Net	0					Estimated R Business	elocatees:			
Residential	0	0					Residential		0		
Unimproved	0	0					Signs Special		0		
Total Parcels	0	0					Total Reloca	itees	0		
R/W SUPPORT 1. Direct Labo		SE 41) (Parcels	0		00.000 -	Detail		Amount			
2. Indirect Ove		(Parcels	0	X X	<u>20,000</u> = 0 =	,		0			
3.								TOTAL PHASE	41	\$0	
R/W OPS (PHAS 4. Appraisal F		Trial							Amount		
5. Business D	amage CPA F	ees Through T	rial			0		x 30,000 = x 19,000 =	0		
6. Court Repo		s Servers	50%	x	=	0	Parcels >	د 500 =	0		
8. Mediators			<u> </u>	X X	=	0		30,000 = 2,400 =			
9. Demolition, 10. Miscellaned	, Asb. Abate.,	Survey, etc.				0	Imprvmet	c 15,000 =	Ō		
11. Appraisal F	ee Review					0	Per Project x Parceis				
12.						•	Talcela ,	TOTAL PHASE		\$0	
R/W LAND COS						-		Amount	Subtotal		
13. Land, impre and Cost to	overnents & Se o Cure Arnoun		-		4000/	Dest					
14. Water Rete		-	499,668	X X			plan stage = w/o R/W Acq			•	
15. SUBTOTAL	. (116,305)			^	((Lines 1		,,000	599,600		
16. Admin. Set			20%	x		f Line 15)		0			
17. Litigation A 18. Business D			45%	X X	<u> </u>	f Line 15)					
19. Bus. Damag			25%	x	s -)			= 0			
20. Owner App			0	x	\$15,000)		-				
21. Owner CPA 22. Defend.Atty			0	×	\$16,000)		-				
23. Owner Exp			<u>269,800</u> 0	X +	-33%)	x 18,000		= <u>89,000</u> = 0			
24. Other Cond	lemn. Costs		0	x	\$1,000	<u> </u>		= 0			
25. SUBTOTAL	-					(Lines 1	6 thru 24) =		358,800		
* Design contin	naency for des	sion plan stage	-					TOTAL PHASE	43	\$958,400	
(1) PD&E	plans - 120%	(2) 30% plans	- 115% (3) 60	% pl	lans - 110% (4)	90% plar	ns -105% (5)	268 Date -100%			
R/W ACQUISITI			1/1/2 March 10/2012								
27. Acquisition RELOCATION			\$20,000	x	0			TOTAL PHASE	42	\$0	
	Replacement				Number		Amount				
28. Owner 29. Tenant			\$30,000	x	0	=	0				
25. Tellall	Move Costs		\$25,000	X	0	=	0				
30. Residential			\$5,000	x	0	=	0				
31. Business/F 32. Personal P			\$40,000 \$3,000	X X	0	=	0				
33. (Lines 28 th	nru 32)			^		-		TOTAL PHASE	45	\$0	
34. Relocation	Services Cost	-		_	\$0	(Not in	Phase Total)				
35. 36.											
37.						3	(All Phases)	TOTAL ESTIM	ATE	\$958,400	
Real Estate:	Roger D. Pat		Signed:	F	ACTION_	-		Date:	09/10/19		
Bus. Dam. : Relocation:	Alfred J. Tho Roger D. Pat		Signed: Signed:	T	anton	a.y.	hupp	Date:	09/10/19		
Overall Review	: Alfred J. Tho	mpson	Signed:		THEVE	a.e	Thingson	Date:	09/10/19		
Cost Estimate S	Sequence #	Dated:		le :	the American	0	1				
REMARKS:			nd Litigation A		the Amount of \$			Data Input Comp wnership. Adm			
	settlement is	considered to	be zero, while	litig	ation is factored	t at 45%.	reneer one o	whership. Auth	msuduve		
	Damages to	the remainder a	are significant (due	to the location o	of the nor	nd eito and oa			li li	
						n me por	iu sile allu ea	sement.			
	Any mainline	takings are co	nsidered in the	est	imate						
The following it	ndiacte - 4	47		_							
The following in	Type A - indi	stimator's conf cates the most	idence in the a confidence	bove	e estimate:						
	Type B - indi	cates above av	erage confiden	Ce							
X	_ 1ype C - indi Type D - indi	cates below av	erage confiden	ce							
The following in Work Program	ndicates the D	epartment's pu	rpose for this e	estin	nate:						
Work Program Comments:	opuate:		Gaming 1:	_		Special	Purpose: _	XX	Docs to RW:		
				-							

					RTMENT OF 1						
FM#:	440305 0		DISTRICT SE	_		AY COS	ESTIMATE		HDR#:	10169256-7.12	
FM#: County:	419235-3 Hillsborough		Alternate: Segment:		SMF 18B N/A			District: Date:		Seven 28-Aug-19	
State Rd.:	SR 93A		FAP#:		N/A			C.E. Sequence		N/A	
Project Des. Parcels		. of US 301 to N of	Bruce B. Downs				Decision P. L.				
Commercial	Gross Net	0					Estimated Relo Business	ocatees:	0		
Residential	0	0					Residential		0		
Unimproved	1	1					Signs		0		
Total Parcels	1	1					Special Total Relocate		0		
R/W SUPPORT CO							Total Relocate		U		
1. Direct Labor C		(Parcels	1	x	20,000 =	Rate		Amount 20,000			
2. Indirect Overh		(Parcels	1	x	0 =	Rate		0			
3.								TOTAL PHASE 41			\$20,000
R/W OPS (PHASE									Amount		
 Appraisal Fee Business Dam 		heavah Trial				1		× 30,000 =	30,000		
6. Court Reporte			50%	x	1 =	0 1	-	x 19,000 = x 500 =	0 500		
7. Expert Witnes			75%	x	1 =	1		x 30,000 =	30,000		
8. Mediators			75%	x	=	1		x 2,400 =	2,400		
9. Demolition, A 10. Miscellaneou	sb. Abate., Surve is Contracts	ey, etc.				0 0		x 15,000 = x 15,000 =	0		
11. Appraisal Fee						0		<pre>15,000 = 5,000 =</pre>	- 0		
12.								TOTAL PHASE 4B			\$62,900
R/W LAND COSTS	S (PHASE 43)							Amount	Subtotal		and a result
13. Land, Improve		nce Damages									
and Cost to C			0	x	120%	• Design p	lan stage	=0			
14. Water Retent	-	d)	1,086,997	x _	120% (0		//o R/W Acq)	1,304,400		~	
15. SUBTOTAL (9						(Lines 13	814)		1,304,400		
16. Admin. Settle			20%	×		f Line 15)		=0			
17. Litigation Aw 18. Business Dan			<u>45%</u> 0	×	<u> </u>	f Line 15)		= <u>587,000</u> = 0			
19. Bus. Damage			25%		s -)			= 0			
20. Owner Appr.			1	x	\$15,000)			= 15,000			
21. Owner CPA F		ns	0	x	\$16,000)			= 0			
22. Defend.Atty F		f Lines 16, 17 & 19)	587,000	x	33%)		:	= 193,700			
23. Owner Experi		m.+Unimp.)	0	+ 2)	x 18,00	<u>D</u> :	=			
24. Other Conden 25. SUBTOTAL	nn. Costs		1	x	\$1,000	11:		= 1,000	014 700		
25. SUBTUTAL 26.						(Lines 16	(10 thru 24)	TOTAL PHASE 43	814,700		2,119,100
16S 8 8	gency for design	olan stage:						TOTALITIASE			2,113,100
			(3) 60% plans - 110	0% (4)	90% plans -105	% (5) 268 L	Date -100%				
R/W ACQUISITIO	N CONSULTANT	(PHASE 42)									
27. Acquisition C	Consultant-50% of	parcels	\$20,000	x	0			TOTAL PHASE 42		and the second second	SO
RELOCATION CO											
28. Owner	Replacement	Housing	\$30,000	~	Number 0		Amount 0				
29. Tenant			\$25,000	x	0	. =					
	Move Costs										
30. Residential			\$5,000	×	0	-	0				
31. Business/Far			\$40,000 \$3,000	X X	0	=	0				
32. Personal Pro 33. (Lines 28 thru			\$5,000	^ 3				TOTAL PHASE 4	i		SC
34. Relocation S					\$0	(Not in I	Phase Total)	TOTALTUNOL			
35.											
36.								fill a sub-			
37.							(All Phases)	TOTAL ESTIMAT			\$2,202,000
Real Estate:	Roger D. Patte		Signed:	20	JOIGL	a.r.	-	Date:	09/10/19		
Bus. Dam. : Relocation:	Alfred J. Thor Roger D. Patte		Signed: Signed:	13	ADINES	u.y.	V houghs	Date: Date:	09/10/19		
Overall Review:	Alfred J. Thor		Signed:		- August	2.9.	Thomas	Date:	09/10/19		
						0	/				
Cost Estimate Se		Dated:	_	_	e Amount of \$	100		Data Input Comple	tion Date:		_
REMARKS:			Litigation Awards			reflect one	ownership. Ac	Iministrative			
	settlement is	considered to be a	zero, while litigation	ON IS T	actored at 45%.						
	<u>10</u>										
The following in	dicates the estin	nator's confidence	e in the above esti	mate:							
	Type A - indic	cates the most cor	nfidence								
		cates above avera									
X		cates below avera cates the least or l									
The following in	idicates the Dep	artment's purpose	e for this estimate:								
Work Program L	Jpdate:		Gaming 1:			Specia	l Purpose:	X	Docs to RW:		
Comments:				-							

					RTMENT OF RIGHT OF W					
FM#:	419235-3		Alternate:	GN		ATCL	51 E311M		HDR#:	10169256-7.12
County:	Hillsborougt	ı	Segment:		FPC 17/18			District: Date:		Seven
State Rd.:	SR 93A		FAP#:		N/A			C.E. Sequence	•	28-Aug-19 N/A
Project Des.			o N of Bruce B.	Dov	wns					
Parcels Commercial	Gross Net	0					Estimated R	elocatees:		
Residential	0	0					Business		0	
Unimproved	0	0					Residential Signs		0	
l .							Special		0	
Total Parcels	0	0					Total Reloca	itees	ŏ	
R/W SUPPORT		SE 41)						Amount		
1. Direct Labo		(Parcels	0	x	20,000 =	Rate)		0		
2. Indirect Ove	erhead	(Parcels	0	x	=	Rate)		0		
3.	-							TOTAL PHASE	41	\$0
R/W OPS (PHA	SE 4B)								Amount	
4. Appraisal F 5. Business D	ees Ihrough	Trial Second Theory is 7				0		x 30,000 =	0	
6. Court Repo	offer & Proces	ees Inrough I			0 –	0	-	x 19,000 =	0	
7. Expert Wite		3 3614613	<u> </u>		= =	0	_	x 500 =	0	
8. Mediators			75%	x	=	0	-	x 30,000 = x 2,400 =	0	
9. Demolition	, Asb. Abate.,	Survey, etc.		î		ŏ	Imprvmet		U O	
10. Miscellane	ous Contracts					ō	Per Project x		ŏ	
11. Appraisal F	ee Review					0	Parcels x		Ő	
12.	<i>1</i>							TOTAL PHASE		\$0
R/W LAND COS								Amount	Subtotal	
13. Land, Impr			ages					- MINANI,	JUNIOLO	
and Cost t	o Cure Amour	nt	0	x	120% *	Desian	plan stage =	= 0		
14. Water Rete	ntion & Mit. (1	Pond)	656,781	x			w/o R/W Acq)			Ŧ
15. SUBTOTAL	. (105,415)	·		-		(Lines 1			788,100	
16. Admin. Set		or	20%	x	0% of	Line 15)		0	/00,100	
17. Litigation A			45%	x	100% of					
18. Business D			0	x	0)					
19. Bus. Dama	ges Incr (Fact	or	25%	x	\$ -)			= 0		
20. Owner App			0	x	\$15,000)			0		
21. Owner CPA			0	x	\$16,000)			= 0		
22. Defend.Atty	y Fees (Sum o	of Lines 16, 17 & 19		x	33%)			117,000		
23. Owner Exp			0	+		18,000		= 0		
24. Other Cond		.,	0	x	\$1,000	10,000		= 0		
25. SUBTOTAL	-			0.000		(Lines 1	6 thru 24) =	<u>v</u>	471,600	
26.						(o unu 14,	TOTAL PHASE		\$1,259,700
* Design contin	ngency for de	sign plan stage	:					Annual sector of the sector of		\$1,259,700
				% pl	lans - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITI			2)							
27. Acquisition			\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION									In Salassian In	and the second
	Replacemen	t Housing			Number		Amount			
28. Owner			\$30,000	X	0	=	0			
29. Tenant	Move Costs		\$25,000	X	0	= 8	0			
30. Residential			\$E 000	-22			20			
31. Business/F			\$5,000	x	0		0			
32. Personal P			\$3,000	x	0	3	0			
33. (Lines 28 th				^	0	- 2	0	TOTAL DUADE	10	
34. Relocation		t			\$0	(Not in E	Phase Total)	TOTAL PHASE	45	\$0
35.			_		4 0	(NOL III P	nase rotal)			
36.										
37.							(All Phases)	TOTAL ESTIM	ATE	\$1,259,700
Real Estate:	Roger D. Pat	ton	Signed:	P	221ER			Date:	09/10/19	\$1,200,700
Bus. Dam. :	Alfred J. Tho	mpson	Signed:	-	-p. Mit	1.0.	Thomas	Date:	09/10/19	
Relocation:	Roger D. Pat		Signed:	Ŧ	HORTON	4	1	Date:	09/10/19	
Overall Review	: Alfred J. Tho	mpson	Signed:	_		a.g.	Thomas	Date:	09/10/19	
Cost Estimate S	Samuera			-	14-51/10-06V	0	1			
	the second se	Dated:			the Amount of \$			Data Input Comp	letion Date:	
REMARKS:	Administrativ	ve Settlement a	and Litigation A	ware	ds have been adj	usted to	reflect one o	wnership. Admi	inistrative	
	settiement is	considered to	De zero, while	litiga	ation is factored	at 45%.				
	The damage	s to the remain	dor aro cignifio		dua ta tha la sette					
			an are signinc	aii((due to the location	m of the	rru site.			
	Any mainline	takings are co	onsidered in the	est	imate					
										2
The following in	ndicates the e	stimator's conf	idence in the a	bove	estimate:					
	- Type A - indi	cates the most	confidence							
x	jype B - Indi Type C indi	cates above av	erage confiden	се						
~	Type D - indi	cates below av	erage confiden or no confiden	ce						
	- , , po o - man	cares life leas[or no contiden	ce						
The following in				-						
	ndicates the D	epartmont'e	irnnea far thia -	\ e +i∽	nator					
Work Program	ndicates the D Update:	epartment's pu	Irpose for this e Gaming 1.	estin		Special	Burnese	v	Deer to Dist	
Work Program Comments:	ndicates the D Update:	epartment's pu	Gaming 1:	estin		Special	Purpose: _	x	Docs to RW:	



			LORIDA DE STRICT SEV						HDR#:	10169256-7.12
FM#: County: State Rd.:	419235-3 Hillsborou SR 93A	ıgh	Alternate: Segment: FAP#:		SMF 20A & FP N/A N/A	C 20		District: Date: C.E. Sequence		Seven 28-Aug-19
Project Des Parcels Commercia	Gross I	3A) S. of US 301 t Net0	to N of Bruce B.	Dow			Estimated R Business		0	N/A
Residential Unimproved		0 1 1					Residential Signs Special		0 0 0	
	RT COSTS (PI						Total Reloca	Amount	0	
1. Direct La 2. Indirect		(Parcels	1	x	20,000 =	Rate)		20,000		
3.		(Parcels	1	x	0 =	Rate)		0 TOTAL PHASE	. 41	\$20,000
R/W OPS (P	HASE 4B) al Fees Throug	ah Trial							Amount	
5. Busines	s Damage CP	A Fees Through T	rial			1 0		<pre>30,000 = 19,000 =</pre>	30,000	
6. Court R	eporter & Proc	ess Servers	50%	x	1=	1		500 =	500	
7. Expert 8. Mediato			<u> </u>	x	=	1 1	Parcels >		30,000	
9. Demolit	ion, Asb. Abate	e., Survey, etc.	1076	^ 11		0	Parcels >		2,400 0	
10. Miscella	aneous Contra al Fee Review	cts				0	Per Project x		Ő	
12.	al ree Review					0	Parcels x	5,000 = TOTAL PHASE	0	
	COSTS (PHASE	43)						Amount	Subtotal	\$62,900
13. Land, In	nprovements 8	Severance Dama	ages					Amount	Subtotal	
and the second sec	st to Cure Amo		0	x			plan stage =		÷	
	etention & Mit.	(1 Pond)	105,524	x	120% (0		w/o R/W Acq)	126,600		
	TAL (422,097) Settlements (Fa	ictor	20%	х	0%	(Lines 1			126,600	
	on Awards (Fa		45%	x.		f Line 15) f Line 15)				
18. Busines	s Damages (Cl	aims	0	x	0)	,	=			
	mages Incr (Fa		25%	x	\$ -)		-	0		
	Appr. Fees (Pa CPA Fees (CI		1	Х.	\$15,000)			15,000		
		m of Lines 16, 17 & 19		X X	\$16,000) 33%)			18,800		
23. Owner I	Expert Witn (Co	omm.+Unimp.)	0	+		x 18,000		18,000		÷1
24. Other C 25. SUBTO	ondemn. Costs	5	1	x	\$1,000		-	1,000		
26.	IAL					(Lines 1	6 thru 24) =	TOTAL DUACE	109,800	
* Design co	ntingency for a	design plan stage	:					TOTAL PHASE	43	\$236,400
(1) PL	0&E plans - 120	0% (2) 30% plans	s - 115% (3) 60	% pla	ans - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
		LTANT (PHASE 4 -50% of parcels	COLOR AND							
	N COSTS (PH/		\$20,000	x	0			TOTAL PHASE	42	\$0
		ent Housing			Number		Amount			
28. Owner 29. Tenant			\$30,000 \$25,000	X X	0	-	<u>0</u>			
	Move Cost	ts			0		U			
30. Residen 31. Busines			\$5,000	x	0	=	0			
32. Persona			\$40,000	x	0	=	0			
33. (Lines 2	8 thru 32)			1		1		TOTAL PHASE	45	\$0
	ion Services C	ost			\$0	(Not in F	Phase Total)			
35. 36.										
37.				_			(All Phases)	TOTAL ESTIMA	ATE	\$319,300
Real Estate:	Roger D. F		Signed:	R	Callon_			Date:	09/10/19	
Bus. Dam. : Relocation:	Alfred J. T Roger D. F		Signed:	10	A	.J. T.	harpen	Date:	09/10/19	
	ew: Alfred J. T		_Signed: Signed:	P	azilon	Q T	Runna	Date: Date:	09/10/19	
Cont Entime	1. C					1			00110110	
REMARKS:	te Sequence #	the second s			he Amount of \$			ata Input Comp		
item/utto.	settlement	ative Settlement a is considered to	be zero, while l	waro: litigat	s nave been ad tion is factored	justed to at 45%	reflect one of	wnership. Admi	inistrative	
		·	·							
The followin	g indicates the	estimator's conf	idence in the al	bove	estimate:					
	Type A - in	dicates the most	confidence							1
x		idicates above av idicates below av								
	Type D - in	idicates the least	or no confident	ce					÷	
The 6.11										
Work Proor	g indicates the Im Update:	Department's pu	rpose for this e Gaming 1:	stim	ate:	Speciel	Burness	v	Deep to Ditt	
Comments:	······					Shecial	Purpose:	X	Docs to RW:	

		FLORIDA DE STRICT SEV						HDR#:	10169256-7.12
FM#: 419235-3 County: Hillsborg State Rd.: SR 93A	3 Dugh	Alternate: Segment: FAP#:	SM N/A N/A	F 20B & FP	_		District: Date: C.E. Sequence		Seven 28-Aug-19
Project Des. I-75 (SR Parcels Gross Commercial 0 Residential 0 Unimproved 2 Total Parcels 2 R/W SUPPORT COSTS (F	93A) S. of US 301 Net 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2	to N of Bruce B.	. Downs			Estimated Business Residential Signs Special Total Reloc	Relocatees:	1 2 0 0 3	N/A
1. Direct Labor Cost 2. Indirect Overhead	(Parcels (Parcels	<u> </u>	x	<u>20,000</u> = 0 =	Rate)		Amount 40,000		
3. R/W OPS (PHASE 4B)		2		0 =	Rate)		0 TOTAL PHASE	41	\$40,000
 Appraisal Fees Throuts Business Damage CF Court Reporter & Pro Expert Witness Mediators Demolition, Asb. Aba Miscellaneous Contra Appraisal Fee Review Appraisal Fee Review 	À Fees Through [•] cess Servers te., Survey, etc. acts	Frial 50% 75% 75%	x x	2 = 2 = 2 =	2 0 1 2 9 0 1	Imprvmet Per Project	x 30,000 = x 19,000 = x 500 = x 30,000 = x 2,400 = x 15,000 = x 15,000 = x 5,000 = TOTAL PHASE	Amount 60,000 0 500 60,000 4,800 135,000 0 5,000	
R/W LAND COSTS (PHAS 13. Land, Improvements	E 43) & Severance Dam							4B Subtotal	\$265,300
22. Defend.Atty Fees (Sr 23. Owner Expert With (C 24. Other Condemn. Cost 25. SUBTOTAL 26.	t. (1 Pond) actor actor actor actor arcels laims un of Lines 16, 17 & 19 omm.+Unimp.)	0		120% (0 60% of 40% of -) \$15,000) \$16,000) 33%)	Parcels (Lines 1 Line 15) Line 15)			<u>342,000</u> 204,500	\$546,500
Design contingency for (1) PD&E plans - 12 R/W ACQUISITION CONSU	0% (2) 30% plans	s - 115% (3) 60%	% plans -	110% (4) 9	00% plan:	s -105% (5)	268 Date -100%		(G.)
7. Acquisition Consultan RELOCATION COSTS (PH Replacen 8. Owner	t-50% of parcels	\$20,000	x	0 Number	=	Amount 30,000	TOTAL PHASE	42	\$0
29. Tenant Move Cos 80. Residential 81. Business/Farm 82. Personal Property 83. (Lines 28 thru 32) 84. Relocation Services C		\$25,000 \$5,000 \$40,000 \$3,000	x x	1 2 1 0		25,000 10,000 40,000 0	TOTAL PHASE	45	\$105,000
5. 6.	ost			\$10,500	(Not in P	hase Total)			
Real Estate: Roger D. I Bus. Dam. : Alfred J. 1 Relocation: Roger D. I Overall Review: Alfred J. 1	hompson Patton	Signed: Signed: Signed: Signed:	EQ.	HOL ALION A.	9. Th 9. Th	(All Phases)	TOTAL ESTIMA Date: Date: Date: Date: Date:	TE 09/10/19 09/10/19 09/10/19 09/10/19	\$956,800
cost Estimate Sequence #	: Dated:		In the An	nount of \$	U		Data Input Comple	etion Date:	
Type B - ir X Type C - ir	e estimator's confi dicates the most dicates above avo dicates below avo dicates the least	confidence erage confidenc erage confidenc	e	nate:					
he following indicates the /ork Program Update: omments:	e Department's pu	rpose for this es Gaming 1:	stimate:		Special P	urpose:	XC	Docs to RW:	



FM#:	419235-3	DI	STRICT SEV		SMF 21A & FP		DSTESTIN		HDR#:	10169256-7.12
County:	Hillsborough	ı	Segment:		N/A	C 21A		District: Date:	12	Seven 28-Aug-19
State Rd.: Project Des.	SR 93A	e of LIC and	FAP#: to N of Bruce B		N/A			C.E. Sequence)	N/A
Parcels	Gross Net		to N of Bruce B	. Dov	vns		Estimated R	Pelocatees		
Commercial Residential	0	0					Business	leiocalees.	0	
Unimproved	0	0					Residential		0	
							Signs Special		0	
Total Parcels	1	1					Total Reloca	atees		
R/W SUPPORT 1. Direct Labo		SE 41) (Parcels						Amount		
2. Indirect Ov		(Parcels	1	x	20,000 =			20,000		
3.			••••••••••••••••••••••••••••••••••••••	î	0 -	Ratej		0 TOTAL PHASE	41	\$20,000
R/W OPS (PHA								I TO THE THIRDE	Amount	\$20,000
4. Appraisal 5. Business (Fees Through Damage CPA F	Trial	- -1-1			1		x 30,000 =	30,000	n)
6. Court Repo	orter & Process	s Servers	50%	x	1 =	0		x 19,000 = x 500 =	0	
7. Expert Wit	ness		75%	x	=	1	Parcels >		500 30,000	
8. Mediators 9. Demolition	, Asb. Abate., S	Survey etc	75%	x	=	1	Parcels)	¢ 2,400 =	2,400	
10. Miscellane	ous Contracts	ourrey, etc.				0	Imprvmet > Per Project x		0	
11. Appraisal I	ee Review					0	Parcels x	and a first second s	0	
12.				_				TOTAL PHASE	4B	\$62,900
R/W LAND COS								Amount	Subtotal	
13. Land, Impr and Cost t	ovements & Se o Cure Amoun		-		4000/ -	Barri				
14. Water Rete			0 114,236	x x			<i>plan stage</i> = w/o R/W Acg)			Ť
15. SUBTOTAL	. (459,558)	-		^	12070 (0	(Lines 1		<u> </u>	137,100	
16. Admin. Set			20%	x	0%_o	f Line 15)		· 0	137,100	
17. Litigation A 18. Business D	wards (Facto	Dr	45%	x		f Line 15)	=	61,700		
19. Bus. Dama			0 	X	()		=			
20. Owner App			1	x	<u>\$</u> -) \$15,000)			15,000		
21. Owner CPA			0	x	\$16,000)		-	- 15,000		
22. Defend.Atty	Fees (Sum of	Lines 16, 17 & 19) 61,700	x	33%)		=	20,400		
23. Owner Exp 24. Other Cond	ert Witn (Com	n.+Unimp.)	0	+		x <u>18,000</u>		18,000		
25. SUBTOTAL			1	x	\$1,000	(Lines 1	= 6 thru 24) =	1,000		
26.		1.2				(Lines 1	o uiru 24) =	TOTAL PHASE	116,100	\$253,200
* Design contin	ngency for des	ign plan stage	e:					1		\$253,200
	pians - 120%	(2) 30% plan	s - 115% (3) 60	% pla	ans - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITI 27. Acquisition			\$20,000	~				1		
RELOCATION			\$20,000	x	0			TOTAL PHASE	42	\$0
	Replacement				Number		Amount			
28. Owner 29. Tenant			\$30,000	x	0	=	0			
25. Tenant	Move Costs		\$25,000	X	0	=	0			
30. Residential			\$5,000	x	0	=	0			
31. Business/F 32. Personal P			\$40,000	x	0	=	0			
33. (Lines 28 th			\$3,000	x	0	=	0	TOTAL DUADE		
34. Relocation					\$0	(Not in F	hase Total)	TOTAL PHASE	40	\$0
35.						10				
36. 37.			·					-		
Real Estate:	Roger D. Patt		Olana di	-			(All Phases)	TOTAL ESTIMA	TE	\$336,100
Bus. Dam. :	Alfred J. Thor		Signed: _ Signed:	P	- COM	7 0.	TI	Date: Date:	09/10/19	
Relocation:	Roger D. Patt	on	Signed:	1	POPULO	und.	A compe	Date:	09/10/19 09/10/19	
Overall Review:	Alfred J. Thor	npson	_Signed:			a.y."	Thomps	n Date:	09/10/19	
Cost Estimate S	Sequence #:	Dated:		in ti	ne Amount of \$	a	/ _D	ata Input Compl	etion Date:	
REMARKS:	Administrativ	e Settlement a	and Litigation A	ward	s have been ad	iusted to	reflect one ov	wnership. Admi	nistrative	
	settlement is	considered to	be zero, while	litiga	tion is factored	at 45%.			inotrative	1
							1			
										10
The following in	ndicates the es	timator's conf	idence in the at	ove	estimate:					
	Type A - indic	ates the most	confidence							
X	Type C - indic	ates above av	erage confident	ce ce						
	Type D - indic	ates the least	or no confidence	ce						
The following in Work Program	idicates the De	epartment's pu	rpose for this e	stim	ate:					
Comments:			_Gaming 1:			Special I	Purpose:	X	Docs to RW:	

		DI	LORIDA DE	EPAR VEN F		- TRANS WAY CO	SPORTAT		HDR#:	10460050 5 10
M#: County: State Rd.;	419235-3 Hillsboroug SR 93A		Alternate: Segment: FAP#:	2	SMF 21B & FI N/A N/A			District: Date:		10169256-7.12 Seven 28-Aug-19
roject Des. arcels	I-75 (SR 93A Gross Ne	() S. of US 301 t		B. Dowr	IS		1	C.E. Sequenc	0	N/A
ommercial esidential	0	0					Estimated F Business	Relocatees:	0	
nimproved	0	0					Residential Signs		0	
otal Parcels	1	1					Special		0	
W SUPPOR	T COSTS (PHA	SE 41)					Total Reloc	Amount	0	
 Direct Lat Indirect O 		(Parcels (Parcels	1	_	<u> 20,000 </u> = 0 =	· · · · · · · · · · · · · · · · · · ·		20,000		
		(·	· ^ -	<u> </u>	= Rate))	0 TOTAL PHAS	E 41	\$20,
W OPS (PH Appraisal	ASE 4B) Fees Through	Trial							Amount	420,
. Business	Damage CPA F	ees Through T	rial			1 0		x 30,000 = x 19,000 =		
. Court Rep . Expert W	oorter & Proces	s Servers	<u> </u>		<u>1</u> =	- 1		x 500 =	500	
. Mediators	5	-	75%	x _	1 =	· 1	4	x 30,000 = x 2,400 =		
). Miscellan	n, Asb. Abate., eous Contracts	Survey, etc.				0	Imprvmet Per Project:		0	
. Appraisal	Fee Review					0		x 5,000 =	0	
	STS (PHASE 4	3)						TOTAL PHASE		\$62,
. Land, Imp	rovements & S	everance Dama	iges					Amount	Subtotal	
	to Cure Amour ention & Mit. (1		0	x			plan stage 🕫			
. SUBTOTA	L (364,162)		91,041	x _	120% (0 Parcels (Lines 1	w/o R/W Acq) 109,200	400 200	
. Admin. Se	ettlement: (Fact	or	20%	x _	0%_o	of Line 15)		0	109,200	
. Litigation . Business	Awards (Facto Damages (Clain	or ns	45%	x		of Line 15)		49,100		
. Bus. Dam	ages Incr (Facto	or	25%	1.1	<u> </u>			<u> </u>		
. Owner Ap . Owner CP	pr. Fees (Parc		1	× _	\$15,000)			=15,000		
	A Fees (Clain ty Fees (Sum o		49,100	x -	\$16,000) 33%)			0		
. Owner Ex	pert Witn (Com	m.+Unimp.)	0	+]		x <u>18,000</u>		= 16,200 = 18,000		
. Other Con . SUBTOTA	demn. Costs		1	×	\$1,000		-	1,000		
						/Lines 4	C Alexa O AL			
						(Lines 1	6 thru 24) =		99,300 43	\$208
Design cont	ingency for des	sign plan stage. (2) 30% plans	: - 115% (3) 60	% plan	s - 110% (4)			TOTAL PHASE		\$208,
Design cont (1) PD& WACQUISIT	ingency for des E plans - 120% FION CONSULT	(2) 30% plans	- 115% (3) 60	% plan	s - 110% (4)					\$208,
Design cont (1) PD& W ACQUISIT Acquisitio	ingency for des E plans - 120% FION CONSULT n Consultant-50	(2) 30% plans ANT (PHASE 42 % of parcels	- 115% (3) 60	% plan x	s - 110% (4) 0			TOTAL PHASE	43	\$208,
Design cont (1) PD& W ACQUISIT Acquisitio	ingency for des E plans - 120% FION CONSULT	(2) 30% plans ANT (PHASE 42 % of parcels E 45)	- 115% (3) 60 2)			90% plan		TOTAL PHASE 268 Date -100%	43	\$208,
Design cont (1) PD& W ACQUISIT Acquisitic LOCATION . Owner	ingency for des E plans - 120% FION CONSULT In Consultant-50 COSTS (PHASI	(2) 30% plans ANT (PHASE 42 % of parcels E 45)	- 115% (3) 60 2) \$20,000 \$30,000		0 Number 0	90% plan	s -105% (5) Amount	TOTAL PHASE 268 Date -100%	43	\$208,
Design cont (1) PD& W ACQUISIT Acquisitic LOCATION . Owner . Tenant	ingency for des E plans - 120% NON CONSULT n Consultant-50 COSTS (PHASI Replacement Move Costs	(2) 30% plans ANT (PHASE 42 % of parcels E 45)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000	x	0 Number	90% plan	as -105% (5) Amount	TOTAL PHASE 268 Date -100%	43	\$208,
(1) PD& W ACQUISIT Acquisitio LOCATION . Owner . Tenant . Residentia . Business/	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm	(2) 30% plans ANT (PHASE 42 % of parcels E 45)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000 \$5,000	x x x x	0 Number 0 0 0	90% plan	Amount 0 0	TOTAL PHASE 268 Date -100%	43	\$208,
Design cont (1) PD& W ACQUISIT Acquisitio LOCATION Owner Tenant Residentia Business/ Personal F	ingency for des E plans - 120% FION CONSULT In Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property	(2) 30% plans ANT (PHASE 42 % of parcels E 45)	- 115% (3) 60 2) \$20,000 \$30,000 \$25,000	x x x	0 Number 0	90% plan	Amount 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE	43	\$208,i
Design cont (1) PD& M ACQUISIT Acquisitio LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 1	ingency for des E plans - 120% FION CONSULT In Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0 0 0	90% plan	Amount 0 0 0 0	TOTAL PHASE 268 Date -100%	43	\$208,
Design cont (1) PD& M ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 1 Relocation	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32)	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0	90% plan	Amount 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE	43	\$208,
Design cont (1) PD& W ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 1 Relocation	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32)	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE	43	
Design cont (1) PD& W ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) In Services Cost	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000	x x x x	0 Number 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE	43 42 45 ATE	\$208,1
Design cont (1) PD& W ACQUISIT Acquisition ELOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam. :	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) In Services Cost Alfred J. Tho	(2) 30% plans ANT (PHASE 42 % of parcels E 45) t Housing	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000	x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIM/ Date: Date:	43	
Design cont (1) PD& W ACQUISIT Acquisition ELOCATION . Owner . Tenant . Residentia . Business/ . Personal F . (Lines 28 t . Relocation . al Estate: s. Dam. : location:	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) In Services Cost	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing toon mpson toon	- 115% (3) 60 2) \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000	x x x x	0 Number 0 0 0 0 0 0 50	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIM/ Date: Date: Date:	43 42 45 ATE 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& W ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation Relocation al Estate: s. Dam. : location: erall Review	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost <u>Roger D. Patt</u> Alfred J. Thor Roger D. Patt	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing ton mpson ton	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000	x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIM/ Date: Date: Date: Date:	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& N ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam, : location: erall Review st Estimate	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Alfred J. Thou Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #:	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing thousing toon mpson toon mpson Dated:	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,000 \$3,0000 \$3,000 \$3,0000	x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& VACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam, : ocation: erall Review at Estimate	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #:	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing thousing toon mpson toon mpson Dated:	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL ESTIM/ Date: Date: Date: Date:	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& N ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam, : ocation: erall Review st Estimate	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #:	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing the Housing toon mpson toon mpson Dated: re Settlement ar	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& N ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam, : ocation: erall Review st Estimate	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #:	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing the Housing toon mpson toon mpson Dated: re Settlement ar	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& N ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam, : location: erall Review st Estimate	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #:	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing the Housing toon mpson toon mpson Dated: re Settlement ar	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& MACQUISIT Acquisitio LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam. : location: erall Review st Estimate	ingency for des E plans - 120% FION CONSULT on Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #:	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing the Housing toon mpson toon mpson Dated: re Settlement ar	- 115% (3) 60 2) \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$	x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& W ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation Relocation: erall Review st Estimate MARKS:	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thor Roger D. Patt : Alfred J. Thor Sequence #: Administrativ settlement is	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing ton mpson ton mpson Dated: re Settlement ar considered to b	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$40,000 \$40,000 \$40,000 \$3,000 \$40,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,00000 \$3,0000 \$3,0000 \$3,000	x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Control Contr	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Sequence #: Administrativ settlement is	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing ton mpson ton mpson Dated: re Settlement ar considered to b	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$40,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,0000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& W ACQUISIT Acquisition ELOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam. : location: erall Review st Estimate MARKS:	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) in Services Cost Alfred J. Thor Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Sequence #: Administrativ settlement is	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing thousing ton mpson ton mpson Dated: re Settlement ar considered to b stimator's confid rates the most of rates above ave	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& W ACQUISIT Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam. : location: erall Review st Estimate MARKS:	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) in Services Cost Alfred J. Thor Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Sequence #: Administrativ settlement is	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing ton mpson ton mpson Dated: re Settlement ar considered to b stimator's confid rates the most of cates above ave	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Design cont (1) PD& W ACQUISIT Acquisition ELOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation: erall Review st Estimate MARKS:	Ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) in Services Cost Alfred J. Thor Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Roger D. Patt Alfred J. Thor Sequence #: Administrativ settlement is	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing ton mpson ton mpson Dated: re Settlement ar considered to b stimator's confid rates the most of cates the most of cates the least of partment's pur	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$3,000	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	
Acquisition (1) PD& W ACQUISIT Acquisition Acquisition LOCATION Owner Tenant Residentia Business/ Personal F (Lines 28 t Relocation al Estate: s. Dam. : location: erall Review st Estimate MARKS: Pollowing i X	ingency for des E plans - 120% FION CONSULT in Consultant-50 COSTS (PHASI Replacement Move Costs al Farm Property thru 32) a Services Cost <u>Roger D. Patt</u> Alfred J. Thou Roger D. Patt Alfred J. Thou Roger D. Patt Alfred J. Thou Sequence #: Administrativ settlement is andicates the es Type A - indic Type B - indic Type D - indic	(2) 30% plans ANT (PHASE 4: % of parcels E 45) t Housing ton mpson ton mpson Dated: re Settlement ar considered to b stimator's confid rates the most of cates the most of cates the least of partment's pur	- 115% (3) 60 2) \$20,000 \$20,000 \$25,000 \$5,000 \$40,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$3,000 \$40,000 \$3,000 \$40,000 \$3,00	x x x x x x x x x x x x x x x x x x x	0 Number 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90% plan	Amount 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL PHASE 268 Date -100% TOTAL PHASE TOTAL PHASE TOTAL PHASE TOTAL ESTIM Date: Dat	43 42 45 ATE 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19 09/10/19	



			PARTMENT OF	TRANS	PORTATI	ON		
FM#:	419235-3	Alternate:	SMF 22A	NAT CO	SIESIIN	District:	HDR#:	10169256-7.12
County: State Rd.:	Hillsborough SR 93A	Segment: FAP#:	N/A			Date:		Seven 28-Aug-19
Project Des.	I-75 (SR 93A) S. of US		N/A Downs			C.E. Sequence	1	N/A
Parcels Commercial	Gross Net 0 0				Estimated R	elocatees:		
Residential	0 0			5	Business Residential		0	
Unimproved	1 1				Signs		0	
Total Parcels	1 1				Special Total Reloca		0	
R/W SUPPORT	COSTS (PHASE 41)				Total Reloca	Amount	0	
1. Direct Labor 2. Indirect Ove			x20,000 =	,		20,000		
3.	meau (Parceis	1	× =	Rate)				
R/W OPS (PHAS	SE 4B)					TOTAL PHASE	No. of Concession, Name	\$20,000
4. Appraisal Fe	ees Through Trial			1	Parcels o	x 30,000 =	Amount 30,000	
6. Court Repo	amage CPA Fees Thro rter & Process Servers	ugh Trial 50%	x 1 =			c 19,000 =	0	
7. Expert With	ess	75%	x			c 500 = c 30,000 =	500 30,000	
8. Mediators 9. Demolition.	Asb. Abate., Survey, e	75%	x <u>1</u> =		Parcels 1	2,400 =	2,400	
10. Miscellaneo	us Contracts				Imprvmet >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		0	
11. Appraisal Fe	ee Review				Parcels x	5,000 =	0	
the second s				_		TOTAL PHASE	4B	\$62,900
R/W LAND COS ¹ 13. Land, Impro	vements & Severance	Damages				Amount	Subtotal	
and Cost to	Cure Amount	Damages 0	x 120% *	Desian n	lan stage =	. 0		
14. Water Reten	ition & Mit. (1 Pond)	42,907			v/o R/W Acg)			
15. SUBTOTAL 16. Admin. Sett				(Lines 13			51,500	
17. Litigation Av		<u> </u>		f Line 15) f Line 15)	=	0		
18. Business Da	amages (Claims	0	x 0)	Line 15)		23,200		
19. Bus. Damag	es Incr (Factor	25%	x <u>\$ -</u>)		=	0		
20. Owner Appr 21. Owner CPA	Fees (Parcels	1	x(\$15,000)		2 4	10,000		
	Fees (Sum of Lines 16, 1	7 & 19) 23,200	x <u>\$16,000</u>) x 33%)			7,700		
23. Owner Expe	rt Witn (Comm.+Unimp	o.)0		x 18,000		18,000		
24. Other Conde 25. SUBTOTAL	emn. Costs	1	x \$1,000		-	1,000		
26.				(Lines 16	thru 24) =		64,900	
* Design conting	gency for design plan	stage:				TOTAL PHASE	43	\$116,400
(1) PD&E	plans - 120% (2) 30%	plans - 115% (3) 60%	% plans - 110% (4)	90% plans	-105% (5)	268 Date -100%	15	
	ON CONSULTANT (PHA Consultant-50% of parce		x 0			TOTAL DULLOT		
	OSTS (PHASE 45)	\$20,000	<u> </u>			TOTAL PHASE	42	\$0
	Replacement Housing		Number	4	Amount			
28. Owner 29. Tenant		<u>\$30,000</u> \$25,000	x0	=	0			
	Move Costs		AU		0			
30. Residential 31. Business/Fa	TD	\$5,000	x0	=	0			
32. Personal Pro		\$40,000	x <u>0</u> x 0		0			
33. (Lines 28 thr		3				TOTAL PHASE	45	\$0
34. Relocation S 35.	iervices Cost		\$0	(Not in Ph	nase Total)			
36.			51					
37.				(4	All Phases)	TOTAL ESTIMA	TE	\$199,300
	Roger D. Patton	Signed:	PERCILION			Date:	09/10/19	
2510 (25)	Alfred J. Thompson Roger D. Patton	Signed:	THE	y.TA	hongson	Date:	09/10/19	
	Alfred J. Thompson	Signed:	PHENDIN	2. J. J.	home	Date: Date:	09/10/19	
Cost Estimate Se	equence #• D	ated:	In the Amount of \$	0		V. 		
the second se	Administrative Settlem			justed to re	D eflect one ou	ata Input Comple	etion Date:	
:	settlement is considere	ed to be zero, while li	tigation is factored	at 45%.	enect one of	whership. Admin	IIstrative	
The following inc	licates the estimator's Type A - indicates the r	confidence in the ab	ove estimate:					
	Type B - indicates above	ve average confidenc	e					
X	Type C - indicates belo	w average confidence	e					
	Type D - indicates the I	east or no confidenc	e				3	
The following inc	licates the Department		stimate:					
Work Program U Comments:	pdate:	Gaming 1:		Special P	urpose:	<u> </u>	Docs to RW:	
_								



		F	LORIDA DE	PAF	RTMENT OF	TRAN	SPORTATI	ON		
FM#:	419235-3	DI	STRICT SEV	/EN		VAY CO	DST ESTIN	ATE	HDR#:	10169256-7.12
County:	419235-3 Hillsborough		Alternate: Segment:		SMF 23A N/A			District:		Seven
State Rd.:	SR 93A		FAP#:		N/A			Date: C.E. Sequence		28-Aug-19
Project Des. Parcels			to N of Bruce B	. Dow	ns			· · · · · · · · · · · · · · · · · · ·		N/A
Commercial	Gross Net	0					Estimated R	elocatees:		
Residential	1	1					Business Residential		1	
Unimproved	0	0					Signs			
Total Parcels		8					Special		· 0	
And in case of the local division of the loc		1					Total Reloca	tees	2	
R/W SUPPORT 1. Direct Labo		OE 41) (Parcels			00.000			Amount		
2. Indirect Ove		(Parcels	1		20,000 =	Rate) Rate)		20,000		
3.		· · · · · · · ·		î.	0_	Rate		0 TOTAL PHASE	44	£00.000
R/W OPS (PHA								TOTAL PHASE	Statement of the local division of the	\$20,000
4. Appraisal F	ees Through	Trial				1	Parcels >	30,000 =	Amount 30,000	
5. Business D	Damage CPA F	ees Through 1				0	Claims >		00,000	
6. Court Repo 7. Expert Witr	Drier & Process	s Servers	50%	x	=	1	Parcels >		500	
8. Mediators			<u>75%</u> 75%	X X	<u> </u>	1	Parcels x Parcels		30,000	
9. Demolition	, Asb. Abate., S	Survey, etc.		^		2	Parcels a Imprvmet		2,400 30,000	
10. Miscellane	ous Contracts					0	Per Project x		0,000	
11. Appraisal F 12.	ee Keview					0	Parcels x	10	0	
								TOTAL PHASE	4B	\$92,900
R/W LAND COS								Amount	Subtotal	
13. Land, Impre and Cost to	o Cure Amoun		-		1000/					
14. Water Rete		-	250,907	х.			plan stage =			
15. SUBTOTAL	. (135.907)	r ondy	250,907	х.	120% (0		w/o R/W Acq)	301,100		
16. Admin. Set		Эг	20%	x	0% of	(Lines 1 Line 15)		0	301,100	
17. Litigation A	wards (Facto	pr	45%	x		Line 15)		<u>0</u> 135,500		£
18. Business D	amages (Claim	າຣ	0	x	0)	,	_	0		
19. Bus. Dama			25%	x	\$)		_	0		
20. Owner App			1	×	\$15,000)		=	15,000		12
21. Owner CPA			0	×	\$16,000)		=			
22. Defend.Atty 23. Owner Exp	/ Fees (Sum of	Lines 16, 17 & 19		x	33%)		=	44,700		
24. Other Cond		n.+Unimp.)	0	÷ -		18,000		0		
25. SUBTOTAL			1	х _	\$1,000	/l in an d	= C (h=) () ()	1,000		
26.						(Lines 1	6 thru 24) =	TOTAL PHASE	196,200	A 108 4 4 4
* Design contin	ngency for des	ign plan stage							43	\$497,300
(1) PD&E	plans - 120%	(2) 30% plans	- 115% (3) 60	% pla	ns-110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITI			2)							
27. Acquisition			\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION										
28. Owner	Replacement	Housing	\$30,000	x	Number	-	Amount			1
29. Tenant			\$25,000	x -	1	-	25,000			
	Move Costs			3			20,000			
30. Residential			\$5,000	x	1	=	5,000			
31. Business/Fi 32. Personal Pr			\$40,000	X	1	=	40,000			
33. (Lines 28 th			\$3,000	×	0	- 2	0	TOTAL DULLOT		
34. Relocation					\$7,000	(Not in F	hase Total)	TOTAL PHASE	45	\$70,000
35.					1020	1	inter rotaly			
36.			Ť							
37.				-	and the second		(All Phases)	TOTAL ESTIMA	TE	\$680,200
Real Estate: Bus. Dam. :	Roger D. Patte		_Signed:	F	Dellen	-		Date:	09/10/19	
Relocation:	Alfred J. Thor Roger D. Patt		Signed:	7	-		happy	Date:	09/10/19	
Overall Review:	Alfred J. Thor	npson	Signed:	4	Tenn	6.7	1	Date: Date:	09/10/19	
					A	Y. Y.	martin-	Date.	09/10/19	
Cost Estimate S	Construction and a feature and a fe	Dated:			e Amount of \$	M.1	D	ata Input Compl	etion Date:	
REMARKS:	Administrative	e Settlement a	nd Litigation Av	wards	have been adj	usted to	reflect one ov	vnership. Admi	nistrative	
	settiementis	considered to	be zero, while l	litigat	ion is factored	at 45%.				
		8								
The following in	dicates the es	timator's confi	idence in the at		estimate:					
	Type A - indic	ates the most	confidence		connuce.					
	Type B - indic	ates above av	erage confiden	ce						
X	Type C - Indic	ates the least	erage confidend or no confidend	ce			2			
	- 7 PC D - IIIUIC	area nie iegs[or no connaena	66						
The following in	dicates the De	partment's pu	roose for this o	stime	ite:		and a second second			
Work Program L	Jpdate:		Gaming 1:			Special I	Purpose:	x	Docs to RW:	
Comments:										

FM#: 419235-3 Alternate: SMF 23B District:										10169256-7.12
County:	419235-3 Hillsborough				SMF 23B N/A			District: Date:		Seven
State Rd.: Project Des.	SR 93A I-75 (SR 93A)	S. of US 301	FAP#: to N of Bruce B	Dov	N/A			C.E. Sequence)	28-Aug-19 N/A
Parcels Commercial	Gross Net				115		Estimated R	elocatees:		
Residential	3	3					Business Residential	5	<u> </u>	
Unimproved	1	1					Signs Special		0	
Total Parcels		4				5	Total Reloca	atees	<u> </u>	
1. Direct Labo		E 41) (Parcels	4	x	20,000 =	Rate)		Amount 80,000		
2. Indirect Ove	erhead	(Parcels	4	x	0 =	·····,		0		
R/W OPS (PHA	SE 4B)							TOTAL PHASE	Amount	\$80,000
4. Appraisal F 5. Business [Fees Through T Damage CPA Fe	rial es Through "	Trial			4		x 30,000 =	120,000	
6. Court Repo	orter & Process	Servers	50%	x	=	0	-	x 19,000 = x 500 =	0 1,000	
8. Mediators			<u></u>	X X	<u> 4 </u> =	3 3		30,000 = 2,400 =	90,000	
9. Demolition 10. Miscellane	, Asb. Abate., S	urvey, etc.				5	Imprvmet	< 15,000 =	7,200 75,000	
11. Appraisal F						0 1	Per Project x Parcels x	11-11-11-11-12-12	0 5,000	
12. R/W LAND COS				_		_	_	TOTAL PHASE	4B	\$298,200
13. Land, Impr	ovements & Se	verance Dam	ages					Amount	Subtotal	
and Cost t 14. Water Rete	o Cure Amount		0	x	120% *	Design	plan stage =	<u> </u>		
15. SUBTOTAL	. (107,852)		424,278	x	120% (0	Parcels (Lines 1	w/o R/W Acg) 3.814)	<u> </u>	509,100	
16. Admin. Set			20%	x		f Line 15)	-	61,100		
17. Litigation A 18. Business D			<u> </u>	x	<u>40%</u> o 0)	f Line 15)				
19. Bus. Dama	ges Incr (Factor	r	25%	x	\$ -)		-	0		
20. Owner App 21. Owner CPA	r. Fees (Parce A Fees (Claim:	IS S		x x	\$15,000) \$16,000)		2 -	60,000		
22. Defend.Atty	Fees (Sum of i	Lines 16, 17 & 19		x	33%)		-	50,400		
23. Owner Exp 24. Other Cond	ert Witn (Comm lemn. Costs	n.+Unimp.)	04	+ x	<u>1</u>): \$1,000	x <u>18,000</u>		18,000		
25. SUBTOTAL				^ .	\$1,000	(Lines 1	= 6 thru 24) =	4,000	285,100	
26. * Design contir	ngency for desi	an olan staa	2:					TOTAL PHASE	43	\$794,200
(1) PD&E	plans - 120%	(2) 30% plan:	s-115% (3) 60	% pla	ans - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITI 27. Acquisition			\$20,000	x	0			TOTAL PHASE	42	03
RELOCATION								TOTALTHADE	72	\$0
28. Owner	Replacement I	Housing	\$30,000	x	Number 2	=	Amount 60,000			
29. Tenant	Move Costs		\$25,000	x	1	=	25,000			
30. Residential			\$5,000	x	3	=	15,000			
31. Business/F 32. Personal Pi			\$40,000 \$3,000	×	1	=	40,000			
33. (Lines 28 th 34. Relocation								TOTAL PHASE	45	\$140,000
35.	Services Cost	_			\$14,000	(Not in F	hase Total)			
36. 37.		A								
Real Estate:	Roger D. Patto	n	Signed:	H	28191		(All Phases)	TOTAL ESTIMA Date:	09/10/19	\$1,312,400
Bus. Dam. : Relocation:	Alfred J. Thom Roger D. Patto	Ipson	Signed:	-	R.	y. Th	mpsm	Date:	09/10/19	
Overall Review:			_Signed: _Signed:	P	a.	4. TA	angen	Date:	09/10/19 09/10/19	
Cost Estimate S	Sequence #:	Dated:		In fl	ne Amount of \$	1				
REMARKS:							5	ata Input Compl	etion Date:	
										-
The following in	dicatoo the	imoter	Nalama - 1. 41 1							
	Type A - indica	ites the most	confidence	Ũ	estimate:					
x	Type B - indica	ites above av	erage confiden	ce						
	Type D - indica	ites the least	or no confident	ce						
The following in	dicates the Der	partment's n	rpose for this a	stim	ate:					
Work Program L Comments:	Jpdate:		_Gaming 1:			Special I	Purpose:	X	Docs to RW:	
comments:										

.

										(
FM#:	419235-3		Alternate:		SMF 22/23	ATC	JSTESTIN	District:	HDR#:	10169256-7.12
County: State Rd.:	Hillsborough	1	Segment:		N/A			Date:		Seven 28-Aug-19
Project Des.	SR 93A I-75 (SR 93A)	S. of US 301 t	FAP#: o N of Bruce B.	Dov	N/A			C.E. Sequence)	N/A
Parcels	Gross Net			501	wi15		Estimated R	elocatees:		
Commercial Residential		0					Business		1	
Unimproved	0	0					Residential Signs		1	
Tetal David							Special		0	
Total Parcels	1	1					Total Reloca	itees	2	· · · · · · · · · · · · · · · · · · ·
R/W SUPPORT 1. Direct Labo		(Parcels	. 1	x	20,000 =	Rate)	*	Amount		
2. Indirect Ove	erhead	(Parcels	i	x	0 =	Rate)		20,0000		
3.								TOTAL PHASE	41	\$20,000
R/W OPS (PHA: 4. Appraisal F		Trial					100		Amount	
5. Business D	Damage CPA F	i riai ees Through T	rial			1 0		30,000 =	30,000	
6. Court Repo	orter & Process	s Servers	50%	x	1 =	1	Claims 2 Parcels 2		0 500	
7. Expert Witr 8. Mediators	ness		75%	x	=	1	Parcels 3		30,000	
9. Demolition,	, Asb. Abate., S	Survev. etc.	75%	x	=	1 2	Parcels) Imprvmet	_,	2,400	
10. Miscellaned	ous Contracts	,,,				ō	Per Project x		30,000 0	
11. Appraisal F 12.	ee Review					0	Parcels y	5,000 =	Ő	
1								TOTAL PHASE	4B	\$92,900
R/W LAND COS 13. Land, Impre			2006					Amount	Subtotal	
	o Cure Amoun		ages O	x	120% *	Design	plan stage =	0		
14. Water Rete		Pond)	303,615	x			w/oR/WAcq			
15. SUBTOTAL						(Lines 1			364,300	
16. Admin. Sett 17. Litigation A			20%	x		Line 15)		0		
18. Business D			<u> </u>	x X	00% of	Line 15)		100,000		
19. Bus. Damag			25%	x	<u> </u>					
20. Owner App	r. Fees (Parce	els	1	x	\$15,000)		=			
21. Owner CPA			0	x	\$16,000)		-	0		- 10 C
22. Defend.Atty 23. Owner Exp				x	33%)	10.000	-	04,100		
24. Other Cond		n.+onimp.)	0	+ X	\$1,000	18,000		0		
25. SUBTOTAL				•		(Lines 1	6 thru 24) ≂	1,000	234,000	
26.		1019 ·						TOTAL PHASE	and the second se	\$598,300
* Design contin (1) PD&E	ngency for des E plans - 120%	ign plan stage (2) 30% plans	: - 115% (3) 60	% nl	ans - 110% (4)	90% nlan	e .105% /5)	268 Data 100%		
R/W ACQUISITI						on plan	3 -10078 (5)	200 Date -100%		
27. Acquisition			\$20,000	х	0			TOTAL PHASE	42	\$0
RELOCATION C										
28. Owner	Replacement	Housing	\$20 000		Number		Amount			
29. Tenant			\$30,000 \$25,000	X X		1	25,000			
	Move Costs									
30. Residential 31. Business/F			\$5,000	x	1	=	5,000			
32. Personal Pi			<u>\$40,000</u> \$3,000	x x	1	=	40,000			
33. (Lines 28 th	ıru 32)		10,000	ñ				TOTAL PHASE	45	\$70,000
34. Relocation	Services Cost				\$7,000	(Not in F	Phase Total)			\$7.0,000
35. 36.										
36. 37.							(All Phases)	TOTAL ESTIMA	TE	6704 000
Real Estate:	Roger D. Patt	on	Signed:	T	acilla		(All Fildaea)	Date:	09/10/19	\$781,200
Bus. Dam. :	Alfred J. Thor	mpson	Signed:	1	Plan	. Q. 7	hansen	Date:	09/10/19	
Relocation: Overall Review:	Roger D. Patt		_Signed:	F	trailoy			Date:	09/10/19	
overall neview.	Alled 5. Tho	проп	Signed:			y. x.	hangeson	Date:	09/10/19	
Cost Estimate S	and the second	Dated:			the Amount of \$	4		ata Input Compl		
REMARKS:	Administrativ	e Settlement a	nd Litigation A	ward	ls have been adj	usted to	reflect one of	wnership. Admi	nistrative	
	settlement is	considered to	be zero, while I	litiga	ation is factored	at 45%.				
41										
The following in	ndicates the es	timator's conf	idence in the al	ove	estimate:					
	Type B - indic	ates the most ates above av	confidence erage confiden	Ċe						
X	Type C - indic	ates below av	erage confiden	ce				2		
	Type D - indic	ates the least	or no confiden	ce						
The following in	dicates the Dr	nartmont's pu	rooso for this -	eti-	ato:	_				
Work Program L	Update:		Gaming 1:	อแท	ielę.	Special	Purpose:	х	Docs to RW:	
Comments:										



	5		LORIDA DE								
FM#:	419235-3	Di	Alternate:		SMF 24		ATCC	STESTIN	District:	HDR#:	10169256-7.12
County: State Rd.:	Hillsborough	h i	Segment:		N/A	~			District: Date:		Seven 28-Aug-19
Project Des.	SR 93A I-75 (SR 93A)	S. of US 301	FAP#: to N of Bruce B	Dow	N/A				C.E. Sequence	9	N/A
Parcels	Gross Net	<u></u>	in it of bluee b		113			Estimated R	elocatees:		
Commercial Residential	0	0						Business		0	
Unimproved	1	1						Residential Signs		0	
Total Parcels								Special		0	
R/W SUPPORT		1			-	-		Total Reloca	atees	0	
1. Direct Labor	Cost	(Parcels	1	x	2	0,000 =	Rate)		Amount 20,000		
2. Indirect Ove	rhead	(Parcels	1	x		0 =	Rate)		0		
3.									TOTAL PHASE	E 41	\$20,000
R/W OPS (PHAS 4. Appraisal F	ees Through 1	Trial								Amount	
5. Business D	amage CPA F	ees Through 1	Frial				1		x 30,000 = x 19.000 =	30,000 0	
6. Court Report	rter & Process	s Servers	50%	x	1	=	1		x 500 =	•	
7. Expert With 8. Mediators	ess		<u>75%</u> 75%	X X	1	=	1	-	x 30,000 =	,	
9. Demolition,	Asb. Abate., S	Survey, etc.	1370	^ :			0	Parceis) Imprvmet)	x 2,400 = x 15,000 =	2,400 0	
10. Miscellaneo 11. Appraisal Fe	ous Contracts						0	Per Project x	c 15,000 =		
12.	ee keview						0	Parcels x		0	
R/W LAND COS	TS (PHASE 43	3)			-		_		TOTAL PHASE	COLUMN STREET,	\$62,900
13. Land, Impro			ages						Amount	Subtotal	
and Cost to	Cure Amoun	t	0	x	1	120% *	Design i	olan stage =	= 0		
14. Water Reter	ntion & Mit. (1	Pond)	643,192	x				w/o R/W Acg			
15. SUBTOTAL 16. Admin. Sett							(Lines 1	3 &14)		771,800	
17. Litigation Au			<u> </u>	X			Line 15)	=	0		
18. Business Da			45%	x	······	1 <u>00%</u> of (0)	Line 15)		347,300		
19. Bus. Damag	es Incr (Facto	Эг	25%	x	\$				0		
20. Owner Appr	. Fees (Parce		1	×	\$15	5,000)		i i i i i i i i i i i i i i i i i i i	15,000		
21. Owner CPA			0	×	\$16	5,000)		-	0		
22. Defend.Atty 23. Owner Expe	rees (Sum of Art With (Compr	Lines 16, 17 & 19		×		33%) .	10.000		114,600		
24. Other Conde		n. · Onnip.)	0	* ×	51	<u> </u>	18,000		18,000		
25. SUBTOTAL				•			(Lines 1)	6 thru 24) =	1,000	495,900	
26.									TOTAL PHASE		\$1,267,700
 Design contin (1) PD&E 	gency for des plans - 120%	ign plan stage (2) 30% plans	e: 5 - 115% (3) 60	% nla	ns . 11(0% (A) Q	0% nlan	-105% (5)	268 Date -100%		
R/W ACQUISITIC							on plan	3-100/8 (0)	200 Date -100%		
27. Acquisition			\$20,000	x		0			TOTAL PHASE	42	\$0
RELOCATION C											
28. Owner	Replacement	Housing	620.000		Nur	nber		Amount	-		
29. Tenant			\$30,000 \$25,000	X X		0		0			
	Move Costs					-	3				
30. Residential 31. Business/Fa	17m		\$5,000	× .		0	= ,	0			
32. Personal Pro			\$40,000	×. x		0	-	0			
33. (Lines 28 th									TOTAL PHASE	45	\$0
34. Relocation S	Services Cost					\$0 (Not in P	hase Total)	Branna and Andreas		
35. 36.						-					
37.						-		(All Phases)	TOTAL ESTIMA	TE	A1 050 000
37. Real Estate:	Roger D. Patt	on	Signed:	D	2 M	CRA		(An Filases)	Date:	09/10/19	\$1,350,600
Bus. Dam. :	Alfred J. Thor	mpson	Signed:	-	er u	Q.9	1. The	masur	Date:	09/10/19	
Relocation: Overall Review:	Roger D. Patte		Signed:	TP	PR	tion4		1	Date:	09/10/19	
overall review.	Allieu J. Tilo	iipsoii	_Signed:			a.	· Vh	angen	Date:	09/10/19	
Cost Estimate S	equence #:	Dated:		in th	ne Amou	unt of \$		/ o	ata Input Comp	letion Date:	
REMARKS:	Administrativ	e Settlement a	Ind Litigation A	ward	s have b	been adju	sted to		wnership. Admi		
	settlement is	considered to	be zero, while	litiga	tion is fa	actored a	t 45% .				
The following in	dicates the es	timator's conf	idence in the a	bove	estimat	e:					
	Type A - indic	ates the most ates above av	confidence erage confiden	<u></u>							
X	Type C - indic	ates below av	erage confiden	ce							
			or no confiden								
The following in	dicates the D-	norte anti-									
The following ind Work Program U	pdate:	parunent's pu	Gaming 1.	estim	ate:		Snecial C	ourpose:	x	Docs to RW:	
Comments:	-		a				-pooldi P	arpose		DOUS LO RW:	

			LORIDA DE							
FM#:	440005.0	DI	STRICT SEV	EN		NAY CO	OST ESTIN	ATE	HDR#:	10169256-7.12
County:	419235-3 Hillsborough		Alternate: Segment:		SMF 24B N/A			District: Date:		Seven
State Rd.: Project Des.	SR 93A		FAP#:	_	N/A			C.E. Sequence	•	28-Aug-19 N/A
Parcels	Gross Net		to N of Bruce B.	Dow	ns		Estimated R	elocatees:		
Commercial Residential		0	3 ⁹⁷				Business		0	
Unimproved	2	2					Residential Signs		0	
Total Parcels		 0					Special		0	
R/W SUPPORT	2 COSTS (PHAS	2					Total Reloca	and the second se	0	
1. Direct Labor	Cost	(Parcels	2	x	20,000 =	Rate)		Amount 40,000		
2. Indirect Ove	rhead	(Parcels	2	x	0 =	Rate)		. 0		
R/W OPS (PHAS	SE 4B)					_		TOTAL PHASE	And the second s	\$40,000
4. Appraisal F	ees Through 1	Frial			8	2	Parcels	x 30,000 =	Amount 60,000	
5. Business D 6. Court Repo	amage CPA Fo	es Through 1			•	0	Claims	x 19,000 =	0	
7. Expert Witn	less	Gervera	<u> </u>	x	2 =	1	_	x 500 = x 30,000 =		
8. Mediators 9. Demolition.	Asb. Abate., S		75%	x	2 =	2	Parcels 2	x 2,400 =		
10. Miscellaned	ous Contracts	survey, etc.				0	Imprvmet 2 Per Project 2		-	
11. Appraisal F	ee Review					1	Parcels)			
12.					The Distance of the local			TOTAL PHASE		\$130,300
R/W LAND COS 13. Land, Impro			anes					Amount	Subtotal	
and Cost to	Cure Amount	t	ayes0	x	120% *	Design	plan stage =	= 0		
14. Water Reter		Pond)	643,192	x		Parcels	w/o R/W Acq			
15. SUBTOTAL 16. Admin. Sett			20%		CO0/	(Lines 1			771,800	
17. Litigation A			<u>20%</u> 45%	х х		f Line 15) f Line 15)		= <u>92,600</u> = 138,900		
18. Business Da	amages (Claim	S	0	x	0)	i enie i oj	-	= 0		
19. Bus. Damag			25%	· /	\$ -)		-	- 0		
20. Owner Appr 21. Owner CPA			2	x	\$15,000) \$16,000)			=		
22. Defend.Atty	• • • • • • • • • • • • • • • • • • • •			x	318,000)		-			
23. Owner Expe		n.+Unimp.)	0	+]	2);	x 18,000		36,000		
24. Other Condo 25. SUBTOTAL	emn. Costs		2	х _	\$1,000			2,000	44264/2014-00	
26.						(Lines 1	6 thru 24) =	TOTAL PHASE	375,900	\$1,147,700
* Design contin	gency for des	ign plan stage		o/				112		\$1,147,700
R/W ACQUISITIC				% pia	ns - 110% (4)	90% plan	is -105% (5)	268 Date -100%		
27. Acquisition			\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION C								- of the third c		\$0
28. Owner	Replacement	Housing	\$20.000	¥	Number		Amount			
29. Tenant			\$30,000 \$25,000	X X	0	-				
30. Residential	Move Costs			-						
31. Business/Fa	arm		\$5,000	X X	0		<u>0</u>			
32. Personal Pr			\$3,000	x	0	=	0			
33. (Lines 28 th 34. Relocation 5					**			TOTAL PHASE	45	\$0
35.	Services Cost		_		\$0	(NOT IN H	Phase Total)			
36.										
37. Roal Estate:	Dages D. D. H		0			_	(All Phases)	TOTAL ESTIMA		\$1,318,000
	Roger D. Patte Alfred J. Thor		_Signed:	Ħ	Jetton	0. 7		Date:	09/10/19	
Relocation:	Roger D. Patte	on	Signed:	TA	action	A. V	angom	Date:	09/10/19	
Overall Review:	Alfred J. Thor	npson	Signed:	-	a.	J. TA	hangsm	Date:	09/10/19	
Cost Estimate S	equence #:	Dated:	Q	in th	e Amount of \$	9	/ c	Data Input Comp	letion Date:	
REMARKS:										
The following in	dicates the co	timator's and	idones in the -!	haur	otimeter					
	Type A - indic	ates the most	confidence		estimate:					
	Type B - indic	ates above av	erage confiden	се						
^	Type D - Indic	ates below av ates the least	erage confiden or no confiden	ce ce						
									2	
The following in Work Program I	dicates the De	partment's pu	rpose for this e	estima	ite:					
Work Program U Comments:	puale:		_Gaming 1: _			Special	Purpose: _	X	Docs to RW:	



					RTMENT OF					
FM#:	419235-3	DI		/EN	RIGHT OF	NAY CO	DST ESTIN		HDR#:	10169256-7.12
County:	Hillsborough		Alternate: Segment:		SMF 25A N/A			District: Date:		Seven 28-Aug-19
State Rd.: Project Des.	SR 93A	6 of US 301	FAP#: to N of Bruce B	Dev	N/A			C.E. Sequence	1	N/A
Parcels	Gross Net	_	to it of bruce b		VIIS		Estimated R	elocatees:		
Commercial Residential	0 0	-					Business		0	
Unimproved	0 0	-			÷.		Residential Signs			
Total Parcels	2 2						Special		0	
R/W SUPPORT	and the second se						Total Reloca		2	
1. Direct Labor 2. Indirect Ove	r Cost (Parcels	2		20,000 =	,	1	Amount 40,000		
3.	rnead (Parcels	2	x	=	Rate)	I			
R/W OPS (PHAS	SE 4B)							TOTAL PHASE	41 Amount	\$40,000
4. Appraisal F	ees Through Tr amage CPA Fee	ial Through 3	F =i=1			2		x 30,000 =	60,000	
6. Court Repo	rter & Process	Servers	50%	x	2 =	0	-	<pre> 19,000 = 500 = </pre>	0 500	
7. Expert With 8. Mediators	less		75%	x	=	2		30,000 =	60,000	
9. Demolition,	Asb. Abate., Su	rvey, etc.	75%	x	=	2 2	Parcels 1 Imprvmet 1	2,400 =	4,800	
10. Miscellaneo	ous Contracts					ō	Per Project x		30,000 0	
11. Appraisal Fo	ee Review					1	Parcels x		5,000	
R/W LAND COS	TS (PHASE 43)							TOTAL PHASE		\$160,300
13. Land, Impro	vements & Sev	erance Dam	ages					Amount	Subtotal	
	Cure Amount	d)	0	x			plan stage =			
14. Water Reter 15. SUBTOTAL	(104,544)	ona)	406,816	X	<u> </u>	Parcels (Lines 1	w/o R/W Acq)	488,200		
16. Admin. Sett	lements (Factor		20%	x	60% of	Line 15)		58,600	488,200	
17. Litigation Av	wards (Factor		45%	x		Line 15)				
18. Business Da 19. Bus. Damag			0 25%	x x)		=			
20. Owner Appr	. Fees (Parcels	5	2	X	\$15,000)		_	0 30,000		
21. Owner CPA	Fees (Claims		0	x	\$16,000)			0		
22. Defend.Atty 23. Owner Expe	Fees (Sum of L	ines 16, 17 & 19		x	33%)		-	48,300		
24. Other Conde	emn. Costs	+unimp.)		+ x	<u> </u>	18,000	-	0		
25. SUBTOTAL				~		(Lines 1	- 6 thru 24) =	2,000	226,800	
26. * Design contin	gency for desig	in nian staar						TOTAL PHASE	43	\$715,000
(1) PD&E	plans - 120% (1	2) 30% plans	s - 115% (3) 60	% pla	ans - 110% (4)	90% plan	s -105% (5)	268 Date -100%		
R/W ACQUISITIC	ON CONSULTA	NT (PHASE 4	2)	1. 				Pro-		
27. Acquisition RELOCATION C			\$20,000	X	0			TOTAL PHASE	42	\$0
	Replacement H				Number		Amount			
28. Owner 29. Tenant			\$30,000	X	2	=	60,000			
	Move Costs		\$25,000	X	0	-	0			
30. Residential 31. Business/Fa		- 20	\$5,000	x	2		10,000			
32. Personal Pro			<u>\$40,000</u> \$3,000	X X	0	-	0			
33. (Lines 28 th						3		TOTAL PHASE	45	\$70.000
34. Relocation S 35.	Services Cost				\$7,000	(Not in P	hase Total)			
36.										
37.					and the second		(All Phases)	TOTAL ESTIMA	TE	\$985,300
	Roger D. Pattor Alfred J. Thom		_Signed: Signed:	F	RUEM			Date:	09/10/19	
Relocation:	Roger D. Pattor	1	_Signed:	P	Detton	e. y ha	mpsu	Date: Date:	09/10/19 09/10/19	
Overall Review:	Alfred J. Thom	oson	Signed:		a	Y. Th	angen	Date:	09/10/19	
Cost Estimate Se	equence #:	Dated:		in ti	he Amount of \$	9	/ _D	ata Input Comple	etion Date:	
REMARKS:								in per o on pr	don bate.	
								-		
					0					
The following inc	dicates the estin	mator's conf	idence in the a	bove	estimate:					
	Type A - indicat	es the most	confidence		2					1 I I
X	Type B - indicat Type C - indicat	es above av	erage confiden erage confiden	ce ce						
	Type D - indicat	es the least	or no confiden	ce						
The following inc	ticatos the Da-	artmontic								
The following ind Work Program U		artment's pu				Special I	Purpose:	х	Docs to RW:	
Comments:										
				-						

					RTMENT OF					
FM#:	419235-3		Alternate:		SMF 25B	ATU	JSTESTIN	District:	HDR#:	10169256-7.12
County:	Hillsboroug	h	Segment:		N/A			District: Date:		Seven 28-Aug-19
State Rd.: Project Des.	SR 93A	S of US 204	FAP#: to N of Bruce B.		N/A			C.E. Sequence		N/A
Parcels	Gross Ne	t	to N OI Bruce B.	. DOI	vns		Estimated R	Pelocatoos		
Commercial	1	1					Business	elocatees.	0	
Residential Unimproved	3	3					Residential		3	
		<u> </u>					Signs Special		0	
Total Parcels	4	4					Total Reloca	atees	03	
	T COSTS (PHA	•						Amount		
1. Direct Lab		(Parcels (Parcels		X	20,000 =	Rate)		80,000		
3.	venneau	(Parceis	4	X	0 =	Rate)		0		
R/W OPS (PH/	ASE AB)							TOTAL PHASE	NAMES OF TAXABLE PARTY.	\$80,000
	Fees Through	Trial					Parcels		Amount	
5. Business	Damage CPA F	ees Through 3	Frial			ō		x 30,000 = x 19,000 =	120,000	
6. Court Rep	orter & Proces	s Servers	<u> </u>	х	=	2	-	x 500 =	1,000	
7. Expert Wi 8. Mediators			<u>75%</u> 75%	X	=	3	_	x 30,000 =	90,000	
9. Demolitio	n, Asb. Abate	Survey, etc.	15%	x		3	Parcels :	x 2,400 = x 15,000 =	7,200	
10. Miscelland	eous Contracts					ō	Per Project >		60,000 0	
11. Appraisal	Fee Review					1	Parcels		5,000	
12.				-				TOTAL PHASE	4B	\$283,200
	STS (PHASE 4							Amount	Subtotal	
	rovements & S to Cure Amour		-					12		
	ention & Mit. (1		609,808	X	120% *		plan stage =			
15. SUBTOTA	L (122.404)	i olidy	003,000	x	120% (0	Parcels (Lines 1	w/o R/W Acq	731,800		
16. Admin. Se		ог	20%	x	60% of	Line 15)		87,800	731,800	
17. Litigation	Awards (Fact	or	45%	x		Line 15)		131,700		
18. Business			0	x	0)					
19. Bus. Dama			25%	x	\$)		-	0		
20. Owner Ap			4	×	\$15,000)		- 3	60,000		
21. Owner CP			0	x	\$16,000)		-			
22. Defend.At 23. Owner Ex	ly rees (Sum o nort With (Com	of Lines 16, 17 & 19		x	33%)		. T	72,400		
24. Other Con		m.+onimp.)	<u> </u>	+ ×	<u> </u>	18,000		10,000		
25. SUBTOTA						(Lines 1	6 thru 24) =	4,000	373,900	
26.						(Ellics I	0 till (24)	TOTAL PHASE		\$1,105,700
* Design cont	ingency for de	sign plan stage	E.						10	\$1,105,700
				% pla	ans - 110% (4) s	90% plan	s -105% (5)	268 Date -100%		
	ION CONSULT		Concernance of the second second							
27. Acquisitio			\$20,000	x	0			TOTAL PHASE	42	\$0
RELOCATION	COSTS (PHAS Replacement									
28. Owner	Replacemen	Thousing	\$30,000	x	Number 3	=	Amount			
29. Tenant			\$25,000	x	0	=	90,000			
20 D	Move Costs									
30. Residentia 31. Business/			\$5,000	x	3	=	15,000			
32. Personal F			\$40,000	X X	0		0			
33. (Lines 28 t				^ :	.	- 3		TOTAL PHASE	15	\$405.000
	Services Cost	t -			\$10,500	(Not in F	hase Total)	TOTALTHACE		\$105,000
35.										
36. 37.			*							
		_		-			(All Phases)	TOTAL ESTIMA	TE	\$1,573,900
Real Estate: Bus. Dam. :	Roger D. Pat Alfred J. Tho	ton	_Signed:	1	patton_	~ ~		Date:	09/10/19	
Relocation:	Roger D. Pat		_Signed: Signed:	E	DEIDI	y. 1	hompson	Date:	09/10/19	
Overall Review	: Alfred J. Tho		Signed:	P	the non	\$ T	-	Date: Date:	09/10/19	
0				17.1.17		1.4.	-		00/10/10	
Cost Estimate	Sequence #:	Dated:		ln t	he Amount of \$		<u> </u>	ata Input Comple	tion Date:	
REMARKS:										
The following i	indicates the e	stimator's conf	idence in the at	0Ve	estimate					
	_Type A - indi	cates the most	confidence		ootinnato.					
~	Type B - indi	cates above av	erage confiden	се						
XX			erage confident							
		vatus the least	or no comuent	.4						
The following i	indicates the D	epartment's pu	rpose for this e	stim	ate:					
Work Program	Update:	Pa	_Gaming 1:	~		Special I	Purpose:	X	ocs to RW:	
Comments:										
				_						

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE HDR#: 10169256-7.12										
FM#: County: State Rd.:	419235-3 Hillsborough SR 93A	Alternate: Segment: FAP#:	SMF 25C-1 N/A N/A		District: Date: C.E. Sequence	Seven 28-Aug-19				
Project Des. Parcels Commercial Residential Unimproved	I-75 (SR 93A) S. of US 301 Gross Net 1 1 0 0 2 2	I to N of Bruce B.	Downs	Estimated R Business Residential Signs Special	telocatees: 1 0 0					
Total Parcels R/W SUPPORT	3 3 COSTS (PHASE 41)			Total Reloca	**************************************					
1. Direct Labor 2. Indirect Ove		3	x <u>20,000</u> = x 0 =		Amount 60,0000					
3. R/W OPS (PHAS	E 4B)				TOTAL PHASE 41	\$60,000				
 Business Data G. Court Report Expert With Mediators Demolition, Demolition, Miscellaneo Appraisal Fernal 12. 	Asb. Abate., Survey, etc. us Contracts ee Review	Trial 50% 75% 75%	x <u>3</u> x <u>3</u> x <u>3</u> =	0 Claims 2 2 Parcels 2 2 Parcels 2	15,000 = 0	\$220,800				
R/W LAND COST 13. Land Impro	FS (PHASE 43) vements & Severance Dar				Amount Subtotal	\$220,800				
and Cost to 14. Water Reten 15. SUBTOTAL 16. Admin. Settl 17. Litigation Av 18. Business Da 19. Bus. Damag 20. Owner Appr 21. Owner CPA 22. Defend.Atty 23. Owner Expe 24. Other Conde 25. SUBTOTAL 26. * Design contine	Cure Amount tion & Mit. (1 Pond) (94,961) ement: (Factor wards (Factor mages (Claims es Incr (Factor . Fees (Parcels Fees (Claims Fees (Claims Fees (Sum of Lines 16, 17 & 1 rt Witn (Comm.+Unimp.) emn. Costs	0 664,562 20% 45% 0 25% 3 0 9) 239,300 9) 239,300 1 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 Parcels w/o R/W Acq) (Lines 13 &14) f Line 15) = f Line 15) = x 18,000 = (Lines 16 thru 24) =	797,500 797,500 95,700 143,600 0 0 45,000 0 79,000 54,000 3,000 420,300 TOTAL PHASE 43 10	\$1,217,800				
* Design contingency for design plan stage: (1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100% R/W ACQUISITION CONSULTANT (PHASE 42)										
27. Acquisition	Consultant-50% of parcels DSTS (PHASE 45)	42) \$20,000	x 0		TOTAL PHASE 42	\$0				
28. Owner 29. Tenant	Replacement Housing Move Costs rm	\$30,000 \$25,000 \$5,000 \$40,000 \$3,000	Number x 0 x 0 x 1	$= \frac{Amount}{0}$ $= \frac{0}{0}$ $= \frac{0}{40,000}$ $= 3000$						
33. (Lines 28 thr 34. Relocation S	u 32)		\$4,300	0,000	TOTAL PHASE 45	\$43,000				
35. 36.			\$4,300	(Not in Phase Total)						
Bus. Dam. : / Relocation: I	Roger D. Patton Alfred J. Thompson Roger D. Patton Alfred J. Thompson equence #: Dated	Signed:Signed: Signed: Signed: Signed:	In the Amount of \$	J. Thompson J. Thompson	TOTAL ESTIMATE Date: 09/10/19 Date: 09/10/19	\$1,541,600				
The following ind	licates the estimator's con Fype A - indicates the mos Fype B - indicates above a Fype C - indicates below a Fype D - indicates the leas	t confidence verage confidenc verage confidenc t or no confidenc urpose for this es	e e	9						
Comments:	odate:	_Gaming 1:		Special Purpose:	X Docs to RW:					

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE HDR#: 10169256-7.12											
FM#: 419235-3 County: Hillsborough State Rd.: SR 93A Project Des. I-75 (SR 93A) S. of US 3	Alternate: Segment: FAP#: 301 to N of Bruce B	SMF 25C-2 N/A N/A Downs		District: Date: C.E. Sequence	1.1	Seven 28-Aug-19 N/A					
Parcels Gross Net Commercial 0 0 Residential 3 3 Unimproved 1 1 Total Parcels 4 4		DOWIS	Estimated F Business Residential Signs Special Total Reloc	-	0 3 0 0 3						
R/W SUPPORT COSTS (PHASE 41) 1. Direct Labor Cost (Parcels	4	× 20,000 =		Amount	Ĵ						
2. Indirect Overhead (Parcels 3.	4	x <u>20,000</u> =		80,000							
R/W OPS (PHASE 4B)				TOTAL PHASE 4	41 Amount	\$80,000					
 Appraisal Fees Through Trial Business Damage CPA Fees Throug Court Reporter & Process Servers Expert Witness Mediators Demolition, Asb. Abate., Survey, etc Miscellaneous Contracts Appraisal Fee Review 2. 	<u>50%</u> <u>75%</u> 75%	x = x = x =	0 Claims 2 Parcels 3 Parcels 3 Parcels 3 Imprvmet 0 Per Project:	x 30,000 = x 19,000 = x 500 = x 30,000 = x 2,400 = x 15,000 =	120,000 0 1,000 90,000 7,200 45,000 0 5,000	6068 2003					
R/W LAND COSTS (PHASE 43) 13. Land, Improvements & Severance D					Subtotal	\$268,200					
and Cost to Cure Amount 14. Water Retention & Mit. (1 Pond) 15. SUBTOTAL (106,722) 16. Admin. Settlement: (Factor 17. Litigation Awards (Factor 18. Business Damages (Claims 19. Bus. Damages Incr (Factor 20. Owner Appr. Fees (Parcels 21. Owner CPA Fees (Claims 22. Defend.Atty Fees (Sum of Lines 16, 17; 23. Owner Expert Witn (Comm.+Unimp.) 24. Other Condemn. Costs 25. SUBTOTAL 26.	0 701,610 20% 45% 0 25% 4 0 25% 4 0 8 19) 252,500 0 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Design plan stage Parcels w/o R/W Acq (Lines 13 &14) f Line 15) f Line 15) f Line 15) f Line 15) f Line 16 thru 24)		<u>841,900</u> <u>417,800</u>	\$1 259 700					
* Design contingency for design plan stage: (1) PD&E plans - 120% (2) 30% plans - 115% (3) 60% plans - 110% (4) 90% plans -105% (5) 268 Date -100%											
R/W ACQUISITION CONSULTANT (PHAS 27. Acquisition Consultant-50% of parcels	iE 42)										
RELOCATION COSTS (PHASE 45) Replacement Housing 28. Owner 29. Tenant Move Costs 30. Residential 31. Business/Farm 32. Personal Property	\$ \$20,000 \$30,000 \$25,000 \$5,000 \$40,000 \$3,000	x 0 Number x 3 x 0 x 3 x 0 x 0 x 0 x 0 x 0	$= \frac{Amount}{90,000} = \frac{0}{0} = \frac{15,000}{0} = \frac{0}{0} = 0$	TOTAL PHASE 4	2	\$0					
33. (Lines 28 thru 32) 34. Relocation Services Cost		\$10,500	(Not in Phase Total)	TOTAL PHASE 4	5	\$105,000					
35. 36.											
37. Real Estate: Roger D. Patton Bus. Dam. : Alfred J. Thompson Relocation: Roger D. Patton Overall Review: Alfred J. Thompson Cost Estimate Sequence #: Date	Signed: Signed: Signed: Signed: Signed:	In the Amount of \$	I.J. Thompson	TOTAL ESTIMAT Date: Date: Date: Date: Date: Date: Date: Date: Date: Data Input Complet	09/10/19 09/10/19 09/10/19 09/10/19	\$1,712,900					
The following indicates the estimator's comparison of the set of the	ost confidence e average confidence e average confidence ast or no confidence purpose for this e	ce ce ce									
Work Program Update: Comments:	Gaming 1:		Special Purpose:	<u> </u>	ocs to RW:						

Appendix H Assessments Contamination

Contamination Screening Long List Pond Sites

Pond Alternative	Location (Station), Side	No. of Parcels	Total ROW area (acres)	Land Use	RISK	Notes
SMF 1A	1290+00, RT	1	2.76	Theater (parking lot)	LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 1B	1282+00, RT	5	3.47	Condos	LOW	Nothing found in the area of SMF 1B.
SMF 1C	1284+00, LT	9	2.36	Single Family Residential	LOW	Nothing found in the area of SMF 1C.
SMF 2/3	1323+00, LT	0	0	FDOT ROW	MED	Petro Chemical Transport (Citgo) Spill US 301 SB Ramp & I-75 S
SMF 4/5	1335+00, LT	0	0	FDOT ROW	LOW	Nothing found in the area of SMF 4/5.
SMF 6A	1370+00, LT	1	3.25	Office Multi Story	LOW	Progressive Insurance Cell Ctr Above Ground Storage Tank (AST) located approx 500 feet sw of site.
SMF 6B	1389+00, LT	3	3.69	Warehouse Office Multi Story	LOW	Nothing found in the area of SMF 6B.
FCP 6	1360+00, RT	0	0	FDOT ROW	LOW	Nothing found in the area of FCP 6.
SMF 7A	1415+70, LT	1	3.16	Vacant Commercial	LOW	Nothing found in the area of SMF 7A.
SMF 7B	1422+00, RT	2	2.17	Child Care Center FDOT ROW	LOW	Site has an FDEP marker for Mangaged Entities. Walmart Supercenter #2387 above ground storage tank (AST) located across Brandon Town Center Drive, approximately 500 feet from site. Walmart is considered a County Small Quantity Generator and contains an FDEP marker for two Registered Tanks from Storage Tank Contamination Monitoring. A marker for Storage Tank Contamination Monitoring is also found. As of 2019 in compliance.
SMF 7C	1415+00, RT	1	8.82	Auto Dealership	MED	Site has an FDEP marker for Mangaged Entities. Site has FDEP markers for several Registered Tanks from Storage Tank Contamination Monitoring (all compliant). The site is also marked for Compliance and Enforcement Tracking for HAZardous Facilities. Walmart Supercenter #2387 is directly across Brandon Town Center Drive, approximately 500 feet from site, is considered a County Small Quantity Generator and contains an FDEP marker for two Registered Tanks from Storage Tank Contamination Monitoring. A marker for Storage Tank Contamination Monitoring is also found. As of 2019 in compliance.
FPC 7A	1437+00, LT	2	0	FDOT ROW	LOW	A registered storage tank is located approx 1,200 feet sw of the site.
Easement	Adj to SMF 7C. Appears to be the road.				LOW	See SMF 7C.
SMF 7/8	1454+00, RT	1	5.57	Vacant Commercial	LOW	Nothing found in the area of SMF 7/8.
SMF 8A	1450+00, RT	1	2.65	Vacant Commercial	LOW	Nothing found in the area of SMF 8A.
SMF 8B	1457+00, RT	4	4.48	Vacant Commercial	LOW	Nothing found in the area of SMF 8B.
Easement	Adj to SMF 8B				LOW	See SMF 8B.
SMF 9 SMF 10A	1485+00, LT 1504+00, LT	0	0	FDOT ROW Bowling Alley/Skate Rink Vacant area	LOW	Nothing found in the area of SMF 9. Several County Small Quantity Generators and Registered Tanks from Storage Contamination Monitoring are identified adjacent to this site.
Easement	Adj to SMF 10A				MED	See SMF 10A.
SMF 10B	1500+00, LT	2	5.35	Bowling Alley/Skate Rink Vacant area/Warehouse	MED	Several County Small Quantity Generators and Registered Tanks from Storage Contamination Monitoring are identified adjacent to this site. A closed Hazardous Waste Facility is also located across Elizabeth Place from this site.
SMF 10C	1497+00, LT	1	2.45	Vacant Industrial	MED	Several County Small Quantity Generators and Registered Tanks from Storage Contamination Monitoring are identified adjacent to this site. A closed Hazardous Waste Facility is als located across Elizabeth Place from this site.
SMF 11A	1508+00, LT	2	1.23	Warehouse County Vacant	MED	Site is located adjacent to Dickinson Fleet Service which is listed on the Compliance and Enforcement Tracing for HAZardous Facilities.
SMF 11B	1512+00, LT	1	1.47	Warehouse	MED	Site is located adjacent to Dickinson Fleet Service which is listed on the Compliance and Enforcement Tracing for HAZardous Facilities. The site is also listed as a Managed Entity.

SMF 12/13A	1529+00, LT	6	5.04	Mobile Home Flex Serv Warehouse A Warehouse B Vacant Industrial	MED	Site appears to contain an automobile junk yard. Site is occupied by several County Small Quantity Generators. Site also has markers for Registered Tanks from Storage Tank Contamination Monitoring, Storage Tank Contamination Monitoring and a Managed Entity. Across Fisher Rd there is a property with a Compliance and Enforcement Tracking for HAZardous Facilities marker. Property is approximately 100 south of site.
SMF 12/13B	1536+00, RT	4	4.61	Single Family Residential Vacant Residential	LOW	One County Small Quantity Generator site (Gutheries Neon) is located adjacent to the site; however, per FDEP the business is closed (2005).
SMF 12/13C	1550+00, RT	2	5.43	Pasture Vacant Residential	LOW	Nothing found in the area if SMF 12/13C.
SMF 12/13R	1543+00, LT	1	1.09	Pasture	LOW	Nothing found in the area if SMF 12/13R.
SMF 12/13L	1542+00, RT	2	1.55	Mobile Home Flex Serv	LOW	Site shows no triggers, but is located adjacent to several County Small Quantity Generators and is immediately adjacent to I-75. Site is approximately 600 feet northeast from the property associated with 12/13A (Storage Tank Contamination Monitoring).
FPC 14	1580+00, RT	1	0.78	Vacant Commercial	LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 14A	1575+00, RT	1	5.77	Vacant Commercial	LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 14B	1572+00, RT	3	4.96	Single Family Residential Vacant Residential	LOW	Site shows a Managed Entities marker on FDEP map, but no issues. One County Small Quantity Generator site (Douglas Painting) is located adjacent to the site; however, per FDEP the business is closed (2000).
Easement	Adj to SMF 14A				LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 15/16	1615+00, RT	0	0	FDOT ROW	LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 17A	1665+00, LT	2	3.78	Pasture	LOW	Site shows a Managed Entities marker on FDEP map, but no issues. Approximately 700 feet north of the site is a Compliance and Enforcement Tracking for HAZardous Facilities site (Gulf Coast Signs) that is also listed as a County Small Quantity Generator.
SMF 17B	1664+00, RT	2	4.09	Pasture Utility	LOW	Nothing found in the area of SMF 17B.
SMF 18A	1670+00, LT	1	2.67	Pasture	LOW	Site shows a Managed Entities marker on FDEP map, but no issues. Approximately 200 feet west of the site, is a Compliance and Enforcement Tracking for HAZardous Facilities site (Gulf Coast Signs) that is also listed as a County Small Quantity Generator. The CHAZ sites last document on the FDEP site is from 2003. No issues since then.
SMF 18B	1670+00, RT	1	2.13	Pasture	LOW	There are no FDEP markers for this site; however, immediately north of the site is a truck transport facility and two junk yards. The transport facility is listed as a Storage Tank Contamination Monitoring site as well as a Registered Tank from Storage Tank Contamination Monitoring site.
FPC 17/18	1711+00, LT	1	2.64	Pasture	LOW	Site shows a Managed Entities marker on FDEP map, but no issues. Approximately 350 feet west of the site, is a Compliance and Enforcement Tracking for HAZardous Facilities site (Gulf Coast Signs) that is also listed as a County Small Quantity Generator. The CHAZ sites last document on the FDEP site is from 2003. No issues since then.
Easement	Adj to FPC 17/18				LOW	See FPC 17/18
SMF 19A	1699+00, RT	0	0	FDOT ROW	LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 19B	1699+00, RT	0	0	FDOT ROW	LOW	There are no FDEP markers for this site; however, there are two County Small Quantity Generators located approximately 700 feet southwest of the site.
SMF 19C	1700+00, LT	0	0	FDOT ROW	LOW	Site shows a Managed Entities marker on FDEP map, but no issues.
SMF 19D	1705+00, LT	0	0	FDOT ROW	LOW	Nothing found in the area of SMF 19D. There are two County Small Quantity Generators located approximately 450 feet west of the site.
FDC 104	1705.00.17	0	0	FDOT ROW	LOW	Site shows a Managed Entities marker on FDEP map, but no
FPC 19A	1705+00, LT	0	U	TOOTNOW	LOW	issues.

SMF 20A 1200-00, LT 1 7.81 Pasture MED Feet north of the site is a DFC Genup site (Lareks Springs LandBIR). FPC 20 1735-00, LT 1 1.88 Posture MED Site is clear of EDF manaces; however, approximately 1000 SMF 20B 1745-00, RT 2 10.0-41 Posture LOW Site is clear of EDF manaces; however, approximately 1000 SMF 20B 1745-00, RT 1 1.88 Posture LOW Site is clear of EDF manaces; however, approximately 1000 SMF 21A 1755-00, RT 1 7.78 Pasture LOW Site shows a Managed Entities maker on PDF map, but no isous. SMF 21A 1755-00, RT 1 8.35 Posture HIGH Site sportin a DF covere; documentation isous isous there were to do the go and task lidecel in use in isous. SMF 21A 1755-00, RT 1 8.35 Posture HIGH Site sportin a DF covere; documentation isous in iterace. FPC 21A 1755-00, RT 1 1.65 Posture HIGH Site is of a Cover Posting Site Aportance in the second of DF covere; documentation sites is a Covere in the second of DF covere; documentation sites is a Covere in the second of DF covere; documentation sites is a Covere in the second of DF covere; documentation sites is a Covere in the second of DF covere; documentation sites is a Covere in the second of DF covere; documentation sites is a Covere in the second of							
PFC 20 1235-00, 11 1 1.88 Pasture MED Inter subfact and the site is a DP Cennag atter (unchas Sprog). Landfill, Sec. SMF 208 1245-00, RT 2 10.64 Pasture L/W Stet shows A Manage Tantistic marker on PEE may, but Poisson SMF 208 1255-00, RT 1 7.78 Pasture L/W Stet shows A Manage Tantistic marker on PEE may, but Poisson SMF 21A 1755-00, RT 1 7.78 Pasture L/W Stet shows A Sequence of Stat Pasture 100 SMF 21A 1 8.86 Pasture L/W Stet shows A Sequence of Stat Pasture 100 SMF 21A 1 8.86 Pasture L/W Stet shows A Sequence of Stat Pasture 100 SMF 21A 1755-00, IT 1 2.07 Pasture L/W Stet shows A Sequence of Stat Pasture Stet Stat Pasture Stet Stat Pasture	SMF 20A	1730+00, LT	1	7.81	Pasture	MED	Landfill).
Mark 2004 Links Links <thlinks< th=""> Links Links</thlinks<>	FPC 20	1735+00, Lt	1	1.88	Pasture	MED	feet southeast of the site is a DEP Cleanup site (Eureka Springs
Easternert Adj to SM 208 Image: SMF 21A Image: SMF 2	SMF 20B	1745+00, RT	2	10.64		LOW	
SMF 21A 1755+00, RT 1 7.78 Pasture LOW SMF 21A 1055+00, RT 1 7.78 Pasture LOW SMF 21A 1054 1004 Secondary Control Secondary Control SMF 21B 1755+00, LT 1 8.36 Pasture HIGH SMF 21B 1755+00, LT 1 8.36 Pasture HIGH SMF 21A 1 2.77 Pasture HIGH SMF 21A 1 2.77 Pasture HIGH SMF 21A 1 1.66 Pasture LOW SMF 22A 1755+00, LT 1 1.66 Pasture LOW SMF 22A 1795+00, LT 2 3.94 SMF 20A SMF 20A SMF 22A 1795+00, LT 3 3.12 Daines/FeedIts Cow SMF 22A 1994-00, LT 3 3.12 Daines/FeedIts Cow SMF 22A 1924-00, LT 3 3.12 Daines/FeedIts Cow SMF 22A 1922+00, LT 3 3.12 Daines/FeedIts Cow SMF 22A 1923+00, LT 3 3.12 Daines/FeedIts Cow SMF 22A 1922+00, LT 3 3.12	Fasement	Adi to SEM 20B			Church	LOW	
SMF 218 1755+00, IT 1 8.36 Pesture HIGH Stre is part of PP Clearing site associated with Euroba Series Solid Vacation Stole). FPC 218 1764+00, RT 1 2.77 Pesture HIGH Stre is part of PP Clearing site associated with Euroba Series Solid Vacation Stole). FPC 21A 1755+00, IT 1 1.66 Pesture LOW Site is Part of PP Clearing site associated with Euroba Series Solid Vacation Stole). SMF 22A 1759+00, IT 2 3.94 SWFWMD LOW Nothing found in the area of SMF 22A. SMF 23A 1821+00, IT 3 3.12 Daintes/FeedIts Poul/Bees/Fish LOW Nothing found in the area of SMF 23A. AFDEP markers of bite stells waver, locumentation states not a harardous waste generator. SMF 23A 1821+00, IT 3 3.12 Daintes/FeedIts Poul/Bees/Fish LOW Nothing found in the area of SMF 23A. AFDEP markers for a Cound's Smill Quantity Generators (States Nursery) is located just well of this site; however, documentation states not a harardous waste generator. SMF 23A 1823+00, IT 3 1.83 Vacant Commercial Poul/Bees/Fish LOW Nothing found in the area of SMF 22A. AFDEP markers for Cound's Sm			1	7.78	Pasture		Site shows a Registered Tanks from Storage Tank Contamination Monitoring marker; however, documentation shows there were two above ground tanks (diesel) in use in
SMF 23B 1/5>400, L1 1 8.8.0 Patture High Sign participation Sign participation FPC 21B 1764-00, RT 1 2.77 Patture High Sign participation Sign participation FPC 21A 1755+00, LT 1 1.66 Pasture Low Sign participation Sign participation SMF 22A 1755+00, LT 1 1.66 Pasture Low Sign participation Sign participation SMF 23A 1921+00, LT 2 3.94 SWFWMD LOW Nothing found in the area of SMF 23A. SMF 22A SMF 23A 1921+00, LT 3 3.12 Daries/FeedIts LOW Nothing found in the area of SMF 23A. SMF 22A SMF 23B 1821+00, LT 3 2.82 Mobile Home LOW Nothing found in the area of SMF 23A. SMF 24A SMF 23B 1825+00, LT 3 2.82 Mobile Home LOW Nothing found in the area of SMF 23A. SMF 24A SMF 24A 1828+00, LT 3 4.33 Paries/FeedIts LOW Nothing found in the area of SMF 23A. SMF 24A SMF 24A 1838+00, LT 1 1.88 Vacant Commercial LOW Nothing found in the area of SMF 23A. SMF 24A	Easement	Adj to SFM 21A				LOW	See SMF 21A.
PHC 218 1 / Ox4+00, RI 1 2 / // Pasture HIGH Springs Solid Waste Facility (LandRII) Step.). FPC 21A 1755+00, IT 1 1.66 Pasture LOW Step is Clear of FDEP matters, however, approximately 300 feet south the site is a County Small Quantity Generator, Journal Step is Clear of FDEP matters, however, approximately 300 feet south the site is a County Small Quantity Generator, Journal Matter Science, Journal Matter Journal Matter Science, Journal Matter Journal Matter Science, Journal Matter J	SMF 21B	1755+00, LT	1	8.36	Pasture	HIGH	
PPC 21A 1755+00, IT 1 1.66 Pasture Low Ifel: south of the site is a County Small Quantity Generator. Site (Aft McHride Carpenty). Documentation shows noise (non-generator). SMF 22A 1794+00, IT 2 3.94 SWFWMD LOW Nothing found in the area of SMF 22A. SMF 23A 1821+00, IT 3 3.12 Daries/Feedits Pou//Bees/Fish LOW Nothing found in the area of SMF 23A. A DDP marker for a County Small Quantity Generator. (Slates Kursery) is located just west of this site, however, documentation states not a hazardous waste generator. SMF 23B 1822+00, IT 3 2.82 Mobile Home LOW Nothing found in the area of SMF 23B. A DDP marker for a County Small Quantity Generator. (Slates Kursery) is located just west of this site, however, documentation states not a hazardous waste generator. SMF 22A 1823+00, IT 3 4.33 Daries/Feedits Pou//Bees/Fish LOW Nething found in the area of SMF 22A. SMF 24A 1838+00, IT 1 1.84 Vacant Commercial POU//Bees/Fish LOW Nething found in the area of SMF 22A. SMF 24B 1838+00, IT 1 1.86 Vacant Commercial POU//Bees/Fish LOW Nothing found in the area of SMF 22A. SMF 24A 1858+00, IT 4 1.86 Single Family Residential POU/Res/Fish LOW Nothing found in the area of SMF 22A. </td <td>FPC 21B</td> <td>1764+00, RT</td> <td>1</td> <td>2.77</td> <td>Pasture</td> <td>HIGH</td> <td></td>	FPC 21B	1764+00, RT	1	2.77	Pasture	HIGH	
Easement Adj to SMF 22A Image: Constraint of the second o	FPC 21A	1755+00, LT	1	1.66	Pasture	LOW	feet south of the site is a County Small Quantity Generator site (Art McBride Carpentry). Documentation shows no use
SMF 23A 1821+00, LT 3 3.12 Dairies/Feedits Poul/Bees/Fish Low Nothing found in the area of SMF 23A. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. SMF 23B 1825+00, LT 3 2.82 Mobile home Low Nothing found in the area of SMF 23A. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. SMF 23B 1825+00, LT 3 2.82 Mobile home Low Nothing found in the area of SMF 23A. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. SMF 24A 1838+00, LT 1 1.83 Vacant Commercial FDOT ROW LOW Nothing found in the area of SMF 23A. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator. SMF 25A 1854+00, LT 4 1.86 Single Family Residential FDOT ROW LOW Nothing found in the area of SMF 23A. A FDEP marker for a County Small Quantity Generators (Aunt Gracie and Kida) is located northwest of this site; however, documentation states unverified generator staus with no corresponding waste information. SMF 25A 1857+00, LT 4 1.86 Single Family Residential Vacant LOW Nothing found	SMF 22A	1794+00, LT	2	3.94	SWFWMD	LOW	Nothing found in the area of SMF 22A.
SMF 23A1821+00, LT33.12Dairies/FeedIts Poul/Bees/FishLOWCounty Small Countity Generators (Sites Nursery) is located hazardous waste generator.SMF 23B1825+00, LT32.82Mbbile HomeLOWNothing found in the area of SMF 23B. A FDEP marker for a County Small Quantity Generators (Sites Nursery) is located just west of this site; however, documentation states not a hazardous waste generator.SMF 23B1825+00, LT32.82Mbbile HomeLOWNothing found in the area of SMF 22(3). A FDEP marker for a County Small Quantity Generators (Sites Nursery) is located just west of this site; however, documentation states not a hazardous waste generator.SMF 22/231823+00, LT34.33Dairies/FeedIts Poul/Bees/FishLOWNothing found in the area of SMF 22(3). A FDEP marker for a county Small Quantity Generators (Sites Nursery) is located ipst west of this site; however, documentation states not a hazardous waste generator.SMF 24A1838+00, LT11.83Vacant Commercial FDOT ROWLOWNothing found in the area of SMF 23A. A FDEP marker for a county Small Quantity Generators (Sites Nursery) and Roald states not a hazardous waste generator.SMF 25A1854+00, LT41.86Single Family Residential FDOT ROWLOWNothing found in the area of SMF 23A. FDEP marker for a County Small Quantity Generator (Sites Nill arry and Roald Smite however, documentation states states invertified generator states with no corresponding waste information.SMF 25A1854+00, LT42.81Single Family Residential WacantLOWNothing found in	Easement	Adj to SMF 22A				LOW	Nothing found in the area of this easement.
SMF 23B1825+00, LT32.82Mobile homeLOWCounty Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator.SMF 22/231823+00, LT34.33Darlies/Feedits Poul/Bees/FishNothing found in the area of SMF 22/23. A FDEP marker for a County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator.SMF 24A1838+00, LT11.83Vacant Commercial FDOT ROWLOWNothing found in the area of SMF 24A. A solid waste facility is located approximately 500 feet east of the site; however, documentation states not a hazardous waste generator.SMF 24B1838+00, RT31.83Vacant Commercial FDOT ROWLOWNothing found in the area of SMF 25A. A Solid waste facility is located approximately 500 feet east of the site; however, documentation states unverified generators (Slates Nursery).SMF 25A1854+00, LT41.86Single Family Residential VacantLOWNothing found in the area of SMF 25A. A FDEP marker for County Small Quantity Generators (Slates Bull Barry and Ronald Smith M/DBA Home Tec Roj are located on other store).SMF 25B1857+00, LT42.81Single Family Residential VacantLOWNothing found in the area of SMF 25A. FDEP markers for County Small Quantity Generators (Slates Bull Barry and Ronald Smith M/DBA Home Tec Roj are located on other store).SMF 25C-11860+00, RT64.52Single Family Residential Vacant CommercialLOWNothing found in the area of SMF	SMF 23A	1821+00, LT	3	3.12	,	LOW	County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a
SMF 22/231823+00, LT34.33Dahres/FeedIts Pou/Bes/FishLOWCounty Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a hazardous waste generator.SMF 24A1838+00, LT11.83Vacant Commercial FDOT ROWLOWNothing found in the area of SMF 24A.SMF 24B1838+00, RT31.83Vacant Commercial FDOT ROWLOWA solid waste facility is located approximately 500 feet east of the site; however, it is a Debris Staging Site for storm events for yard waste.SMF 25A1854+00, LT41.86Single Family Residential PDOT ROW.LOWNothing found in the area of SMF 25A. A FDPE marker for a County Small Quantity Generators (Aunt Gracie and Kids) is located northwest of this site; however, documentation states unverified generator states with no corresponding waste information.SMF 25B1857+00, LT42.81Single Family Residential VacantLOWNothing found in the area of SMF 25B. FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located on orth this site; 	SMF 23B	1825+00, LT	3	2.82	Mobile Home	LOW	County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a
SMF 24B 1838+00, RT 3 1.83 Vacant Commercial FDOT ROW LOW A solid waste facility is located approximately 500 feet east of the site; however, it is a Debris Staging Site for storm events for yard waste. SMF 25A 1854+00, LT 4 1.86 Single Family Residential FDOT ROW LOW Nothing found in the area of SMF 25A. A FDEP marker for a County Small Quantity Generators (Aunt Gracie and Kids) is located northwest of this site; however, documentation. SMF 25B 1857+00, LT 4 2.81 Single Family Residential Vacant LOW Nothing found in the area of SMF 25B. FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located north of this site; however, documentation states unverified generator staus with no corresponding waste information. SMF 25C-1 1860+00, RT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant	SMF 22/23	1823+00, LT	3	4.33		LOW	County Small Quantity Generators (Slates Nursery) is located just west of this site; however, documentation states not a
SMF 24B 1838+00, RT 3 1.83 Vacant Commercial FDOT ROW LOW the site; however, it is a Debris Staging Site for storm events for yard waste. SMF 25A 1854+00, LT 4 1.86 Single Family Residential FDOT ROW LOW Nothing found in the area of SMF 25A. A FDEP marker for a County Small Quantity Generators (Aunt Gracie and Kids) is located northwest of this site; however, documentation. SMF 25B 1857+00, LT 4 2.81 Single Family Residential Vacant LOW Nothing found in the area of SMF 25B. FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located north of this site; however, documentation states unverified generator staus with no corresponding waste information. SMF 25C-1 1860+00, RT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT C LOW Nothin	SMF 24A	1838+00, LT	1	1.83	Vacant Commercial	LOW	Nothing found in the area of SMF 24A.
SMF 25A 1854+00, LT 4 1.86 Single Family Residential FDOT. ROW LOW Nothing found in the area of SMF 25A. A FDEP marker for a County Small Quantity Generators (Aut Gracie and Kids) is located northwest of this site; however, documentation states unverified generator staus with no corresponding waste information. SMF 25B 1857+00, LT 4 2.81 Single Family Residential Vacant LOW Nothing found in the area of SMF 25B. FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located north of this site; however, documentation states unverified generator staus with no corresponding waste information. SMF 25C-1 1860+00, RT 6 4.52 Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential Vacant Residenti	SMF 24B	1838+00, RT	3	1.83		LOW	A solid waste facility is located approximately 500 feet east of the site; however, it is a Debris Staging Site for storm events
SMF 25B1857+00, LT42.81Single Family Residential VacantLOWCounty Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located north of this site; however, documentation states unverified generator staus with no corresponding waste information.SMF 25C-11860+00, RT64.52Single Family Residential Mixed Use Warehouse Vacant Commercial Vacant Residential Vacant ResidentialLOWNothing found in the area of SMF 25C-1.SMF 25C-21860+00, LT64.52Single Family Residential Mixed Use Warehouse Vacant Residential Vacant Residential Vacant Residential Vacant Residential Vacant Residential Vacant Residential Vacant Residential Vacant Residential LOWLOWFDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located adjacent to this site; however, documentation for all states unverified generator staus with no corresponding waste information.	SMF 25A	1854+00, LT	4	1.86		LOW	Nothing found in the area of SMF 25A. A FDEP marker for a County Small Quantity Generators (Aunt Gracie and Kids) is located northwest of this site; however, documentation states unverified generator staus with no corresponding
SMF 25C-1 1860+00, RT 6 4.52 Mixed Use Warehouse Vacant Commercial Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Mixed Use Warehouse Vacant Residential LOW Nothing found in the area of SMF 25C-1. SMF25C-2 1860+00, LT 6 4.52 Mixed Use Warehouse Vacant Residential LOW FDEP markers for County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located adjacent to this site; and one (System Services by Young) is located north of this site; however, documentation for all states unverified generator staus with no corresponding waste information.	SMF 25B	1857+00, LT	4	2.81		LOW	County Small Quantity Generators (Bass Bill Barry and Ronald Smith M/DBA Home Tec Ro) are located north of this site; however, documentation states unverified generator staus
SMF25C-2 1860+00, LT LOW Barry and Ronald Smith M/DBA Home Tec Ro) are located adjacent to this site; and one (System Services by Young) is located north of this site; however, documentation for all states unverified generator staus with no corresponding waste information.	SMF 25C-1	1860+00, RT	6	4.52	Mixed Use Warehouse Vacant Commercial	LOW	Nothing found in the area of SMF 25C-1.
Easement Adj to 25C-1 LOW Nothing found in the area of this easement	SMF25C-2	1860+00, LT				LOW	Barry and Ronald Smith M/DBA Home Tec Ro) are located adjacent to this site, and one (System Services by Young) is located north of this site; however, documentation for all states unverified generator staus with no corresponding
	Easement	Adj to 25C-1				LOW	Nothing found in the area of this easement

Preliminary Cultural Resource Assessment

Probability Analysis

PRELIMINARY CULTURAL RESOURCE ASSESSMENT PROBABILITY ANALYSIS TECHNICAL MEMORANDUM

PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF) & FLOODPLAIN COMPENSATION (FPC) SITES I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD HILLSBOROUGH COUNTY, FLORIDA

Financial Project ID No.: 419235-3-22-01

Prepared for:

Florida Department of Transportation District Seven 11201 North McKinley Drive Tampa, Florida 33612-6456

November 2019

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Prepared by:

Archaeological Consultants, Inc. 8110 Blaikie Court, Suite A Sarasota, Florida 34240

In association with:

WSP USA 2202 West Shore Boulevard, Suite 300 Tampa, FL 33607

November 2019

PRELIMINARY CULTURAL RESOURCE ASSESSMENT PROBABILITY ANALYSIS TECHNICAL MEMORANDUM PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF) & FLOODPLAIN COMPENSATION (FPC) SITES I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD HILLSBOROUGH COUNTY, FLORIDA Financial Project ID No.: 419235-3-22-01

1.0 INTRODUCTION

The purpose of this study was to determine, preliminarily, if any significant or potentially significant cultural resources, including archaeological sites and historic resources, will be impacted by the construction of a total 57 proposed Stormwater Management Facilities (SMF) and Floodplain Compensation (FPC) sites associated with improvements to I-75 (SR 93A) from south of US 301 to north of Bruce B. Downs Boulevard in Hillsborough County (Figure 1). Known or potentially significant cultural resources are defined as those sites that are listed, determined eligible, or considered potentially eligible for listing in the National Register of Historic Places (NRHP). All work was conducted in compliance with the provisions of the *National Historic Preservation Act of 1966* (Public Law 89-665), as amended, and the implementing regulations 36 CFR 800, as well as with the provisions contained in the revised Chapter 267, *Florida Statutes (FS)*.

The study methodology included a review of Florida Master Site File (FMSF) records, NRHP listings, relevant cultural resource assessment survey (CRAS) reports, the U.S. Department of Agriculture's (USDA) *Soil Survey of Hillsborough County, Florida* (USDA 1952, 1989), as well as the United States Geological Survey (USGS) Brandon, Thonotosassa quadrangle maps (USGS 1956, 1974). Relevant CRAS reports included the Project Development and Environment (PD&E) Study for I-75 (SR 93) from south of US 301 to north of Bruce B. Downs Boulevard (Archaeological Consultants, Inc. [ACI] 2009b), the PD&E Study for I-75 from Moccasin Wallow Road to south of US 301 (ACI 2009a), the 1-75 Research Design for both of these segments of I-75 (ACI 2008), the 1978 survey of the proposed I-75 corridor by Calvin Jones, as well as over 50 plus CRAS conducted within one quarter mile.

As a result of the preliminary study, there are 11 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites and 5 previously recorded historic resources (50 years of age or older) identified within and/or adjacent to the proposed SMF/FPC sites. Of the 11 previously recorded archaeological sites, 7 sites are adjacent to 7 of the proposed SMF/FPC sites and 7 sites are within or partially within 14 of the proposed SMF/FPC sites. Most of the SMF/FPC sites have a low archaeological potential; however, several have either a low to moderate, moderate, or high potential for the discovery of additional archaeological sites or for evidence of previously recorded sites. Nine of the proposed SMF/FPC sites have historic resources 50 years of age or older within or adjacent that will need to be recorded in the FMSF, as well as five previously recorded resources that will need to be updated. This information is summarized in **Tables 1 and 2** and **Figures 2-4**.

In conclusion, no proposed SMF/FPC site should be avoided due to cultural resource issues. Following the selection of preferred SMF/FPC sites, systematic archaeological field survey is recommended; historical/architectural field survey is also recommended.



Figure 1. Location of the proposed SMF/FPC Sites, Hillsborough County.

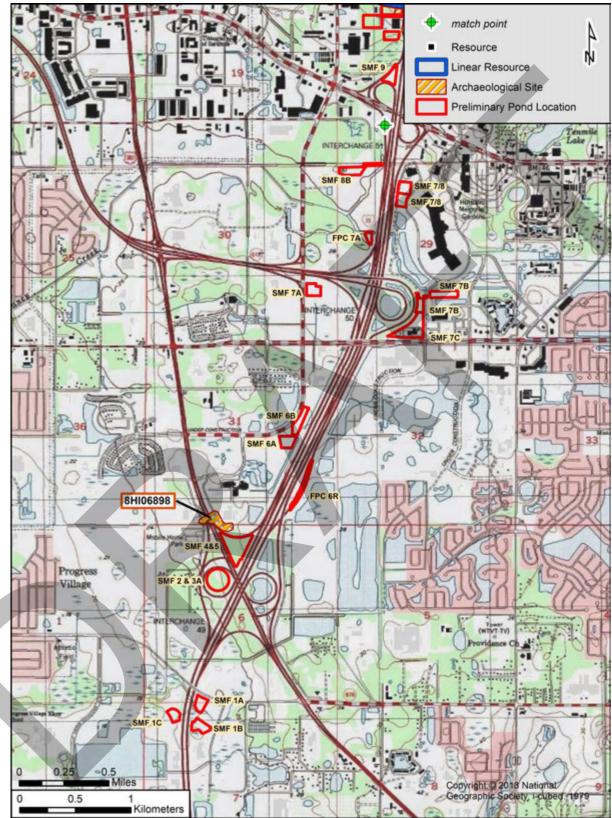


Figure 2. Location of the proposed SMF/FPC Sites, Hillsborough County.

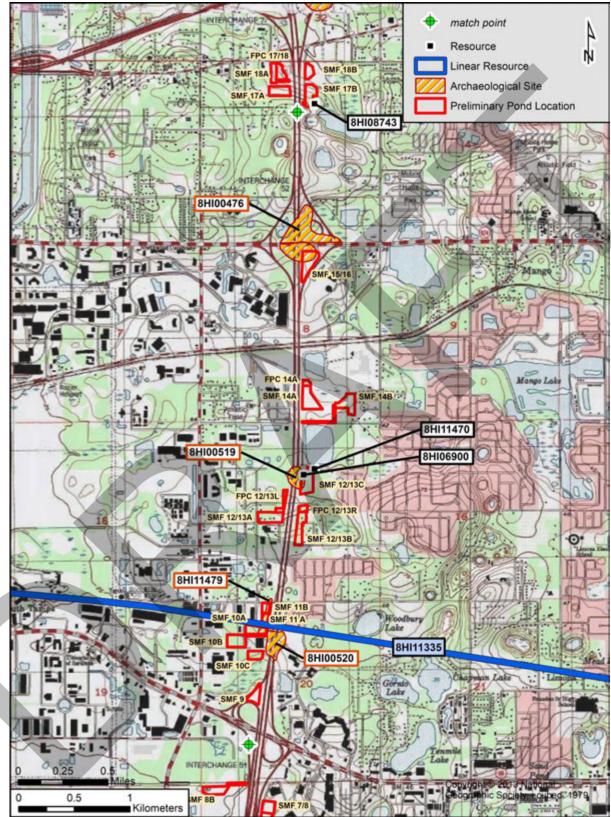


Figure 3. Location of the proposed SMF/FPC Sites, Hillsborough County.

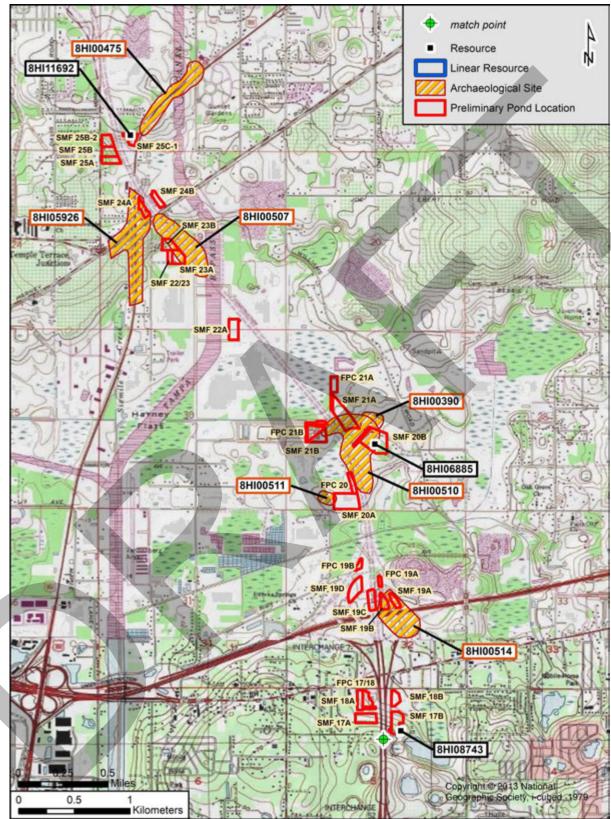


Figure 4. Location of the proposed SMF/FPC Sites, Hillsborough and Manatee Counties.

2.0 DESCRIPTION OF KNOWN ARCHAEOLOGICAL AND HISTORIC RESOURCES AND SITE POTENTIAL

Archaeological Sites: A check of the FMSF digital database (October 2019) indicated there are 11 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites and 5 previously recorded historic resources (50 years of age or older) identified within and/or adjacent to the proposed SMF/FPC sites. Of the 11 previously recorded archaeological sites, 7 sites are adjacent to 7 of the proposed SMF/FPC sites and 7 sites are within or partially within 14 of the proposed SMF/FPC site (Figures 2-4; Tables 1, 2). These sites consist of six lithic scatters (one with an historic component), four artifact scatters, and one habitation site. Of these, five sites have been determined not eligible for listing in the NRHP by the State Historic Preservation Office (SHPO), three have not been evaluated, and three are potentially eligible for listing in the NRHP.

sites.				
Site #	Site Name	Site Type	Culture	SHPO Eval*
8HI00390	Bartolotti	Lithic scatter/quarry	Aboriginal lacking pottery	No
8HI00475	301 Crossing	Artifact scatter, lithic scatter/quarry	Archaic	NE
8HI00476	Diamond Dairy: A	Habitation	Middle Archaic	PE
8HI00507	Harney Flats	Artifact scatter	Paleo-Indian, Early and Middle Archaic, post-Archaic	PE
8HI00510	Bartolotti	Lithic scatter/quarry	Paleo-Indian, Early and Middle Archaic, post-Archaic	PE
8HI00511	Bartolotti SW	Lithic scatter/quarry	Archaic	No
8HI00514	Road End	Lithic scatter/quarry, artifact scatter	Archaic	NE
8HI00519	Graves Road	Historic refuse / Dump, lithic scatter/quarry	Archaic, 20th century	NE
8HI00520	South Railroad	Lithic scatter/quarry	Aboriginal	No
8HI05926	Vera's Thrift Shop	Artifact scatter	Early Archaic	NE
8HI06898	Bayside #12	Ceramic scatter, lithic scatter/quarry	Post-Archaic	NE

 Table 1. Previously recorded archaeological sites within and adjacent to the proposed SMF/FPC sites.

* PE=Potentially Eligible for NRHP, NE= Not Eligible for NRHP, No= Not Evaluated by SHPO.

Several of these sites are among those originally recorded by B. Calvin Jones in 1978 during Phase I archaeological survey of the proposed I-75 ROW. In addition, three were the focus of Phase II evaluative site testing (8HI00476, 8HI00507, 8HI00510) and two of these were also subjected to Phase III mitigative salvage excavation as part of the original I-75 study (8HI00476, 8HI00507). Today, roughly 40 years later, most of these sites, as located within the I-75 project APE, have lost their contextual integrity due to road construction and improvements, the placement of utility lines, and other developments. Thus, they no longer meet the criteria of eligibility for listing in the NRHP, at least in part, even though the FMSF lists them as "potentially eligible."

In addition to the 1978 survey of I-75, over 50 CRASs have been conducted within one-quarter mile of the I-75 PD&E Study corridor. These include 1970s surveys of recreation areas within the Lower Hillsborough River Flood Detention Area (Daniel et al. 1979), the Tampa Bypass Canal (Seabury et al. 1975), and the Lake Thonotosassa By-Pass Canal (Deming 1976). Transportation project-related survey, conducted between the 1970s and recently, include the Vandenberg Airport expansion (Janus Research 1996a), the Crosstown Expressway (HDR Engineering 1991; Janus Research 1998, 2000), I-4 (Janus Research 1992b), US 92/SR 660 (ACI 1993), US 301 (Deming 1997; Janus Research

1996b, 1999), I-75 (ACI 2003, 2006), SR 60 (Adamo Drive) (ACI 2004), and the Florida High Speed Rail (ACI/Janus 2003). Several other surveys were conducted for water and sewage conveyance (Austin 1999, 2000a; Miller 1979; SEARCH 2000a; Wharton 1988). R. Christopher Goodwin and Associates, Inc. conducted Phase I surveys along the Florida Gas Transmission Company corridor, plus access roads, and work spaces in the general vicinity of the I-75 corridor (Athens et al. 1994; Athens and Weisman 1994; Austin 2000b; SEARCH 2000b; Stokes 2002a, 2002b, 2002c). Since the mid-1970s, other surveys have been conducted incident to Developments of Regional Impact (DRIs) and various other developments. These include an 80-acre parcel (Miller 1974), Deltona (Grange et al. 1979), Brandon Town Center (Piper et al. 1982), Hidden River (Almy and Deming 1982), Sabal Center (Brooks and Ballo 1984), Temple Terrace 2 (Deming et al. 1984), Regency Park North (Deming 1985), the Florida Corporate Center (ACI 1998), LL Middle School (Ambrosino 2002), Joe Ebert Road (Ambrosino 2003), Williams Crossing (Austin and Mohlman 2003), Lakeview Village (Quinn 2004), Freedom Ridge (Austin and Mohlman 2005), Claymore Crossings (Janus Research 2005), Gray Pines (Austin 2005), Harvest Creek (Hughes 2006), and Sampson Grove (Carty 2006) project areas. In addition, several surveys have been conducted for cellular communication towers (Johnson 2001; Pracht 2001a, 2001b).

Given these known patterns of aboriginal settlement, it was anticipated that additional data on the previously recorded sites would be obtained and several areas were considered to have moderate potential for archaeological sites based on soils, elevation, and distance to water. Given the results of the historic research, as detailed in the Historical Overview, no historic period archaeological sites, including nineteenth century homesteads, forts, or Indian encampments were expected. However, three historic trails leading to Peace Creek/Alafia ford, Fort Mellon, and Fort King are crossed by the I-75 corridor (State of Florida 1843, 1852a, 1852b, 1852c). The potential for discovery of cultural materials associated with these historic trails was considered low.

Based upon the results of previous archaeological surveys in the vicinity, an understanding of known patterns of aboriginal settlement in the general region, as well as an examination of the (USDA) *Soil Survey Hillsborough County, Florida* (USDA 1952, 1989), as well as the USGS quadrangle maps (USGS 1956, 1974), each of the proposed SMF/FPC sites was evaluated for archaeological site potential. Each was reviewed and assigned to one of four site potential categories: low, low to moderate, moderate, and high potential areas.

<u>Historic Resources:</u> Background research, including records check at the Hillsborough County Property Appraisers website (Henriquez 2019) indicated that five previously recorded historic resources are located within and/or adjacent to the proposed SMF/FPC sites. In addition, there is the potential for five buildings that will need to be recorded (**Figures 2-4; Table 2**).

Tuble 11110	naeorogrear a	ind instone data.
SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
	Low-	Prehistoric Archaeological: no previously recorded sites within or adjacent to
	Moderate	APE; upland from freshwater
SMF-1A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; low and wet
SMF-1B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
SMF-1C	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
Sivir-IC	Moderate	APE; upland from freshwater

Table 2. Archaeological and historic data.

	SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
	SMF-2 &	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; within interchange, disturbed
	3A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		High	Prehistoric Archaeological: no previously recorded sites within APE; 8HI06893 adjacent; disturbed and in interchange
	SMF-4 & 5	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; area disturbed
	SMF-6A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
F		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; area disturbed
	SMF-6B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, along a roadway
	FPC 6R	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	SMF-7A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
	SMF-7B	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	(has 2	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	parts)	Low	Historical: no previously recorded resources within or adjacent to APE
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	SMF-7C	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low- Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE on uplands adjacent to freshwater
	FPC-7A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
	SMF-7/8	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	(has two	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	parts)	Low	Historical: no previously recorded resources within or adjacent to APE
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	SMF-8B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	1		

	SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in an interchange
	SMF-9	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands north of freshwater
	SMF-10A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Moderate	Historical: no previously recorded resources within APE; 8HI11335 adjacent to APE
		Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater
	SMF-10B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		High	Prehistoric Archaeological: no previously recorded sites within APE; adjacent to 8HI00520
	SMF-10C	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
SMF-114		Moderate	Prehistoric Archaeological: 8HI11479 within SMF site
	SMF-11A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Moderate	Historical: no previously recorded resources within APE; 8HI11335 adjacent to APE
		Moderate	Prehistoric Archaeological: 8HI11479 within SMF site
	SMF-11B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Moderate	Historical: no previously recorded resources within APE; 8HI11335 adjacent to APE
	SMF 12/	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	13A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
	SMF-12/	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater
	13B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Moderate	Prehistoric Archaeological: 8HI00519 within
	SMF-12/	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	13C	Moderate	Historical: one previously recorded building within APE: 8HI06900; and one unrecorded historic building adjacent to APE
	FPC-12/	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater
	13CL	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to
	FPC-12/ 13R	Moderate Low	APE; uplands from freshwater Historic Archaeological: no previously recorded sites within or adjacent to APE
	131	LUW	Instone Archaeological. no previously recorded sites within or aujacent to AFE

SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
SMF 14A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
SMF-14B	Moderate	APE; on uplands from freshwater
SMF-14B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE
FPC-14A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low -	
SMF-15/	Moderate	Prehistoric Archaeological: 8HI00476 within and within interchange
16	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
SMF-17A	Moderate	APE; on uplands from freshwater
SMIT-1/A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
	Moderate	APE; on uplands from freshwater
SMF-17B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Moderate	Historical: no previously recorded resources within APE; 8HI08743 adjacent to APE
	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
SMF-18A	Moderate	APE; on uplands from freshwater
Sin for	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
SMF-18B	Moderate	APE; on uplands from freshwater
SIMI TOD	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low -	Prehistoric Archaeological: no previously recorded sites within or adjacent to
FPC-17/ 18	Moderate	APE; on uplands from freshwater
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	High	Prehistoric Archaeological: pond site located in 8HI00514
SMF-19A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	High	Prehistoric Archaeological: pond site located in 8HI00514
SMF-19B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
SME 10C	Moderate	Prehistoric Archaeological: no previously recorded sites within; 8HI00514 adjacent to APE
SMF-19C	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
SMF-19D	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE

	SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	FPC-19A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		High	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	FPC-19B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Moderate	Prehistoric Archaeological: no previously recorded sites within APE; 8HI00511 adjacent to APE
	SMF-20A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		High	Prehistoric Archaeological: 8HI00510 partially within APE
	SME 20D	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	SMF-20B	Moderate	Historical: no previously recorded resources adjacent to APE; 8HI06885 within APE
	FPC-20	Low	Prehistoric Archaeological: no previously recorded sites within APE; 8HI00510 adjacent to APE
	110-20	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		High	Prehistoric Archaeological: 8HI00510 partially within APE
	SMF-21A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
	CME 21D	Low - Moderate	Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed
	SMF-21B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		High	Prehistoric Archaeological: 8HI00510 partially within APE
	FPC-21A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low Low -	Historical: no previously recorded resources within or adjacent to APE
		Moderate	Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed
	FPC-21B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
	SMF-22A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE
		Low- Moderate	Prehistoric Archaeological: no previously recorded sites within APE; 8HI00507 adjacent to APE
	SMF-22/23	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Moderate	Historical: no previously recorded resources within or adjacent to APE; one unrecorded historic building within APE
		Moderate	Prehistoric Archaeological: 8HI00507 partially within APE
	SMF-23A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
		Low	Historical: no previously recorded resources within or adjacent to APE

SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
	Moderate	Prehistoric Archaeological: 8HI00507 partially within APE
SMF-23B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	High	Prehistoric Archaeological: Pond within 8HI05926
SMF-24A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
SMF-24B	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed
5MIT-24D	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater
SMF-25A	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Moderate	Historical: no previously recorded resources within or adjacent to APE; two unrecorded historic buildings within APE and one adjacent
SMF-25B	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater
SMF-25B	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
SMF-25B	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater
-2	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
	Low	Historical: no previously recorded resources within or adjacent to APE
	Moderate	Prehistoric Archaeological: no previously recorded sites within APE; 8HI00475 adjacent to APE
SMF-25C -1	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
-1	Moderate	Historical: no previously recorded resources adjacent to APE; 8HI11692 within APE

* Zone of Archaeological Potential; green shading represents archaeological sites within APE; blue shading represents archaeological sites adjacent to the APE; yellow shading represents historic resources

3.0 CONCLUSIONS AND RECOMMENDATIONS

In conclusion, no proposed SMF/FPC site should be avoided due to cultural resource issues. Following the selection of preferred SMF/FPC sites, systematic archaeological field survey is recommended in accordance with the guidelines and standards as per the Florida Department of Transportation (FDOT) and Florida Division of Historical Resources (FDHR). The selected SMF/FPC sites considered to have a low potential also should be surveyed and judgmentally tested. In addition, based on this data, a historical/architectural field survey is also recommended.

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CULTURAL RESOURCE ASSESSMENT SURVEY TECHNICAL MEMORANDUM STORMWATER MANAGEMENT FACILITIES (SMF) & FLOODPLAIN COMPENSATION (FPC) SITES

I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD

HILLSBOROUGH COUNTY, FLORIDA

Financial Project ID No.: 419235-3-22-01

Prepared for:

Florida Department of Transportation District Seven 11201 North McKinley Drive Tampa, Florida 33612-6456

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding December 14, 2016 and executed by FHWA and FDOT.

December 2019

CULTURAL RESOURCE ASSESSMENT SURVEY TECHNICAL MEMORANDUM STORMWATER MANAGEMENT FACILITIES (SMF) & FLOODPLAIN COMPENSATION (FPC) SITES

I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD

HILLSBOROUGH COUNTY, FLORIDA

Financial Project ID No.: 419235-3-22-01

Prepared for:

Florida Department of Transportation District Seven 11201 North McKinley Drive Tampa, Florida 33612-6456

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TABLE OF CONTENTS

1.	INTRODUCTION1
2.	PROJECT DESCRIPTION
3.	ENVIRONMENTAL SETTING
4.	HISTORIC AND PREHISTORIC OVERVIEWS
5.	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND AND CONSIDERATIONS
6.	SURVEY METHODS
7.	SURVEY RESULTS
8.	CONCLUSIONS
9.	BIBLIOGRAPHY

APPENDIX A: FMSF Forms

APPENDIX B: Survey Log

LIST OF FIGURES

Figure 1.	Location of the APE.	2
Figure 2.	Environmental Setting and previously recorded cultural resources in close proximity to the APE.	5
Figure 3.	Environmental Setting and previously recorded cultural resources in close proximity to the APE.	6
Figure 4.	Environmental Setting and previously recorded cultural resources in close proximity to the APE	7
Figure 5.	Approximate location of shovel tests within the APE.	
Figure 6.	Approximate location of shovel tests within the APE.	
Figure 7.	Approximate location of shovel tests within the APE.	
Figure 8.	Approximate location of shovel tests within the APE.	22
Figure 9.	Approximate location of shovel tests within the APE.	23
Figure 10.	Approximate location of shovel tests within the APE.	24
Figure 11.	Approximate location of shovel tests within the APE.	25
Figure 12.	Approximate location of shovel tests within the APE.	26
Figure 13.	Approximate location of shovel tests within the APE.	27
Figure 14.	Approximate location of shovel tests within the APE.	28

LIST OF TABLES

Table 1.	Sections, Townships, Ranges	4
Table 2.	Previously recorded archaeological sites within and adjacent to the proposed SMF/FPC sites.	
Table 3.	Previously recorded historic resources within or immediately adjacent to the proposed pond sites	13
Table 4.	Archaeological field survey results	

LIST OF PHOTOS

Photo 1.	North, northeast view of SMF 19B	8	
Photo 2.	Looking northeast at SMF 19D		
Photo 3.	Southeast view of SMF 24B.		
Photo 4.	Ditch in north end of SMF 22/23.	9	
Photo 5.	Pasture in SMF 17A	9	
Photo 6.	North view of SMF 15/16.	9	
Photo 7.	Looking southwest at FPC 12/13R.		
Photo 8.	North view of SMF 11A.	10	
Photo 9.	Northeast view of SMF 10C.		
Photo 10.	South view of SMF 9.		
Photo 11.	Looking north at 8HI00511.		
	Looking northeast a site 8HI00514		
Photo 13.	Looking south at 8HI00519.	30	
Photo 14.	Looking north at site 8HI06898.		
Photo 15.	Looking southeast at site in portion of SMF 17A		
Photo 16.	Looking north at portion of site in SMF 18A.		

CULTURAL RESOURCE ASSESSMENT SURVEY TECHNICAL MEMORANDUM STORMWATER MANAGEMENT FACILITIES (SMF) & FLOODPLAIN COMPENSATION (FPC) SITES I-75 (SR 93A) FROM SOUTH OF US 301 TO NORTH OF BRUCE B. DOWNS BOULEVARD HILLSBOROUGH COUNTY, FLORIDA Financial Project ID No.: 419235-3-22-01

1. INTRODUCTION

Archaeological Consultants, Inc. (ACI) conducted a Cultural Resources Assessment Survey (CRAS) of 22 Stormwater Management Facility (SMF) sites (two of the SMF sites have multiple parts) and 10 Floodplain Compensation (FPC) sites (hereinafter referred to as pond sites) associated with the Florida Department of Transportation's (FDOT) proposed improvements to I-75 from south of US 301 to north of Bruce B. Downs Boulevard, in Hillsborough County (**Figure 1**). The purpose of this survey was to locate and identify any cultural resources within the project Area of Potential Effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP), as well as assess the potential of adverse impacts to resources from the proposed project activities. As defined in 36 CFR Part § 800.16(d), the APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." The archaeological APE is defined as the area contained within the footprint of the proposed undertaking and the historical APE includes the archaeological APE and immediately adjacent properties as contained within 150 feet.

This CRAS was initiated to comply with Section 106 of the National Historic Preservation Act of 1966, as amended by Public Law 89-665; the Archaeological and Historic Preservation Act, as amended by Public Law 93-291; Executive Order 11593; and Chapter 267, Florida Statutes (FS). All work was carried out in conformity with Part 2, Chapter 8 ("Archaeological and Historical Resources") of the FDOT's Project Development and Environment (PD&E) Manual (FDOT 2019), and the Florida Division of Historical Resources' (FDHR) standards contained in the Cultural Resource Management Standards and Operational Manual (FDHR 2003), as well as with the provisions contained in the Chapter 1A-46, Florida Administrative Code (FAC). Principal Investigators meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

The background research, which included a review of the previous I-75 CRAS and memos, the Florida Master Site File (FMSF), and the NRHP indicated that there are 17 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites. Of the 17 previously recorded archaeological sites, 7 sites are wholly or partially within 10 of the SMF/FPC sites and the remaining sites are adjacent. Most of the SMF/FPC sites have a low archaeological potential; however, several have either a low to moderate, moderate, or high potential for the discovery of additional archaeological sites or for evidence of previously recorded sites. In addition, once fieldwork began, the archaeological potential for several of the pond sites was downgraded because of current field conditions. As a result of the field survey, additional evidence of four of the previously recorded sites was found (8HI00511 [SMF 20A], 8HI00514 [SMF 19A], 8HI00519 [SMF 12/13C], 8HI06898 [SMF 4/5]) and one new site was recorded, 8HI14873 (SMF 17A and 18A). Three of the previously recorded sites were determined not eligible for listing in the NRHP by the State Historic Preservation Officer

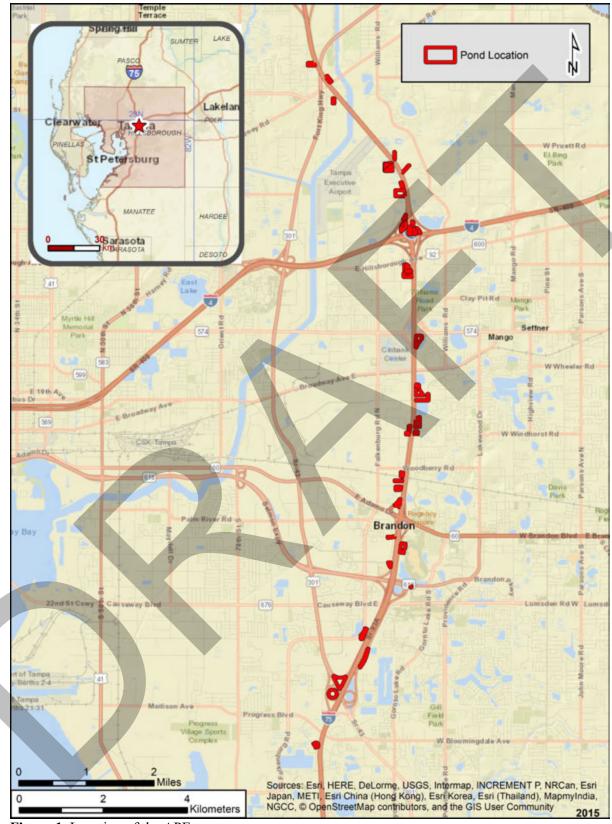


Figure 1. Location of the APE.

(SHPO) and one had not been evaluated. However, none of the previously recorded sites or newly recorded sites is considered eligible for listing in the NRHP. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, they have low research potential and are similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO. In addition, ACI concurs with the previous evaluations of the ineligibility for listing in the NRHP for the three sites.

Historic/architectural background research included a review of the previous I-75 CRAS and memos, the FMSF, and the NRHP. The research indicated eight historic resources (8HI11335; 8HI6900; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites. These include one linear resource, the Seaboard Railway (8HI11335), one Frame Vernacular style building (8HI06900), and six Masonry Vernacular style buildings (8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) constructed between circa (ca.) 1939 and 1965. Of these, two buildings (8HI06900 & 8HI11470) were evaluated as ineligible for listing in the NRHP by the SHPO; and the Seaboard Railway (8HI11335) was evaluated by the SHPO as having insufficient information to make a determination. Prior to completing the pond site memo, a Historic Resources Survey Update (HRSU) was completed for the I-75 corridor from south of US 301 (SR 43) to north of Bruce B Downs Boulevard (ACI 2019b) which discuss the historic resources. Based on the results of the HRSU, five Masonry Vernacular style buildings (8HI14689, 8HI14694-8HI14696; and 8HI14872) were identified within the historic APE. The SHPO has not evaluated these resources; however, the buildings are common examples of their respective architectural styles without significant historical associations, and therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU. A review of relevant quadrangle maps, historic aerial photographs, and Hillsborough County property appraiser's website data revealed the potential for no additional historic resources 50 years of age or older (constructed in 1969 or earlier) within the APE (Henriquez 2019).

Based on the results of the background research and field investigations, the proposed undertaking will have no effect to any cultural resources listed, eligible, or that appear to be eligible for listing in the NRHP.

2. **PROJECT DESCRIPTION**

The FDOT District Seven, is proposing roadway improvements to a 17.2-mile segment of I-75 (SR 93A) from south of US 301 (SR 43) to north of Bruce B Downs Boulevard in Hillsborough County, Florida. The proposed ultimate improvements consist of adding three special use lanes (SULs) to the existing general use lanes (GULs) in each direction of the I-75 mainline, because it would provide mobility options and preserve acceptable levels of service for the regional travelers. For the ultimate typical section, the proposed widening of I-75 would mainly occur to the inside within the existing median. A 9-foot widening would also be typically required to the outside on both sides of I-75. The proposed typical section would provide for a minimum 22-foot median that would include 10-foot paved shoulders and barrier walls on both sides. A 6-foot buffer consisting of paint and/or plastic pylons would separate the SULs from the GULs. The design year for the improvements is 2035. This project also includes SMF and FPC sites.

3. **ENVIRONMENTAL SETTING**

The APE is located in various Sections, Townships, and Ranges (Table 1; Figures 2-4) and is located within the Central or Mid-peninsula physiographic zone (White 1970). The topography is gently rolling with a series of low hills and valleys paralleling the coast. The corridor ranges in elevation from 15 to 75 feet (ft) above mean sea level (amsl) and transects three physiographic provinces. The northern and southern ends of the corridor are contained within the Gulf Coastal Lowlands. These are characterized by surficial streams with little to no down cutting. Low sand ridges, formed by ocean waters during the Pleistocene, form slight, rolling hills within the zone. The lack of elevation in the Gulf Coastal Lowlands creates the near surficial to exposed water table throughout the region. This high water table results in the poor natural drainage and abundance of wetlands in the region (Davis 1943; McNab and Avers 1996). Roughly six miles of the corridor are situated within the Polk Uplands, which were formed by the uplifting of Miocene limestones and subsequently shaped by Pleistocene seas that occupied lowland. About two miles of the corridor passes through the Zephyrhills Gap. This break in the Western Valley wall allows for the egress of the Hillsborough River to the Gulf.

Sections	Townships	Ranges					
Hillsborough County							
06,07	30 S	20 E					
05,08,17,20,29,31	29 S	20 E					
19,29,32	28 S	20 E					

Table 1.	Sections,	Tow	nships	, Ranges	

The I-75 PD&E Study corridor transects the Candler-Lake, Myakka-Basinger-Holopaw and Winder-Chobee-St. Johns soil associations (USDA 1989). The Candler-Lake association is characterized by nearly level to strongly sloping, excessively drained soils that are sandy throughout. These are associated with the uplands and low ridges. The Myakka-Basinger-Holopaw association consists of nearly level, poorly and very poorly drained soils of the flatwoods. The Winder-Chobee-St. Johns association consists of nearly level, poorly and very poorly drained soils that have a loamy or a sandy subsoil. These are located in wetland and coastal areas. A more detailed description of the soils can be found in ACI's 2008 PD&E Study on file at the FDHR, Survey No. 17897.

Today, much of the natural vegetation has been removed and the APE has been disturbed as the result of many land altering activities, which include but are not limited to, road construction, above ground and subsurface utilities, commercial/residential/recreational/agricultural development, water retention ponds, ditches, and spoil piles (Photos 1-10).

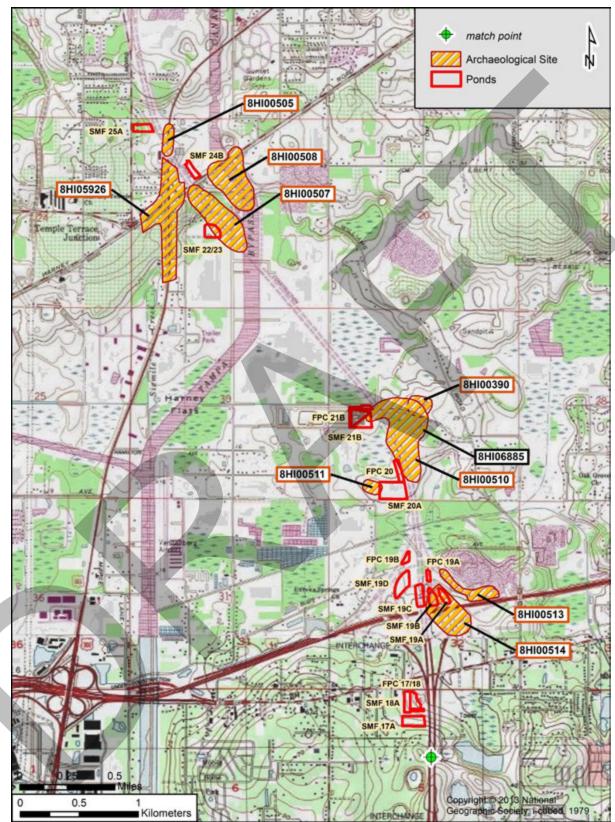


Figure 2. Environmental Setting and previously recorded cultural resources in close proximity to the APE.

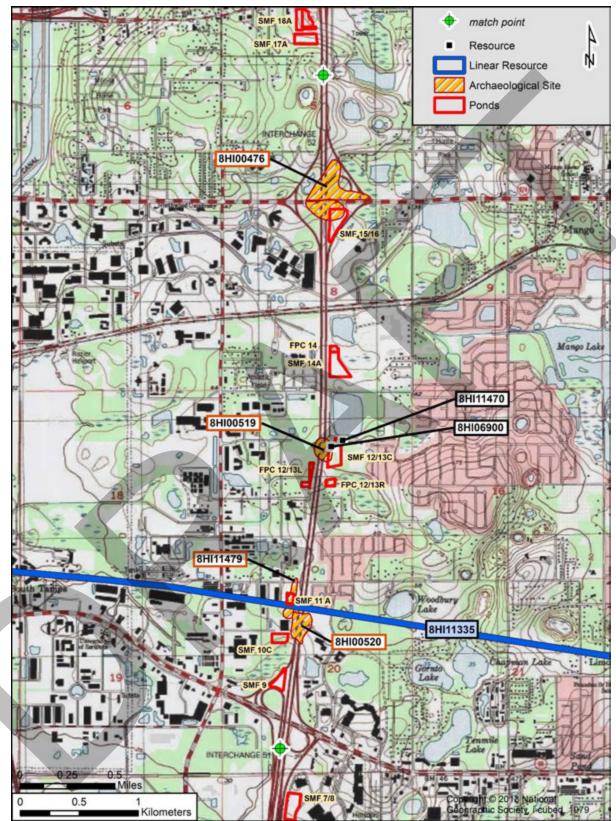


Figure 3. Environmental Setting and previously recorded cultural resources in close proximity to the APE.

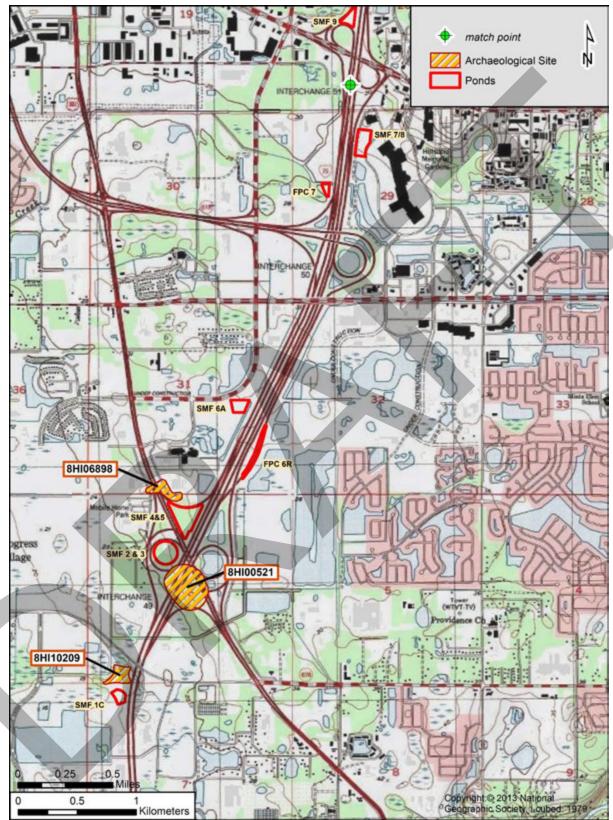


Figure 4. Environmental Setting and previously recorded cultural resources in close proximity to the APE.



Photo 1. North, northeast view of SMF 19B.



Photo 2. Looking northeast at SMF 19D.



Photo 3. Southeast view of SMF 24B.



Photo 4. Ditch in north end of SMF 22/23.



Photo 5. Pasture in SMF 17A.



Photo 6. North view of SMF 15/16.



Photo 7. Looking southwest at FPC 12/13R.



Photo 8. North view of SMF 11A.



Photo 9. Northeast view of SMF 10C.



Photo 10. South view of SMF 9.

4. HISTORIC AND PREHISTORIC OVERVIEWS

In-depth historic and prehistoric overviews were included in the PD&E CRAS document submitted to and approved by the State Historic Preservation Office (SHPO) (Kammerer 2010) and are not repeated here because they are already in the DHR database (DHR Project File No. 2009-7642). Specifically, this report is: *A Cultural Resource Assessment Survey Project Development and Environment Study from South of US 301 to North of Fletcher Avenue Hillsborough County* (ACI 2009b; FDHR Survey No. 17897).

5. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND AND CONSIDERATIONS

Prior to initiating the archaeological and historical survey of the preferred pond sites, ACI reviewed the CRAS and the Preliminary Technical Memorandum for Proposed Stormwater Management Facilities from south of US 301 (ACI 2009b, 2019a, 2019b) to north of Fletcher Avenue. This research revealed that there are 17 previously recorded archaeological sites within and/or adjacent to the proposed SMF/FPC sites. Of the 17 previously recorded archaeological sites, 7 sites are wholly or partially within 10 of the SMF/FPC sites and the remaining sites are adjacent (Table 2; Figures 2-4). Four of the sites identified in the APE are considered potential eligible for listing in the NRHP. Several of these sites are among those originally recorded by B. Calvin Jones in 1978 during Phase I archaeological survey of the proposed I-75 ROW. In addition, three were the focus of Phase II evaluative site testing (8HI00476, 8HI00507, 8HI00510) and two of these were also subjected to Phase III mitigative salvage excavation as part of the original I-75 study (8HI00476, 8HI00507). Today, roughly 40 years later, most of these sites, as located within the I-75 project APE, have lost their contextual integrity due to road construction and improvements, the placement of utility lines, and other developments. Thus, they no longer meet the criteria of eligibility for listing in the NRHP, at least in part, even though the FMSF lists them as "potentially eligible."

Site #	Site Name	Site Type	Culture	SHPO Eval*
8HI00390	Bartolotti	Lithic scatter/quarry	Aboriginal lacking pottery	No
8HI00475	301 Crossing	Artifact scatter, lithic scatter/quarry	Archaic	NE
8HI00476	Diamond Dairy: A	Habitation	Middle Archaic	PE
8HI00505	Fruit Stand	Lithic scatter/quarry	Archaic	NE
8HI00507	Harney Flats	Artifact scatter	Paleo-Indian, Early and Middle Archaic, post-Archaic	PE
8HI00508	Black Chert	Artifact scatter	Paleo-Indian, Early and Middle Archaic, post-Archaic	No
8HI00510	Bartolotti	Lithic scatter/quarry	Paleo-Indian, Early and Middle Archaic, post-Archaic	РЕ
8HI00511	Bartolotti SW	Lithic scatter/quarry	Archaic	No
8HI00513	Red Hill	Lithic scatter/quarry	Archaic	NE
8HI00514	Road End	Lithic scatter/quarry, artifact scatter	Archaic	NE
8HI00519	Graves Road	Historic refuse / Dump, lithic scatter/quarry	Archaic, 20th century	NE
8HI00520	South Railroad	Lithic scatter/quarry	Aboriginal	No
8HI00521	Titus Church	Lithic scatter/quarry	Archaic	No
8HI05926	Vera's Thrift Shop	Artifact scatter	Early Archaic	NE
8HI10209	Progress	Campsite	Aboriginal	NE
8HI11479	Regency NW	Lithic Scatter	Aboriginal	PE
8HI06898	Bayside #12	Ceramic scatter, lithic scatter/quarry	Post-Archaic	NE

Table 2. Previously recorded archaeological sites within and adjacent to the proposed SMF/FPC sites.

* PE=Potentially Eligible for NRHP, NE= Not Eligible for NRHP, No= Not Evaluated by SHPO.

In addition to the 1978 survey of I-75, over 50 CRASs have been conducted within one-quarter mile of the 1-75 PD&E Study corridor. These include 1970s surveys of recreation areas within the Lower Hillsborough River Flood Detention Area (Daniel et al. 1979), the Tampa Bypass Canal (Seabury et al. 1975), and the Lake Thonotosassa By-Pass Canal (Deming 1976). Transportation project-related survey, conducted between the 1970s and recently, include the Vandenberg Airport expansion (Janus Research 1996a), the Crosstown Expressway (HDR Engineering 1991; Janus Research 1998, 2000), I-4 (Janus Research 1992b), US 92/SR 660 (ACI 1993), US 301 (Deming 1997; Janus Research 1996b, 1999), I-75 (ACI 2003, 2006), SR 60 (Adamo Drive) (ACI 2004), and the Florida High Speed Rail (ACI/Janus 2003). Several other surveys were conducted for water and sewage conveyance (Austin 1999, 2000a; Miller 1979; SEARCH 2000a; Wharton 1988). R. Christopher Goodwin and Associates, Inc. conducted Phase I surveys along the Florida Gas Transmission Company corridor, plus access roads, and work spaces in the general vicinity of the I-75 corridor (Athens et al. 1994; Athens and Weisman 1994; Austin 2000b; SEARCH 2000b; Stokes 2002a, 2002b, 2002c). Since the mid-1970s, other surveys have been conducted incident to Developments of Regional Impact (DRIs) and various other developments. These include an 80-acre parcel (Miller 1974), Deltona (Grange et al. 1979), Brandon Town Center (Piper et al. 1982), Hidden River (Almy and Deming 1982), Sabal Center (Brooks and Ballo 1984), Temple Terrace 2 (Deming et al. 1984), Regency Park North (Deming 1985), the Florida Corporate Center (ACI 1998), LL Middle School (Ambrosino 2002), Joe Ebert Road (Ambrosino 2003), Williams Crossing (Austin and Mohlman 2003), Lakeview Village (Quinn 2004), Freedom Ridge (Austin and Mohlman 2005), Claymore Crossings (Janus Research 2005), Gray Pines (Austin 2005), Harvest Creek (Hughes 2006), and Sampson Grove (Carty 2006)

project areas. In addition, several surveys have been conducted for cellular communication towers (Johnson 2001; Pracht 2001a, 2001b).

The background research also entailed research of the computerized database at the FMSF and NRHP listings (conducted in August 2019), examination of the (USDA) *Soil Survey Hillsborough County, Florida* (USDA 1952, 1989), as well as the USGS quadrangle maps (USGS 1956, 1974), and the standard archaeological predictive model for the Central Peninsular Gulf Coast and Caloosahatchee archaeological regions (Milanich and Fairbanks 1980; Milanich 1994).

Historic/architectural background research included a review of the previous I-75 CRAS and memos, the FMSF, and the NRHP. The research indicated eight historic resources (8HI11335; 8HI6900; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites (Table 3; Figures 2-4). These include one linear resource, the Seaboard Railway (8HI11335), one Frame Vernacular style building (8HI6900), and six Masonry Vernacular style buildings (8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) constructed between circa (ca.) 1939 and 1965. Of these, two buildings (8HI6900 & 8HI11470) were evaluated as ineligible for listing in the NRHP by the SHPO; and the Seaboard Railway (8HI11335) was evaluated by the SHPO as having insufficient information to make a determination. Prior to completing the pond site memo, a HRSU was completed for the I-75 corridor from south of US 301 (SR 43) to north of Bruce B Downs Boulevard (ACI 2019). Based on the results of the HRSU, five Masonry Vernacular style buildings (8HI14689, 8HI14694-8HI14696; and 8HI14872) were identified within the historic APE. The SHPO has not evaluated these resources; however, the buildings are common examples of their respective architectural styles without significant historical associations, and therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU.

	FMSF No.	Address/Site Name	Build Date	Style/Type	NRHP Evaluation Recommendation	Proposed Pond Site
	8HI11335	Seaboard Railway	N/A	Linear Resource	Insufficient Information	Adjacent SMF 11A
	8HI14689*	2408 Graves Rd	1961	Masonry Vernacular	Ineligible	Adjacent SMF 12/13C
	8HI06900	2408 Grave Rd	1939	Frame Vernacular	Ineligible	Within SMF 12/13C
	8HI11470	2306 Graves Rd	1951	Masonry Vernacular	Ineligible	Adjacent SMF 12/13C
	8HI14872*	8913 Bowles Rd	1963	Masonry Vernacular	Ineligible	Within SMF 22/23
	8HI14694*	9919 Morris Bridge Rd	1965	Masonry Vernacular	Ineligible	Within SMF 25A
	8HI14695*	9921 Morris Bridge Rd	1961	Masonry Vernacular	Ineligible	Within SMF 25A
	8HI14696*	9923 Morris Bridge Rd	1960	Masonry Vernacular	Ineligible	Adjacent SMF 25A

Table 3. Previously recorded historic resources within or immediately adjacent to the proposed pond sites.

*Denotes recorded resource during the I-75 Historic Resources Update (ACI 2019). Red shading denotes resource is no longer extant.

A review of relevant quadrangle maps, historic aerial photographs, and Hillsborough County property appraiser's website data revealed the potential for no additional historic resources 50 years of age or older (constructed in 1969 or earlier) within the APE (Henriquez 2019).

6. SURVEY METHODS

The FDHR's Module Three, Guidelines for Use by Historic Professionals, indicates that the first stage of archaeological field survey is a reconnaissance of the project area to "ground truth," or ascertain the validity of the predictive model (FDHR 2003). During this part of the survey, the researcher assesses whether the initial predictive model needs adjustment based on disturbance or conditions such as constructed features (i.e., parking lots, buildings, etc.), underground utilities, landscape alterations (i.e., ditches and swales, mined land, dredged and filled land, agricultural fields), or other constraints that may affect the archaeological potential. Additionally, these Guidelines indicate that non-systematic "judgmental" testing may be appropriate in urbanized environments where pavement, utilities, and constructed features make systematic testing unfeasible; in geographically restricted areas such as proposed pond sites; or within project areas that have limited high and moderate probability zones, but where a larger subsurface testing sample may be desired. While predictive models are useful in determining preliminary testing strategies in a broad context, it is understood that testing intervals may be altered due to conditions encountered by the field crew at the time of survey.

Based upon the results of background research, all pond sites were assigned to low to moderate, moderate to high, or high zone of historic and prehistoric archaeological potential (ZAP) for site discovery (**Table 4**) during the preliminary pond review (ACI 2019). However, several of these were downgraded once the crew was in the field and could assess the actual field conditions. The potential for historic period archaeological sites was assessed on the basis of documentary research. Prehistoric sites, if found, were expected to be small, low artifact density lithic and/or artifact (ceramics and lithics) scatters. Based upon an examination of the nineteenth century federal surveyor's plat and field notes, no homesteads, forts, battle sites, military trails, or Native American (Seminole) encampments were expected.

Archaeological field survey included both ground surface reconnaissance and the systematic excavation of shovel test pits. Subsurface testing was conducted systematically at 25, 50, and 100 meter (m) intervals and judgmentally. Positive shovel tests were bounded at 10 m intervals. All shovel tests measured 1.6 ft in diameter, and most were dug to 3.3 ft in depth unless impeded by water, gravel, or other impenetrable substrata. All recovered soil was screened through a .25 inch (in) mesh hardware cloth to maximize the recovery of cultural materials, and, after soil stratigraphy was recorded, each test pit was refilled. The location of each shovel test was plotted on a GPS Juno 5 Series.

Historic/architectural field methodology consisted of a field survey of the APE to determine and verify the location of all buildings and other historic resources (i.e. bridges, roads, cemeteries) that are 50 years of age or older (built in or prior to 1969), and to establish if any such resources could be determined eligible for listing in the NRHP. The field survey focused on the assessment of existing conditions for all previously recorded historic resources located within the APE, and the presence of unrecorded historic resources within the project area. For each property, photographs were taken, and information needed for the completion of FMSF forms was gathered. In addition to architectural descriptions, each historic resource was reviewed to assess style, historic context, condition, and potential NRHP eligibility. Also, informant interviews would have been conducted, if possible, with knowledgeable persons to obtain site-specific building construction dates and/or possible associations with individuals or events significant to local or regional history. Laboratory Procedures and Curation: All recovered cultural materials were initially cleaned and sorted by artifact class. Lithics were divided into tools and debitage based on gross morphology. Tools, if found would have been measured, and the edges examined with a 7-45x stereo-zoom microscope for traces of edge damage and classified using standard references (Bullen 1975; Purdy 1981). Lithic debitage was subjected to a limited technological analysis focused on ascertaining the stages of stone tool production. Flakes and non-flake production debris (i.e. cores, blanks, tested cobbles) were measured, and examined for raw material types and absence or presence of thermal alteration. Flakes were classified into four types (primary decortication, secondary decortication, nondecortication, and shatter) based on the amount of cortex on the dorsal surface and the shape (White 1963). Aboriginal ceramics, if found, would have been classified based on the characteristics of temper type and decoration, utilizing standard references (Cordell 1987, 2004; Goggin 1948; Luer and Almy 1980; Willey 1949). In addition, standard references would have been used to aide in the identification of historic period artifacts to ascertain site function and temporal placement. Faunal material would have been initially sorted into class (mammal, reptile, bony fish, etc.); within these broad categories, identifiable elements would have been classified as to genus and species, where possible.

All project related information will be housed at Archaeological Consultants, Inc., in Sarasota (Project file #P19150.2), pending transfer to a FDOT-designated repository for permanent storage and curation.

Inadvertent/Unexpected Discoveries Occasionally, archaeological deposits, subsurface features or unmarked human remains are encountered during the course of development, even though the project area may have previously received a thorough and professionally adequate cultural resources assessment. Such events are rare, but they do occur. In the event that human remains are encountered during the course of development, the procedures outlined in Chapter 872, *FS* must be followed. However, it was not anticipated that such sites would be found during this survey.

In the event such discoveries are made during the development process, all activities in the immediate vicinity of the discovery will be suspended, and a professional archaeologist will be contacted to evaluate the importance of the discovery. The area will be examined by the archaeologist, who, in consultation with staff of the Florida SHPO, will determine if the discovery is significant or potentially significant. In the event the discovery is found to be not significant, the work may immediately resume. If, on the other hand, the discovery is found to be significant or potentially significant, then development activities in the immediate vicinity of the discovery will continue to be suspended until such time as a mitigation plan, acceptable to SHPO, is developed and implemented. Development activities may then resume within the discovery area, but only when conducted in accordance with the guidelines and conditions of the approved mitigation plan.

7. SURVEY RESULTS

Archaeological: Field survey resulted in the excavation of 193 shovel tests placed within 28 of the 32 pond sites; these were placed systematically and judgmentally. One of the ponds not tested was due to it being an active construction site (FPC 19B) and the other three not tested was due to no access (electric fences, locked gates, concrete barrier) (SMF 12/13R, SMF 21B, FPC 21B). The distribution of the shovel test pits is noted in **Table 4** and **Figures 5-14**. As a result of the field survey, additional evidence of four of the previously recorded sites was found (8HI00511 [SMF 20A], 8HI00514 [SMF 19A], 8HI00519 [SMF 12/13C], 8HI06898 [SMF 4/5]) and one new site was recorded, 8HI14873 (SMF 17A and 18A). FMSF forms for these sites are in **Appendix A** and brief descriptions are provided. In addition, no evidence of previously recorded sites 8HI00476 (SMF15/16), 8HI00507

(SMF 22/23), 8HI00510 (SMF 21B, FPC 20, FPC 21B), or 8HI11479 (SMF 11A), was found. Thus, since no evidence was found, the FMSF forms for these four resources was not updated.

All shovel tests had variable stratigraphy and most evidenced disturbance. Soils in the ponds that had a more upland environment had an average stratigraphy of 0-20 cm of grey or dark grey sand, 20-70 cm of light brown or tan sand, and 70-100 cm of dark brown sand or hard pan, with water sometimes encountered as shallow as 50 cm. The upper soil in many of the shovel tests evidenced disturbance. Some of the ponds on the lower lying elevations contained standing water. A reasonable and good faith effort was made per the regulations laid out in 36 CFR § 800.4(b)(1) (Advisory Council on Historic Preservation n.d.) to survey all areas of the project APE.

SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)				
SMF-1C	Low	Prehistoric Archaeological: no previously recorded sites within; 8HI10209 to the north; upland from freshwater; gated community with residences; 3 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-2/3	Low	Prehistoric Archaeological: no previously recorded sites within; 8HI00521 to the southeast; within interchange, disturbed, contains a lot of refuse; 5 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-4/5	High	Prehistoric Archaeological: no previously recorded sites within APE; 8HI06893 adjacent; disturbed and in interchange; 23 shovel tests, 11 positive				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-6A	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; area disturbed by relict agriculture; 5 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
FPC 6R	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, along a roadway; 4 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
FPC-7	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE on uplands adjacent to freshwater; disturbed (has ditching and invasive weeds); 5 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-7/8	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, used as parking for Town Center; 6 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-9	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in an interchange; 3 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-10C	Moderate	Prehistoric Archaeological: no previously recorded sites within APE; adjacent to 8HI00520; disturbed, contained standing water; 8 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-11A	Moderate	Prehistoric Archaeological: 8HI11479 within SMF site; disturbed, 4 shovel tests, all negative				
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
SMF-12/	Moderate	Prehistoric Archaeological: 8HI00519 within; disturbed by residence, 20 shovel tests, 2 positive				
13C	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				

 Table 4. Archaeological field survey results.

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	SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)				
	FPC- 12/13L	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater; disturbed (parking lot, retention pond, private drive, residence), 4 shovel tests, all negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	FPC- 12/13R	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; uplands from freshwater; disturbed, no access (electric fences, locked gates, construction trench); 0 shovel tests				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF 14A Prehistoric Archaeological: no previously recorded sites within or ad disturbed; 4 shovel tests, all negative Low Historic Archaeological: no previously recorded sites within or adias						
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	FPC-14	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, 2 shovel tests, negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-15/ 16	Low - Moderate	Prehistoric Archaeological: 8HI00476 within and within interchange; disturbed and contains refuse and homeless camps; 7 shovel tests, all negative				
	10	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-17A	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater; disturbed by pasture and ranching activities; 16 shovel tests, 3 positive; new site 8HI14873				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-18A	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater; disturbed by pasture and ranching activities; 9 shovel tests, 2 positive; new site 8HI14873				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	FPC-17/ 18	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; on uplands from freshwater; 7 shovel tests, all negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-19A	Low	Prehistoric Archaeological: pond site located in 8HI00514 but within interchange, disturbed; 6 shovel tests, 2 positive				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-19B	High	Prehistoric Archaeological: pond site located in 8HI00514; disturbed within interchange; 8 shovel tests, all negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-19C	Low	Prehistoric Archaeological: no previously recorded sites within; 8HI00514 adjacent to APE; disturbed within interstate, 4 shovel tests, all negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-19D	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed within interchange, 2 shovel tests, both negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	FPC-19A	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in interchange; 2 shovel tests, both negative				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	FPC-19B	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed, in interchange and part of an active construction site; 0 shovel tests				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	SMF-20A	Moderate	Prehistoric Archaeological: no previously recorded sites within APE; 8HI00511 adjacent to APE; 24 shovel tests, 7 positive				
		Low	Historic Archaeological: no previously recorded sites within or adjacent to APE				
	FPC-20	Low	Prehistoric Archaeological: no previously recorded sites within APE; 8HI00510 adjacent to APE; disturbed, 2 shovel tests, both negative				

SMF/ FPC	ZAP*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
SMF-21B	Low	Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed; property no accessible (locked gate, concrete wall lined ramp adj. to interstate); 0 shovel tests
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
FPC-21B	Low	Prehistoric Archaeological: 8HI00510 partially within APE but it is disturbed; property no accessible (locked gate, concrete wall lined ramp adj. to interstate); 0 shovel tests
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
SMF-22/23	Low	Prehistoric Archaeological: 8HI00507 partially within APE but it is disturbed by residence, farming activities, ditching; 4 shovel tests, all negative
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
SMF-24B	Low	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; disturbed by dredging, low and wet in some areas, fill in other areas; 2 shovel tests, both negative
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE
SMF-25A	Low - Moderate	Prehistoric Archaeological: no previously recorded sites within or adjacent to APE; upland from freshwater; disturbed by residences, 4 shovel tests, all negative
	Low	Historic Archaeological: no previously recorded sites within or adjacent to APE

* Zone of Archaeological Potential; green shading represents archaeological sites within APE; blue shading represents archaeological sites adjacent to the APE

8HI00511: The **Bartolotti SW Site** is located in the northeast quarter of Section 29, Township 28 South, Range 20 East in SMF 20A (**Figure 13, Photo 11; Appendix A**). The site was originally reported by an informant and then recorded by Calvin B. Jones during the I-75 survey in 1978 (FMSF). It has not been evaluated by the SHPO. The site is situated on Bradenton fine sand, 0-2% slopes, which is a moderately well drained soil of low ridges in the flatwoods. The site is at an approximate elevation of 25-30 feet. The general stratigraphy consists of 0-20 cmbs of grey sand, 20-70 cmbs of very light grey sand, and 70-100 cmbs of dark brown hard pan with some water intrusion at 90 cmbs. The site is situated on uplands between two swamps. The site area is a cattle pasture. The extended agricultural history of the area suggest that shallow site components may have been removed.



Photo 11. Looking north at 8HI00511.

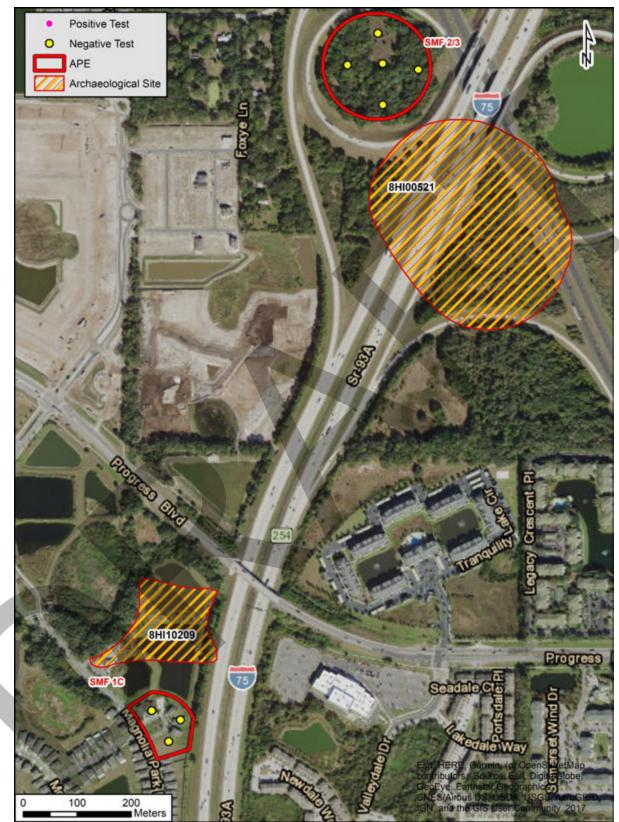


Figure 5. Approximate location of shovel tests within the APE.

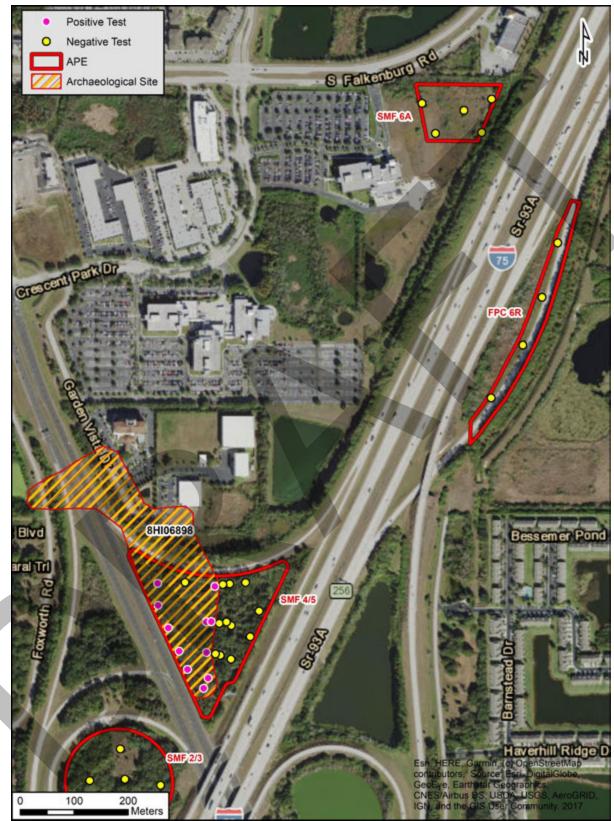


Figure 6. Approximate location of shovel tests within the APE.



Figure 7. Approximate location of shovel tests within the APE.

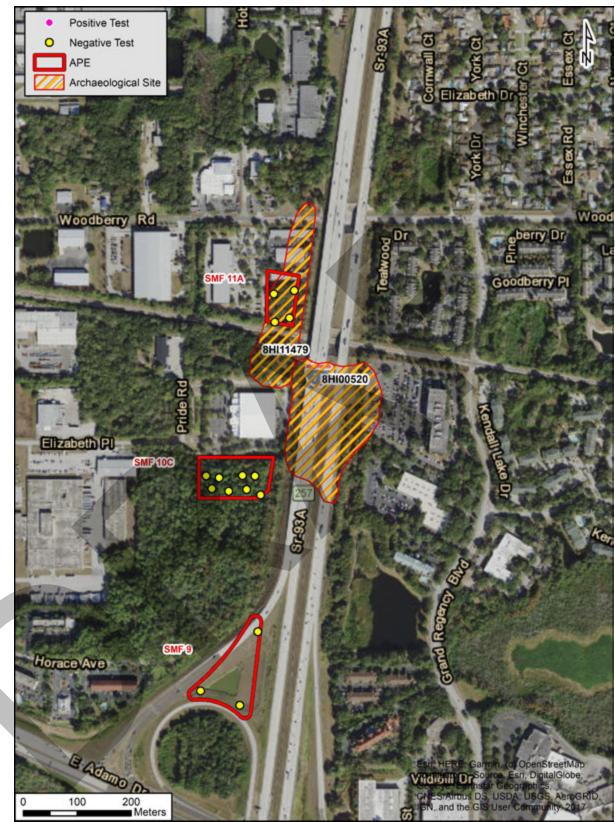


Figure 8. Approximate location of shovel tests within the APE.

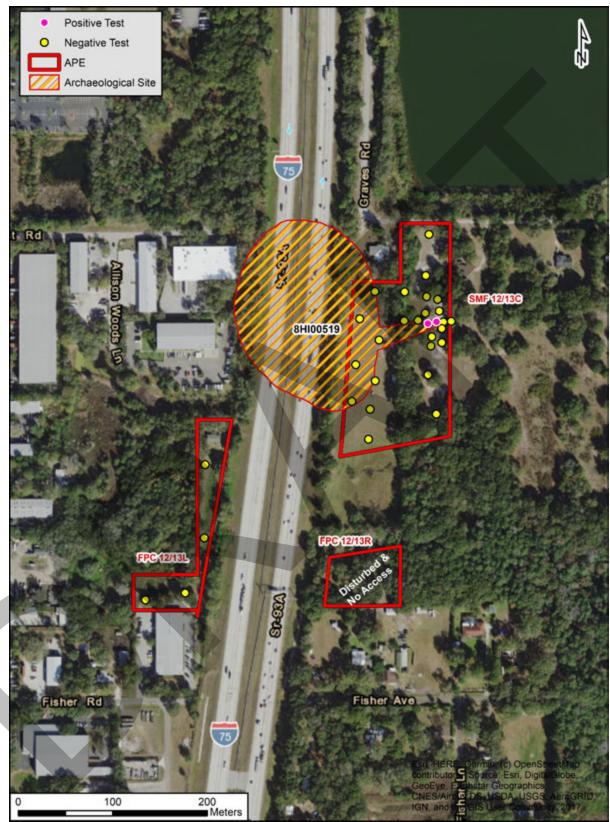


Figure 9. Approximate location of shovel tests within the APE.

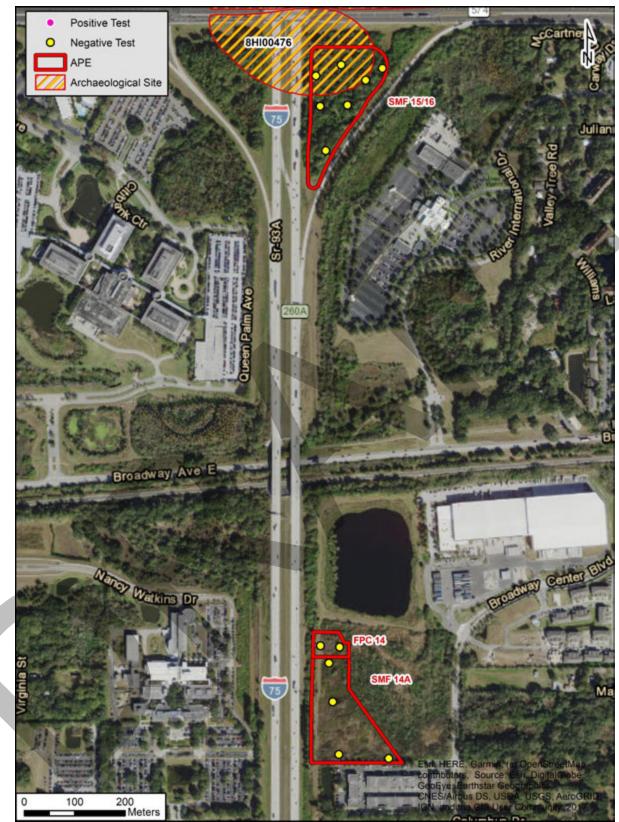


Figure 10. Approximate location of shovel tests within the APE.

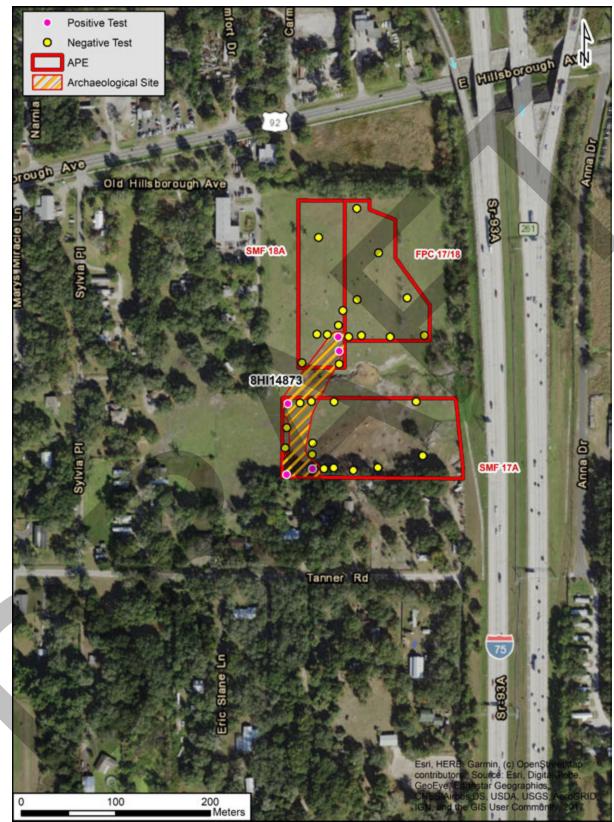


Figure 11. Approximate location of shovel tests within the APE.



Figure 12. Approximate location of shovel tests within the APE.

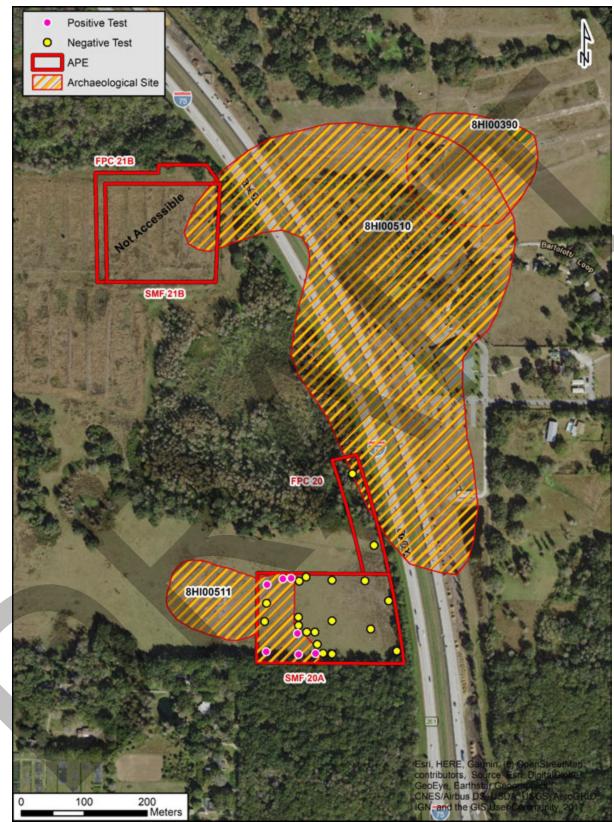


Figure 13. Approximate location of shovel tests within the APE.



Figure 14. Approximate location of shovel tests within the APE.

The site was found during systematic shovel testing at 50 m intervals; of the 18 shovel tests excavated, 7 produced cultural material from 30-90 cmbs (**Figure 13**). The debitage (chert=11, coral=1) assemblage includes one primary decortication flake, two secondary decortication flakes, and nine non-decortication flakes. Nine of the flakes are medium-sized (1-2 cm), two of the flakes are large (2-3 cm), and one is extra-large (3-4 cm). All but two were thermally altered. The lithic artifacts suggest the early to late stages of stone tool manufacture and maintenance and the presence of the high prevalence of thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. 50 50 B.C.E.).

8HI00511, as located within the current APE, measures approximately 60 m east/west by 140 m north/south. The site most likely extends outside of the APE (**Figure 5.1**). However, further investigation was beyond the scope of this project. The site probably represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, it has a low research potential. It is similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO. Thus, 8HI00511, as located within the APE, does not appear to be potentially eligible for listing in the NRHP.

8HI00514: The **Road End Site** is located in the northwest and northeast quarter of Section 32, Township 28 South, Range 20 East in SMF 19A (**Figure 12, Photo 12; Appendix A**). The site was originally reported by Calvin B. Jones during the I-75 survey in 1978 (FMSF) and has been subsequently tested by several others (ACI 2009, 2014; Austin 2000; Janus Research 1992b). It was evaluated by the SHPO in 2015 as ineligible for listing in the NRPH. The site is situated on Leon fine sand at an approximate elevation of 25-30 feet. The general stratigraphy consists of 0-50 cmbs of mottled grey/brown sand, 50-95 cmbs of light grey sand, and 95-100 cmbs of dark brown compact sand. The site is situated on uplands between two swamps. The site area is located at the interchange of I-75 and I-4.



Photo 12. Looking northeast a site 8HI00514.

The site was found during systematic shovel testing at 50 m intervals; of the 14 shovel tests excavated, two produced cultural material from 20-100 cmbs. The debitage consisted of two large chert, non-decortication waste flakes that had been thermally altered. One of the flakes had been altered for

use as a flake tool. The flaked tool is described as a perforator and a spokeshave. The lithic artifacts suggest late stage stone tool manufacture and maintenance and the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.).

Additional evidence of 8HI00514 was found within the existing boundaries of the recorded site. The site represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, and the amount of disturbance, the site continues to have a low research potential. Thus, the SHPO's determination of ineligibility for the NRHP is still valid.

8HI00519: The **Graves Road Site** is located in the northeast quarter of Section 17, Township 29 South, Range 20 East in SMF 12/13C (**Figure 9, Photo 13; Appendix A**). The site was recorded by Calvin B. Jones during the I-75 survey in 1978 (FMSF) and has been subsequently tested by others (ACI 2009; Austin 2000). It was evaluated by the SHPO in 2000 and determined not eligible for listing in the NRHP. The site is situated on Blanton fine sand at an approximate elevation of 50-55 ft amsl. The general stratigraphy consists of 0-30 cmbs of mottled grey sand, 30-50 cmbs of brown sand, and 50-100 cmbs of light tan sand. The site is situated upland from a swamp. The site area is residential with mature oaks.



Photo 13. Looking south at 8HI00519.

The site was found during systematic shovel testing at 50 m intervals; of the 18 shovel tests excavated, 7 produced cultural material from 30-90 cmbs. The debitage assemblage (all chert) includes, two secondary decortication flakes and four non-decortication flakes. Three of the flakes are medium-sized (1-2 cm) and three of the flakes are large (2-3 cm), and three were thermally altered. One of the flakes had been altered for use as a flake tool. The flaked tool is described as a perforator and a spokeshave. The lithic artifacts suggest late stage stone tool manufacture and maintenance and the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.).

8HI00519, as located within the current APE, measures approximately 75 m east/west by 25 m north/south. The site most likely continues to extend outside of the APE. However, further investigation was beyond the scope of this project. The site represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, and the amount of disturbance, the site continues to have a low research potential. Thus, the SHPO's determination of ineligibility for the NRHP is still valid.

8HI06898: The **Bayside #12** Site, as located within the APE, is situated in the northwest quarter of Section 6 Township 30 South, Range 20 East in SMF 4/5 (Figure 6, Photo 14; Appendix A). The site was recorded by Calvin B. Jones during the I-75 survey in 1978 (FMSF) and has been subsequently tested by others (ACI 2009; Austin 2000). It was evaluated by the SHPO in 2000 and determined not eligible for listing in the NRHP. The site is situated on Archbold fine sand at an approximate elevation of 30 ft amsl. The general stratigraphy consists of 0-30 cmbs of mottled grey sand, 30-80 cmbs of very light grey sand, and 80-100 cmbs of dark brown hard pan. The site is situated upland from a swamp. The site area is disturbed and part of the US 301/I-75 interchange.



Photo 14. Looking north at site 8HI06898.

The site was found during systematic shovel testing at 25 m intervals; of the 23 shovel tests excavated, 11 produced cultural material from 30-90 cmbs. A dredged pond in the southern portion of the SMF prevented bounding with double negatives and roadway disturbance in the northwest portion also prevented double negatives. The debitage assemblage (N=35 chert; N=2 coral) includes 3 secondary decortication flakes and 34 non-decortication flakes. Five of the flakes are small-sized (0-1 cm), 26 of the flakes are medium-sized (1-2 cm), and 6 of the flakes are large (2-3 cm) and all but six had been thermally altered. Four of the flakes have been altered for use as flake tools. Two are multipurpose, perforator and a spokeshave; one is a blade; and the other is just a spokeshave. The lithic artifacts suggest late stage stone tool manufacture and maintenance and the presence of the thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.).

8HI06898, as located within the current APE, measures approximately 120 east/west by 250 m north/south. The site most likely continues to extend outside of the APE. However, further investigation was beyond the scope of this project. The site represents a short-term (perhaps seasonal), limited

activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, and the amount of disturbance, the site continues to have a low research potential. Thus, the SHPO's determination of ineligibility for the NRHP is still valid.

8HI14873: The **Tanner Road Site** is located in the northeast quarter of Section 5, Township 29 South, Range 20 East in SMF 17A and 18A (**Figure 11, Photos 15, 16; Appendix A**). The site is situated on Myakka fine sand at an approximate elevation of 35-50 ft amsl. The general stratigraphy consists of 0-20 cmbs of dark grey sand, 20-40 cmbs of grey sand, 40-60 cmbs of dark brown sand, and 60-100 cmbs of yellow brown sand, with water occasional encountered at 90 cmbs. The site is situated upland from a swamp. The site area is a cattle pasture. The artifacts from both of the SMF sites was combined to form one site since the artifacts all had common features (ie, depth below surface, soil type, elevation) in common.



Photo 15. Looking southeast at site in portion of SMF 17A.



Photo 16. Looking north at portion of site in SMF 18A.

The site was found during systematic shovel testing at 50 m intervals; of the 21 shovel tests excavated, 5 produced cultural material from 25-90 cmbs. The debitage assemblage (all chert) includes five secondary decortication flakes and three non-decortication flakes, as well as one 3 Sand Tempered plain (STP) ceramic body sherd. Four of the flakes are medium-sized (1-2 cm), three of the flakes are large (2-3 cm), and one is extra-large (3-4 cm); five were thermally altered. One of the flakes had been altered for use as a flake tool. The flake tool is described as a perforator and a scraper.

The lithic artifacts suggest the early to late stages of stone tool manufacture and maintenance and the STP sherd suggests cooking and/or storage activities were occurring. Although the presence of the of thermal alteration suggests a Middle to Late Archaic period of occupation (5000 B.C.E. - 1200 B.C.E.), the presence of the STP sherds, first made during the Transitional period, ca. 1200 to 500 B.C.E., and continued to be used through the Safety Harbor period, suggests either a later period of occupation or seasonal occupation over thousands of years.

8HI14873, as located within the current APE, measures approximately 70 m east/west by 175 m north/south. The site most likely continues to extend outside of the APE. However, further investigation was beyond the scope of this project. The site represents a short-term (perhaps seasonal), limited activity camp associated with the procurement of locally available resources. This site represents a commonly occurring type for the region. Given the low diversity and the absence of both diagnostic artifacts and subsurface features, it has a low research potential. It is similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO (**Table 2**). Thus, 8HI14873 does not appear to be potentially eligible for listing in the NRHP within the project APE.

Historical: Background research revealed seven extant historic resources (8HI11335; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites (**Table 3; Figures 2-4**). Of these, a Masonry Vernacular style building (8HI11470) was evaluated ineligible for listing in the NRHP by the SHPO; and the Seaboard Railway (8HI11335) was evaluated by the SHPO as having insufficient information to make a determination. Based on the results of the 2019 HRSU, five Masonry Vernacular style buildings (8HI14689, 8HI14694-8HI14696; and 8HI14872) were identified within and/or adjacent to the proposed SMF/FPC sites. The SHPO has not evaluated these resources; however, the buildings are common examples of their respective architectural styles without significant historical associations, and therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU. No additional historic resources were identified during the pond survey.

8. CONCLUSIONS

As a result of the field survey, additional evidence of four of the previously recorded sites was found (8HI00511 [SMF 20A], 8HI00514 [SMF 19A], 8HI00519 [SMF 12/13C], 8HI06898 [SMF 4/5]) and one new site was recorded, 8HI14873 (SMF 17A and 18A). In addition, no evidence of previously recorded sites 8HI00476 (SMF15/16), 8HI00507 (SMF 22/23), 8HI00510 (SMF 21B, FPC 20, FPC 21B), or 8HI11479 (SMF 11A), was found. However, no additional archaeological testing is recommended due to the low diversity and the absence of both diagnostic artifacts and subsurface features, the low research potential, and that the sites are similar to other sites in the area which have been determined ineligible for listing in the NRHP by the SHPO. In addition, ACI concurs with the previous evaluations of the three sites ineligibility for listing in the NRHP. Thus, no further work is recommended.

Historic/architectural background research revealed seven extant historic resources (8HI11335; 8HI11470; 8HI14689; 8HI14872; 8HI14694-8HI14696) were previously recorded within and/or adjacent to the proposed SMF/FPC sites. Of these, historic resource 8HI14872 is located within SMF 22/23, and historic resources 8HI14694 and 8HI14695 are located within SMF 25A. These buildings were recorded during the 2019 HRSU and have not been evaluated by the SHPO. The buildings are common examples of their respective architectural styles without significant historical associations; therefore, none appear eligible for listing in the NRHP. In addition, one previously recorded historic resource was confirmed as demolished (8HI06900) within proposed pond site SMF 12/13C. The resource was located at 2408 Graves Road and the FMSF was notified during the HRSU. No additional historic resources were identified during the pond survey. In summary, this undertaking will have no effect on any cultural resources, including archaeological sites and historic resources, which are listed, determined eligible, or appear to be eligible for listing in the NRHP.

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APPENDIX A: FMSF Forms

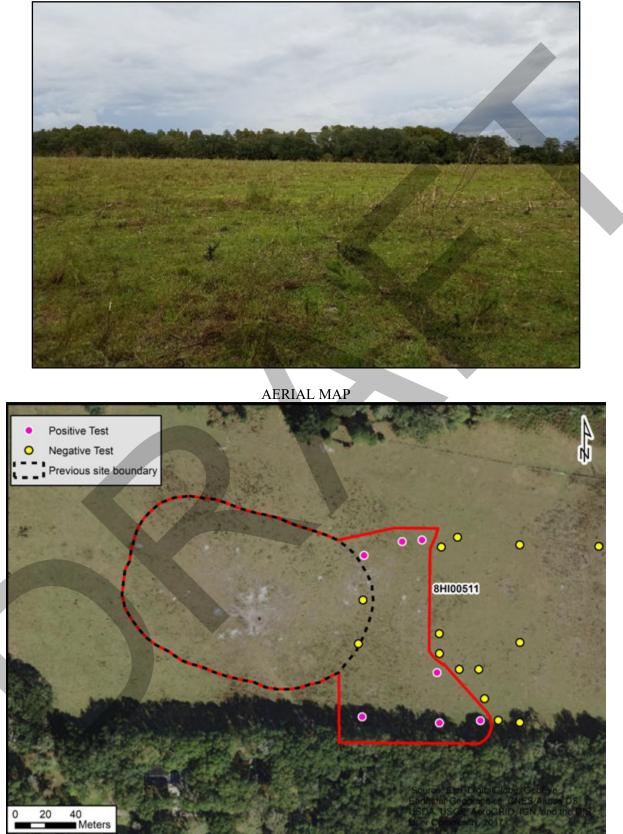
Page 1 Image: Archaeological site form Site #8 <u>HI00511</u> Image: Doriginal Multiple date FLORIDA MASTER SITE FILE Site #8 <u>HI00511</u> Image: Wurde date Version 5.0 3/19 Site #8 <u>HI00511</u>	
Site Name(s) Bartolotti SW Multiple Listing (DHR only) Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs Survey # (DHR only) Ownership: private-nonprofit private-individual Image: Section Image:	
Other Coordinates: X:Y:Coordinate System & Datum Address / Vicinity / Route to: 200 meters west if I-75 and north of I-4 Name of Public Tract (e.g., park)NA	_
TYPE OF SITE (select all that apply)	
SETTING STRUCTURES OR FEATURES FUNCTION [Alad (terrestrial) [Jog boat] [fort] [road segment] [Alade/Pond (lacustrine) [Jusually flooded] [midden] [shell midden] [Alade/Pond (lacustrine) [Jusually flooded] [midden] [midden] [Tidal (estuarine) [Cave/Sink (subterranean)] [building remains] [mission] [shell mound] [Saltwater (marine) [terrestrial] [cemetery/grave] [mound, nonspecific] [subsurface features] [farmstead] [Other Features or Functions (Choose from the list or type a response.) 2. [subsurface] [duarry (prehistoric)] 1. Prehistoric Lithic guarry 2. [subsurface] [subsurface] [subsurface]	,
CULTURE PERIODS (select all that apply)	
ABORIGINAL Englewood Manasota St. Johns (nonspecific) Swift Creek (nonspecific) NON-ABORIGINAL Alachua Fort Walton Mississippian St. Johns I Swift Creek, Early First Spanish 1513-99 Archaic (nonspecific) Glades (nonspecific) Mount Taylor Santa Rosa Transitional First Spanish 1600-99 Archaic, Early Glades I Orange Santa Rosa Transitional First Spanish 1700-1763 Archaic, Late Glades III Orange Santa Rosa Weeden Island (nonspecific) British 1763-1783 Belle Glade Hickory Pond Pensacola Seminole: Colonization Weeden Island I Second Spanish 1783-1821 Caloosahatchee Malabar I Safety Harbor Seminole: 2nd War To 3rd Prehistoric non-ceramic American 19th Century Deptford Malabar II St. Augustine Seminole: 3rd War & After Prehistoric ceramic American 20th Century American 20th Century American (nonspecific) American (nonspecific) American (nonspecific) Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.) Sive specific dates.) American (nonspecific)	
1 3 African-American	
OPINION OF RESOURCE SIGNIFICANCE	
Potentially eligible individually for National Register of Historic Places? yes Insufficient information Potentially eligible as contributor to a National Register district? yes Insufficient information Explanation of Evaluation (required if evaluated; use separate sheet if needed) Insufficient information Given the limited and mundane nature of the artifact assemblage and lack of associated features, the site does not appear eligible for listing in the NRPH Recommendations for Owner or SHPO Action None	
DHR USE ONLY OFFICIAL EVALUATION DHR USE ONLY	
NR List Date SHPO – Appears to meet criteria for NR listing: yes no insufficient info Date Init Owner Objection KEEPER – Determined eligible: Output Output Date Init NR Criteria for Evaluation: Image: Constraint of the const	

Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250 Phone 850.245.6440 / Fax 850.245.6439 / E-mail SiteFile@dos.myflorida.com

Page 2	ARCHAEOLOGICAL SITE FORM Site #8_HI005							
		FIELD METHO	ODS (select a	ll that apply)				
 no field check literature search informant report remote sensing Other methods; number 	SITE DETECTION Carbon Strength Strengt	units; screen size (a	-1/4" □nor -1/8" ☑liter -1/16" □info attach site plan)	unds unknown ne by recorder rature search ormant report	SITE BOUNDA	ing ☐unscreened shovel und ⊠screened shovel ts ☐block excavations ☐estimate or guess		
18 shovel test	s: 7 positive; 10), 25, 50 mete	r intervals	s; 50 cm x	50 cm x 100c	cm; 1/4 inch mesh		
		SITE	DESCRIPTI	ON				
Artifacts found	<u>Depth/stratigraph</u> d 30-90 cmbs; 0-2 ; site size: 60m	0 cm grey san	d, 20-70 cm		t grey sand,	70-100 cm dark		
	n - Components (check o n in plan (refer to attached l		component stratigraphically.	Imultiple c		□uncertain pretations:		
Integrity - Overall distu Disturbances / threats			ostantial ⊡rr	najor ⊡redep	osited ⊡destro	oyed-document!		
	ea collected n		its		Excavation: # no	ncontiguous blocks		
			RTIFACTS					
COLLECTION SELEC	elective (all artifacts) ective (some artifacts) red selectivity neral (not by subarea) itrolled (by subarea) iable spatial control	ARTIFACT CAN A - Lithics	TEGORIES and	Ibsurface # DISPOSITION	A - cate S - sor O - obs R - col	t a disposition from the list below ch artifact category selected at left egory always collected ne items in category collected served first hand, but not collected lected and subsequently left at site irmant reported category present known		
DIAGNOSTICS (type	or mode, and frequency:	e.g., Suwanee ppk,	heat-treated ch	ert, Deptford C	heck-stamped, irc	onstone/whiteware)		
1 2 3 Nearest fresh water: T	N=_N=		VIRONMEN' Un-named	N= N=	9	N= N= N= tance from site (m)50		
Natural community UP Local vegetation Has Present land use pa	rdwood Hammock sture	Торс	graphy <u>Hill</u>			on: Min <u>8</u> m Max <u>10</u> n		
SCS soil series	adenton FS	DOC		association				
Document type All	ation Not Filed with the S materials at one 1 field notes, photos	i te File - including field .ocation	Maintaining	es, photos, plans an organization <u>Archa</u>	eological Consultants	uments Inc		
2) Document type Document description			Maintaining File or acce	-				
Informant Information:	RI Name	ECORDER & IN	FORMANT I	NFORMATI	ON			
	Name_Lee_Hutchinso 8110 Blaikie Ct, S				eological Consultants 206/lhutchins			
Required Attachmen	• РНОТОСС	OPY OF 7.5' USG	S QUAD MAP	WITH SITE B	OUNDARIES M	ARKED and SITE PLAN units, landmarks and date.		

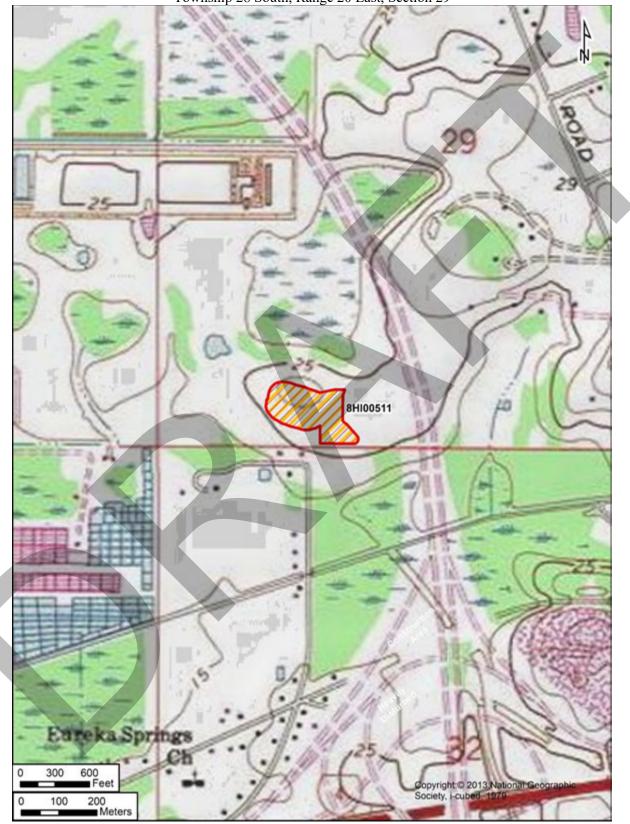


PHOTOGRAPH





USGS Thonotosassa Township 28 South, Range 20 East, Section 29



Page 1 □Original ⊠Update			OLOGICAL SIT IDA MASTER SITE Version 5.0 3/19		Field Date Form Date	HI00514 11-4-2019 12-16-2019
	5 Ponds, S. of	US 301-to N _private-individual [Archaeological Site Form for det . of Bruce B. Down private-nonspecific □city □ CATION & MAPP	sS county □state □federa		
Township Landgrant UTM Coordinates: Zo	s) Tampa Range 20E Sec Range Sec ne 16 17 Ea	In (City Limits? □yes □no is section: □NW □SW □ is section: □NW □SW □		Hillsboroug	yh
Other Coordinates: X Address / Vicinity / Ro interchange of	c: oute to:	Y:	Coordinate Sys	stem & Datum		
Name of Public Tract	(e.g., park) <u>NA</u>					
		TYPE (OF SITE (select all the	hat apply)		
Land (terrestrial) Lake/Pond (lacustrine) River/Stream/Creek (rive Tidal (estuarine) Saltwater (marine) Other Features or Function	Cave/Sink (s terrestric aquatic	lustrine) flooded dry ubterranean) al	STRUCTURE log boatfort agric/farm buildingmidd burial moundmill building remainsmissi	S OR FEATURES	nidden [nound [eck [face features [e scatter [FUNCTION Campsite extractive site habitation (prehistoric) homestead (historic) farmstead village (prehistoric) town (historic) quarry (prehistoric)
1. Lithic Scatt	er/quarry	2				
ABORIGINAL Alachua Archaic (nonspecific) Archaic, Early Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford	Englewood Fort Walton Glades (nonspecific) Glades I Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II	CULTURE	PERIODS (select : St. Johns (nonspecific) St. Johns I Santa Rosa Santa Rosa Santa Rosa Seminole (nonspecific) Seminole: Colonization Seminole: 1st War To 2nd Seminole: 2nd War To 3rd Seminole: 3rd War & After	all that apply) Swift Creek (nonsp Swift Creek, Early Swift Creek, Late Transitional Weeden Island (no Weeden Island I Weeden Island II Prehistoric (nonspe Prehistoric non-cer Prehistoric ceramic	nspecific)	I-ABORIGINAL E Spanish 1513-99 E Spanish 1600-99 E Spanish 1700-1763 E Spanish (nonspecific) sh 1763-1783 ond Spanish 1783-1821 prican Territorial 1821-45 prican Civil War 1861-65 prican 29th Constury
Other Cultures (Choose fro 1 2.	om the list or type a respon		give specific dates.) 3			erican 20th Century erican (nonspecific) can-American
Ζ.		DPINION OI	F RESOURCE SIG	NIFICANCE		_
	lividually for National contributor to a Natio ttion (required if evaluate .ted and mundar	Register of Histor nal Register distri d; use separate sheet ue nature of	ic Places? □yes ct? □yes	⊠no ☐insufficien ∑no ☐insufficien mblage and lac	tinformation	ted features,
Recommendations for	r Owner or SHPO Ac	tion				
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NR List Date	SHPO – Appears to J		FFICIAL EVALUATIC			
	KEEPER – Determin	ed eligible:		Dat	te	

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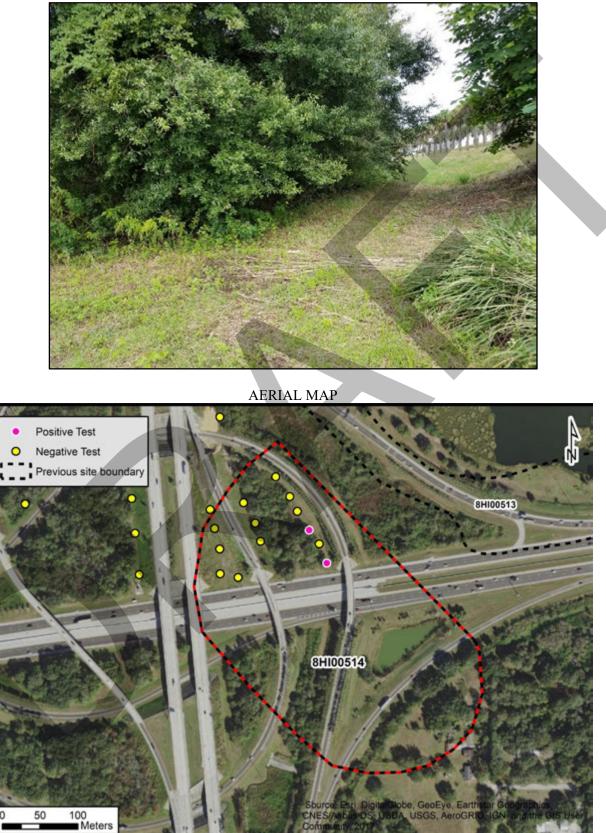
Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250 Phone 850.245.6440 / Fax 850.245.6439 / E-mail SiteFile@dos.myflorida.com

Page 2	А	RCHAEOLOGI	CAL SITE FO	RM Site	#8_ HI00514 _
		FIELD METHODS	(select all that apply)		
	ber, size, depth, pattern of	□screened shovel Screened shovel-1/4" □screened shovel-1/8" □screened shovel-1/16" f units; screen size (attach s		SITE BOUNDARY	□unscreened shovel Screened shovel □block excavations □estimate or guess
14 shovel tes screen	ts: 2 positive; 10), 25, 50 meter int	cervals; 50 cm x	50 cm x 100cm; 1	./4 inch mesh
	• • • • • •	SITE DESC			
	nd 20-100 cmbs; 0.	y of cultural deposit (descri -50 cm mottled grey ional evidence of s	/brown sand, 50-		
	on - Components (check o ion in plan (refer to attached	one): Single compo large scale map) and stratigra			ncertain ons:
	turbance: Inone seer s/protective measures e/retention pond/n		al Imajor Iredep	osited destroyed-o	locument! unknown
Surface collection: a	rea collected r	n ² # collection units		Excavation: # nonconti	guous blocks
		ARTIF		2	
SPATIAL CONTROL Uncollected Sga Unknown Co Unknown Co Unknown Co Co Co Co Co Co Co Co Co Co Co Co Co C	CTIVITY hselective (all artifacts) elective (some artifacts) ixed selectivity eneral (not by subarea) ontrolled (by subarea) ariable spatial control comments below)		RIES and DISPOSITION	S select a disp for each artifi A - category a S - some item O - observed f R - collected a I - informant f U - unknown	s in category collected first hand, but not collected nd subsequently left at site reported category present
DIAGNOSTICS (type		: e.g., Suwanee ppk, heat-t			
12	N=	4 5	N= N=	7 8	N= N=
3.	N=	6	N=	9	
Nearest fresh water: Natural community_U	Type Swamp	ENVIRO Name_Un-na Topography	NMENT	Distance	from site (m)50 n8m_Max _10m
Local vegetation <u>H</u> Present land use <u>P</u> SCS soil series L			Soil association		
		DOCUME			
Document type A1	l materials at one l	Site File - including field notes, a location Ns, artifacts	nalysis notes, photos, plans an Iaintaining organization <u>Archa</u>	eological Consultants Inc	
2) Document type Document description	l		laintaining organization File or accession #'s MANT INFORMATI		
	:Name Lee Hutchins	on Suite A, Sarasota, FI	Affiliation <u>Archae</u> 2, 34240/(941)379-6		ciflorida.com
Require Attachme		OPY OF 7.5' USGS QUA ,600 or larger. Show bou			



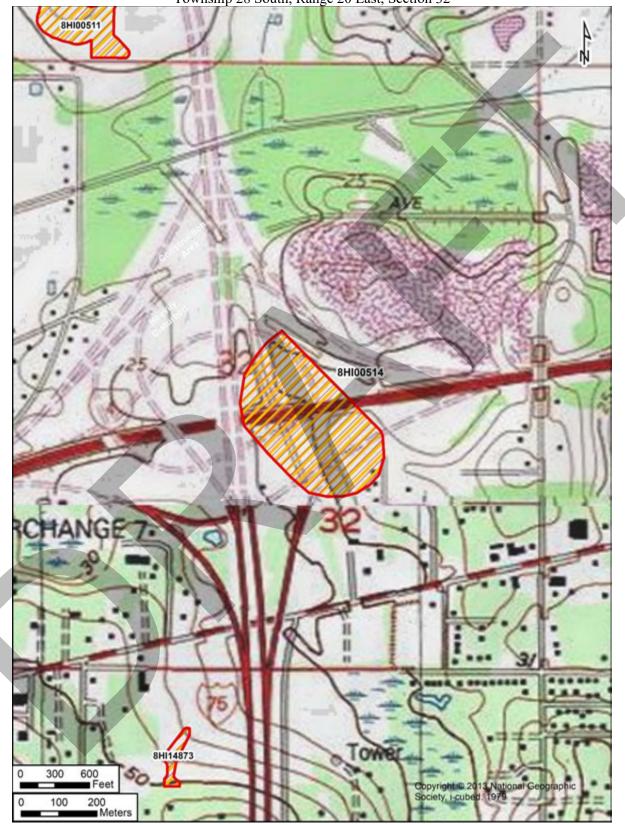
ARCHAEOLOGICAL SITE FORM

PHOTOGRAPH





USGS Thonotosassa Township 28 South, Range 20 East, Section 32



Page 1 ARCHAEOLOGICAL SITE FORM Site #8 HI00519 Original FLORIDA MASTER SITE FILE Field Date 11-5-2019 Wupdate Version 5.0 3/19 Recorder #
Consult Guide to Archaeological Site Form for detailed instructions Site Name(s) Graves Road Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs Survey # (DHR only)
City/Town (within 3 miles) Brandon In City Limits? Uses Ino Xunknown County Hillsborough Township 29S Range Section 17 1/4 section: NW SW SE XNE Irregular-name: Township Range Section 1/4 section: NW SW SE INE Irregular-name: Township Range Section 1/4 section: NW SW SE INE Irregular-name: Township Tax Parcel #
Address / Vicinity / Route to: West of I-75 and within I-75, between SR 574 and SR 60 Name of Public Tract (e.g., park) NA
TYPE OF SITE (select all that apply)
SETTING STRUCTURES OR FEATURES FUNCTION \[] Ladd (terrestrial) \[] Wetland (palustrine) \[] log boat \[] fort \[] road segment \[] campsite \[] Lake/Pond (lacustrine) \[] usually flooded \[] midden \[] shell mound \[] midden \[] Tidal (estuarine) \[] cave/Sink (subterranean) \[] building remains \[] mission \[] shell mound \[] habitation (prehistoric) \[] Saltwater (marine) \[] aquatic \[] dump/refuse \[] plantation \[] surface scatter \[] village (prehistoric) Other Features or Functions (Choose from the list or type a response.) \[] or the response. \[] platform mound \[] well \[] quarry (prehistoric)
1. Lithic Scatter/quarry 2.
ABORIGINAL Englewood Manasota St. Johns (nonspecific) Swift Creek (nonspecific) <i>Non-ABORIGINAL</i> Alachua Fort Walton Mississippian St. Johns I Swift Creek, Early First Spanish 1513-99 Archaic, Carly Glades I Mount Taylor St. Johns II Swift Creek, Late First Spanish 1600-99 Archaic, Early Glades II Orange Santa Rosa Weeden Island (nonspecific) First Spanish 1700-1763 Archaic, Late Glades III Paleoindian Seminole (nonspecific) Weeden Island I Belle Glade First Spanish 1783-1821 Caloosahatchee Hickory Pond Pensacola Seminole: Colonization Seminole: 2nd War To 3rd Prehistoric non-ceramic American Civil War 1861-65 Deptford Malabar I St. Augustine Seminole: 3rd War & After Prehistoric ceramic American 20th Century
Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
OPINION OF RESOURCE SIGNIFICANCE Potentially eligible individually for National Register of Historic Places?yesnoinsufficient information Potentially eligible as contributor to a National Register district?yesnoinsufficient information Explanation of Evaluation (required if evaluated; use separate sheet if needed) Given the limited and mundane nature of the artifact assemblage and lack of associated features, the SHPO's evaluation of not eligible for the NRHP is still valid Recommendations for Owner or SHPO Action
None
DHR USE ONLY OFFICIAL EVALUATION DHR USE ONLY
NR List Date SHPO – Appears to meet criteria for NR listing: □yes □no □insufficient info Date Init □Owner Objection KEEPER – Determined eligible: □yes □no □zete Date NR Criteria for Evaluation: □a □b □c □d (see National Register Bulletin 15, p. 2) Init

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Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250 Phone 850.245.6440 / Fax 850.245.6439 / E-mail SiteFile@dos.myflorida.com

Page 2	Α	RCHAE	OLOGIC	AL SITE F	ORM	Site	#8 HI00	519
		FIELD ME	THODS (se	elect all that app				
	SITE DETECTION Carposed ground Carposthole tests Cauger tests Carposter of the set o	units; screen s	ovel-1/4" ovel-1/8" ovel-1/16" ize (attach site		/n □rem er □exp n □pos t □aug	BOUNDARY note sensing osed ground thole tests er tests	□unscreene ⊠screened □block exca □estimate c	shovel avations or guess
18 shovel test: screen	s: 7 positive; 10), 25, 50 m	eter inter	cvals; 50 cm	x 50 cm	x 100cm; 1	./4 inch m	esh
			ITE DESCR					
Artifacts found	Depth/stratigraph d 30-90 cmbs; 0-3 within current A	0 cm mottl	ed grey sa	and, 30-50 cm	brown s	and, 50-10	0 cm ligh	t tan
	n - Components (check o n in plan (refer to attached l		ngle componei and stratigraphi		le component oral and funct		ncertain ons:	
Integrity - Overall distu Disturbances / threats	/ protective measures		substantial		deposited	destroyed-	locument! [Junknown
residential/res	tention pond/none							
Surface collection: are	ea collected n	n ² # collectio	on units		Excavatio	on: # nonconti	guous blocks	
COLLECTION SELEC unknown Suns sele mix SPATIAL CONTROL uncollected Sger unknown con unknown con other (describe in con Artifact Comments	selective (all artifacts) ective (some artifacts) sed selectivity neral (not by subarea) strolled (by subarea) iable spatial control omments below)	ARTIFACT	CATEGORIE hics	Subsurface #_ S and DISPOSITION		for each artifi A - category a S - some item O - observed R - collected a I - informant U - unknown	osition from the act category sele lways collected s in category colle first hand, but not nd subsequently l reported category	cted at left cted collected eft at site present
spokeshave	, 3 thermally alt			7				and
DIAGNOSTICS (type 1.	or mode, and frequency: N=N= N=N=		ppk, heat-trea	N= N= N=	7 8	mped, ironston	,	N= N= N=
Nearest fresh water: T Natural community UP Local vegetation Ha: Present land use re: SCS soil series B10	LAND HARDWOODS rdwood Hammock		ne <u>Un-name</u> Topography <u>I</u>	ed Hill slope Soil association			from site (m) _ n _15_m M	
		D	OCUMENT					
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2) Document type Document description				taining organization				
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Required Attachmen	• РНОТОСС	OPY OF 7.5' U	ISGS QUAD	MAP WITH SITE	BOUNDA	RIES MARK	ED and SITE	PLAN

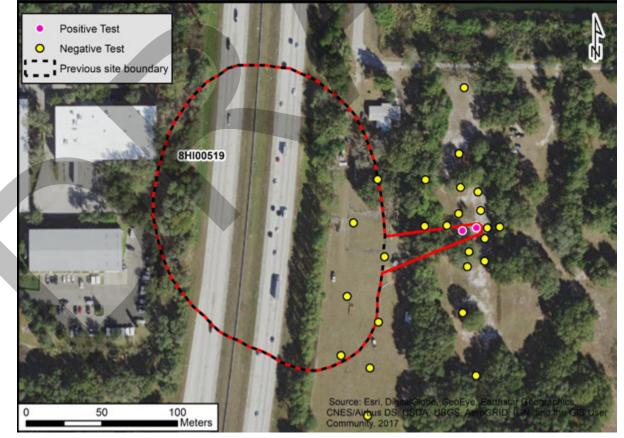


ARCHAEOLOGICAL SITE FORM

PHOTOGRAPH



AERIAL MAP





USGS Brandon Township 29 South, Range 20 East, Section 17



□Original ⊠Update □Original	Bite #8 HI06898 Field Date 11-6-2019 Form Date 12-16-2019 Recorder #
Consult Guide to Archaeological Site Form for detailed instructions Site Name(s) Bayside #12 Project Name I-75 Ponds, S. of US 301-to N. of Bruce B. Downs Survey # Ownership: private-profit private-nonprofit private-individual Image: Consult Guide to Archaeological Site Form for detailed instructions USGS 7.5 Map Name BRANDON USGS Date 1987 Plat or Other Map City/Town (within 3 miles) Brandon In City Limits? Iyes Ino Xunknown County Hill Township 30S Range Section 6 1/4 section: XNW SK Irregular-name Township Range Section 1/4 section: INX ISK Ink	ve American 🔤 foreign 🔤 unknown
Landgrant Tax Parcel # UTM Coordinates: Zone 16 17 Easting Other Coordinates: X: Y: Coordinate System & Datum	
Name of Public Tract (e.g., park) NA	
TYPE OF SITE (select all that apply) SETTING STRUCTURES OR FEATURES \[]_Lake/Pond (lacustrine) \[]_usually flooded \[]_River/Stream/Creek (riverine) \[]_usually dry \[]_Tidal (estuarine) \[]_cave/Sink (subterranean) \[]_Saltwater (marine) \[]_terrestrial \[]_aquatic \[]_other Features or Functions (Choose from the list or type a response.) 1. Lithic Scatter/quarry 2.	FUNCTION Campsite extractive site habitation (prehistoric) homestead (historic) farmstead village (prehistoric) town (historic) quarry (prehistoric)
CULTURE PERIODS (select all that apply) ABORIGINAL Englewood Manasota St. Johns (nonspecific) Swift Creek (nonspecific) Alachua Fort Walton Mississippian St. Johns I Swift Creek, Late Archaic (nonspecific) Glades (nonspecific) Mount Taylor Santa Rosa Weeden Island (nonspecific) Archaic, Early Glades II Orange Santa Rosa-Swift Creek Weeden Island (nonspecific) Belle Glade Glades II Paleoindian Seminole: Colonization Weeden Island I Cacles Pond Hickory Pond Perico Island Seminole: 1st War To 2nd Seminole: 3rd War & After Deptford Malabar I St. Augustine Seminole: 3rd War & After Prehistoric ceramic 1. 3. 4. Seminole: SIGNIFICANCE SIGNIFICANCE	
Potentially eligible individually for National Register of Historic Places? _yes ino insufficient information information information of the second secon	ion
None	
DHR USE ONLY OFFICIAL EVALUATION DF	HR USE ONLY
NR List Date SHPO – Appears to meet criteria for NR listing: yes no insufficient info Date Date Owner Objection NR Criteria for Evaluation: Owner Objection NR Criteria for Evaluation:	Init

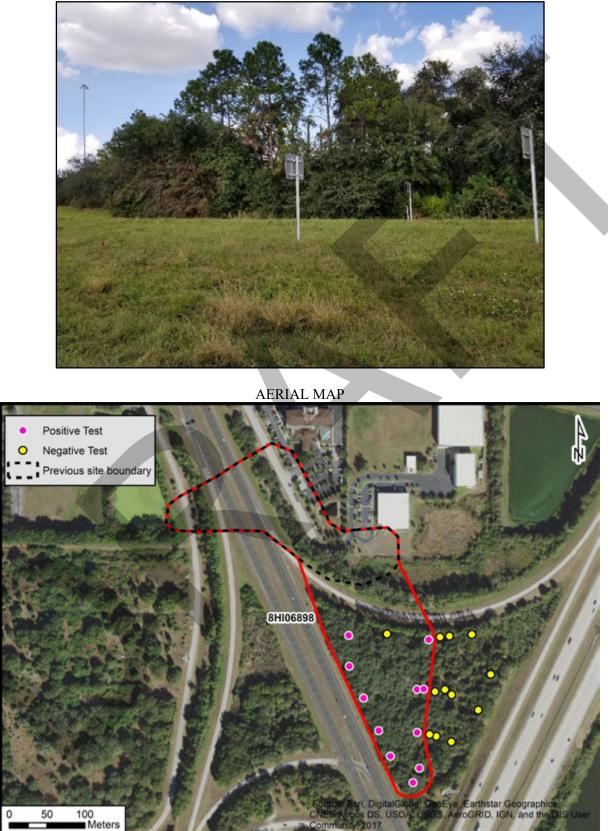
Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250 Phone 850.245.6440 / Fax 850.245.6439 / E-mail SiteFile@dos.myflorida.com

Page 2	Α	RCHAEOLOGI	CAL SITE FO	RM Sit	e#8_ HI06898 _
		FIELD METHODS	(select all that apply)		
 ☐no field check ☑literature search ☐informant report ☐remote sensing Other methods; number 		□screened shovel ⊠screened shovel-1/4" □screened shovel-1/8" □screened shovel-1/16" f units; screen size (attach s	☐bounds unknown ☐none by recorder ⊠literature search ☐informant report site plan)	SITE BOUNDARY	□unscreened shovel Screened shovel block excavations estimate or guess
		10, 25 meter interv		cm x 100cm; 1/4	inch mesh screen
		SITE DESC	CRIPTION		
Artifacts foun	d 30-90 cmbs; 0-3	n <mark>y of cultural deposit (descri</mark> 30 cm mottled grey 120m e/w x 250m n/s	sand, 30-80 cm v	ery light grey	sand, 80-100 cm
	n - Components (check on n in plan (refer to attached	one):			uncertain tions:
Integrity - Overall distu Disturbances / threats	/ protective measures		ıl ⊟ major ⊟redep	osited □ destroyed	-document! unknown
roadway constu	rction/retention	pond/none			
Surface collection: are	ea collected n	n ² # collection units ARTIF		Excavation: # noncon	tiguous blocks
COLLECTION SELEC unknown Suns sele mix SPATIAL CONTROL uncollected Sger unknown cor unknown cor other (describe in c Artifact Comments 35 chert and 2	selective (all artifacts) ective (some artifacts) ked selectivity neral (not by subarea) ntrolled (by subarea) iable spatial control omments below)		l; four of the fl	A - category S - some ite O - observed R - collected I - informant U - unknown	
DIAGNOSTICS (type	or mode, and frequency N=	: e.g., Suwanee ppk, heat-t. 4			
2.	N=	_ 5	N=	8	N=
3	N=	6	N= NMENT	9	N=
Nearest fresh water: T Natural community UP Local vegetation Ha Present land use I- SCS soil series Ar	LAND HARDWOODS rdwood Hammock 75 and US 301 Int	Name Topography	amed Hill slope		e from site (m) <u>100</u> Min <u>9</u> m Max <u>9</u> m
		DOCUME			
Document type All	materials at one 1	tite File - including field notes, a location	nalysis notes, photos, plans an laintaining organization <u>A</u> rcha	eological Consultants Inc	ts
2) Document type Document description_	R	ECORDER & INFORM	File or accession #'s		
Informant Information: Address / Phone / E-mai					
Recorder Information:	Name Lee Hutchins	on Suite A, Sarasota, FI	Affiliation Archae		aciflorida.com
Required Attachmen		OPY OF 7.5' USGS QUA ,600 or larger. Show bour			



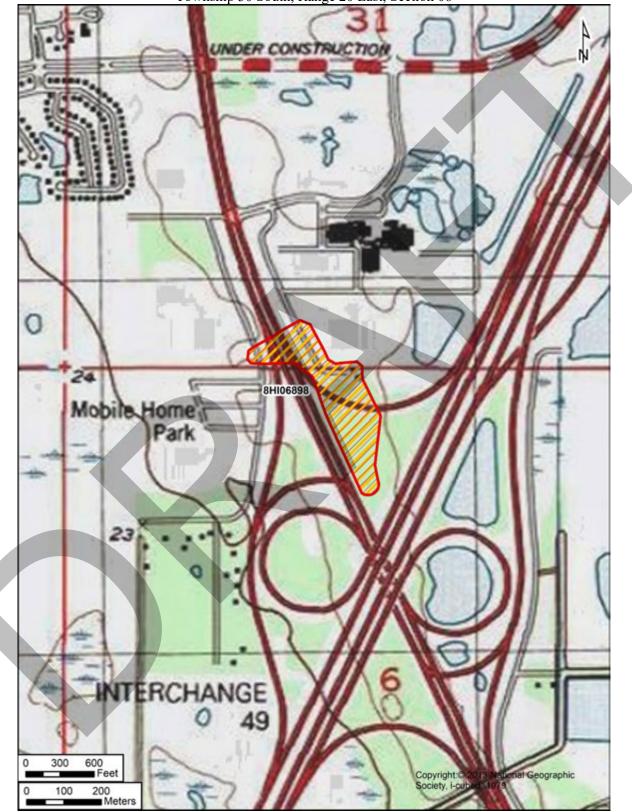
ARCHAEOLOGICAL SITE FORM

PHOTOGRAPH





USGS Brandon Township 29 South, Range 20 East, Section 31, and Township 30 South, Range 20 East, Section 06



Page 1		ARCHAEOLO	CICAL SIT	F FORM		HI14873
			ASTER SITE I		Field Date _	11-6-2019
⊠Original			on 5.0 3/19	FILE		12-16-2019
□Update		v er si	011 5.0 5/19		Recorder #	
		Consult Guide to Archaeolog	gical Site Form for detail	ed instructions		
Site Name(s)	anner Poad			N141	nla Liating (DUC	
S ile Name(S) <u>1</u>	75 Ponda 9 of	US 301-to N. of B	ruce P Downs	Wulu Sun#	pie Listing (DHF	<pre>< only)</pre>
\mathbf{O} wpership: $\mathbf{\Box}$ privat	o profit Oprivato popprofit	□private-individual ⊠private-no		unty Estate Efederal E	ey # (DHR Only) Nativo Amorican F	
				-	Native American	
		LOCATIO	ON & MAPPI	NG		
USGS 7.5 Map Na	me BRANDON	In City Limit	USGS Date 198	7 Plat or Other Map		
City/Town (within 3 r	niles)_Brandon	In City Limit	is? ⊡yes ⊡no D	Junknown County H	illsborough	1
Township _29S	_ Range_20E Se	ection <u>5</u> ¼ section:	NW SW S	E Irregular-na	ime:	
lownsnip	Range Se	ection 1/4 section:	LINW LISW LIS	E 🗆 NE		
Landgrant			_ Tax Parcel #			
UTM Coordinates:	Zone □16 □17 E	asting N	orthing			
Other Coordinates	: X:	Y.	Coordinate Syste	em & Datum		
Address / Vicinity /						
southwest qu	arter of the I-	75/US 92 Interchang	je			
Name of Public Tra	act (e.g., park) <u>NA</u>					
		TYPE OF SIT	FF (coloct all the	ot opply)		
	SETTING			OR FEATURES		FUNCTION
Land (terrestrial)	Wetland (pa	alustrine)		□road segme		campsite
Lake/Pond (lacustrin	ne) 🗌 usually	/ flooded agric/far	m building 🛛 midden	shell midde	n 🗌 🗖 🤅	extractive site
River/Stream/Creek		/ dry		shell mound		habitation (prehistoric)
☐Tidal (<i>estuarine</i>) ☐Saltwater (<i>marine</i>)	□Cave/Sink(□terresti	(subterranean)	remains mission	nonspecific subsurface		homestead (historic) farmstead
		c 🗌 🗖 dump/re	fuse plantation	on Surface sca		village (prehistoric)
			rks (historic)	n mound well		town (historic)
	tions (Choose from the list o					quarry (prehistoric)
1. Artifact s	catter-low dens	<u>1ty</u> 2			I	
		CULTURE PER	IODS (select al	l that apply)		
ABORIGINAL	Englewood	Manasota St. Jo	ohns (nonspecific)	Swift Creek (nonspecific		ABORIGINAL
Alachua	Fort Walton	Mississippian St. Jo		Swift Creek, Early		Spanish 1513-99
Archaic (nonspecific		☐ Mount Taylor ☐ St. Jo ☐ Norwood ☐ Santa		Swift Creek, Late		Spanish 1600-99 Spanish 1700-1763
) Glades (nonspecific) Glades 1 Glades II		a Rosa-Świft Creek	Weeden Island (nonspe	cific)	
Archaic, Middle	Glades I Glades II Glades III	□Orange □Santa □Paleoindian □Semi	inole (nonspecific)	Weeden Island (nonspe Weeden Island I	cific) First S	Spanish (nonspecific) 1763-1783
Archaic, Middle Archaic, Late Belle Glade	Glades I Glades II Glades III Hickory Pond	□Orange □Santa □Paleoindian □Semi □Pensacola □Semi	inole (nonspecific) inole: Colonization	☐Weeden Island I ☐Weeden Island II	cific) First S British	Spanish (nonspecific) 1763-1783 nd Spanish 1783-1821
Archaic, Middle	Glades 1 Glades II Glades III Hickory Pond Leon-Jefferson	□Orange □Santa □Paleoindian □Semi □Pensacola □Semi □Perico Island □Semi	inole (nonspecific)	Weeden Island I	cific)	Spanish (nonspecific) 1763-1783
Archaic, Middle Archaic, Late Belle Glade Cades Pond	Glades I Glades II Glades III Hickory Pond	Orange Santa Paleoindian Semi Pensacola Semi Perico Island Semi Safety Harbor Semi	inole (nonspecific) inole: Colonization inole: 1st War To 2nd	Weeden Island I Weeden Island II Prehistoric (nonspecific)	cific) First S British Secon Ameri Ameri Ameri	panish (nonspecific) 1763-1783 Id Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century
Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford	Glades I Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II	Orange Santa Paleoindian Semi Pensacola Semi Perico Island Semi Safety Harbor Semi St. Augustine Semi	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic	cific) First S British Secon Ameri Ameri Ameri Ameri	Spanish (nonspecific) 1763-1783 Id Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can 20th Century
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Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Other Cultures (Choose 1.	Glades 1 Glades II Glades III Hickory Pond Leon-Jefferson Malabar I Malabar II	Orange Santa Paleoindian Semi Pensacola Semi Perico Island Semi Safety Harbor Semi St. Augustine Semi onse. For historic sites, give specif 3.	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After fic dates.)	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic	cific) First S British Secon Ameri- Ameri- Ameri- Ameri- Ameri- Ameri- Africar	Spanish (nonspecific) 1763-1783 Id Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can 20th Century can (nonspecific)
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Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Other Cultures (Choose 1. 2. Potentially eligible Potentially eligible Explanation of Eva Given the Li	Glades 1 Glades II Glades II Hickory Pond Leon-Jefferson Malabar I Malabar II e from the list or type a respo	Orange Santa Paleoindian Semi Pensacola Semi Perico Island Semi Safety Harbor Semi St. Augustine Semi onse. For historic sites, give specif 4. OPINION OF RES Il Register of Historic Places ional Register district? ed; use separate sheet if needed) ne nature of the an	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After fic dates.) OURCE SIGN S? Uyes X	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic NIFICANCE no insufficient infor no insufficient infor	rmation	Spanish (nonspecific) 1763-1783 Id Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can (nonspecific) n-American
Archaic, Middle Archaic, Late Belle Glade Cades Pond Calcosahatchee Deptford Other Cultures (Choose 1. 2. Potentially eligible Potentially eligible Explanation of Eva Given the lit the site app	Glades 1 Glades II Glades II Hickory Pond Leon-Jefferson Malabar I Malabar II e from the list or type a respo	Orange Santa Paleoindian Semi Pensacola Semi Safety Harbor Semi St. Augustine Semi St. Augustine Semi OPINION OF RES I Register of Historic Places ional Register district? red; use separate sheet if needed) ne nature of the an icant	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After fic dates.) OURCE SIGN S? Uyes X	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric non-ceramic Prehistoric ceramic NIFICANCE no insufficient infor no insufficient infor	rmation	Spanish (nonspecific) 1763-1783 Id Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can (nonspecific) n-American
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Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Other Cultures (Choose 1. 2. Potentially eligible Potentially eligible Explanation of Eva Given the li the site app Recommendations None	Glades 1 Glades II Glades II Hickory Pond Leon-Jefferson Malabar I Malabar I I dividually for Nationa as contributor to a Nati iluation (required if evaluat mited and munda pears non-signif	Orange Santa Paleoindian Semi Pensacola Semi Perico Island Semi Safety Harbor Semi St. Augustine Semi onse. For historic sites, give specif 3. 4. OPINION OF RES Il Register of Historic Places ional Register district? red; use separate sheet if needed) ne nature of the an i cant	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After fic dates.) OURCE SIGN S? Uyes X Uyes X rtifact assemb	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric coramic NIFICANCE no insufficient infor no insufficient infor blage and lack o	rmation	Spanish (nonspecific) 1763-1783 Id Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can 20th Century can (nonspecific) n-American
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Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Other Cultures (Choose 1. 2. Potentially eligible Potentially eligible Explanation of Eva Given the lit the site app Recommendations None DH NR List Date	Glades 1 Glades II Glades II Glades II Hickory Pond Leon-Jefferson Malabar I Malabar I refrom the list or type a respon individually for Nationa as contributor to a National as contributor to a National scontributor to a National scontributo	Orange Santa Paleoindian Semi Perico Island Semi Safety Harbor Semi St. Augustine Semi A. OPINION OF RES Il Register of Historic Places ional Register district? red; use separate sheet if needed) ne nature of the an i cant OFFICIA meet criteria for NR listing: ned eligible:	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After fic dates.) OURCE SIGN S? Uyes X Uyes Yes X It EVALUATION Dyes On Oinsu Dyes On Oinsu	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric coramic Prehistoric ceramic NIFICANCE no insufficient infor no insufficient infor blage and lack o fficient info	rmation f associate DHR USE O	Spanish (nonspecific) 1763-1783 Ind Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can 20th Century can (nonspecific) n-American ed features,
Archaic, Middle Archaic, Late Belle Glade Cades Pond Caloosahatchee Deptford Other Cultures (Choose 1. 2. Potentially eligible Potentially eligible Explanation of Eva Given the In the site app Recommendations None DH	Glades 1 Glades II Glades II Glades II Hickory Pond Leon-Jefferson Malabar I Malabar I refrom the list or type a respon individually for Nationa as contributor to a National as contributor to a National scontributor to a National scontributo	Orange Santa Paleoindian Semi Pensacola Semi Perico Island Semi Safety Harbor Semi St. Augustine Semi onse. For historic sites, give specif 3. 4. OPINION OF RES Il Register of Historic Places ional Register district? ed; use separate sheet if needed) ne nature of the an i cant OFFICIA meet criteria for NR listing:	inole (nonspecific) inole: Colonization inole: 1st War To 2nd inole: 2nd War To 3rd inole: 3rd War & After fic dates.) OURCE SIGN S? Uyes X Uyes Yes X It EVALUATION Dyes On Oinsu Dyes On Oinsu	Weeden Island I Weeden Island II Prehistoric (nonspecific) Prehistoric coramic Prehistoric ceramic NIFICANCE no insufficient infor no insufficient infor blage and lack o fficient info	f associate	Spanish (nonspecific) 1763-1783 Ind Spanish 1783-1821 can Territorial 1821-45 can Civil War 1861-65 can 19th Century can 20th Century can (nonspecific) n-American ed features,

Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250 Phone 850.245.6440 / Fax 850.245.6439 / E-mail SiteFile@dos.myflorida.com

Page 2	Α	RCHAEOLOGI	CAL SITE FO	RM Site	#8_ HI14873 _
		FIELD METHODS	(select all that apply)		
	er, size, depth, pattern of	□screened shovel Screened shovel-1/4" □screened shovel-1/8" □screened shovel-1/16" units; screen size (attach s		SITE BOUNDARY	□unscreened shovel Screened shovel □block excavations □estimate or guess
21 shovel test screen	s: 5 positive; 10), 25, 50 meter int	cervals; 50 cm x 9	50 cm x 100cm; 1	1/4 inch mesh
		SITE DESC			
Artifacts foun	d 25-90 cmbs; 0-2	y of cultural deposit (descri 20 cm dark grey san 21 water at 90 cm;	nd, 20-40 cm grey		dark brown sand;
	n - Components (check on n in plan (refer to attached)	one): Single comport arge scale map) and stratigra			ncertain ons:
Integrity - Overall distu Disturbances / threats			al 🗆 major 🗆 redep	osited destroyed-	document! Dunknown
		IOIIE			
Surface collection: are	ea collected n	n ² # collection units ARTIF		excavation: # nonconti	guous blocks
COLLECTION SELEC	selective (all artifacts) ective (some artifacts) ked selectivity neral (not by subarea) ntrolled (by subarea) iable spatial control omments below)		RIES and DISPOSITIONS	Select a disp for each artiff A - category a S - some item O - observed R - collected a I - informant U - unknown	bosition from the list below act category selected at left lways collected s in category collected first hand, but not collected and subsequently left at site reported category present
		e.g., Suwanee ppk, heat-t			
STP sherds StP sherds StP sherds StP sherds Nearest fresh water: T Natural community_UP	N= 3 N= N= ype_Swamp bland HARDWOODS	4 5 6 Namen	N= N= N= NMENT	7 8 9 Distance	N= N=
Local vegetation Ha Present land use ca SCS soil series My	ttle pasture		Soil association		
Document type All	materials at one]	DOCUME ite File - including field notes, a .ocation N s, artifacts	nalysis notes, photos, plans an Iaintaining organization <u>Archa</u>	eological Consultants Inc	5
2) Document type Document description_	R	ECORDER & INFORM	File or accession #'s		
Informant Information: Address / Phone / E-mai					
Recorder Information:	Name Lee Hutchins	on Suite A, Sarasota, FI	A ffiliation Archae	ological Consultants Inc	ciflorida.com
Required Attachmen		OPY OF 7.5' USGS QUA 600 or larger. Show bou			



ARCHAEOLOGICAL SITE FORM

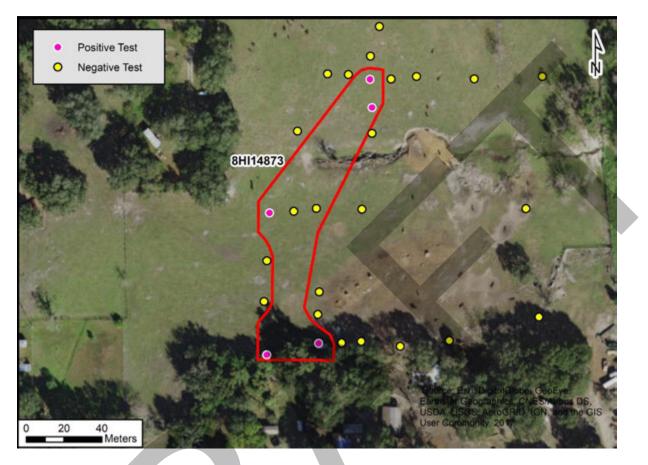
PHOTOGRAPHS





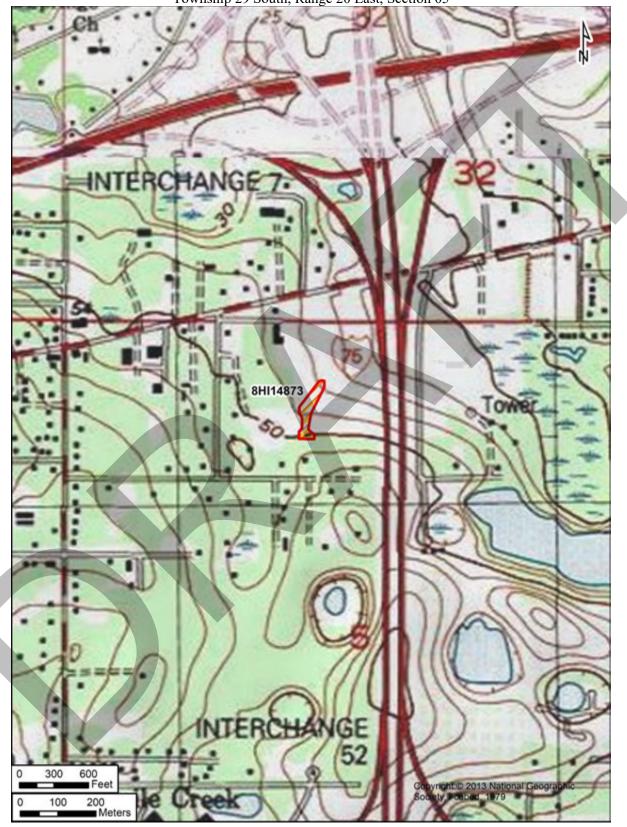
ARCHAEOLOGICAL SITE FORM

AERIAL MAP





USGS Brandon Township 29 South, Range 20 East, Section 05



APPENDIX B: Survey Log

Ent D (FMSF only)

Survey Log Sheet Florida Master Site File

Survey # (FMSF only) _

Version 5.0 3/19

Consult <i>Guide to the Survey Log Sheet</i> for detailed instructions.

Manuscript Information	
Survey Project (name and project phase)	
CRAS I-75 (SR 93A) SMF and FPC Sites, Hillsborough County, Flor	rida
Report Title (exactly as on title page)	
Cultural Resource Assessment Survey Technical Memorandum Stormy Floodplain Compensation (FPC) Sites,I-75 (SR 93A) from South or Blvd, Hillsborough County, FL FPID No. 419235-3-22-01	
Report Authors (as on title page) 1. Marion Almy	3. Kimberly Irby
2. Lee Hutchinson	4.
Publication Year Number of Pages in Report (do not include site form	ms)45
Publication Information (Give series, number in series, publisher and city. For article or chapter,	cite page numbers. Use the style of American Antiquity.)
ACI, Sarasota, 2019 P19150.2	
Supervisors of Fieldwork (even if same as author) Names Marion Almy	
Affiliation of Fieldworkers: Organization Archaeological Consultants Inc	City Sarasota
Key Words/Phrases (Don't use county name, or common words like archaeology, structure, surv	rey, architecture, etc.)
1 3 5	7
2 4 6	8
Survey Sponsors (corporation, government unit, organization, or person funding fieldwork) Name Organization Florida Address/Phone/E-mail 11201 North McKinley Drive Tampa, Florida 33	Dept of Transportation - District 7
Recorder of Log Sheet Lee Hutchinson	Date Log Sheet Completed 12-10-2019
Is this survey or project a continuation of a previous project? $oxtimes$ No \Box Yes: $oxtimes$	Previous survey #s (FMSF only)
Project Area Mapping	
Counties (select every county in which field survey was done; attach additional sheet if necessary 1. Hillsborough 3. 2. 4.	
USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary	<i>)</i>
	Year
	Year
Field Dates and Project Area Descri	ption
Number of Distinct Tracts or Areas Surveyed28	l (fill in one)hectares564.00_acres

Page	2
------	---

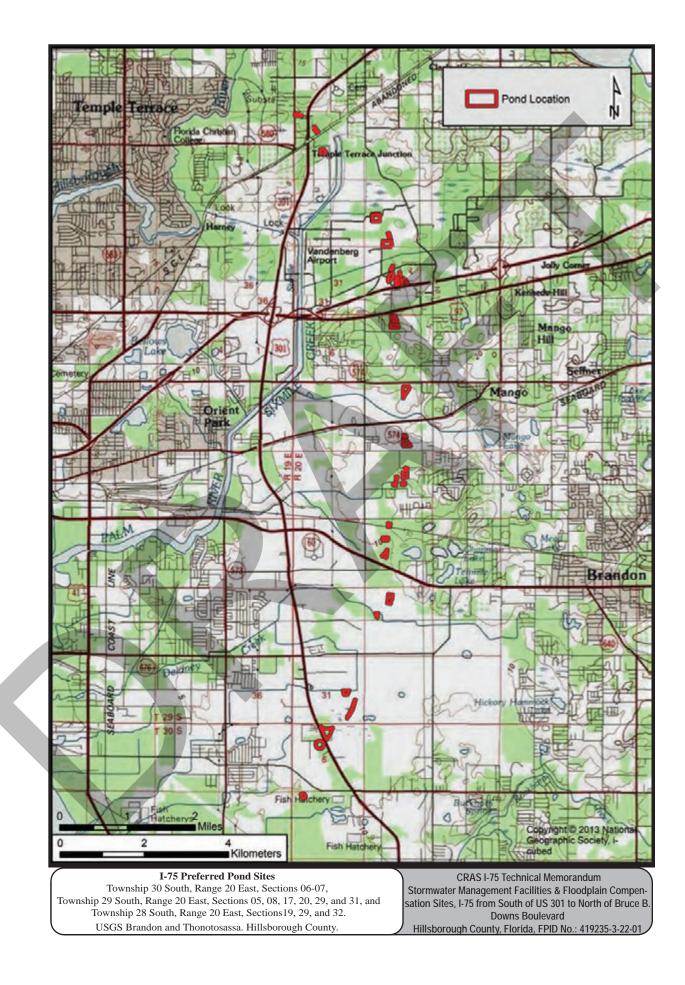
Survey Log Sheet

Survey #_____

	Researc	ch and	Field Method	ls		
Types of Survey (select all that apply):	\boxtimes archaeological	⊠arch	itectural	⊠historical/arc	hival 🗌	underwater
	□damage assessment	□moni	toring report	other(describe):	
Scope/Intensity/Procedures			0			
	el tests placed at	10, 2	25, 50, 100	meter inte	ervals and	liudgmentally;
background research; field						, , , , , , , , , , , , , , , , , , ,
Preliminary Methods (select as many a	as apply to the project as a w	vhole)				
	library research- <i>local public</i>		⊠local property o	r tax records	⊠other historic	maps 🔲 LIDAR
	library-special collection		newspaper files		≍soils maps or	
Site File property search	Public Lands Survey (maps at D	EP)	×literature searc	h I	⊠windshield su	rvey
Site File survey search	local informant(s)		Sanborn Insurar	nce maps 🛛 📕	🗙 aerial photogr	aphy
🗖 other (describe):						
_ · · · <u></u>						
Archaeological Methods (select as ma	any as apply to the project as	a whole	e)			
Check here if NO archaeological method						
surface collection, controlled	shovel test-other screen size			excavation (at leas	t 2x2 m)	metal detector
surface collection, un controlled	water screen		□soil re			other remote sensing
Shovel test-1/4"screen	 posthole tests			etometer		Expedestrian survey
□shovel test-1/8″ screen	auger tests			can sonar		unknown
─	 coring			d penetrating radar	(GPR)	—
shovel test-unscreened	test excavation (at least 1x2	2 m)				
🔲 other (describe):						
Historical/Architectural Methods (se	elect as many as apply to the	project	as a whole)			
Check here if NO historical/architectura						
Duilding permits	demolition permits		neiahl	por interview	*	subdivision maps
Commercial permits	windshield survey			ant interview		tax records
 interior documentation	Note:			ation permits		
				·		_
	S	Survey	Results			
Resource Significance Evaluated?	□Yes ⊠No					
ů.						
Count of Previously Recorded Reso			Count of Newl			1
List Previously Recorded Site ID#s	with Site File Forms Comp	leted (a	ttach additional p	bages if necessar	y)	
8HI00511, 8HI00514,8HI0051	9,8HI06898					
List Newly Recorded Site ID#s (atta	ch additional pages if necess	ary)				
8HI14873						
Site Forms Used: ⊠Site File Pa	per Forms 🛛 🖾 Site File	e PDF F	orms			

REQUIRED: Attach Map of Survey or Project Area Boundary

SHPO USE ONLY	SHPO USE ONLY	SHPO USE ONLY
Origin of Report: 0872 Public Lands UW	□1A32 # Acade	emic Contract Avocational
Grant Project #	Compliance Review: CRAT #	
Type of Document: Archaeological Survey	storical/Architectural Survey 🛛 Marine Survey 🖾 Cell Tow	er CRAS Monitoring Report
Overview Excavation Rep	ort IMulti-Site Excavation Report IStructure Detailed F	Report Library, Hist. or Archival Doc
Desktop Analysis MPS	MRA TG Other:	
Document Destination: Plottable Projects	Plotability:	



Environmental & Wetland Assessment

	Land Use / FLUCFCS Cod	е	We	tlands / Surface Wat	ers			
Pond Size (ac)	Туре	Code	Wetland / Surface Water Impacts (ac)	Percent of Site	Wetland Mitigation Cost ^	Potential Protected Species tha		
SMF 1A	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo		
2.76	Freshwater Marsh	641	0.01	0%	\$780	wetland-dependent wading birds, southeastern America		
	High Density Residential	130	0.00	0%	\$0			
SMF 1B 3.47	Shrub and Brushland	320	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo wetland-dependent wading birds, southeastern America		
5.17	Freshwater Marsh	641	0.04	1%	\$3,120	we do the dependent woung birds, southeastern , when the		
SMF 1C 2.36	High Density Residential	130	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c American kestrel, bald eagle, an		
SMF 2/3	Hardwood-Conifer Mix	434	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flor		
7.57	Freshwater Marsh	641	1.07	14%	\$83,460	wetland-dependent wading birds, southeastern America		
SMF 4/5	Hardwood-Conifer Mix	434	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o		
10.47	Transportation	ation 810		0%	ŞŪ	American kestrel, bald eagle, a		
SMF 6A 3.25	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle, ar		
SMF 6B	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c		
3.69	Transportation	810	0.00	078	ŞU	American kestrel, bald eagle, a		
SMF 7A 3.16	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c American kestrel, bald eagle, an		
SMF 7B	Commercial and Services	140	0.00	0%	ćo.	eastern indigo snake, gopher tortoise, Florida sandhill c		
2.00	Open Land	190	0.00	0%	\$0	American kestrel, bald eagle, an		
	Commercial and Services	140	0.00	0%	\$0			
SMF 7C 8.82	Open Land	190	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo wetland-dependent wading birds, southeastern America		
0.02	Freshwater Marsh	641	0.66	7%	\$51,480			
SMF 7 Easement 0.17	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle an		
SMF 7/8	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o		
5.57	Open Land	190	0.00	078	ΨŲ	American kestrel, bald eagle and		
SMF 8A	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o		
2.65	Shrub and Brushland	320	0.00	0%	\$0	American kestrel, bald eagle an		
SMF 8B 3.58	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle an		

hat Could Use Habitat

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

Il crane, Florida burrowing owl, southeastern and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

Il crane, Florida burrowing owl, southeastern and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

ll crane, Florida burrowing owl, southeastern and Florida black bear

	Land Use / FLUCFCS Cod	e	We	tlands / Surface Wat	ters		
Pond Size (ac)	Туре		Wetland / Surface Water Impacts (ac)	Percent of Site	Wetland Mitigation Cost ^	Potential Protected Species tha	
SMF 8 Easement	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill d	
0.90	Shrub and Brushland	320	0.00	0%	\$0	American kestrel, bald eagle an	
SMF 9	Wet Prairie	643	0.04	1%	\$3,120	eastern indigo snake, wood stork, gopher tortoise, Flo	
2.87	Transportation	810	0.00	0%	\$0	wetland-dependent wading birds, southeastern America	
SMF 10A 3.25	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle an	
	Commercial and Services	140					
SMF 10B 4.53	Industrial	150	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle, an	
1.55	Coniferous Forest	140]			American Kestrei, bald eagle, a	
SMF 10C	Hardwood-Conifer Mix	434	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo	
2.45	Mixed Wetland Hardwoods	617	0.17	7%	\$13,260	wetland-dependent wading birds, southeastern America	
SMF 10 Easement 0.82	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle, an	
SMF 11A 1.23	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o American kestrel, bald eagle an	
SMF 11B 1.47	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c American kestrel, bald eagle, an	
SMF 12/13A	Commercial and Services	140	0.00	0%	ćo	eastern indigo snake, gopher tortoise, Florida sandhill c	
5.04	Hardwood-Conifer Mix	434	0.00	0%	\$0	American kestrel, bald eagle, an	
SMF 12/13B	Low Density Residential	110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c	
4.61	Woodland Pastures	213	0.00	0%		American kestrel, bald eagle, an	
SMF 12/13C	Low Density Residential	110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c	
5.43	Woodland Pastures	213	0.00	078	ŞU	American kestrel, bald eagle, a	
SMF 14A 5.77	Disturbed Land	740	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill c American kestrel, bald eagle, an	
SMF 14B	Rural Residential	118	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill o	
4.96	Open Land	190				American kestrel, bald eagle, an	

hat Could Use Habitat

ll crane, Florida burrowing owl, southeastern and Florida black bear

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

Il crane, Florida burrowing owl, southeastern and Florida black bear

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lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

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ll crane, Florida burrowing owl, southeastern and Florida black bear

	Land Use / FLUCFCS Cod	e	We	tlands / Surface Wat	ers	
Pond Size (ac)	Туре	Code	Wetland / Surface Water Impacts (ac)	Percent of Site	Wetland Mitigation Cost ^	Potential Protected Species that
	Low Density Residential	110				
	Rural Residential	118				
SMF 14 Easement	High Density Residential	130	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo
1.73	Commercial and Services	140				wetland-dependent wading birds, southeastern America
	Open Land	190				
	Wet Prairie	643	0.06	3%	\$4,680	
SMF 15/16 6.27	Transportation	810	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, an
	Rural Residential	118				
SMF 17A 3.78	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar
	Transportation	810				
SMF 17B	Low Density Residential	110	0.00	0%	έŋ	eastern indigo snake, gopher tortoise, Florida sandhill cra
4.09	Improved Pastures	211	0.00		\$0	American kestrel, bald eagle, an
SMF 17 Easement 0.11	Low Density Residential	110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, an
SMF 18A 2.15	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, an
SMF 18B	Commercial and Services	140	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra
2.13	Improved Pastures	211	0.00	078	γŪ	American kestrel, bald eagle, an
SMF 18 Easement 0.52	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, an
SMF 19A 1.57	Transportation	810	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, an
SMF 19B 2.05	Transportation	810	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, an
SMF 19C	Hardwood-Conifer Mix	434	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra
2.80	Transportation	810	0.00	078		American kestrel, bald eagle, an
SMF 19D	Hardwood-Conifer Mix	434	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra
4.19	Transportation	810	0.00	070		American kestrel, bald eagle, an

hat Could Use Habitat

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

crane, and Florida burrowing owl, southeastern and Florida black bear

crane, and Florida burrowing owl, southeastern and Florida black bear

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crane, and Florida burrowing owl, southeastern and Florida black bear

	Land Use / FLUCFCS Coc	le	We	tlands / Surface Wa	ters		
Pond Size (ac)	Туре	Code	Wetland / Surface Water Impacts (ac)	Percent of Site	Wetland Mitigation Cost ^	Potential Protected Species that	
	Improved Pastures	211	0.00	0%	\$0		
SMF 20A 7.81	Hardwood-Conifer Mix	434	0.00	0%	ŞU	eastern indigo snake, wood stork, gopher tortoise, Flo wetland-dependent wading birds, southeastern America	
	Mixed Forested Wetland	630	0.07	1%	\$5,460		
	Low Density Residential	110					
SMF 20B	Institutional	170	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo	
9.63	Improved Pastures	211				wetland-dependent wading birds, southeastern America	
	Freshwater Marsh	641	0.38	4%	\$29,640		
SMF 21A 7.78	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar	
	Institutional	170	0.00	0%	\$0		
SMF 20 Easement 1.01	Improved Pastures	211	0.00	078	ŶŬ	eastern indigo snake, wood stork, gopher tortoise wetland-dependent wading birds, southeastern Ame	
	Freshwater Marsh	641	0.85	84%	\$66,300		
SMF 21A	Mixed Forested Wetland	630	2.47	32%	\$192,660	eastern indigo snake, wood stork, gopher tortoise, Flo	
7.78	Freshwater Marsh	641	2.47		\$192,000	wetland-dependent wading birds, southeastern Amer	
SMF 21B 6.70	Unimproved Pasture	212	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar	
SMF 22A	Open Land	190	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flo	
3.94	Stream and Lake Swamps	615	0.24	6%	\$18,720	wetland-dependent wading birds, southeastern America	
SMF 22/23 4.33	Specialty Farms	250	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar	
SMF 23A 3.12	Specialty Farms	250	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar	
	Low Density Residential	110					
SMF 23B 2.82	Specialty Farms	250	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar	
2.02	Hardwood-Conifer Mix	434				American kestrei, baid eagle, al	
	Hardwood-Conifer Mix	434	0.00	0%	\$0		
SMF 24A 1.83	Wet Prairie	643	0.11	C 24	\$8,580	eastern indigo snake, wood stork, gopher tortoise, Flo wetland-dependent wading birds, southeastern America	
	Intermittent Ponds	653	0.11	6%	٠٥ <i>٤</i> ,٥٥		
SMF 24B	Herbaceous	310	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra	
1.83	Hardwood-Conifer Mix	434	0.00	0%	ŞU	American kestrel, bald eagle, an	

hat Could Use Habitat

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

crane, and Florida burrowing owl, southeastern and Florida black bear

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lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

crane, and Florida burrowing owl, southeastern and Florida black bear

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lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

crane, and Florida burrowing owl, southeastern and Florida black bear

	Land Use / FLUCFCS Cod	е	We	tlands / Surface Wa	ters	Potential Protected Species th		
Pond Size (ac)	Туре	Code	Wetland / Surface Water Impacts (ac)	Percent of Site	Wetland Mitigation Cost ^			
SMF 25A 1.86	Low Density Residential	110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		
SMF 25B 2.81	Low Density Residential	110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		
	Commercial and Services	140						
SMF 25C-1 2.07	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		
	Hardwood-Conifer Mix	434			4			
SMF 25C-2	Low Density Residential	110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra		
2.45	Medium Density Residential	120	0.00	078	ŲÇ	American kestrel, bald eagle, ar		
SMF 25 Easement	Hardwood-Conifer Mix	434	0.00	0%	¢0	eastern indigo snake, gopher tortoise, Florida sandhill cra		
0.11	Transportation	810	0.00	0%	\$0	American kestrel, bald eagle, a		
FPC 6R	Freshwater Marsh	641	0.60	18%	\$46,800	eastern indigo snake, wood stork, gopher tortoise, Flo		
3.38	Transportation	810	0.00	0%	\$0	wetland-dependent wading birds, southeastern Americ		
FPC 7A 1.26	Open Land	190	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		
FPC 12/13L	Commercial and Services	140	0.00	0%	¢0	eastern indigo snake, gopher tortoise, Florida sandhill cra		
1.55	Hardwood-Conifer Mix	434	0.00	0%	\$0	American kestrel, bald eagle, a		
FPC 12/13R	Woodland Pastures	213	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra		
1.09	Hardwood-Conifer Mix	434	0.00	0%	ŞŬ	American kestrel, bald eagle, ar		
FPC 14 0.78	Disturbed Land	740	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		
FPC 17/18 2.42	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		
FPC 19A	Freshwater Marsh	641	0.24	36%	\$18,720	eastern indigo snake, wood stork, gopher tortoise, Flo		
0.67	Transportation	810	0.00	0%	\$0	wetland-dependent wading birds, southeastern America		
FPC 19B 0.90	Transportation	810	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill cra American kestrel, bald eagle, ar		

hat Could Use Habitat

- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear
- lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear
- crane, and Florida burrowing owl, southeastern and Florida black bear

Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives (cont.)

	Land Use / FLUCFCS Cod	e	We	tlands / Surface Wat	ers	
Pond Size (ac)	Туре	Code	Wetland / Surface Water Impacts (ac)	Percent of Site	Wetland Mitigation Cost ^	Potential Protected Species that
	Improved Pastures	211	0.00	0%	\$0	
FPC 20 1.88	Mixed Forested Wetland	630	0.28	20%	400.640	eastern indigo snake, wood stork, gopher tortoise, Flo wetland-dependent wading birds, southeastern America
1.00	Freshwater Marsh	641	0.38		\$29,640	
FPC 21A	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flor
2.07	Mixed Forested Wetland	630	0.59	29%	\$46,020	wetland-dependent wading birds, southeastern America
FPC 21B	Unmproved Pastures	212	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flor
1.66	Mixed Forested Wetland	630	0.59	36%	\$46,020	wetland-dependent wading birds, southeastern America
FPC 21 Easement	Improved Pastures	211	0.00	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Flor
0.75	Mixed Forested Wetland	630	0.65	87%	\$50,700	wetland-dependent wading birds, southeastern America

^ = Based on an estimated UMAM delta of 0.60 (medium quality wetland) and a cost of \$130,000 per credit at Tampa Bay Mitigation Bank

Notes:

SMF 4/5 is directly adjacent to bald eagle nest HL047. Construction of this pond would likely occur within the 330ft primary buffer of the nest and require an incidental take permit.

nat Could Use Habitat

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

orida sandhill crane, Florida burrowing owl, can kestrel, bald eagle, and Florida black bear

lorida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

Florida sandhill crane, Florida burrowing owl, ican kestrel, bald eagle, and Florida black bear

ESA 500 1969-2019

4200 West Cypress Street Suite 450 Tampa, FL 33607 813.207.7200 phone 813.207.7201 fax

memorandum

date January 29, 2020

to John Littlefield, WSP

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from Tori Kuba, ESA

subject I-75 (SR 93A) from South of US 301 to North of Fletcher Avenue (CR 482A) Pond Update FPID: 419235-3 Hillsborough County, FL

In October 2019, scientists with ESA conducted a desktop environmental review of all ponds being considered for the I-75 (SR 93A) from South of US 301 to North of Fletcher Avenue (CR 482A) in Hillsborough County, Florida. At the time of the review, there were 68 sites proposed as potential stormwater management facilities (SMFs), floodplain compensation sites (FPCs) or easements for these drainage features. Potential sites were reviewed for anticipated protected species involvement and wetland and surface water impacts using the following sources:

- National Resources Conservation Service (NRCS) soils data;
- National Wetlands Inventory (NWI) data;
- 2011 and 2017 Southwest Florida Water Management District (SWFWMD) Florida Land Use; Cover and Forms Classification System (FLUCFCS) data;
- ESRI and Florida Department of Transportation (FDOT) 2017 imagery; and
- Google Earth 2019 imagery.

Thirty-two (32) SMF and FPC sites have been selected as preferred pond site locations. ESA scientists conducted field reviews of these locations on November 1, 6, and 8, 2019. FLUCFCS was field verified and sites were reviewed for potential involvement with protected species. The results of the field review are summarized in **Table 1**. The following is a summary and discussion of the sites which had FLUCFCS changes which influenced anticipated wetland and protected species involvement as compared with the initial desktop review.

Five preferred pond sites (SMF 1C, SMF 18A, SMF 19C, SMF 25A, and FPC 17/18,) had no changes that resulted from the field review. Specifically, characteristics identified from the desktop review did not change following the field review. There is no resultant change to expected wetland and protected species involvement.

Three preferred pond sites (SMF 17A, SMF 19B, and SMF 22/23) had some FLUCFCS refinements resulting from the field review. Specifically, these pond sites had characteristics identified from the desktop review that changed following the field review, however, the changes do not result in a change to expected wetland and protected species involvement. At these sites, either a FLUCFCS code was added or removed, or the acreage of a FLUCFCS code changed.

Following the field review, twenty-four preferred pond sites (SMF 2/3, SMF 4/5, SMF 6A, SMF 7/8, SMF 9, SMF 10C, SMF 11A, SMF 12/13C, SMF 14A, SMF 15/16, SMF 19A, SMF 19D, SMF 20A, SMF 21B, SMF 24B, FPC 6R, FPC 7A, FPC 12/13L, FPC 12/13R, FPC 14, FPC 19A, FPC 19B, FPC 20, and FPC 21B) had changes to expected wetland and protected species involvement. These sites are listed in bold in **Table 1**. At these sites, either a FLUCFCS code was added or removed, or the acreage of a FLUCFCS code changed. There were instances when expected wetland impact acreages increased and instances when these acreages decreased. In other instances, the type of wetland habitat involved (i.e. freshwater marsh, mixed wetland hardwood etc.) and expected acreage within the pond site changed.

Overall, based on the field verification of FLUCFCS, the thirty-two preferred SMF and FPC sites will result in an estimated impact of 8.54 acres of wetlands and 4.42 acres of surface waters. Generally, wetlands have been impacted by the existing roadway and other development and are of low to moderate quality and the surface waters may not require mitigation because many were previously permitted.

Notably, a documented bald eagle (*Haliaeetus leucocephalus*) nest, HL047, is in a cell phone tower adjacent to SMF 4/5. Bald eagle nests have two protection buffer zones, a 330-foot primary protective zone, and a 660-foot secondary protection zone. SMF 4/5 falls within the primary protective zone of the nest and SMF 2/3 falls within the secondary protective zone of the nest. At a minimum, for these two ponds, coordination of construction activities with the U.S. Fish and Wildlife Service (USFWS) would be required. If construction activities occur during the bald eagle nesting season (October 1 through May 15) within the 330-foot protective zone it is possible an incidental take permit for the nest may also be required.

No protected species were directly observed during field surveys. Prior to construction, a 100 percent survey for gopher tortoise (*Gopherus polyphemus*) burrows should be conducted to determine whether a relocation permit is needed. Preconstruction surveys may also be required for Florida sandhill crane (*Antigone canadensis pratensis*), Florida burrowing owl (*Athene cunicularia floridana*), and southeastern American kestrel (*Falco sparverius paulus*). The project may result in impacts to wading bird and wood stork (*Mycteria americana*) suitable foraging habitat; however, it will be offset by the purchase of mitigation bank credits for wetland impacts associated with the project. Construction activities will likely be required to follow the USFWS' *Standard Protection Measures for the Eastern Indigo Snake (Drymarchon corais couperi*).

Table 1. Summary of Wetland and Potential Protected Species Involvement, and Land Use Characteristics for Pond Site Alternatives	5
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Pond	Field-Verified FLUCFCS	5	Wetlands /	Surface Water I	nvolvement		
Size (ac)	Description	Code	Impacts (ac)	Percent of Site	Mitigation Cost *	Potential Protected Species that Could Use Habitat	Field Verification Update
SMF 1C 2.36	Residential High Density	1300	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	None
	Open Land	1900					
SMF 2/3 7.56	Upland Hardwood - Coniferous Mixed	4340	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	Wetlands removed and minor FLUCFCS refinement
	Transportation	8100					
	Upland Hardwood - Coniferous Mixed	4340				eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida	
SMF 4/5	Inland Ponds and Sloughs	6160	1.18	11%	\$92,040	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Wetlands added and FLUCFCS
10.47	Freshwater Marsh with Shrubs, Brush, and Vines	6417	1.10	11/0	φ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	eagle, and Florida black bear	refinement
	Transportation	8100					
SMF 6A	Open Land	1900	<0.01	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Very small area of wetland
3.25	Freshwater Marshes	6410				eagle, and Florida black bear	added
SMF 7/8	Improved Pastures	2110	0.14	3%	\$10,920	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Wetland added
5.57	Wet Prairies	6430		0,0	\$ 10 , 71 0	eagle, and Florida black bear	
SMF 9 0.66	Transportation	8100	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	Wetland removed
	Upland Hardwood Forests	4200				aastarn indige grake wood stark, ganhar tarteige Floride gandhill erene Floride	
SMF 10C 2.45	Stream and Lake Swamps (Bottomland)	6150	1.83	75%	\$142,740	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Increased wetland area and FLUCFCS refinement
	Wet Prairies	6430				eagle, and Florida black bear	
	Commercial and Services	140				eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida	
SMF 11A	Upland Hardwood Forests	4200	0.08	7%	\$6,240	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Surface water added and
1.23	Reservoirs	5300				eagle, and Florida black bear	FLUCFCS refinement
	Residential, Low Density <2	1100					
	Units per Acre	1000					
SMF 12/13C	Open Land Improved Pastures	1900 2110				eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida	Small area of wetland added and
5.43	Woodland Pastures	2110	0.01	0%	\$780	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	FLUCFCS refinement
5.45	Upland Hardwood - Coniferous					eagle, and Florida black bear	r Loer es remement
	Mixed	4340					
	Freshwater Marshes	6410					
	Commercial and Services	1400					
SMF 14A	Open Land	1900	1.93	220/	¢1 40 7 40	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida	Wetland added and FLUCFCS
5.77	Improved Pastures	2110	1.83	32%	\$142,740	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	refinement
	Wet Prairies	6430				eagle, and Florida black bear	

Pond	Field-Verified FLUCFCS	5	Wetlands /	etlands / Surface Water Involvement				
Size (ac)	Description	Code	Impacts (ac)	Percent of Site	Mitigation Cost *	Potential Protected Species that Could Use Habitat	Field Verification Update	
	Upland Hardwood - Coniferous Mixed	4340				eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida		
SMF 15/16 6.27	Freshwater Marsh with Shrubs, Brush, and Vines	6417	<0.01	0%	\$0	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Small area of wetland added and FLUCFCS refinement	
	Transportation	8100						
SMF 17A	Residential, Medium Density 2-5 Units per Acre	2110		00/	.	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl,		
3.92	Improved Pastures	2110	0.00	0%	\$0	southeastern American kestrel, bald eagle, and Florida black bear	FLUCFCS refinement	
	Transportation	8110						
SMF 18A 2.15	Improved Pastures	2110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	None	
SMF 19A	Upland Hardwood - Coniferous Mixed	4340	-0.01	00/	¢o	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida	Small area of wetland added and FLUCFCS refinement	
1.57	Freshwater Marshes	6410	<0.01	0%	\$0	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear		
	Transportation	8100				eagle, and Florida black beat		
SMF 19B 2.05	Upland Hardwood - Coniferous Mixed	4340	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	FLUCFCS refinement	
2.03	Transportation	8100		ļ		southeastern 7 mierrean Restrer, ourd eugre, and 1 forrea order oear		
SMF 19C 2.80	Upland Hardwood - Coniferous Mixed	4340	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	None	
2.00	Transportation	8100				southeastern 7 mierrean Restrer, suid eagre, and 7 forrad order oear		
SMF 19D 4.19	Reservoirs	5300	3.57	85%	\$278,460	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Surface water added and FLUCFCS refinement	
4.17	Transportation	8100				eagle, and Florida black bear		
	Unimproved Pastures Upland Hardwood - Coniferous	2120	0.03		\$2,340	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Wetland area reduced and FLUCFCS refinement	
SMF 20A 7.81	Mixed	4340		0%				
	Mixed Wetland Hardwoods Transportation	0.03 8100				eagle, and Florida black bear		
	Unimproved Pastures	2120				contain indice make wood stark context the Divide and thill are Divide		
SMF 21B	Freshwater Marshes	6410	0.86	13%	\$67,080	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald	Wetland added and FLUCFCS	
6.70	Emergent Aquatic Vegetation	6440				eagle, and Florida black bear	refinement	
SMF 22/23 4.33	Residential, Low Density <2 Units per Acre	1100	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	FLUCFCS refinement	
	Specialty Farms	2500				sourcestore i more sur restrict, cara cagre, and i forrau orack cour		
	Herbaceous	3100				eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida		
SMF 24B 1.83	Upland Hardwood - Coniferous Mixed	4340	0.14	8%	\$10,920	burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Wetland added and FLUCFCS refinement	
	Mixed Wetland Hardwoods	6170						
SMF 25A 1.86	Residential, Low Density <2 Units per Acre	1100	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	None	

	Field-Verified FLUCFCS		Wetlands /	Surface Water I	nvolvement		
Pond Size (ac)	Description	Code	Impacts (ac)	Percent of Site	Mitigation Cost *	Potential Protected Species that Could Use Habitat	Field Verification Update
FPC 6R 3.38	Upland Coniferous Forests Freshwater Marsh with Shrubs, Brush, and Vines Transportation	4100 6417 8100	0.46	14%	\$35,880	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Reduced wetland area and FLUCFCS refinement
FPC 7A 1.26	Shrub and Brushland Pine Flatwoods Freshwater Marsh with Shrubs, Brush, and Vines	3200 4110 6417	0.16	13%	\$12,480	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Wetland added and FLUCFCS refinement
FPC 12/13L 1.55	Commercial and Services Open Land Upland Hardwood - Coniferous Mixed Mixed Wetland Hardwoods Freshwater Marsh with Shrubs, Brush, and Vines	1400 1900 4340 6170 6417	0.53	34%	\$41,340	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Wetland added and FLUCFCS refinement
FPC 12/13R 1.09	Improved Pastures Woodland Pastures Upland Hardwood - Coniferous Mixed Freshwater Marshes	2110 2130 4340 6410	<0.01	0%	\$0	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Wetland added and FLUCFCS refinement
FPC 14 0.78	Improved Pastures Wet Prairies	2110 6430	0.04	5%	\$3,120	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Wetland added and FLUCFCS refinement
FPC 17/18 2.42	Improved Pastures	2110	0.00	0%	\$0	eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl, southeastern American kestrel, bald eagle, and Florida black bear	None
FPC 19A 0.67	Freshwater Marsh with Shrubs, Brush, and Vines Transportation	6417 8100	0.06	9%	\$4,680	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Reduced wetland area and FLUCFCS refinement
FPC 19B 0.90	Transportation Reservoirs	8100 5300	0.77	86%	\$60,060	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Surface water added
FPC 20 1.88	Unimproved Pastures Wetland Shrub Transportation	2120 6310 8100	1.19	63%	\$92,820	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Increased wetland area and FLUCFCS refinement
FPC 21B 1.66	Unimproved Pastures Upland Hardwood - Coniferous Mixed Freshwater Marshes Transportation	2120 4340 6410 8100	0.08	5%	\$6,240	eastern indigo snake, wood stork, gopher tortoise, Florida sandhill crane, Florida burrowing owl, wetland-dependent wading birds, southeastern American kestrel, bald eagle, and Florida black bear	Reduced wetland area and FLUCFCS refinement
* - Deced en en	antimated IIMAN delta of 0 (0) (ma		1:4	1	T to the second it of T	Anna Day Mitiastica Dayle	

* = Based on an estimated UMAM delta of 0.60 (medium quality wetland) and a cost of \$130,000 per credit at Tampa Bay Mitigation Bank

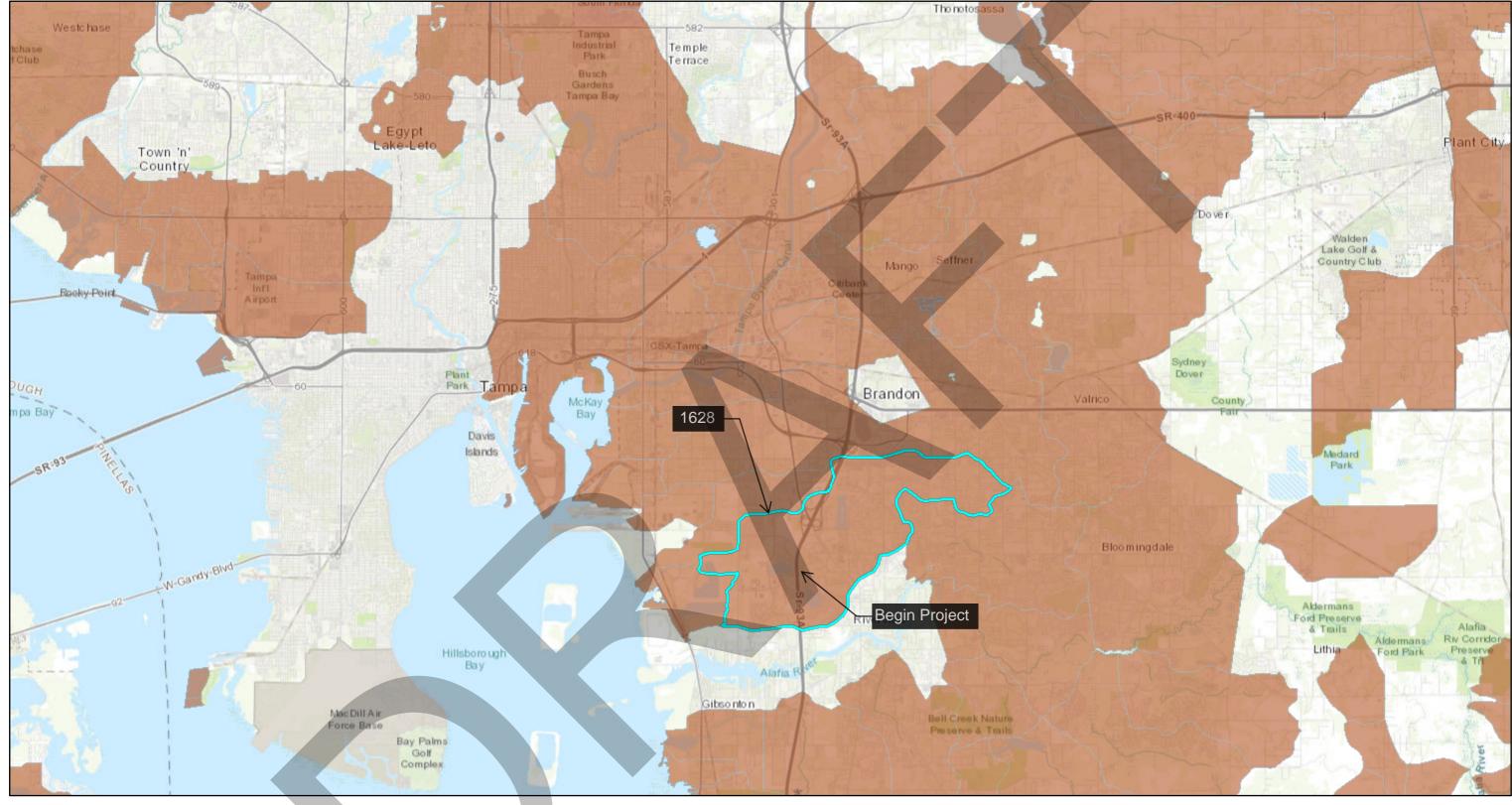
<u>Notes</u>:

Sites shown in bold have had a FLUCFCS code change that involves a change in expected wetland impact acreage and/or protected species involvement since the initial environmental desktop review SMF 4/5 falls within the 330-ft primary buffer of bald eagle nest HL 047 and construction would likely require an incidental take permit

SMF 2/3 falls within the 660-ft secondary buffer of bald eagle nest HL047 and construction activities would need to be coordinated with the FWC

Appendix I FDEP Verified Impaired List

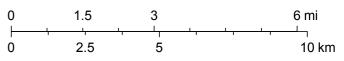
SR 93A (I-75) - Verified Impaired WBID Map



February 4, 2020

Verified List WBIDs

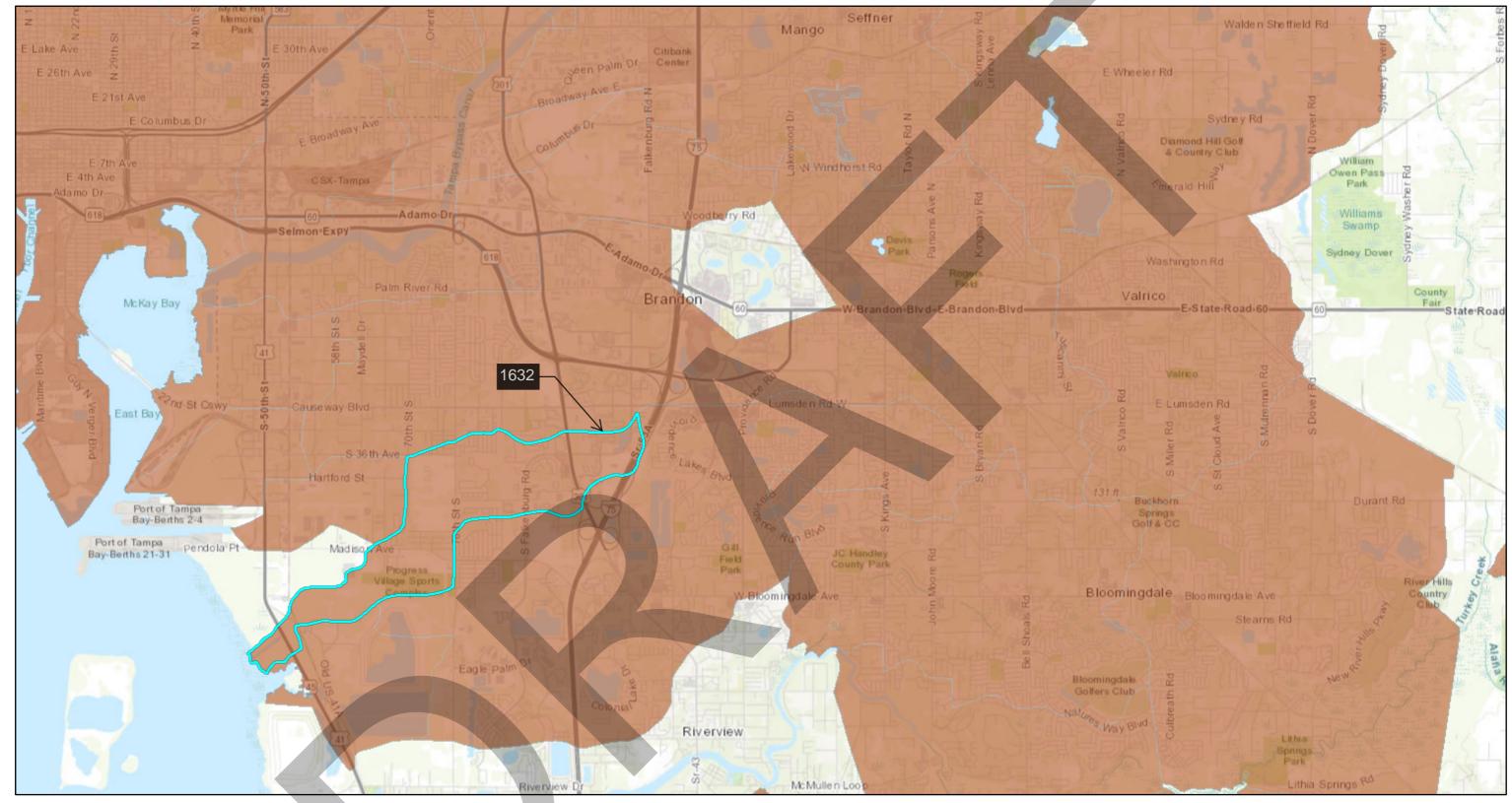




FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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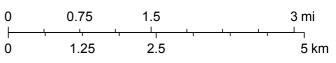
SR 93A (I-75) - Verified Impaired WBID Map



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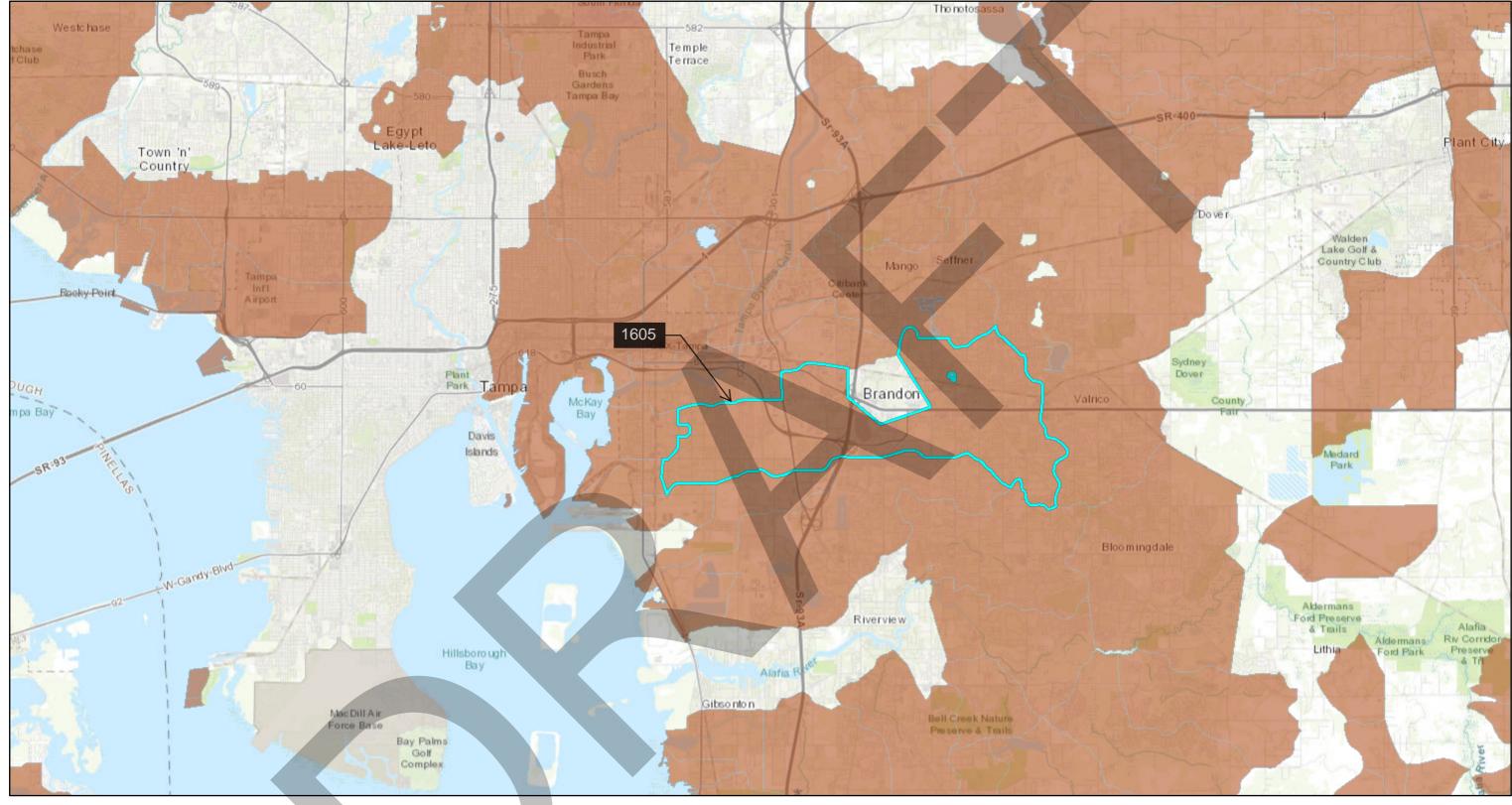




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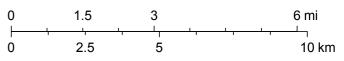
SR 93A (I-75) - Verified Impaired WBID Map



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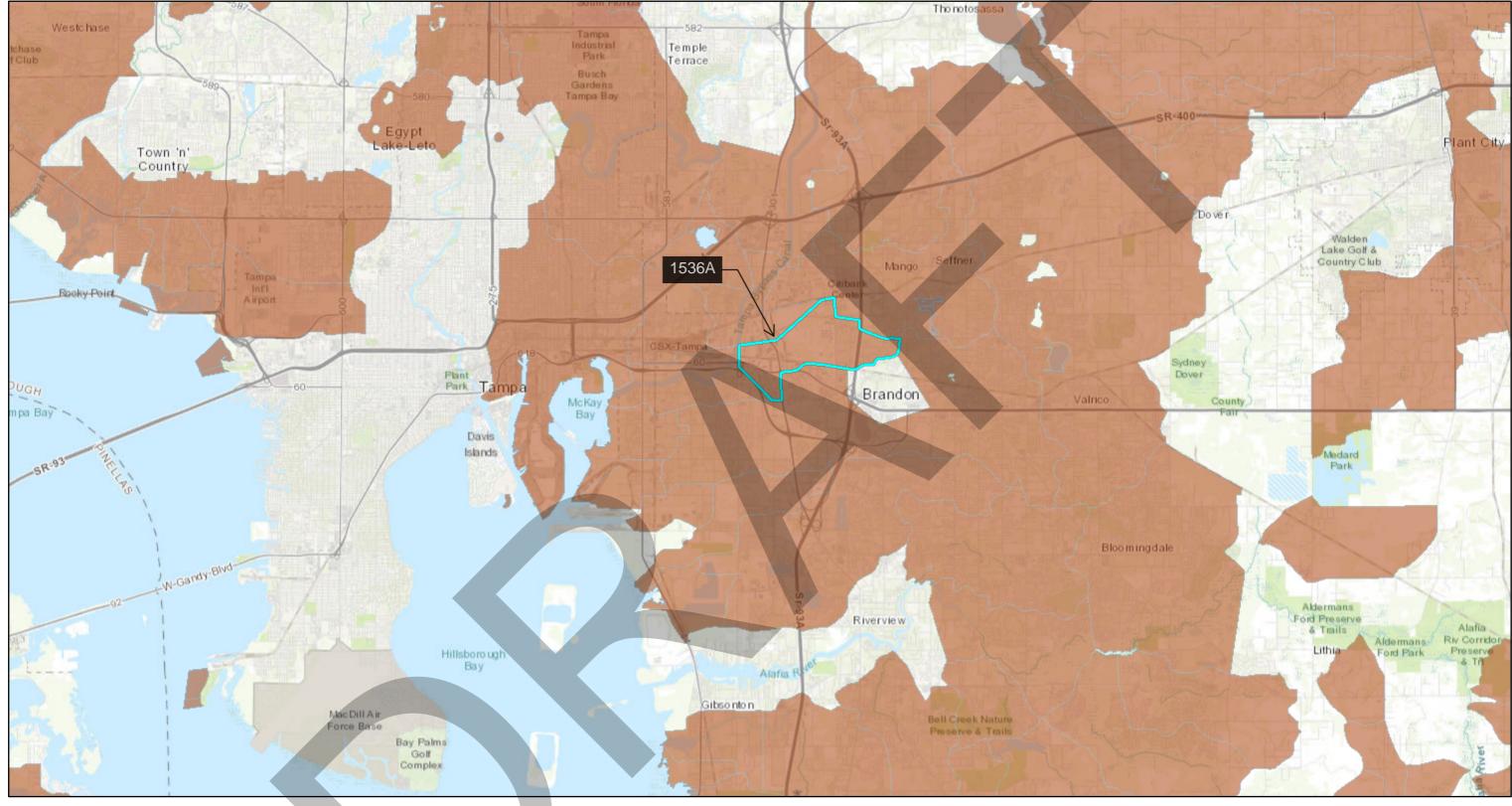
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FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

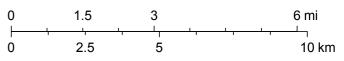
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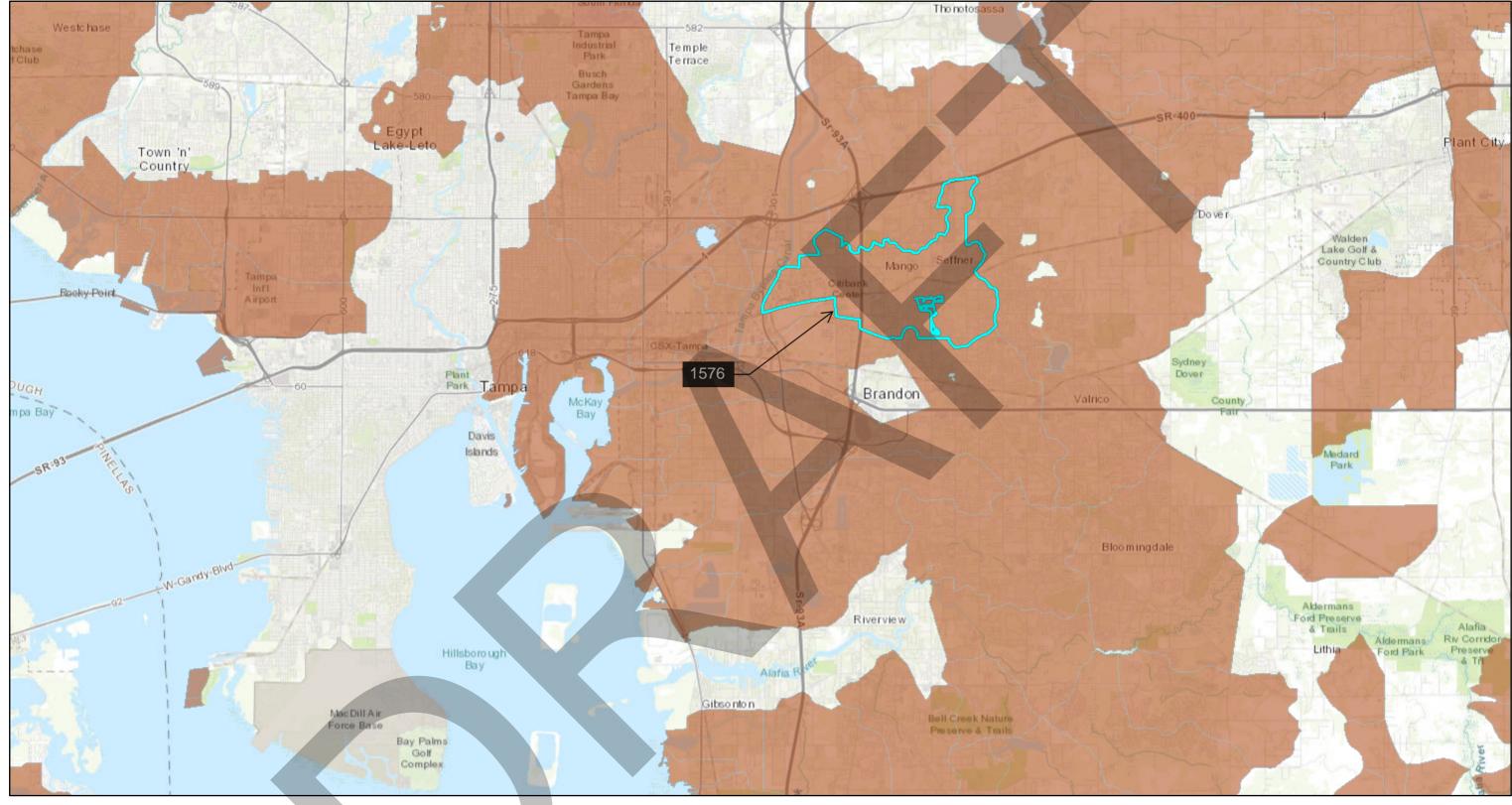
February 4, 2020

Verified List WBIDs





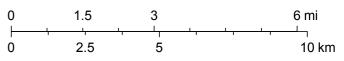
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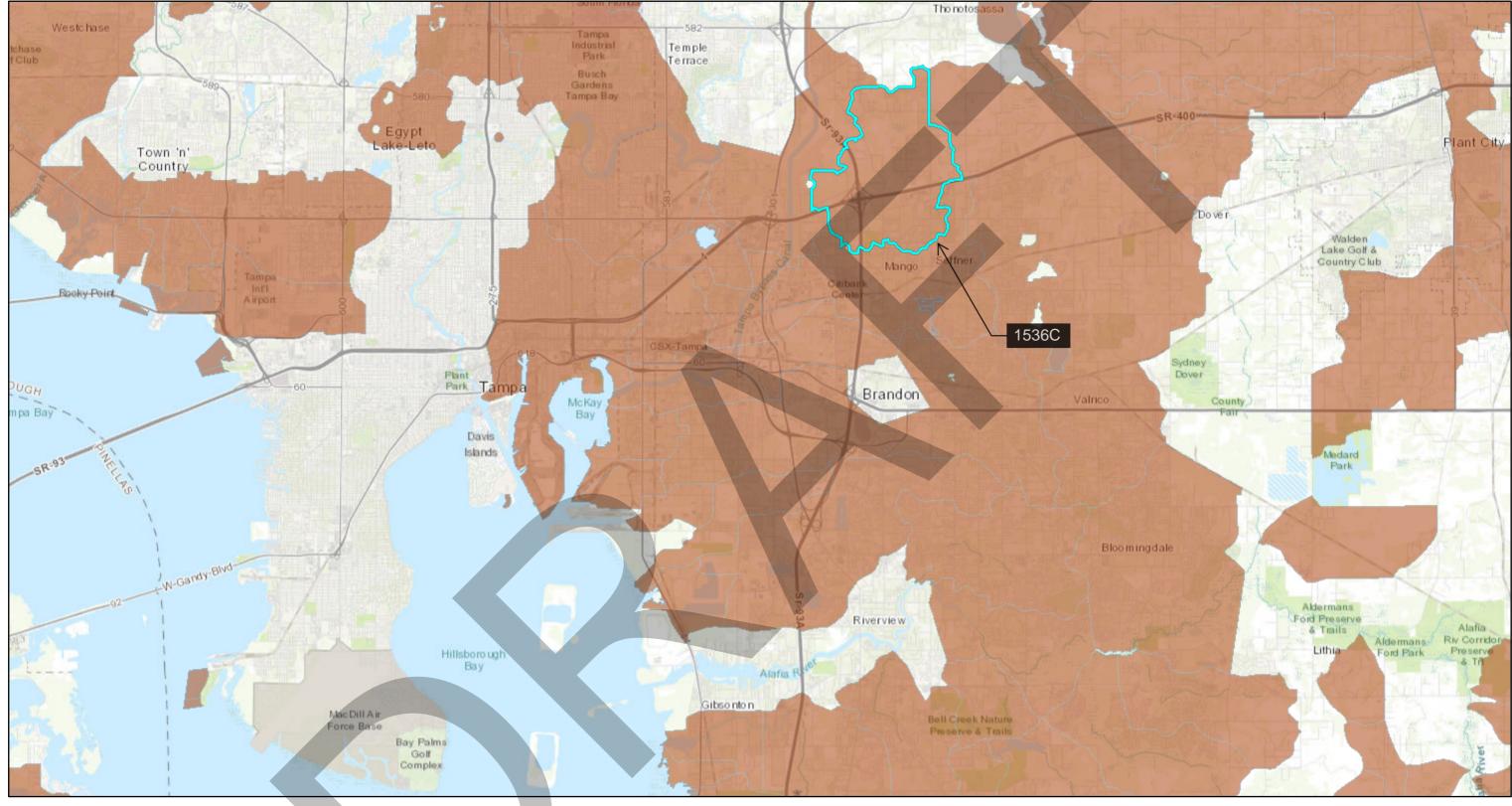
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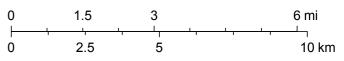
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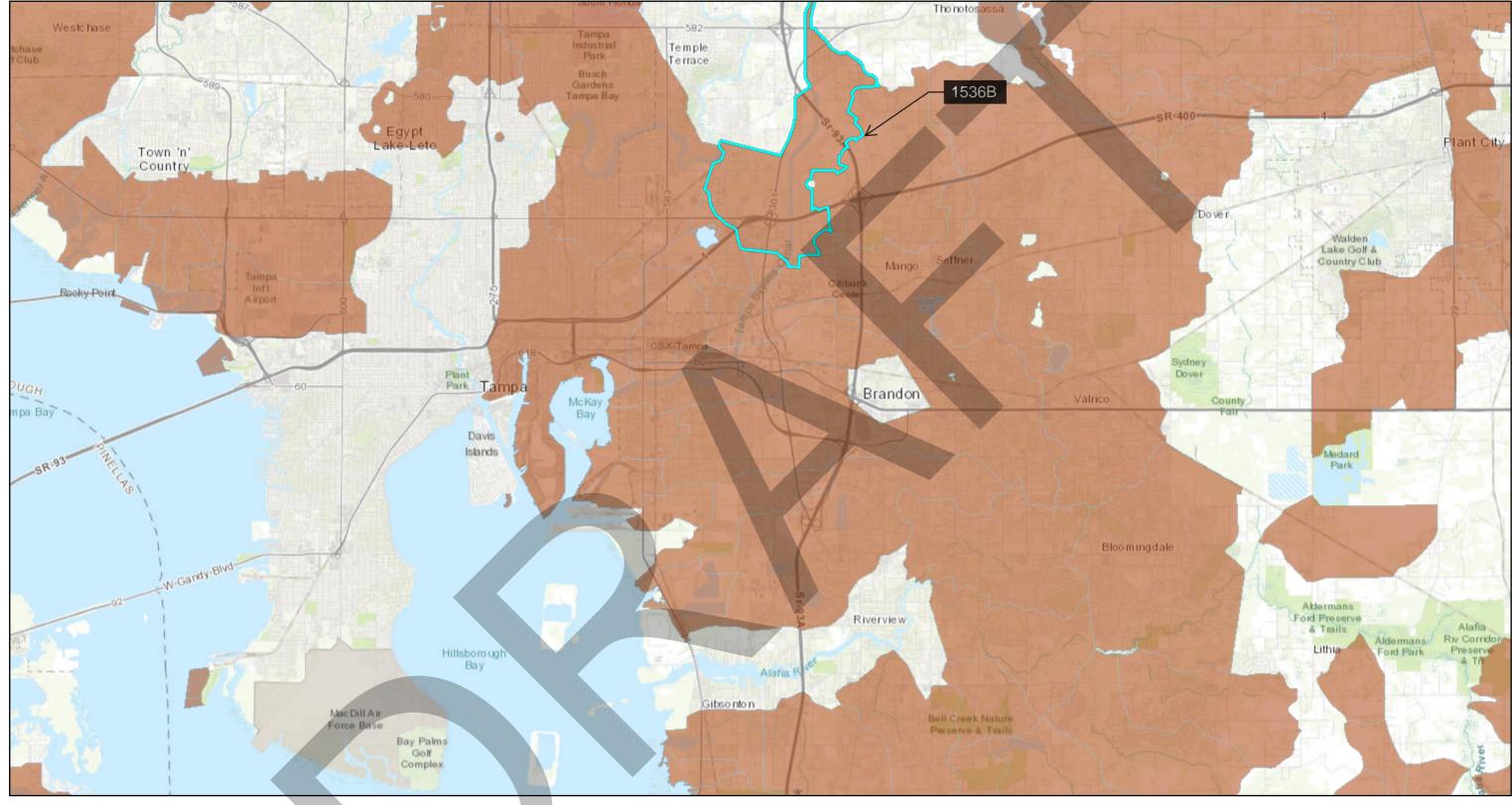
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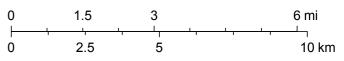
FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



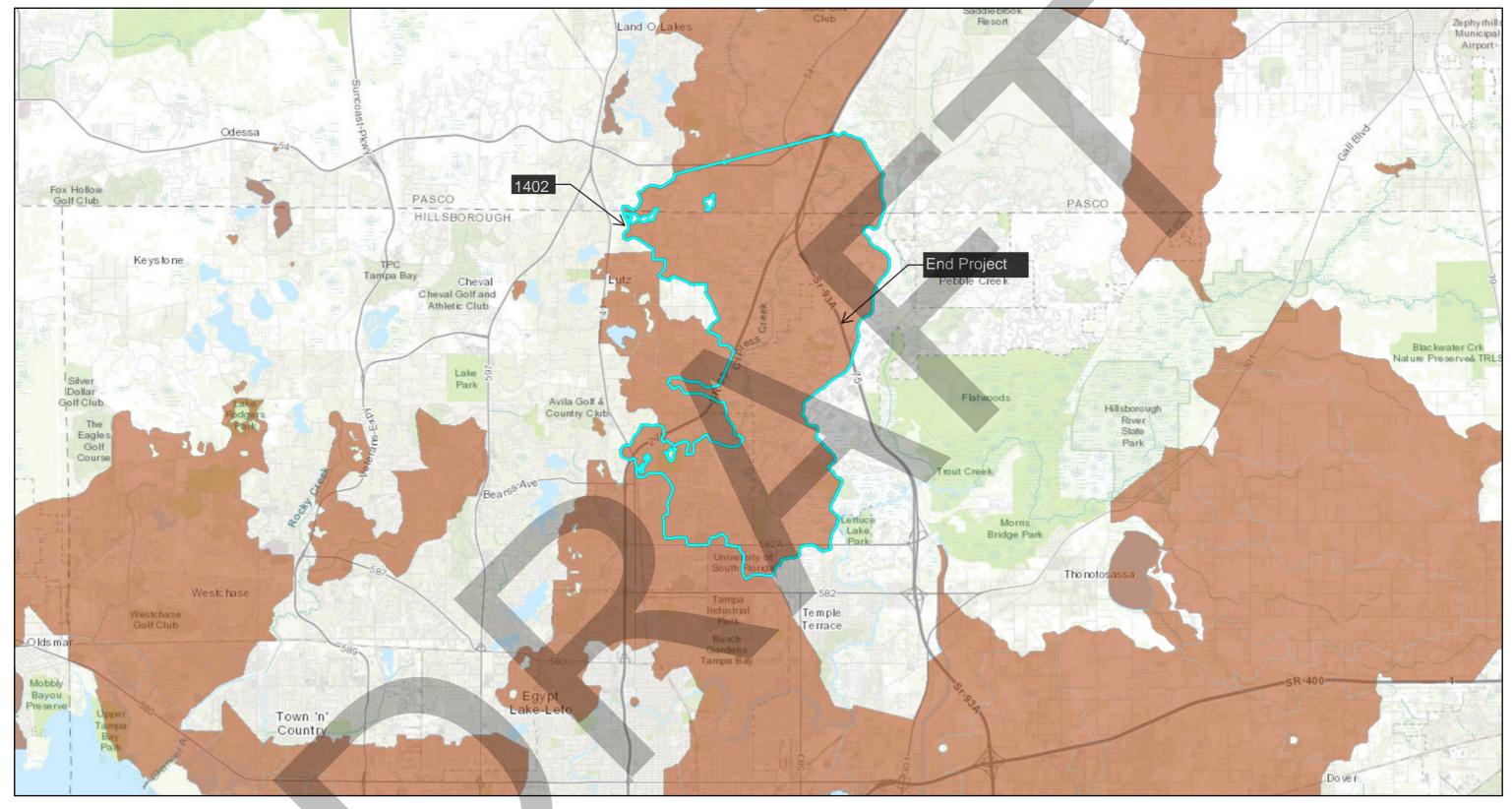
February 4, 2020

Verified List WBIDs



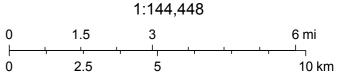


FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



February 4, 2020

Verified List WBIDs



FDEP, DEAR, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map created by Map Direct, powered by ESRI.

Cycle	Group	OGC Case Number	Group Name	Planning Unit	County (-ies)	WBID	Water Segment Name	Water- body Type	Water- body Class ¹	1998 303(d) Parameters of Concern	Parameters Assessed Using the Impaired Waters Rule (IWR)	Dissolved Oxygen/Biology Pollutant of Concern	Concentration of Criterion or Threshold Not Met	Priority for TMDL Development ³	Projected Year For TMDL Development ³	Verified Period Assessment Data ⁸	Comments ^{7,8}
2	2	09-2293	Tampa Bay Tributaries	Hillsborough River	Hillsborough, Pasco	1402	Cypress Creek	Stream	3F	Coliforms	Fecal Coliform		≤ 400 Counts / 100 mL	Low		11/64	Delisted from the 1998 303(d) list in Cycle 1, re-listed in Cycle 2.
3	1	13-0183	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1536A	Unnamed Drain	Stream	3F		Fecal Coliform		≤ 400 Counts / 100 mL	Low		7/11	This parameter is impaired for this waterbody based on the number of exceedances for a sample size less than 20. Fewer than twenty samples may be used to identify a waterbody as impaired if there are at least five exceedances, per Rule 62-303.420(7)(a), F.A.C. This parameter is being added to the 303(d) list.
3	1	13-0184	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1536B	Sixmile Creek (Tampa Bypass Canal)	Stream	3F	Biochemical Oxygen Demand	Dissolved Oxygen	Biochemical Oxygen Demand	≥ 5.0 mg/L	Low		49/145	This parameter is impaired for this waterbody based on the number of exceedances for the sample size. Median total nitrogen and total phosphorus values were not elevated relative to comparable waters and biochemical oxygen demand was identified as the causative pollutant because it was elevated relative to comparable waters (exceeded 2.0 mg/L). This parameter is being added to the 303(d) list.
3	1	13-0185	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1536B	Sixmile Creek (Tampa Bypass Canal)	Stream	3F	Dissolved Oxygen	Dissolved Oxygen	Biochemical Oxygen Demand	≥ 5.0 mg/L	Low		49/145	This parameter is impaired for this waterbody based on the number of exceedances for the sample size. Median total nitrogen and total phosphorus values were not elevated relative to comparable waters and biochemical oxygen demand was identified as the causative pollutant because it was elevated relative to comparable waters (exceeded 2.0 mg/L). This parameter is being added to the 303(d) list.
3	1	13-0187	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1536C	Tampa Bypass Canal Tributary	Stream	3F		Fecal Coliform		≤ 400 Counts / 100 mL	Low		10/25	This parameter is impaired for this waterbody based on the number of exceedances for the sample size and is being added to the 303(d) list.
2	1	09-2361	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1576	Mango Drain	Stream	3F		Dissolved Oxygen	Nutrients (added from comments)	< 5.0 mg/L	Medium			pp = 2 / 6; vp = 17 / 24. Verified impaired. Nutrients (total phosphorus) were identified as the causative pollutant based on Chl-a data/nutrient impairment. Verified period median TN = 1.24 mg/L (19 values), median TP = 0.3 (18 values), median BOD = 1.8 (12 values).
3	1	13-0193	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1576	Mango Drain	Stream	3F		Fecal Coliform		≤ 400 Counts / 100 mL	Low		34/80	This parameter is impaired for this waterbody based on the number of exceedances for the sample size and is being added to the 303(d) list.
4	1	19-0679	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1605	Delaney Creek	Stream	ЗF		Nutrients (Macrophytes)		LVS C of C ≥ 2.5 and LVS FLEPPC ≤ 25%	Medium		03/23/2016: Avg CofC - 1.8, FLEPPC - 36% 05/12/2016: Avg CofC - 1.0, FLEPPC - 69% 05/16/2016: Avg CofC - 1.6, FLEPPC - 62% 10/03/2016: Avg CofC - 2.1, FLEPPC - 32%	This waterbody is impaired for this parameter based on failing linear vegetation surveys with an average C of C score < 2.5 and FLEPPC percent coverage of > 25%. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List. USF Water Institute provided additional biological data used in this assessment.
3	1	13-0211	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1628	Archie Creek	Stream	ЗF		Fecal Coliform		≤ 400 Counts / 100 mL	Low		11/19	This parameter is impaired for this waterbody based on the number of exceedances for a sample size less than 20. Fewer than twenty samples may be used to identify a waterbody as impaired if there are at least five exceedances, per Rule 62-303.420(7)(a), F.A.C. This parameter is being added to the 303(d) list.
4	1	19-0685	Tampa Bay	Coastal Hillsborough Bay Tributary	Hillsborough	1632	Delaney Creek Popoff Canal	Estuary	ЗМ		Enterococci		≤ 130 Counts / 100 mL	High		19/28	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.

¹ Florida's waterbody classifications are defined as:

1 - Potable water supplies

2 - Shellfish propagation or harvesting

3F - Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in fresh water

3M - Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in marine water

4 - Agricultural water supplies

5 - Navigation, utility, and industrial use

² n is equal to the number of samples. When samples are collected at the same location less than 4 days apart, the median of those results represents a single sample for the purpose of determining n.

³ Where a parameter was identified as impaired under the IWR, a priority of "medium" was assigned. Exceptions are waters where the impairment

poses a threat to potable water or human health, which have been assigned a "high" priority, and fecal coliform impairments, which have been assigned a "low" priority.

All other listings are prioritized based on the following: it is our intent that listings with a "High" priority be addressed within the next 5 years,

listings with a "Medium" priority be addressed within 5-10 years as resources allow, and listings with a "Low" priority be addressed within the next 10 years.

⁷ PP - Planning Period (10 year period; beginning and ending date vary by group/cycle combination); Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples.
 ⁸ VP - Verified Period (7.5 year period; beginning and ending date vary by group/cycle combination); Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples. A statewide TMDL for mercury, that will address this waterbody, is scheduled to be completed in 2012.

N/A = Not Applicable, does not apply, or was not assessed in the previous cycle (i.e. it's a new WBID, waterbody type change, etc.).

^ Beach advisories are based on FL Dept of Health Enterococcus criterion of >103 CFU/100mL.

Date: 02/06/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 20% P: 20%

Catchment Name	BASIN 7B
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall (in)	51.00
Pre-Condition Landuse Informati	on
Pre-Condition Landuse	Highway: TN=1.520 TP=0.200
Pre Condition Area (acres)	107.85
Pre Rational Coefficient (0-1)	0.30
Pre Non DCIA Curve Number	80.00
Pre DCIA Percent (0-100)	25.00
Pre Nitrogen EMC (mg/l)	1.520
Pre Phosphorus EMC (mg/l)	0.200
Pre Runoff Volume (ac-ft/yr)	138.884
Pre Nitrogen Loading (kg/yr)	260.291
Pre Phosphorus Loading (kg/yr)	34.249
Post-Condition Landuse Informat	ion
Post-Condition Landuse	Highway: TN=1.520 TP=0.200
Post Condition Area (acres)	107.85
Post Rational Coefficient (0-1)	0.39
Post Non DCIA Curve Number	80.00
Post DCIA Percent (0-100)	37.00
Post Nitrogen EMC (mg/l)	1.520
Post Phosphorus EMC (mg/l)	0.200
Post Runoff Volume (ac-ft/yr)	173.647
Post Nitrogen Loading (kg/yr)	325.442
Post Phosphorus Loading (kg/yr)	42.821

Project: I-75 PD&E **Date:** 2/3/2020

Wet Detention with Littoral Shelf Design

Permanent Pool Volume (ac-ft)9.640Permanent Pool Volume (ac-ft) for 31 days residence14.748Annual Residence Time (days)20Littoral Zone Efficiency Credit10Wetland Efficiency Credit10

Watershed Characteristics

Catchment Area (acres)107.85Contributing Area (acres)105.850Non-DCIA Curve Number80.00DCIA Percent37.00Rainfall ZoneFlorida Zone 4Rainfall (in)51.00

Surface Water Discharge

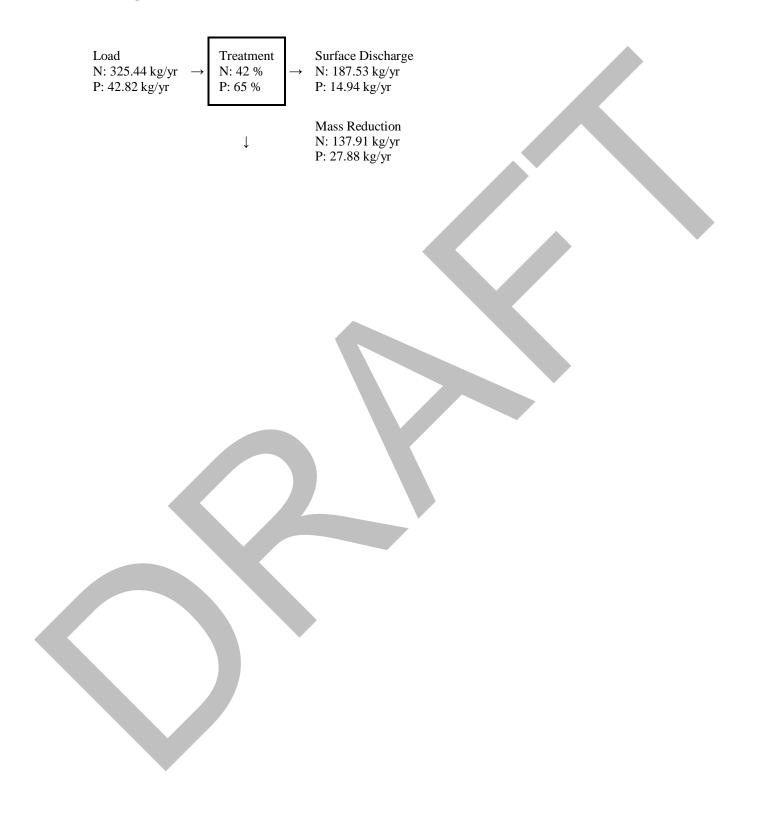
Required TN Treatment Efficiency (%) 20 Provided TN Treatment Efficiency (%) 42 Required TP Treatment Efficiency (%) 20 Provided TP Treatment Efficiency (%) 65

Media Mix Information

Type of Media Mix Not Specified Media N Reduction (%) Media P Reduction (%)

Media Discharge (Stand-Alone)

Treatment Rate (MG/yr)0.000TN Mass Load (kg/yr)0.000TN Concentration (mg/L)0.000TP Mass Load (kg/yr)0.000TP Concentration (mg/L)0.000



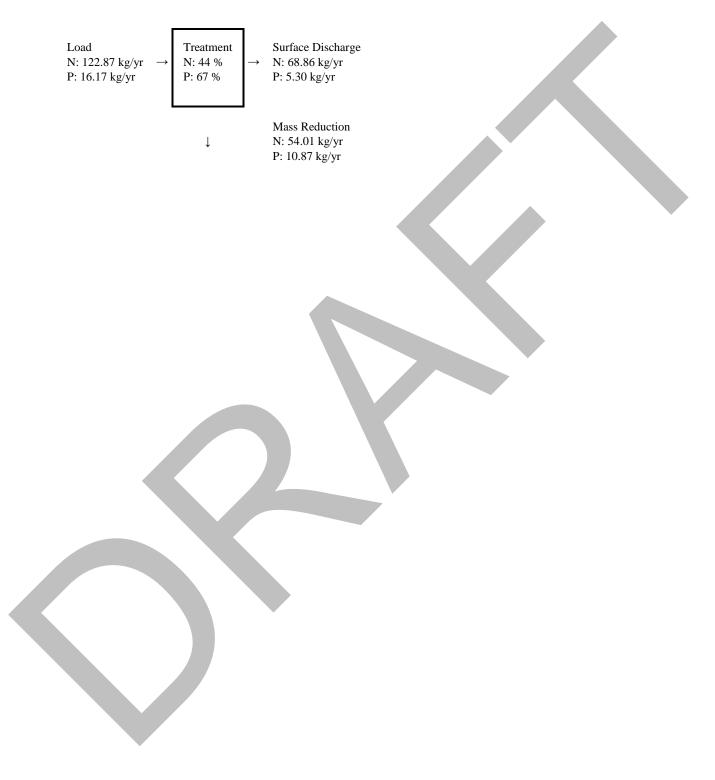
Date: 02/03/2020

Catchment Information

Catchment Information	
Analysis: Net Improvement Requi	red Removal N: 31% P: 31%
Catchment Name	BASIN 8A
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall (in)	51.00
Pre-Condition Landuse Informati	on
Pre-Condition Landuse	Highway: TN=1.520 TP=0.200
Pre Condition Area (acres)	27.44
Pre Rational Coefficient (0-1)	0.39
Pre Non DCIA Curve Number	80.00
Pre DCIA Percent (0-100)	37.00
Pre Nitrogen EMC (mg/l)	1.520
Pre Phosphorus EMC (mg/l)	0.200
Pre Runoff Volume (ac-ft/yr)	45.015
Pre Nitrogen Loading (kg/yr)	84.366
Pre Phosphorus Loading (kg/yr)	11.101
Post-Condition Landuse Informat	ion
Post-Condition Landuse	Highway: TN=1.520 TP=0.200
Post Condition Area (acres)	27.44
Post Rational Coefficient (0-1)	0.59
Post Non DCIA Curve Number	80.00
Post DCIA Percent (0-100)	66.00
Post Nitrogen EMC (mg/l)	1.520
Post Phosphorus EMC (mg/l)	0.200
Post Runoff Volume (ac-ft/yr)	65.562
Post Nitrogen Loading (kg/yr)	122.874
Post Phosphorus Loading (kg/yr)	16.168

Wet Detention

Contributing Catchment Area (acres)	26.280
Permanent Pool Area (acres)	1.16
Required Nitrogen Treatment Efficiency (%)	31
Required Phosphorus Treatment Efficiency (%)	31
Average Residence Time (days)	27
Average Annual Runoff Volume (ac-ft/yr)	65.56
Permanent Pool Volume (ac-ft)	4.930
Removal Efficiencies	
Littoral Zone Efficiency Credit	10
Additional N Littoral Removal (%)	6
Additional P Littoral Removal (%)	4
Wetland Efficiency Credit	
Additional N Wetland Removal (%)	
Additional P Wetland Removal (%)	
Provided Nitrogen Treatment Efficiency (%)	44
Provided Phosphorus Treatment Efficiency (%)	67



Date: 02/03/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 46% P: 46%

Catchment Name	BASIN 14A
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall (in)	51.00
Pre-Condition Landuse Information	
Pre-Condition Landuse	Highway: TN=1.520 TP=0.200
Pre Condition Area (acres)	35.94
Pre Rational Coefficient (0-1)	0.28
Pre Non DCIA Curve Number	70.00
Pre DCIA Percent (0-100)	28.00
Pre Nitrogen EMC (mg/l)	1.520
Pre Phosphorus EMC (mg/l)	0.200
Pre Runoff Volume (ac-ft/yr)	43.044
Pre Nitrogen Loading (kg/yr)	80.670
Pre Phosphorus Loading (kg/yr)	10.615
Post-Condition Landuse Information	
Post-Condition Landuse	Highway: TN=1.520 TP=0.200
Post Condition Area (acres)	35.94
Post Rational Coefficient (0-1)	0.58
Post Non DCIA Curve Number	70.00
Post DCIA Percent (0-100)	67.00
Post Nitrogen EMC (mg/l)	1.520
Post Phosphorus EMC (mg/l)	0.200
Post Runoff Volume (ac-ft/yr)	80.427
Post Nitrogen Loading (kg/yr)	150.734
Post Phosphorus Loading (kg/yr)	19.833

Project: I-75 PD&E **Date:** 2/3/2020

Wet Detention with Littoral Shelf Design

Permanent Pool Volume (ac-ft)	15.540
Permanent Pool Volume (ac-ft) for 31 days residence	6.831
Annual Residence Time (days)	71
Littoral Zone Efficiency Credit	10
Wetland Efficiency Credit	

Watershed Characteristics

Catchment Area (acres)	35.94
Contributing Area (acres)	32.900
Non-DCIA Curve Number	70.00
DCIA Percent	67.00
Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

Required TN Treatment Efficiency (%) 46 Provided TN Treatment Efficiency (%) 47 Required TP Treatment Efficiency (%) 46 Provided TP Treatment Efficiency (%) 74

Media Mix Information

Type of Media MixNot SpecifiedMedia N Reduction (%)Media P Reduction (%)

Media Discharge (Stand-Alone)

Treatment Rate (MG/yr)0.000TN Mass Load (kg/yr)0.000TN Concentration (mg/L)0.000TP Concentration (mg/L)0.000



Date: 02/03/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 26% P: 26%

Catchment Name	BASIN 15/16
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall (in)	51.00
Pre-Condition Landuse Information	
Pre-Condition Landuse	Highway: TN=1.520 TP=0.200
Pre Condition Area (acres)	60.95
Pre Rational Coefficient (0-1)	0.42
Pre Non DCIA Curve Number	70.00
Pre DCIA Percent (0-100)	46.00
Pre Nitrogen EMC (mg/l)	1.520
Pre Phosphorus EMC (mg/l)	0.200
Pre Runoff Volume (ac-ft/yr)	108.122
Pre Nitrogen Loading (kg/yr)	202.638
Pre Phosphorus Loading (kg/yr)	26.663
Post-Condition Landuse Information	
Post-Condition Landuse	Highway: TN=1.520 TP=0.200
Post Condition Area (acres)	60.95
Post Rational Coefficient (0-1)	0.61
Post Non DCIA Curve Number	70.00
Post DCIA Percent (0-100)	72.00
Post Nitrogen EMC (mg/l)	1.520
Post Phosphorus EMC (mg/l)	0.200
Post Runoff Volume (ac-ft/yr)	146.888
Post Nitrogen Loading (kg/yr)	275.292
Post Phosphorus Loading (kg/yr)	36.223

Project: I-75 PD&E **Date:** 2/3/2020

Wet Detention with Littoral Shelf Design

Permanent Pool Volume (ac-ft)	24.180
Permanent Pool Volume (ac-ft) for 31 days residence	12.475
Annual Residence Time (days)	60
Littoral Zone Efficiency Credit	10
Wetland Efficiency Credit	

Watershed Characteristics

Catchment Area (acres)	60.95
Contributing Area (acres)	56.400
Non-DCIA Curve Number	70.00
DCIA Percent	72.00
Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

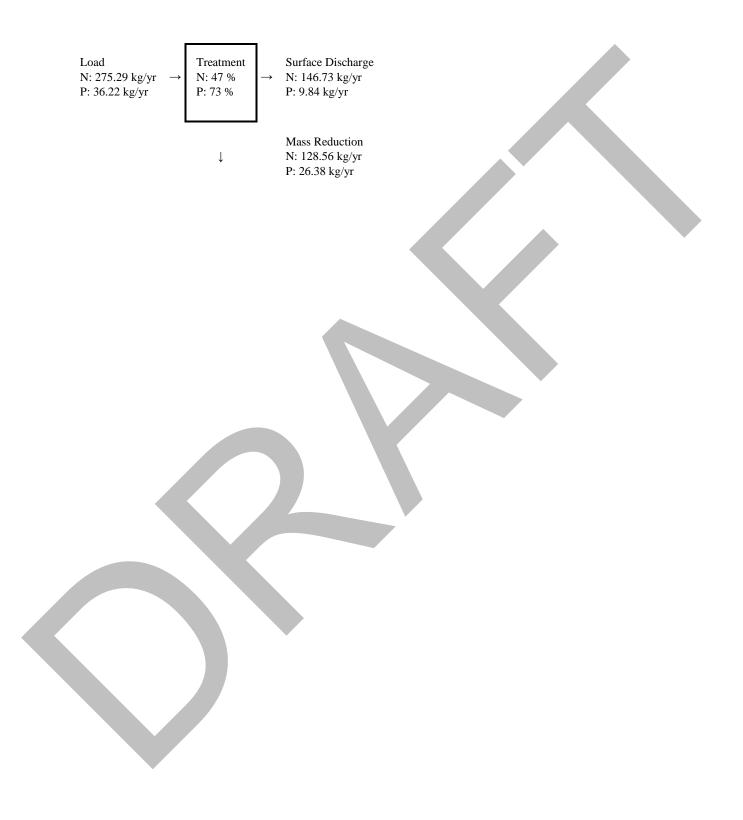
Required TN Treatment Efficiency (%) 26 Provided TN Treatment Efficiency (%) 47 Required TP Treatment Efficiency (%) 26 Provided TP Treatment Efficiency (%) 73

Media Mix Information

Type of Media Mix Not Specified Media N Reduction (%) Media P Reduction (%)

Media Discharge (Stand-Alone)

Treatment Rate (MG/yr)0.000TN Mass Load (kg/yr)0.000TN Concentration (mg/L)0.000TP Mass Load (kg/yr)0.000TP Concentration (mg/L)0.000



Date: 02/04/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 38% P: 38%

Catchment Name	BASIN 22A
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall (in)	51.00
Pre-Condition Landuse Information	L The second
Pre-Condition Landuse	Highway: TN=1.520 TP=0.200
Pre Condition Area (acres)	23.49
Pre Rational Coefficient (0-1)	0.33
Pre Non DCIA Curve Number	80.00
Pre DCIA Percent (0-100)	29.00
Pre Nitrogen EMC (mg/l)	1.520
Pre Phosphorus EMC (mg/l)	0.200
Pre Runoff Volume (ac-ft/yr)	33.045
Pre Nitrogen Loading (kg/yr)	61.931
Pre Phosphorus Loading (kg/yr)	8.149
Post-Condition Landuse Informatio	n
Post-Condition Landuse	Highway: TN=1.520 TP=0.200
Post Condition Area (acres)	23.49
Post Rational Coefficient (0-1)	0.59
Post Non DCIA Curve Number	80.00
Post DCIA Percent (0-100)	66.00
Post Nitrogen EMC (mg/l)	1,520
Post Phosphorus EMC (mg/l)	0.200
Post Runoff Volume (ac-ft/yr)	53.612
Post Nitrogen Loading (kg/yr)	100.478
Post Phosphorus Loading (kg/yr)	13.221

Project: I-75 PD&E **Date:** 2/4/2020

Wet Detention with Littoral Shelf Design

Permanent Pool Volume (ac-ft)	9.640
Permanent Pool Volume (ac-ft) for 31 days residence	4.553
Annual Residence Time (days)	66
Littoral Zone Efficiency Credit	10
Wetland Efficiency Credit	

Watershed Characteristics

Catchment Area (acres)	23.49
Contributing Area (acres)	21.490
Non-DCIA Curve Number	80.00
DCIA Percent	66.00
Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

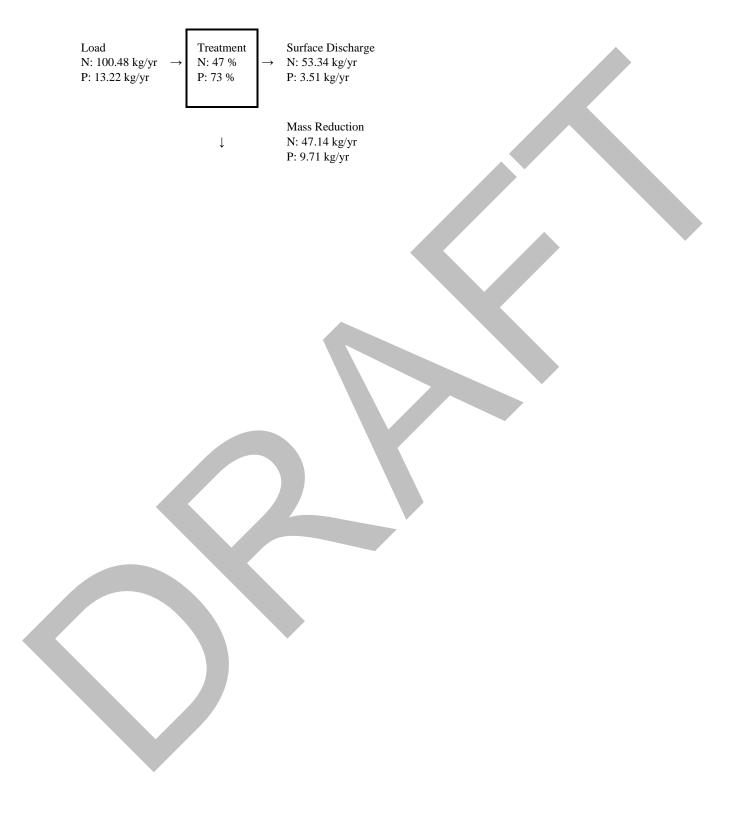
Required TN Treatment Efficiency (%) 38 Provided TN Treatment Efficiency (%) 47 Required TP Treatment Efficiency (%) 38 Provided TP Treatment Efficiency (%) 73

Media Mix Information

Type of Media Mix Not Specified Media N Reduction (%) Media P Reduction (%)

Media Discharge (Stand-Alone)

Treatment Rate (MG/yr)0.000TN Mass Load (kg/yr)0.000TN Concentration (mg/L)0.000TP Mass Load (kg/yr)0.000TP Concentration (mg/L)0.000



Date: 02/04/2020

Catchment Information

Analysis: Net Improvement Required Removal N: 45% P: 45%

Catchment Name	BASIN 23A
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall (in)	51.00
Pre-Condition Landuse Information	
Pre-Condition Landuse	Highway: TN=1.520 TP=0.200
Pre Condition Area (acres)	23.00
Pre Rational Coefficient (0-1)	0.31
Pre Non DCIA Curve Number	75.00
Pre DCIA Percent (0-100)	29.00
Pre Nitrogen EMC (mg/l)	1.520
Pre Phosphorus EMC (mg/l)	0.200
Pre Runoff Volume (ac-ft/yr)	29.970
Pre Nitrogen Loading (kg/yr)	56.169
Pre Phosphorus Loading (kg/yr)	7.391
Post-Condition Landuse Information	
Post-Condition Landuse	Highway: TN=1.520 TP=0.200
Post Condition Area (acres)	23.00
Post Rational Coefficient (0-1)	0.60
Post Non DCIA Curve Number	75.00
Post DCIA Percent (0-100)	69.00
Post Nitrogen EMC (mg/l)	1,520
Post Phosphorus EMC (mg/l)	0.200
Post Runoff Volume (ac-ft/yr)	54.910
Post Nitrogen Loading (kg/yr)	102.911
Post Phosphorus Loading (kg/yr)	13.541

Project: I-75 PD&E **Date:** 2/4/2020

Wet Detention with Littoral Shelf Design

Permanent Pool Volume (ac-ft)	6.150
Permanent Pool Volume (ac-ft) for 31 days residence	4.664
Annual Residence Time (days)	41
Littoral Zone Efficiency Credit	10
Wetland Efficiency Credit	

Watershed Characteristics

Catchment Area (acres)	23.00
Contributing Area (acres)	21.620
Non-DCIA Curve Number	75.00
DCIA Percent	69.00
Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

Required TN Treatment Efficiency (%) 45 Provided TN Treatment Efficiency (%) 46 Required TP Treatment Efficiency (%) 45 Provided TP Treatment Efficiency (%) 70

Media Mix Information

Type of Media Mix Not Specified Media N Reduction (%) Media P Reduction (%)

Media Discharge (Stand-Alone)

Treatment Rate (MG/yr)0.000TN Mass Load (kg/yr)0.000TN Concentration (mg/L)0.000TP Mass Load (kg/yr)0.000TP Concentration (mg/L)0.000

