

Pond Siting Report

Gibsonton Drive From Fern Hill Drive to US 301

Project Development & Environment (PD&E) Study

Work Program Item Segment No. 450438-1
ETDM Project No. 14493
Hillsborough County, Florida



Florida Department of Transportation
District Seven

In Coordination with:



**Hillsborough
County** Florida

December 2023

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 May 26, 2022, and executed by FHWA and FDOT.

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Prepared for:

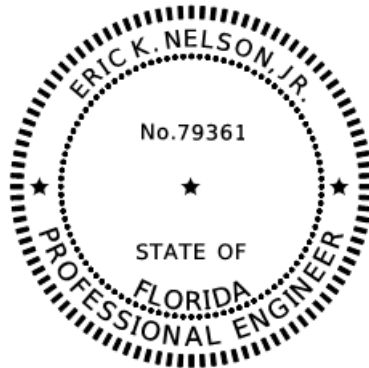


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December 2023



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EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) District Seven in Coordination with Hillsborough County is conducting a Project Development and Environment (PD&E) study along Gibsonton Drive from Fern Hill Drive to U.S. Highway 301 (US 301), in Hillsborough County. The study evaluates the widening of this section of Gibsonton Drive from a 4-lane divided facility to a 6-lane divided facility and includes pedestrian and bicycle accommodations. The study also evaluates issues related to traffic operations, safety, access management, and freight movements. The proposed improvements will include construction of stormwater management facility (SMF) and floodplain compensation (FPC) sites. The proposed improvements in this study will accommodate improvements at the I-75/Gibsonton Drive interchange as well as improvements at Gibsonton Drive/Fern Hill Drive intersection as proposed under other projects.

This *Pond Siting Report* (PSR) has been prepared to evaluate and identify stormwater management requirements for attenuation and treatment of surface water runoff from proposed impervious areas, and for compensation of any impacts to the 100-year floodplain associated with the proposed build alternative. Existing Southwest Florida Water Management District (SWFWMD) permits, and the effective 2020 Alafia River Watershed Management Masterplan Report were used to determine stormwater management and floodplain compensation needs.

The preferred alternative results in the acquisition of right of way for one SMF and one FPC site will be required, along with the relocation of two businesses and two residential properties, for a total of 3.21 acres.

Three SMF alternatives are provided for Basin 1. SMF 1B and FPC 1A are the preferred alternatives, since they are the most cost effective, most hydraulically feasible, and least impactful. They require acquisition of 2 parcels.

The improvements within Basin 2 do not require the acquisition of right of way for stormwater management or floodplain compensation purposes.

Table of Contents

SECTION 1	INTRODUCTION	1-1
1.1	PROJECT DESCRIPTION	1-1
1.2	PROJECT PURPOSE AND NEED	1-1
1.2.1	Purpose	1-1
1.2.2	Need	1-1
1.2.1	Project Status	1-3
1.2.2	Roadway Capacity	1-3
1.2.3	Safety	1-3
1.3	EXISTING FACILITY AND PROPOSED IMPROVEMENTS	1-4
1.3.1	Existing Facility	1-4
1.3.2	Proposed Improvements	1-4
1.4	REPORT PURPOSE	1-5
SECTION 2	EXISTING CONDITIONS	2-1
2.1	SOILS	2-1
2.2	LAND USE	2-1
2.3	CROSS DRAINS	2-1
2.4	BRIDGE STRUCTURES	2-1
2.5	FLOODPLAINS AND FLOODWAYS	2-1
2.6	EXISTING DRAINAGE PATTERNS	2-2
2.7	EXISTING ENVIRONMENTAL PERMITS	2-2
2.8	SPECIAL BASIN CRITERIA	2-2
SECTION 3	PROPOSED CONDITIONS	3-1
3.1	PROPOSED ROADWAY	3-1
3.2	CROSS DRAINS	3-1
3.3	BRIDGE STRUCTURES	3-1
3.4	FLOODPLAINS AND FLOODWAYS	3-1
SECTION 4	STORMWATER MANAGEMENT ALTERNATIVES	4-1
4.1	STORMWATER MANAGEMENT CRITERIA	4-1
4.1.1	WATER QUALITY	4-1
4.1.2	DISCHARGE ATTENUATION	4-1
4.2	AGENCY COORDINATION	4-1
4.3	PROJECT STORMWATER MANAGEMENT ALTERNATIVES	4-2
4.3.1	STORMWATER MANAGEMENT REQUIREMENTS	4-2
4.3.2	PROPOSED LAND USE	4-2
4.3.3	BASIN CONSIDERATIONS	4-2
4.4	FLOODPLAIN COMPENSATION SITE ALTERNATIVES	4-5
4.4.1	FLOODPLAIN COMPENSATION REQUIREMENTS	4-5
4.4.2	FLOODPLAIN CONSIDERATIONS	4-6
SECTION 5	ENVIRONMENTAL CONSIDERATIONS	5-1
5.1.1	WETLANDS/SURFACE WATER	5-1
5.1.2	SOCIO-CULTURAL FEATURES	5-1
5.1.3	HISTORIC	5-1
5.1.4	PARKS AND RECREATION	5-2
5.1.5	THREATENED AND ENDANGERED SPECIES	5-2
	HAZARDOUS MATERIAL AND CONTAMINATION IMPACT	5-3
SECTION 6	SUMMARY AND RECOMMENDATIONS	6-1

List of Figures and Tables

Figures

Figure 1-1	Project Location Map.....	1-2
Figure 1-2	Gibson Drive – Existing Typical Section	1-4
Figure 1-3	Gibson Drive – Proposed Typical Section.....	1-5
Figure 4-1	SMF 1A	4-3
Figure 4-2	SMF 1B	4-4
Figure 4-3	SMF 1C	4-4
Figure 4-4	SMF 2	4-5
Figure 4-5	FPC 1A.....	4-6
Figure B-1	Soils Map	1
Figure B-2	Land Use Map.....	2
Figure B-3	Hillsborough County Stormwater Management Model (HCSWMM) Map.....	3

Tables

Table 1-1	Gibson Drive Number of Crashes for 2018-2022.....	1-3
Table 1-2	Crash Rates for Segments	1-3
Table 1-3	Crash Rates for Intersections.....	1-4
Table 2-1	USDA Soils.....	2-1
Table 4-1	Stormwater Management Requirements.....	4-2
Table 4-2	Land Use Summary.....	4-2
Table 4-3	Floodplain Encroachment Summary.....	4-5
Table 4-4	SMF and FPC Site Matrix.....	4-7
Table 6-1	Preferred SMF and FPC Site Matrix	6-0

Appendices

APPENDIX A	CONCEPTUAL DRAINAGE MAPS AND
APPENDIX B	FIGURES
APPENDIX C	CALCULATIONS
APPENDIX D	ENGINEER'S ESTIMATE OF CONSTRUCTION COST
APPENDIX E	SUPPORTING DOCUMENTATION
APPENDIX F	MEETING MINUTES

SECTION 1 INTRODUCTION

The objective of the Project Development and Environment (PD&E) study is to assist the Florida Department of Transportation's (FDOT) Office of Environmental Management (OEM) in reaching a decision on the type, location, and conceptual design of the proposed improvements for the widening of Gibsonton Drive. The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), to qualify for federal-aid funding of subsequent development phases (design, right of way acquisition, and construction).

1.1 PROJECT DESCRIPTION

The project consists of widening Gibsonton Drive from Fern Hill Drive to US 301 in Hillsborough County, a distance of approximately 0.95 miles. Improvements will also include a wide sidewalk to accommodate bicycles and pedestrians. The project includes the evaluation of stormwater management facilities (SMF) and floodplain compensation (FPC) sites. The project traverses the unincorporated census designated place of Riverview and provides access to I-75 for the communities of Riverview, Boyette, Fish Hawk and Lithia. Within the project limits, Gibsonton Drive is a four-lane, divided roadway with paved shoulders and 5-foot (ft) sidewalks along both sides of the road. There are some gaps in the sidewalk on the south side (eastbound direction) of the road. Gibsonton Drive is functionally classified by Hillsborough County as an arterial with an existing posted speed limit of 45 miles per hour (mph). A project location map is provided in **Figure 1-1**.

This project was screened through the FDOT's Efficient Transportation Decision Making (ETDM) process as ETDM Project No. 14493. The ETDM Programming Screen Summary Report was published on October 27, 2022, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. A Type 2 Categorical Exclusion is the class of action for this PD&E study.

1.2 PROJECT PURPOSE AND NEED

1.2.1 Purpose

The purpose of this project is to address future roadway capacity issues as well as improve safety conditions on Gibsonton Drive, which is an important east-west connection between I-75 and US 301.

1.2.2 Need

This project is needed to accommodate traffic volumes for the future year (2045) and to accommodate projected traffic flows from the proposed reconstruction of the I-75/Gibsonton Drive interchange. Additionally, this segment experiences high crash rates that are higher than the statewide average for similar facilities.

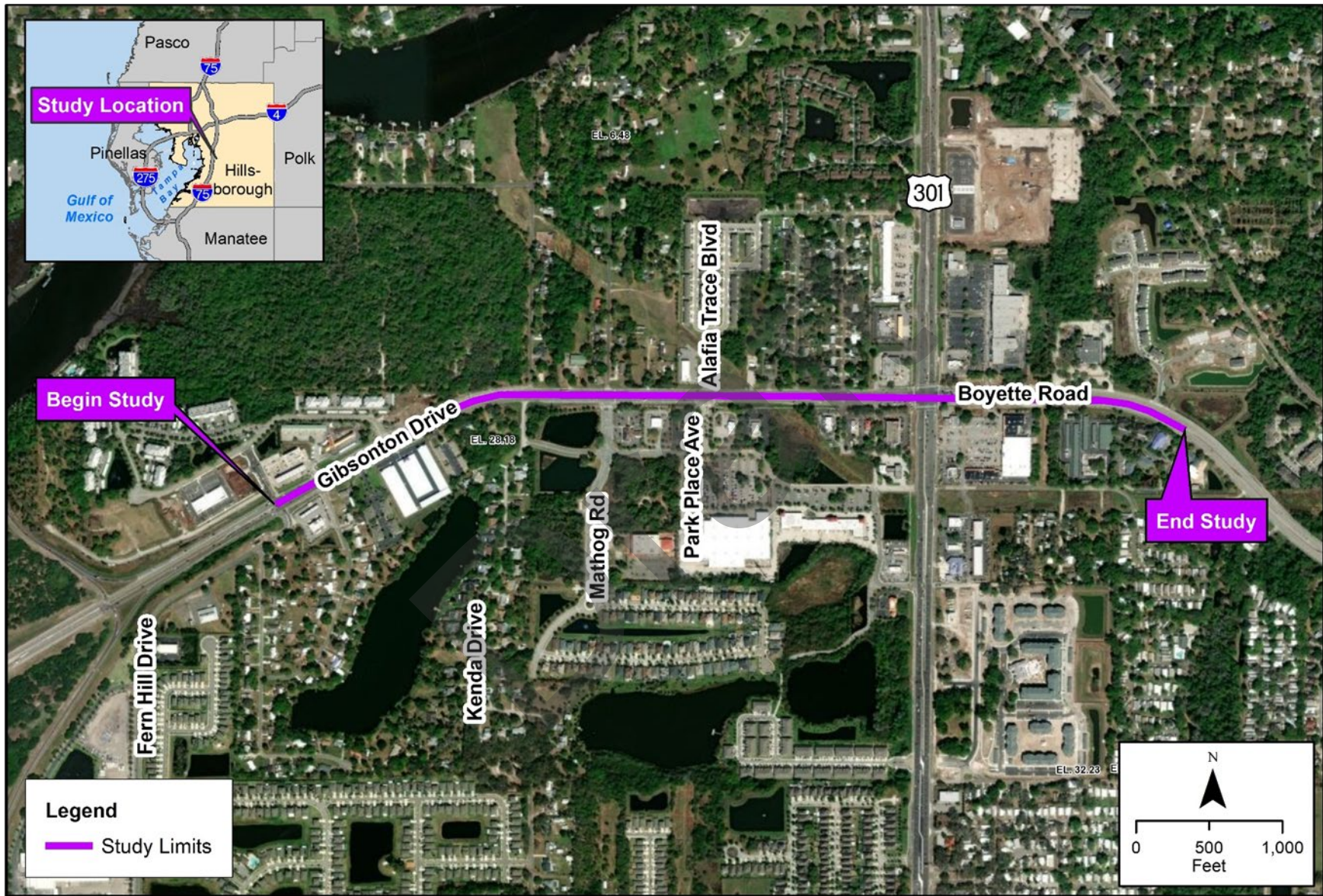


Figure 1-1 Project Location Map

1.2.1 Project Status

This project is listed as a candidate for funding in the Hillsborough Transportation Planning Organization (TPO) FY 2023/24-2027-28 Transportation Improvement Program (TIP). Funding for the PD&E study has been requested and an application for Federal funding has been submitted. The project is also listed in the Cost Feasible Plan of the Hillsborough County TPO's 2045 Long Range Transportation Plan (LRTP).

1.2.2 Roadway Capacity

Within the project limits, Gibsonton Drive operates at Level of Service (LOS) F and fails to meet target LOS D, based on 2022 traffic counts. The Gibsonton Drive segment west of Fern Hill Drive is currently not six lanes; however, with the addition of the I-75/Gibsonton Drive interchange improvements, Gibsonton Drive will be widened to six lanes between I-75 and Fern Hill Drive. The segment directly to the east of the project limits is six lanes, thus creating a bottleneck. This segment is projected to continue to operate deficiently in the year 2045 at LOS F with no capacity improvements. This analysis is based on the Generalized Service Volume Tables from the FDOT 2023 Multimodal Quality/Level of Service Handbook for a context classification suburban commercial (C3C) facility and utilizes traffic forecasts from the Tampa Bay Regional Planning Model (TBRPM).

1.2.3 Safety

Crash data was collected for a five-year period including the years 2018 – 2022 and are summarized in **Table 1-1**. This segment suffered a high number of crashes considering its short length (less than one (1) mile). This is reflected in the high crash rates summarized in **Table 1-2** and **Table 1-3**. The calculated crash rates for the segments and intersections are higher than the statewide average rate for similar state facilities except at a short segment between Mathog Road and the Park Place Avenue/Alafia Trace Boulevard intersection, and at the Park Place Avenue/Alafia Trace Boulevard intersection.

Table 1-1 Gibsonton Drive Number of Crashes for 2018-2022

Limits	2018	2019	2020*	2021	2022	Total
Gibsonton Drive from Fern Hill Drive to US 301	220	239	153	136	162	910

Source: Signal 4 Analytics

*Crashes in 2020 are substantially less than those in 2019 due to COVID

Table 1-2 Crash Rates for Segments

Segment		Crashes	Length (mi)	2022 AADT	Crash Rate (MVMT)	Statewide Average	Above Statewide Average?
From	To						
Fern Hill Dr	Mathog Rd	95	0.33	45,800	3.444	1.747	Yes
Mathog Rd	Park Place Ave	4	0.03	44,000	1.660	1.747	No
Park Place Ave	US 301	27	0.14	45,600	2.317	1.747	Yes

Note: Crashes reported to occur within intersection turn lanes were extracted out of the segments.

Table 1-3 Crash Rates for Intersections

Intersection	Crashes	Entering Volume	Crash Rate (MEV)	Statewide Average	Above Statewide Average?
Fern Hill Dr	159	57,750	1.509	0.526	Yes
Mathog Rd	68	45,200	0.824	0.526	Yes
Park Place Avenue/Alafia Trace Blvd	3	47,500	0.035	0.526	No
US 301	554	99,800	3.042	0.744	Yes

1.3 EXISTING FACILITY AND PROPOSED IMPROVEMENTS

1.3.1 Existing Facility

Gibsonton Drive is owned and maintained by Hillsborough County. Within the project area, Gibsonton Drive is currently a four-lane divided facility functionally classified as an arterial roadway with a posted speed limit of 45 mph. The roadway has two 12-foot (ft) lanes in each direction, a 22-ft median and turn lanes at many locations along the corridor. The shoulders are approximately 10-ft wide (4-ft paved) on the south side and 6.5-ft minimum width (4-ft paved) on the north side throughout the corridor with no dedicated bicycle lanes. There is a 5-ft sidewalk on both sides of the road with a few gaps in the sidewalk on the south side, west of Kendra Drive. Approximately 230 linear feet of the sidewalk on the south side, east of Kendra Drive, is a wooden boardwalk. The existing right of way (ROW) varies along the corridor between 125 ft and 150 ft wide. The existing typical section is provided as **Figure 1-2**. There is one existing SMF east of US 301, but no SMF between Fern Hill Drive and US 301 and no existing FPC sites within the project corridor.

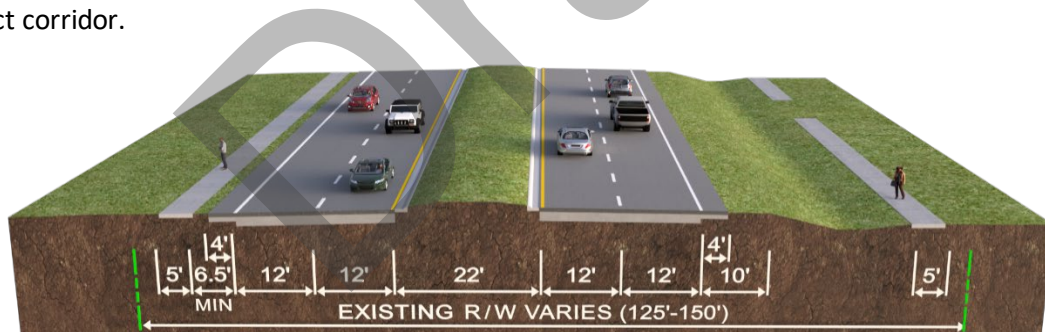


Figure 1-2 Gibsonton Drive – Existing Typical Section

1.3.2 Proposed Improvements

The proposed typical section shows widening Gibsonton Drive to a six-lane divided urban facility with a 22-ft raised median. There will be two 11-ft travel lanes and one 12-ft outside travel lane in each direction with curb and gutter, and 10-ft wide sidewalks. The proposed typical section is provided as **Figure 1-3**. Additional ROW will be required along the north side of Gibsonton Drive (0 to 30 ft in width) to accommodate the widening and along the south side of Gibsonton Drive (0 to 7 ft in width) in advance of the US 301 intersection for intersection improvements. One off-site SMF and one off-site FPC are proposed. Additional ROW will be required for off-site SMF and FPC sites.

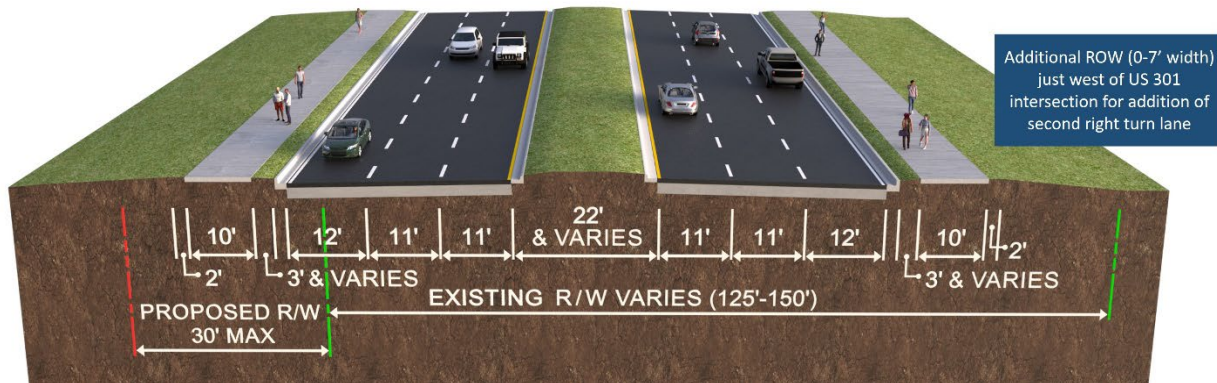


Figure 1-3 Gibsonton Drive – Proposed Typical Section

1.4 REPORT PURPOSE

As part of the PD&E Study, this *Pond Siting Report* identifies SMF and FPC site alternatives, and includes the analysis for selection of preferred sites. This study analyzed SMF site alternatives that are hydraulically feasible and environmentally permissible based on the best available information. These alternatives were then compared based on potential relocations and community impacts; environmental impacts including wetlands, upland habitat and protected species involvement; petroleum and hazardous materials contamination; and economic factors including right of way costs.

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SECTION 2 EXISTING CONDITIONS

2.1 SOILS

Per National Natural Resources Conservation Service (NRCS) soils data, soils within the project limits are described by Hillsborough County, as listed in **Table 2-1** below. See **Figure B-1** in **Appendix B** for a map of the soils within the project area.

Table 2-1 USDA Soils

Map #	Soil Name	Hydrologic Group	Depth to High Water Table (ft)	Soil Type	Description
5	Basinger, Holopaw, and Samsula soils	A/D	0	Sandy and loamy soil	Depressional, very poorly drained
7	Candler fine sand	A	>6.0	Sandy soil	Excessively drained soil, slopes 0-5%
29	Myakka fine sand	A/D	0 – 1.0	Sandy and loamy soil	Poorly drained soil, slopes 0-2%
41	Pomello fine sand	A	2.0 – 3.5	Sandy soil	Moderately well drained, slopes 0-5%
61	Zolfo fine sand	A	1.5 – 3.5	Sandy soil	Somewhat poorly drained, slopes 0-2%

2.2 LAND USE

This project lies within Hillsborough County. The existing land use within the project vicinity is a mix of residential, light commercial, and heavy commercial properties. **Figure B-2** in **Appendix B** displays the various land use types within the project area.

2.3 CROSS DRAINS

There is one cross drain within the project limits that ultimately outfalls to the Alafia River. Cross drain CD-1 is a 118 foot, double barrel, 42-inch RCP located at station 94+30, just east of Kenda Drive. The cross drain flows from south to north.

2.4 BRIDGE STRUCTURES

There are no existing bridges within the project limits.

2.5 FLOODPLAINS AND FLOODWAYS

FEMA Flood Insurance Rate Map (FIRM) panel 12057C0502J dated October 7, 2021, identifies the flood zone information for the project area, and can be seen in **Appendix A**. Per the FIRM panel, a small portion of the existing roadway near Kenda Drive/Hagadorn Road lies within Flood Zone A. The Hillsborough County Stormwater Management Model (HCSWMM) for the Alafia River Watershed, dated March 31, 2020, identifies additional floodplains within the project area. Per the County watershed model, the permitted linear ponds, and several segments of the existing ditch between Fern

Hill Road and US 301 are designated Flood Zone AE, with several portions of the existing roadway located within the inundation boundary. See **Figure B-3**, in **Appendix B**, for a map of the HCSWMM floodplain boundaries and nodes.

2.6 EXISTING DRAINAGE PATTERNS

Basin 1

Basin 1 begins near the beginning of the study limits at station 78+73 and extends to station 118+04 at the intersection of Gibsonton Drive and US 301. The parcels adjacent to Basin 1 have a mixed land use, comprising both commercial and residential properties.

Runoff from Basin 1 is conveyed through roadside ditches and side drains, flowing toward the center of the basin. It then reaches a double 42" RCP cross drain located east of Hagadorn Road, crossing Gibsonton Drive, and continues to flow from south to north to the Alafia River, which is tidally influenced.

There is a recently permitted project at the west end of the basin (ERP 45227.000) which involves improvements at the intersection of Gibsonton Drive and Fern Hill Drive. This Hillsborough County project (CIP No. 6960031) has not been constructed as of date.

Basin 2

Basin 2 begins at the intersection of Gibsonton Drive/Boyette Road and US 301, specifically at station 200+00 (118+04 back), and extends beyond the study limits to Balm Riverview Road, located at Station 240+80. The land adjacent to Basin 2 comprises a mix of commercial and residential properties.

Basin 2 flows toward the center of the basin to a permitted pond north of Boyette Road (ERP 2166.001 – Pond 1A), which then discharges into Rice Creek and, ultimately, the Alafia River.

2.7 EXISTING ENVIRONMENTAL PERMITS

There are multiple existing Southwest Florida Water Management District (SWFWMD) environmental resource permits (ERP) within the project corridor. SWFWMD Permit No. 45227.000 (Gibsonton Drive at Fern Hill Drive Intersection) provides information for the two permitted ponds on the north side of Gibsonton Drive. SWFWMD permit No. 2166.001 (Boyette Road - US Hwy. 301 to Balm Riverview Road) provides information for the permitted pond on the north side of Boyette Road. Refer to **Appendix D** for excerpts from the permits that are adjacent to Gibsonton Drive and US 301.

2.8 SPECIAL BASIN CRITERIA

This project is within the Alafia River watershed, associated with water body ID (WBID) No. 1621G. This waterbody is impaired for this Dissolve Oxygen, Mercury (in fish tissue), and Nutrients (Chlorophyll-a) WBID 1621G has been placed in category 4a because there is an FDEP Adopted - EPA Approved Dissolved Oxygen and Nutrient TMDL. This project is not located within any Outstanding Florida Waters (OFW). The study basins discharge to the Alafia River.

SECTION 3 PROPOSED CONDITIONS

3.1 PROPOSED ROADWAY

The preferred build alternative proposes widening Gibsonton Drive from a 4-lane, flush shoulder, divided roadway to a 6-lane, curb and gutter, divided roadway with 11-ft inside lanes, 12-ft outside lanes, and typically 10-ft buffered sidewalks. The proposed sidewalk along the south side of Gibsonton Drive from approximately 900-ft west of US 301 will transition to be flush with the proposed curb to minimize right of way impacts. East of US 301, a 6-ft sidewalk is proposed along the south side of Gibsonton Drive to remain within the existing southerly right of way. The western limits of the build alternative will tie into the proposed I-75 and Gibsonton Drive Interchange Improvements (FPID 437650-2-32-01) approximately 500-ft east of Fern Hill Drive. The eastern limits of the build alternative will tie into existing Boyette Road/Gibsonton Drive approximately 900-ft east of US 301. Other than a No-Build alternative, there are no additional build alternatives being considered.

3.2 CROSS DRAINS

The existing cross drain CD-1 will be extended or replaced as needed to accommodate the new road width. A cross drain analysis will be performed during the design phase of the project.

3.3 BRIDGE STRUCTURES

There are no bridges within the project limits; therefore, no new bridge structures or bridge widening will be necessary.

3.4 FLOODPLAINS AND FLOODWAYS

As discussed in **Section 2.5**, Hillsborough County provided their latest HCSWMM to evaluate potential floodplain impacts. The FEMA Flood Insurance Rates Map was also reviewed. However, the Floodplain areas included in the County model were more extensive than the FEMA floodplain areas. Therefore, the County model was solely used for the purposes of this evaluation.

The build alternative is associated with minimal longitudinal encroachments within the floodplains north and south of Gibsonton Drive. The proposed improvements will require fill to be placed below the base flood elevations (BFE) of several floodplains identified in the County watershed model, ranging in elevation from 25.18 to 39.29. Equivalent cup-for-cup volumes of cut will be provided to compensate for the anticipated fill volumes, This will be achieved with floodplain compensation sites and providing compensatory storage volume between the estimated seasonal high-water table (SHWT) elevation and the BFE.

SECTION 4 STORMWATER MANAGEMENT ALTERNATIVES

4.1 STORMWATER MANAGEMENT CRITERIA

The following subsections describe water quality and quantity requirements for the project.

4.1.1 WATER QUALITY

The SWFWMD ERP Applicant's Handbook Vol. II, Part IV – Stormwater Quality identifies water quality treatment criteria. The selected system for treating runoff associated with the build alternative is wet detention. Wet detention facilities require treatment of one inch of runoff from the contributing area, according to Part IV, Section 4.1.a.1.

As discussed in **Section 2.8**, WBID 1621G is impaired for dissolved oxygen (DO). Nutrient loading calculations are provided for the 'worst case' SMF alternative, in **Appendix C**.

4.1.2 DISCHARGE ATTENUATION

The SWFWMD ERP Applicant's Handbook Vol. II, Part III – Stormwater Quantity/Flood Control identifies runoff attenuation and discharge criteria. In general, runoff associated with the build alternative must not cause adverse water quantity impacts to receiving waters or adjacent lands, must not cause adverse flooding to on-site or off-site properties, and must not adversely impact existing surface water storage and conveyance capabilities (Part III, Section 3.a-d).

The project is located within open drainage basins, thus the allowable discharge is equal to either the historical discharge or to amounts determined in previous District permit actions, as stated in Part III, Section 3.1.1-2.

Per Part III, Section 3.1.b, the post development peak discharge shall be no greater than pre-development peak discharge for the 25-year, 24-hour storm event, and computed using the SCS type II Florida Modified 24-hour rainfall distribution. The previous permits, as described in Section 2.7 of this report, followed the same stormwater quantity criteria.

4.2 AGENCY COORDINATION

A SWFWMD pre-application meeting was held on May 8, 2023, to discuss the project's environmental, water quality, and water quantity considerations. Project coordination meetings with Hillsborough County staff were held on October 31, 2022, and on May 11, 2023, to discuss project status and design alternatives. A Pond Siting Longlist meeting with FDOT District 7 representatives was held on March 9, 2023, to discuss stormwater management facility and floodplain compensation site alternatives. Meeting minutes for the SWFWMD pre-application meeting and FDOT D7 longlist meeting can be found in Appendix F.

4.3 PROJECT STORMWATER MANAGEMENT ALTERNATIVES

4.3.1 STORMWATER MANAGEMENT REQUIREMENTS

Table 4-1, below, summarizes the stormwater management facility alternative pond sites. Supporting calculations are provided in Appendix C.

Table 4-1 Stormwater Management Requirements

Basin	Estimated Required. Water Quality Treatment (ac-ft)	Estimated Required Discharge Attenuation Volume (ac-ft)	Estimated Required Stormwater Management Volume (ac-ft)
1	0.14	1.37	1.51
2	0.01	0.06	0.07

4.3.2 PROPOSED LAND USE

Pre- and post-conditions impervious and pervious coverages were determined by computing impervious and pervious areas of the preferred roadway alternative. Table 4-2 below summarizes the proposed land use.

Table 4-2 Land Use Summary

Basin	Existing Land Use (Ac)			Proposed Land Use (Ac)		
	Impervious	Pervious	Total	Impervious	Pervious	Total
1	9.34	4.08	13.42	12.17	1.25	13.42
2	2.61	0.37	2.98	2.74	0.24	2.98

4.3.3 BASIN CONSIDERATIONS

Conceptual SMF & FPC Maps showing the following SMF and FPC alternatives are provided in Appendix A. Calculations for the following alternatives are in Appendix C.

Furthermore, the SMF and FPC alternatives were considered for environmental considerations. There are no wetlands and other surface waters impacts associated with the proposed SMF and FPC alternatives. The project will not have significant impacts on federally and state listed threatened and endangered species. Though there are multiple medium and low risk contamination sites within the project's 500-ft buffer, these identified sites are not located on or immediately adjacent to the properties evaluated for the SMF and FPC alternatives. Therefore, no contamination involvement is anticipated. The Alafia Preserve, situated north of Gibsonton Drive and approximately 1500-feet east of the intersection with Fern Hill Drive, will not be impacted with the project. Social and economic effects are anticipated to be minimal. Mobility is anticipated to be enhanced through intersection improvements and expansion to a 6-lane divided facility. The project will require two residential and two business relocations for the proposed SMF and FPC alternatives. There are previous archaeological and historic structures adjacent to the project on Gibsonton Drive. A desktop review and Cultural Resources Assessment Survey (CRAS) assessed there are no impacts to historic structures and archaeological resources with the associated proposed SMF and FPC alternatives. Overall,

environmental constraints with the proposed SMF and FPC alternatives are minimal due to work being limited to existing and acquired ROW at these sites. Further detail about the environmental considerations with the proposed SMF and FPC alternatives are discussed in Section 5 of this report.

Basin 1

Basin 1 begins near the beginning of the study limits at station 78+73 and extends to station 118+04 at the intersection of Gibsonton Drive and US 301.

Runoff from Basin 1 will be conveyed through a closed pipe network toward the proposed SMF, which will discharge to the existing double 42" RCP cross drain located east of Hagadorn Road, crossing Gibsonton Drive, discharging to the Alafia River.

There is a recently permitted project at the west end of the basin (ERP 45227.000) which involves improvements at the intersection of Gibsonton Drive and Fern Hill Drive. This Hillsborough County project (CIP No. 6960031) has not been constructed as of date. Two permitted roadside swales (CIP No. 6960031) would be impacted by the improvements proposed herein. However, the existing land use values provided in **Table 4-2** above reflect pre-permitted conditions and proposed land use values reflect both the improvements of the Fern Hill Drive project and the preferred alternative. Therefore, the impacted treatment and attenuation is accounted for within the following three stormwater management facility (SMF) alternatives.

SMF 1A

SMF 1A is located at the west end of the basin near Fern Hill, south of Gibsonton Drive, and is an expansion of a permitted SMF, Pond 2B (ERP 45227.000). The expansion would require the acquisition of four residential parcels to the south. Pond 2B is permitted to be a wet pond and would remain so as the expanded SMF 1A. The seasonal high-water table (SHWT) and design high water (DHW) would presumably remain unchanged from the permitted condition. The existing freeboard of 6" meets Hillsborough County Criteria. The control structure may require modification. Compensatory treatment and attenuation are required for this SMF to comply with criteria. This means that existing untreated runoff will commingle with a portion of the runoff generated by the proposed improvements. The total directly connected impervious area (DCIA) will be equal to or greater than the total new impervious area of the preferred roadway alternative. This can be accomplished by ensuring that at least 1000 ft of the proposed 6-lane roadway will drain to the SMF. Since this SMF is west of the project limits,

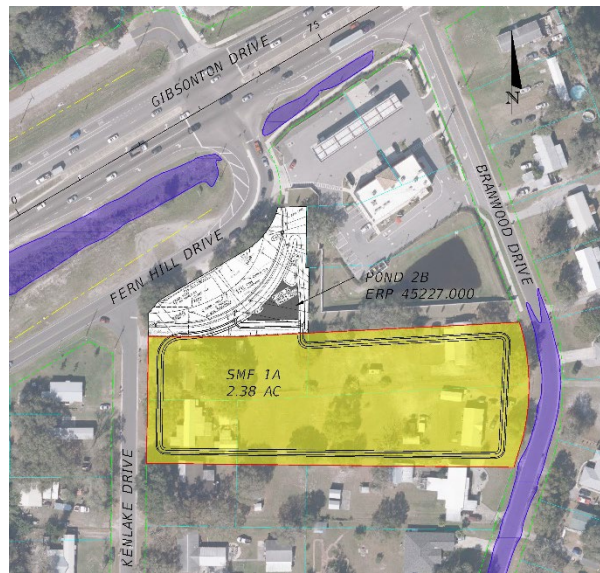


Figure 4-1 SMF 1A

an additional 700 feet of pipe is necessary to convey runoff from the project area to the SMF. The total parcel area required for SMF 1A is 1.47 acres.

SMF 1B

SMF 1B is located on a 1.67-acre residential parcel at the center of the basin between Park Place Avenue and Kenda Drive, south of Gibsonton Drive. Since this SMF alternative is located near the basin outfall, it is the most hydraulically feasible location. The SHWT is estimated to be 25.84 ft-NAVD per the permitted plans from a nearby project (ERP 21779.009 – Lowes Riverview Town Centre). Compensatory treatment and attenuation may be utilized to meet criteria. This can be accomplished by ensuring that at least 1000 ft of the proposed 6-lane roadway will drain to the SMF. Since this SMF is near the primary outfall of the basin, additional pipe is not required. The total parcel area required for SMF 1B is 1.47 acres.

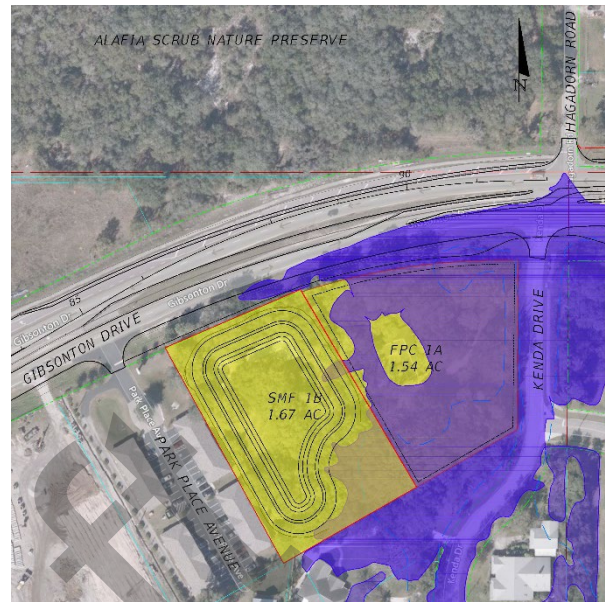


Figure 4-2 SMF 1B

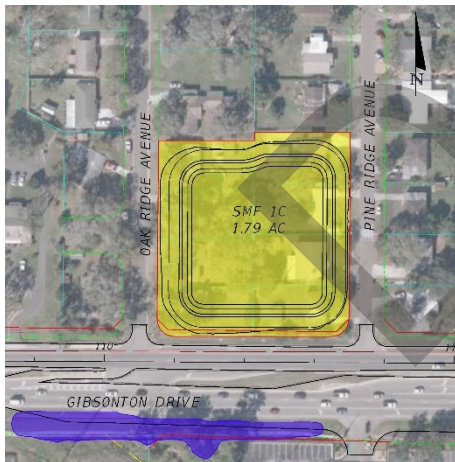


Figure 4-3 SMF 1C

SMF 1C

SMF 1C is located at the east end of the basin between Oakridge Avenue and Pineridge Avenue, north of Gibsonton Drive. The SMF requires the acquisition of eight residential parcels, two of which are necessary for the expansion of Gibsonton Drive. A SHWT of 34 ft-NAVD is assumed to be 12 inches below the lowest grade of 35 ft-NAVD. The total area is 1.79 acres. Compensatory treatment and attenuation are required for this SMF to comply with criteria. This can be accomplished by ensuring that at least 1000 ft of the proposed 6-lane roadway will drain to the SMF. This will require an additional 500 feet of pipe convey runoff to from the west back to the pond and then toward the outfall at the cross drain.

Basin 2

Basin 2 begins at the intersection of Gibsonton Drive/Boyette Road and US 301, specifically at station 200+00 (118+04 back), and extends beyond the study limits to Balm Riverview Road, located at Station 240+80.

Basin 2 will continue to flow the permitted pond north of Boyette Road (ERP 2166.001 – Pond 1A), which discharges into Rice Creek and, ultimately, the Alafia River. For the purposes of this report this permitted pond is referred to as SMF 2.

The proposed improvements within Basin 2 consist of the addition of a turn lane of less than a quarter mile and a sidewalk. These improvements can be considered exempt from permitting. The resulting DHW in SMF 2 is calculated to rise a minimal 0.04 feet.

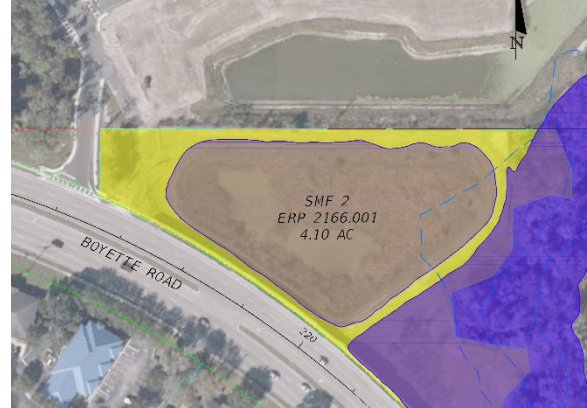


Figure 4-4 SMF 2

4.4 FLOODPLAIN COMPENSATION SITE ALTERNATIVES

4.4.1 FLOODPLAIN COMPENSATION REQUIREMENTS

The improvements proposed within the preferred roadway alternative will require fill to be placed with the floodplain within Basin 1. No encroachments are likely in Basin 2. These encroachments are listed in **Table 4-3** below.

Table 4-3 Floodplain Encroachment Summary

Floodplain	Project Floodplain Limits	Base Flood Elev. (ft-NAVD)	Estimated Floodplain Encroachment Area (ac)	Estimated Floodplain Encroachment Volume (ac-ft)
1	87+15 to 91+70 (Right)	28.18	0.254	0.142
2	94+65 to 94+30 (Left)	25.18	0.027	0.007
3	92+12 to 97+12 (Right)	28.18	0.201	0.076
4	98+07 to 102+90 (Right)	32.66	0.205	0.016

4.4.2 FLOODPLAIN CONSIDERATIONS

FPC 1A

FPC 1A is located on a 1.54-acre residential parcel between Park Place Avenue and Kenda Drive, south of Gibsonton Drive. This parcel is directly connected to the floodplain associated with the encroachments. The elevations range from 26.5 to 29.3 ft-NAVD. The SHWT is estimated to be 25.84 ft-NAVD per ERP 21779.009. Floodplain compensation may result in the loss of upland area, placing the parcel entirely within the floodplain. Compensation for the floodplain encroachments would be evaluated on a cup-for-cup basis. This FPC alternative could be used with SMF 1A, SMF 1B, and SMF 1C.

Other FPC sites were not considered because there were no hydraulically connected sites that were feasible within the encroached Floodplain.



Figure 4-5 FPC 1A

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Table 4-4 SMF and FPC Site Matrix

SMF #	Pond Area (Ac)	FPC #	FPC Area (Ac)	Conveyance Easement (Ac)	Est. Wetland Impacts (Ac)	Probability of Species Occurrence	Contamination	Cultural Resources	Potential Relocations ¹	Est. Construction Cost ²	Est. Wetland Mitigation Cost	Est. Right of Way Cost SMF ³	Est. Total Cost	Comments
1A	1.47	1A	1.49	N/A	-	Low	None	None	5R + 1B	\$277,857	\$0	\$3,899,800	\$4,177,657	
1B	1.66	1A	²	N/A	-	Low	None	None	2R + 2B	\$73,736	\$0	\$3,197,200	\$3,270,936	Preferred Alternative
1C	1.79	1A	1.49	N/A	-	Low	None	None	9R + 1B	\$221,745	\$0	\$5,733,500	\$5,955,245	

¹R = Residential; B = Business – (the business relocations are for landlord business for the residential relocations)

²Engineer’s Estimate of Construction Cost provided in Appendix D.

³Total of SMF and FPC cost.

Draft

SECTION 5 ENVIRONMENTAL CONSIDERATIONS

The following sections identify and discuss environmental considerations.

5.1.1 WETLANDS/SURFACE WATER

The project would result in approximately 0.17 acres of wetland and 0.17 acres of surface water impacts with the Preferred Build Alternative. However, these impacts are not associated with the proposed SMF and FPC alternatives. Impacts are planned to be mitigated through the purchase of wetland mitigation credits through an approved mitigation bank, or creation, restoration, or enhancement of wetlands within the project.

5.1.2 SOCIO-CULTURAL FEATURES

Social and economic effects are anticipated to be minimal. There are no planned changes to land use nor aesthetics. Economic conditions may be enhanced through the enhanced mobility. There is no involvement with farmland resources as defined by 7 CFR Part 658.

A *Conceptual Stage Relocation Plan* will be prepared. The project will require 2 residential and 2 business relocations for the preferred SMF and FPC sites. Relocations will be carried out in accordance with Florida Statutes and the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*.

Mobility is anticipated to be enhanced for motorized vehicles through the improved safety of the corridor through expansion to a 6-lane divided facility and improved operation of the Gibsonton Drive intersections at Fern Hill Drive, Mathog Road, Park Place/Alafia Trace Boulevard and US 301. Pedestrian and bicycle mobility and safety will be improved through constructing the 10-foot-wide sidewalk along both sides of Gibsonton Drive from Fern Hill Drive to US 301.

5.1.3 HISTORIC

According to the *Cultural Resources Assessment Survey* (CRAS), the proposed undertaking should have no adverse effect on resources listed, eligible or potentially eligible for listing for the NRHP. A desktop analysis of the project area and SMF/FPC site alternatives from the records of the Florida Master Site File (FMSF) along with the *Cultural Resources Assessment Survey* were assessed to document the presence of any historic or archaeological resources that meet the eligibility criteria for inclusion into the National Register of Historic Places (NHRP). Previous records from the FMSF were examined to determine the location of any previously conducted CRAS(s) and recorded historic resources within 0.5 miles of the project area.

According to the FMSF, one previous recorded resource group (8HI12137), and one historical resource (8HI11301) were identified in the project area. 8HI11301 has been demolished, and the FMSF will be updated with this information. The US 301 (8HI12137) resource group is a previously recorded linear resource built in 1870. Field survey methods included pedestrian and subsurface testing throughout

the project area in the form of shovel pit tests (STPs) plotted at 25-meter (m), 50-m, and 100-m intervals. In total, 32 STPs were pre-plotted, of which 8 STPs could be safely excavated due to buried utilities in the adjacent ROW of Gibsonton Drive. No archaeological materials were encountered during the field survey. The segment was recently recorded and the SHPO determined there was insufficient information to evaluate the resource for listing in the NHRP. The scope of work within the boundary of 8HI12137 includes widening to accommodate through and right-turn lanes. The proposed construction of traffic islands and concrete curb/gutter/sidewalks, and providing additional bicycle/pedestrian facilities. Due to the nature of the scope of work, the CRAS determined the proposed activities will have no adverse effect on 8HI12137.

The CRAS identified nine newly recorded structures (8HI1551-8HI1559) and one newly recorded resource group (8HI15513). The structures are Masonry Vernacular or Frame Vernacular residences built between 1956-1979. The District recommends all sites are ineligible for listing in NHRP. It is the district's recommendation that these structures in the context of a group do not meet the eligibility criteria for nomination of a historic district. The CRAS assessed archaeological Gibsonton Drive (8HI15513) is a newly recorded linear resource built in 1921 and cannot be fully documented outside of the project area. The proposed construction of traffic islands and concrete curb/gutter/sidewalks, and providing additional bicycle/pedestrian facilities. Due to the nature of the scope of work, the CRAS determined the proposed activities will have no adverse effect on 8HI12137.

The proposed ponds location is a residential area bordered by commercial properties. Seven of the eight pre-plotted STPs within the proposed pond area were safely excavated. All STPs were negative.

5.1.4 PARKS AND RECREATION

The Alafia Scrub Nature Preserve is situated north of Gibsonton Drive and lies adjacent to the roadway right of way approximately 1500-feet east of the intersection with Fern Hill Drive. This parcel will not be directly impacted with the project. There are no effects to protected properties pursuant to *Section 4(f) of the USDOT Act of 1966, Section 6(f) of the Land and Water Conservation Fund of 1965*, nor other recreational or protected lands.

5.1.5 THREATENED AND ENDANGERED SPECIES

After SMF and FPC site alternatives were identified, desktop and field reviews were conducted for the study limits and compiled into the *Natural Resources Evaluation (NRE)*. The NRE documented all potential involvement of species and wetlands within the project area. The project will not have significant impacts on natural resources. There are several listed species that may be present, or their habitat may be present, but the effect determination of may affect, not likely to affect was made for these species including the following Federal Listed faunal and floral species: eastern indigo snake, wood stork, Britton's beargrass, and Florida golden aster. A no adverse effect is anticipated for the following State Listed faunal species: gopher tortoise, short-tailed snake, southeastern American kestrel, Florida pine snake, little blue heron, tricolored heron, reddish egret, roseate spoonbill, and

Florida sandhill crane. The proposed SMF and FPC sites will have no impact on federal and state listed flora/fauna species.

HAZARDOUS MATERIAL AND CONTAMINATION IMPACT

After SMF and FPC site alternatives were identified, desktop and field reviews were conducted for the study limits and compiled into the *Contamination Screening Evaluation Report (CSER)*. The assignment of a contamination risk rating was based on the current and past presence of contamination and the potential of contamination to be encountered during proposed roadway activities and the potential impact on roadway construction. The contamination risk rating system is divided into four degrees of risk including No Risk, Low Risk, Medium Risk, and High Risk. The risk ratings are defined by the FDOT PD&E Manual. There were six potential contamination sites identified as Medium Risk and nine identified as Low Risk for contamination involvement. These identified sites are not located on or immediately adjacent to the properties evaluated for the SMF and/or FPC alternatives; therefore, the SMF and FPC alternatives do not pose a risk for contamination involvement.

Draft

SECTION 6 SUMMARY AND RECOMMENDATIONS

This evaluation finds that acquisition of right of way for one SMF and one FPC site will be required.

Table 6-1 presents a site matrix indicating the preferred SMF and FPC alternatives.

Three SMF alternatives are provided for Basin 1. SMF 1B and FPC 1a are the preferred alternatives, since they are the most cost effective, and most hydraulically feasible.

The improvements within Basin 2 do not require the acquisition of right of way for stormwater management or floodplain compensation purposes.

See **Appendix E** for the right of way cost estimate at each SMF and FPC.

Draft

Table 6-1 Preferred SMF and FPC Site Matrix

SMF #	Pond Area (Ac)	FPC #	FPC Area (Ac)	Conveyance Easement (Ac)	Est. Wetland Impacts (Ac)	Probability of Species Occurrence	Contamination	Cultural Resources	Potential Relocations ¹	Est. Construction Cost ²	Est. Wetland Mitigation Cost	Est. Right of Way Cost SMF ³	Est. Total Cost
1B	1.66	1A	2	N/A	-	Low	None	None	2R + 2B	\$73,736	\$0	\$3,197,200	\$3,270,936

¹R = Residential; B = Business – (the business relocations are for landlord business for the residential relocations)

²Engineer’s Estimate of Construction Cost provided in Appendix D.

³Total of SMF and FPC cost.

Draft

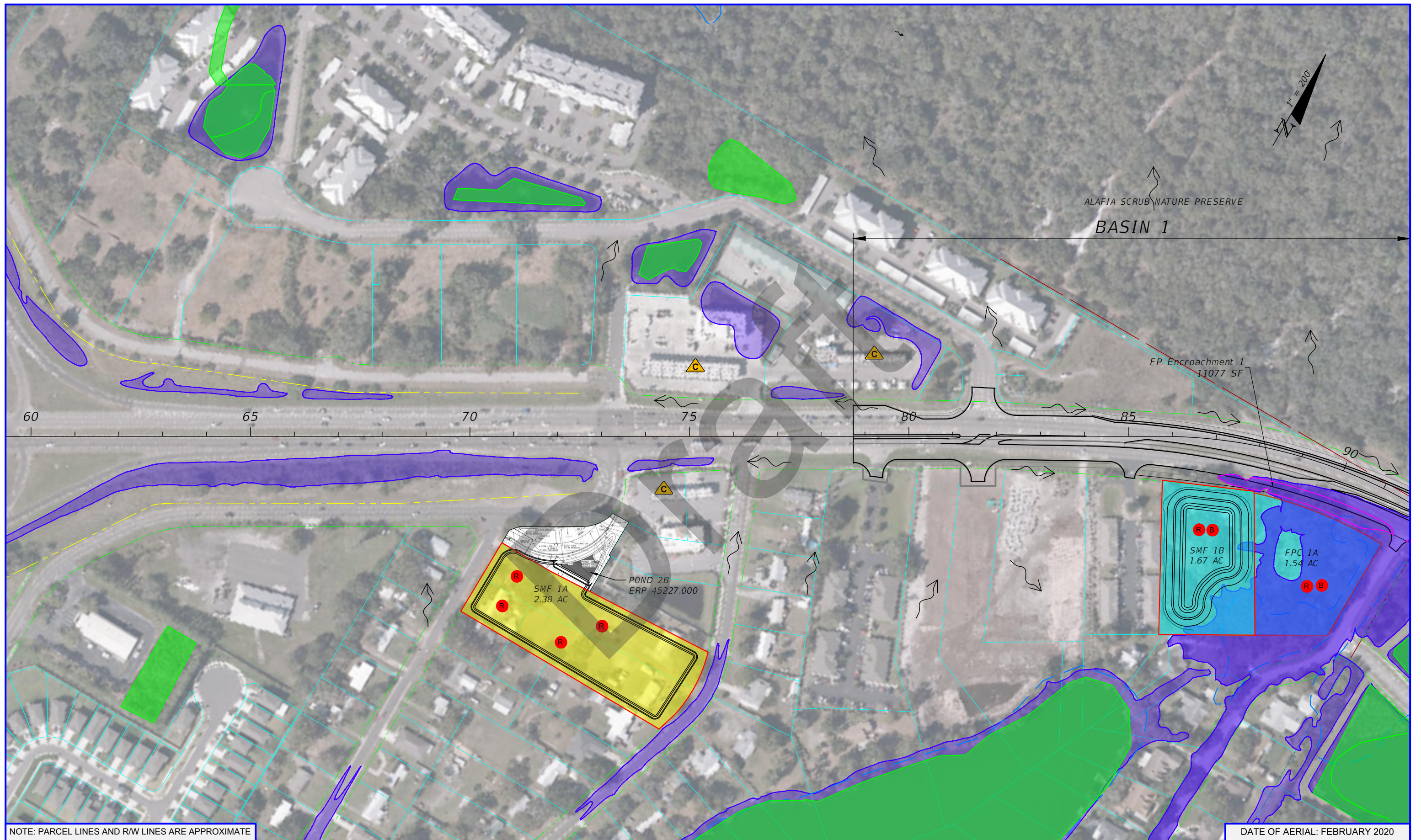
APPENDICES

APPENDIX A	CONCEPTUAL DRAINAGE MAPS AND
APPENDIX B	FIGURES
APPENDIX C	CALCULATIONS
APPENDIX D	ENGINEER'S ESTIMATE OF CONSTRUCTION COST
APPENDIX E	SUPPORTING DOCUMENTATION
APPENDIX F	MEETING MINUTES

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APPENDIX A

Conceptual Drainage Maps and FEMA FIRM MAPS



NOTE: PARCEL LINES AND R/W LINES ARE APPROXIMATE

DATE OF AERIAL: FEBRUARY 2020

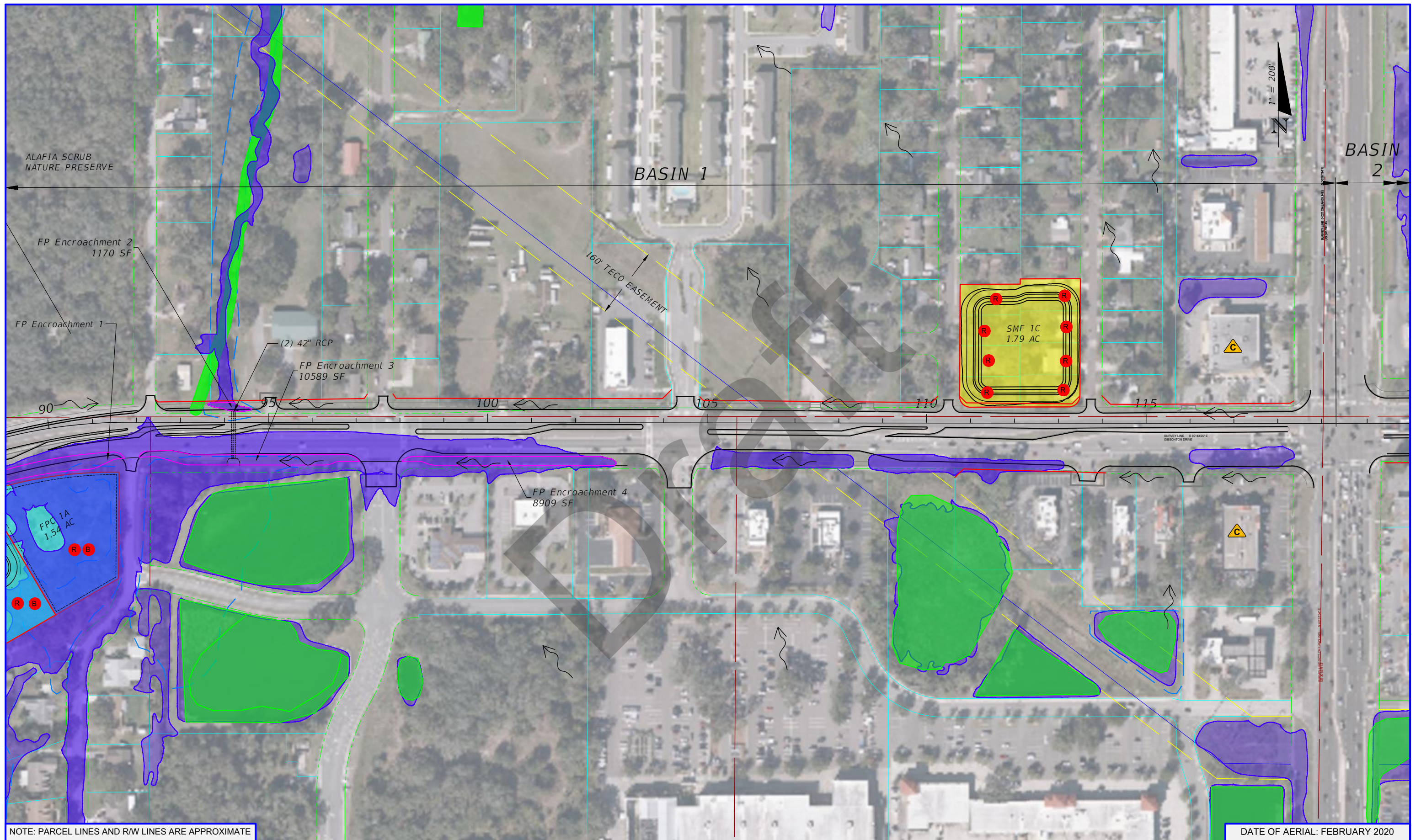
LEGEND		WETLANDS BOUNDARY		SECTION LINE		POTENTIALLY CONTAMINATED SITE
		FLOODPLAIN (HCSMM)		PROPERTY LINE		POTENTIAL BUSINESS RELOCATION
		FLOODPLAIN (FEMA)		EXISTING R/W		POTENTIAL RESIDENTIAL RELOCATION
		PREFERRED SMF AND FPC		LIMITED ACCESS R/W		FLOODPLAIN ENCROACHMENT
	SMF AND FPC ALTERNATIVE		PROPOSED R/W		EASEMENT	
			PROPOSED IMPROVEMENTS			

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 Certificate of Authorization No. 9302
 Eric K. Nelson, P.E. No. 79361

**GIBSONTON DR PD&E STUDY
 FROM FERN HILL DR TO US 301
 CONCEPTUAL SMF & FPC MAP (1)**

WPI No.: 450438-1

SHEET NO.
 1



NOTE: PARCEL LINES AND R/W LINES ARE APPROXIMATE

DATE OF AERIAL: FEBRUARY 2020

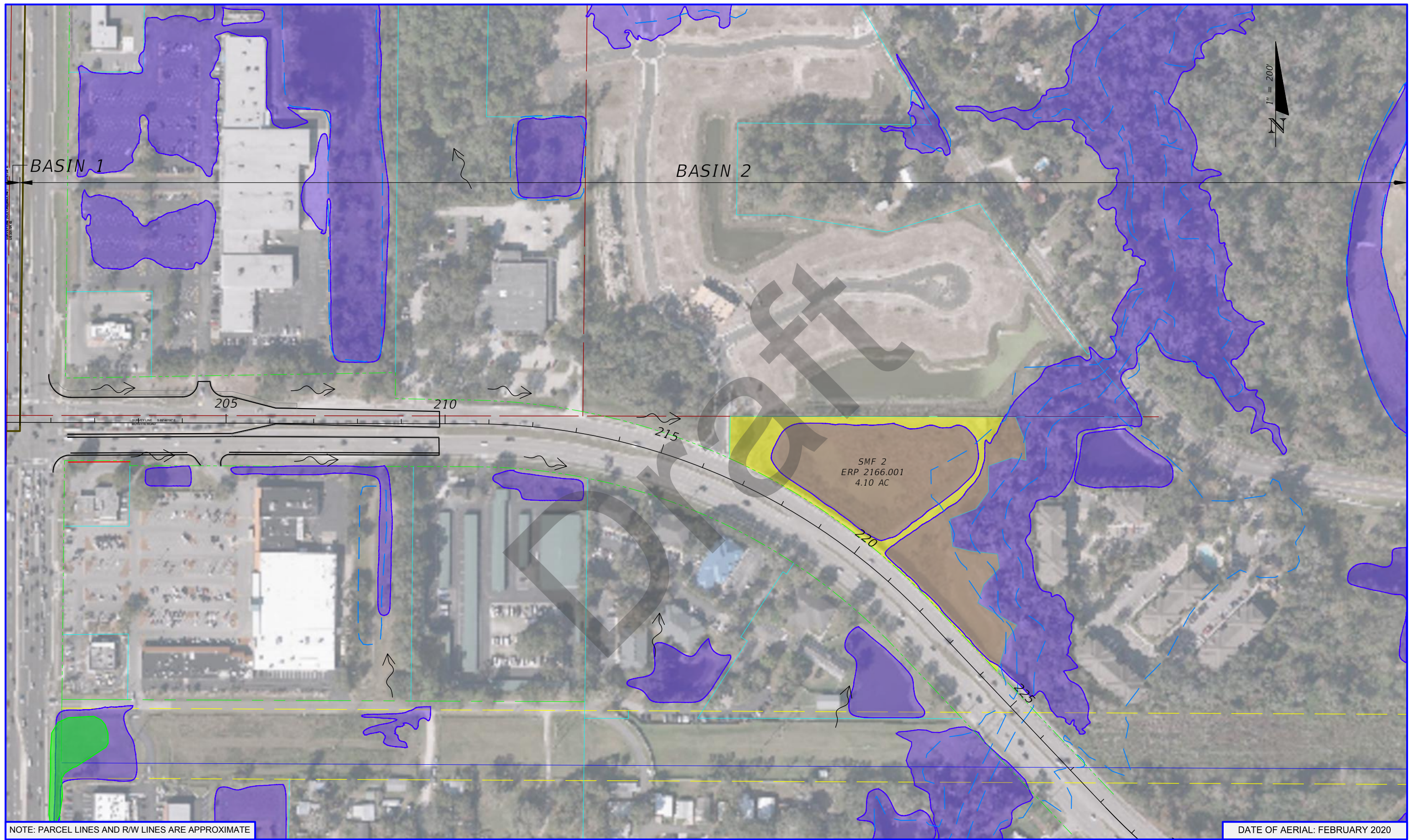
LEGEND	WETLANDS BOUNDARY	SECTION LINE	EASEMENT
	FLOODPLAIN (HCSMM)	PROPERTY LINE	POTENTIALLY CONTAMINATED SITE
	FLOODPLAIN (FEMA)	EXISTING R/W	POTENTIAL BUSINESS RELOCATION
	PREFERRED SMF AND FPC	LIMITED ACCESS R/W	POTENTIAL RESIDENTIAL RELOCATION
	SMF AND FPC ALTERNATIVE	PROPOSED R/W	
		PROPOSED IMPROVEMENTS	

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**GIBSONTON DR PD&E STUDY
 FROM FERN HILL DR TO US 301
 CONCEPTUAL SMF & FPC MAP (2)**

WPI No.: 450438-1

SHEET NO.
2



NOTE: PARCEL LINES AND R/W LINES ARE APPROXIMATE

DATE OF AERIAL: FEBRUARY 2020

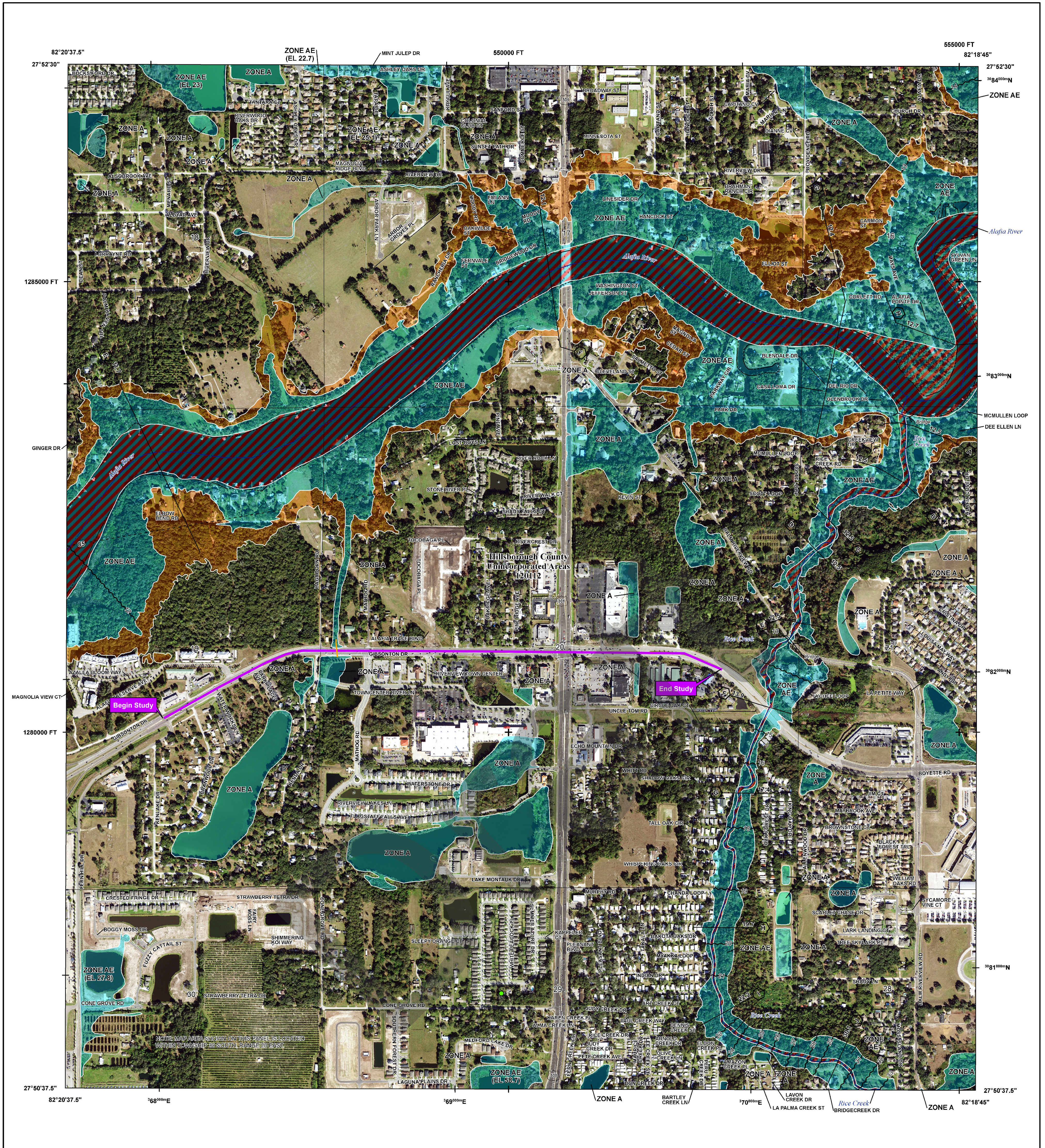
LEGEND		WETLANDS BOUNDARY		SECTION LINE			POTENTIALLY CONTAMINATED SITE
		FLOODPLAIN (HCSMM)		PROPERTY LINE			POTENTIAL BUSINESS RELOCATION
		FLOODPLAIN (FEMA)		EXISTING R/W			POTENTIAL RESIDENTIAL RELOCATION
		PREFERRED SMF AND FPC		LIMITED ACCESS R/W			
		SMF AND FPC ALTERNATIVE		PROPOSED R/W			
				PROPOSED IMPROVEMENTS			
			FLOODPLAIN ENCROACHMENT				

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**GIBSONTON DR PD&E STUDY
 FROM FERN HILL DR TO US 301
 CONCEPTUAL SMF & FPC MAP (3)**

WPI No.: 450438-1

SHEET NO.
 3



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
OTHER AREAS		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes. Zone X
GENERAL STRUCTURES		Area with Flood Risk due to Levee Zone D
		Area of Minimal Flood Hazard Zone X
OTHER FEATURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
OTHER FEATURES		Coastal Transect
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature
OTHER FEATURES		Base Flood Elevation Line (BFE)
		Limit of Study
OTHER FEATURES		Jurisdiction Boundary

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 Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <https://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 be ordered or obtained directly from the website.

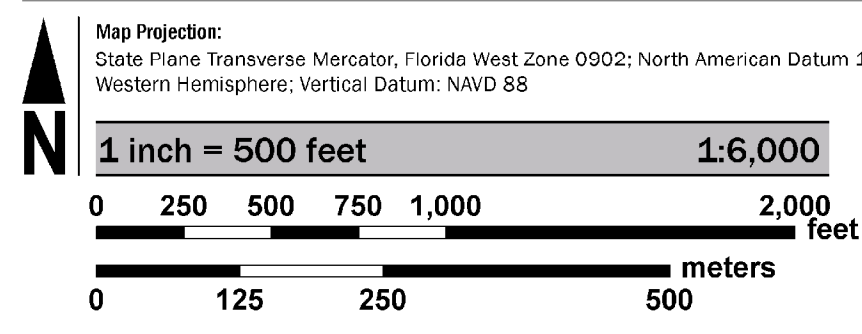
Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

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

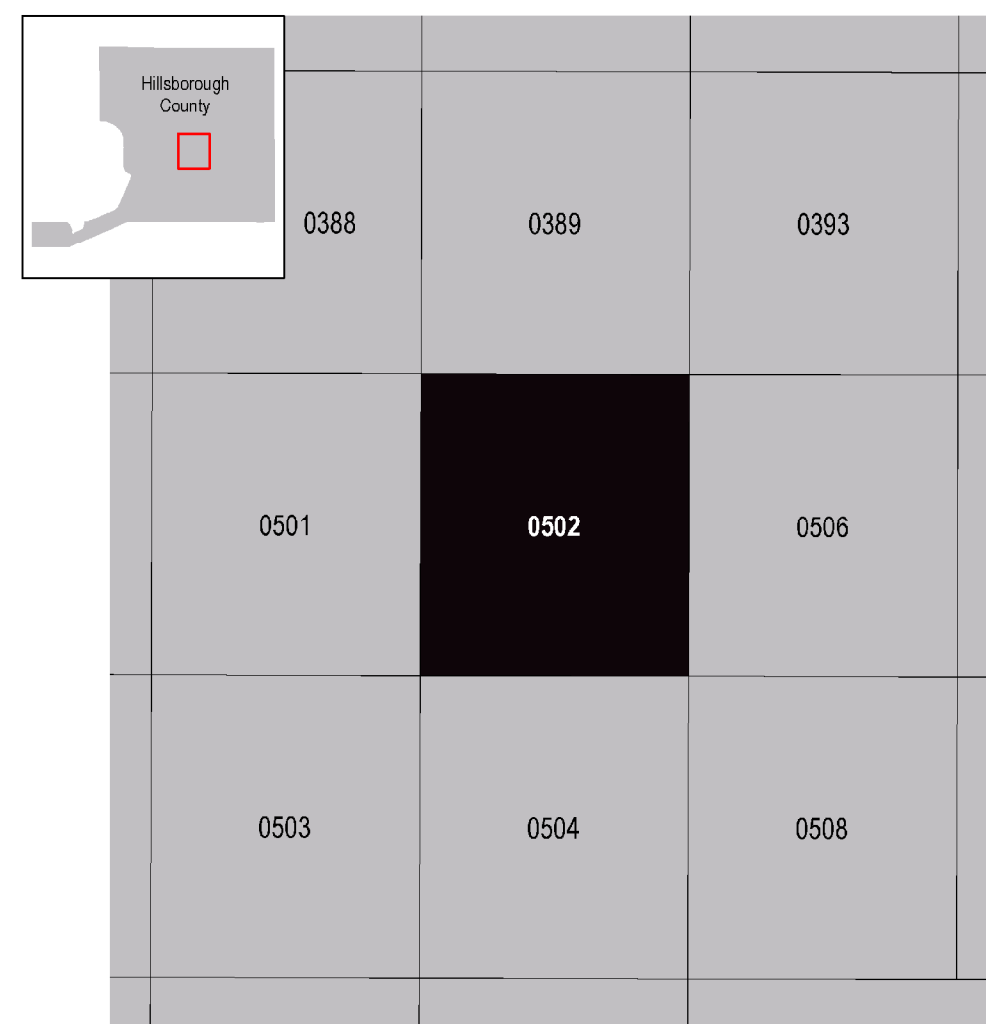
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6620.

Base map information shown on this FIRM was provided by Hillsborough County, dated 2008 and 2018; the Florida Department of Transportation, dated 2017; the Florida Resources and Environmental Analysis Center, dated 2003; and the U.S. Department of Agriculture, dated 2016.

SCALE



PANEL LOCATOR



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
HILLSBOROUGH COUNTY,
FLORIDA
 and Incorporated Areas
PANEL 502 of 801

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
HILLSBOROUGH COUNTY	120112	0502	J

VERSION NUMBER
2.4.3.5

MAP NUMBER
12057C0502J

MAP REVISED
OCTOBER 7, 2021

Draft

APPENDIX B

Figures

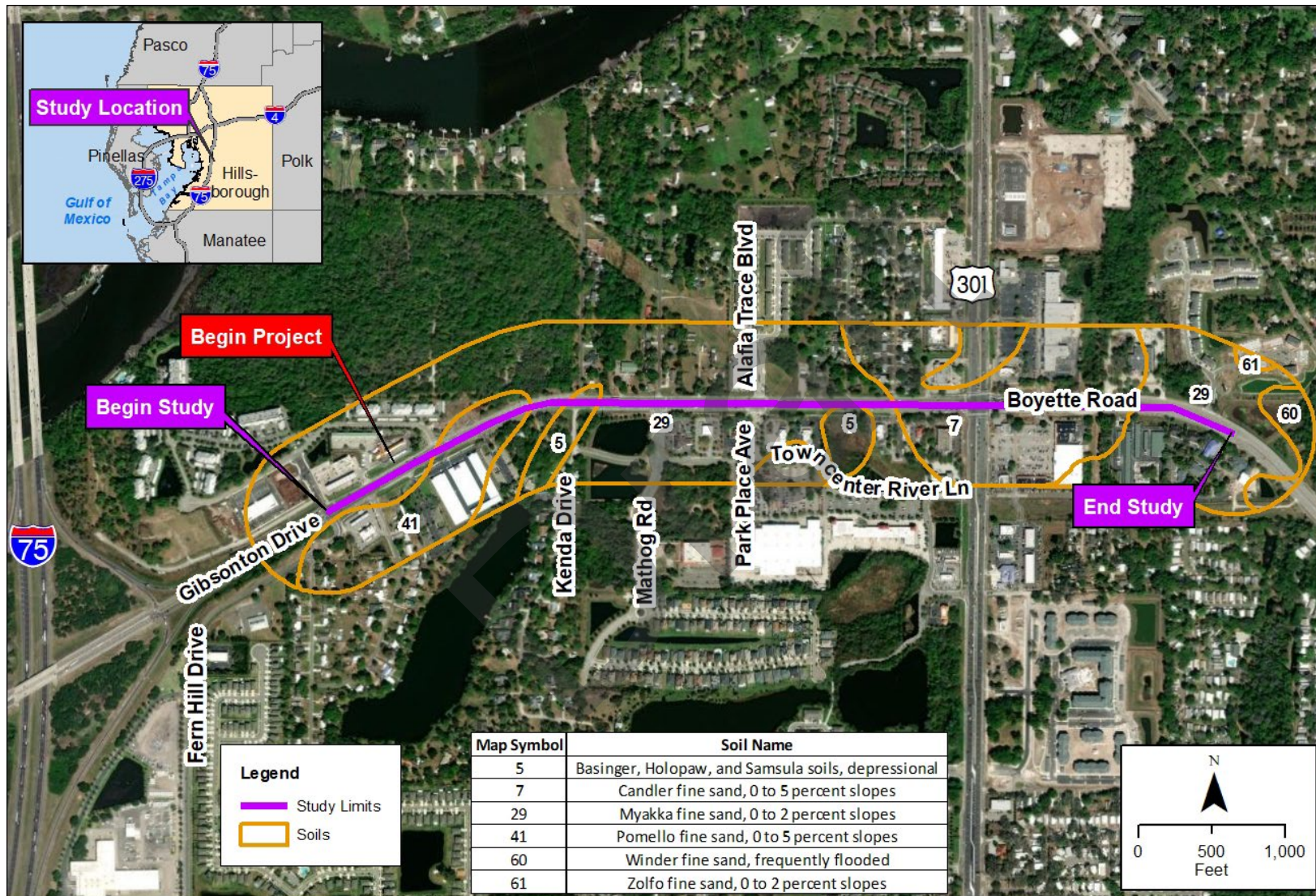


Figure B-1 Soils Map

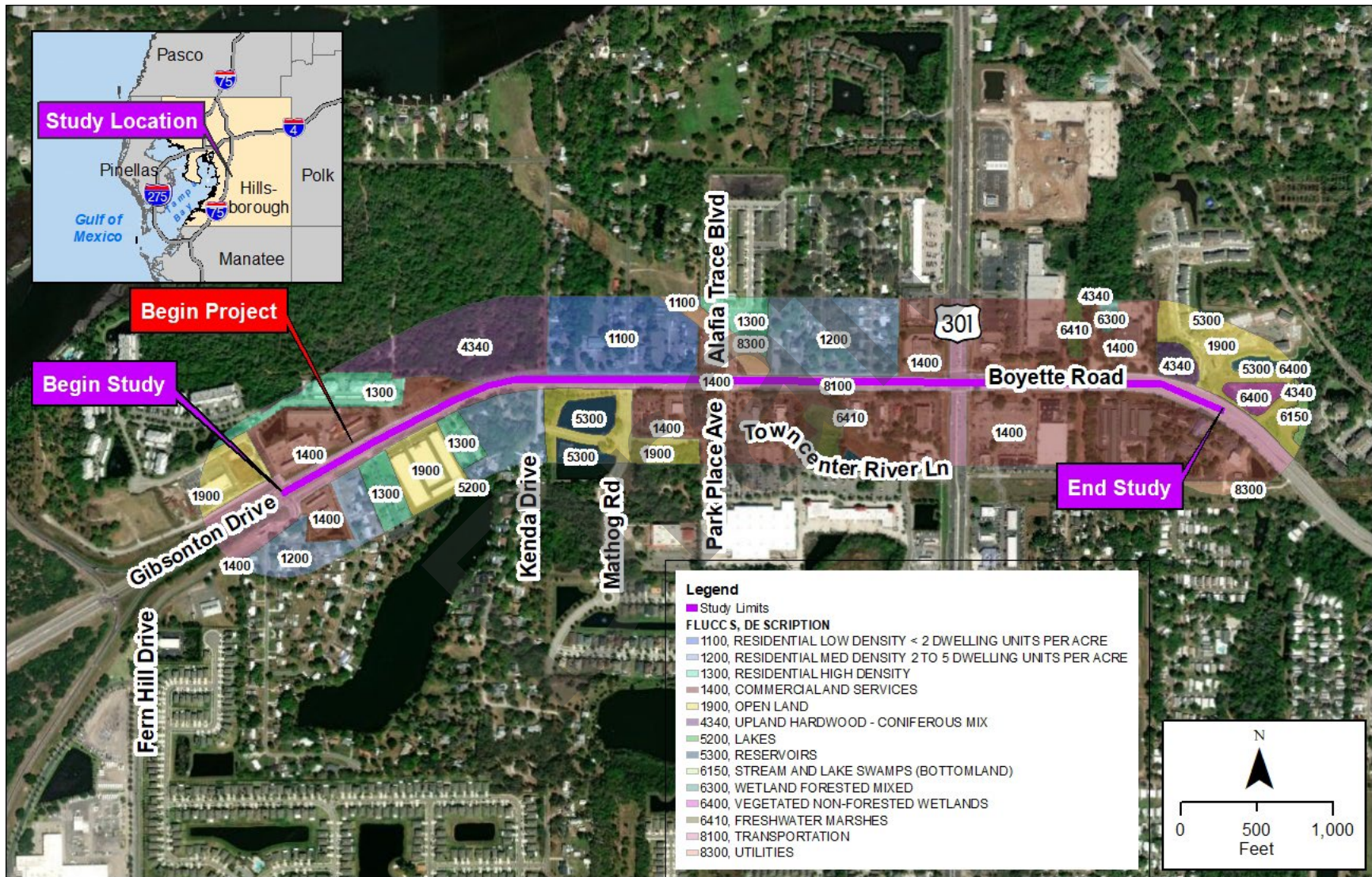
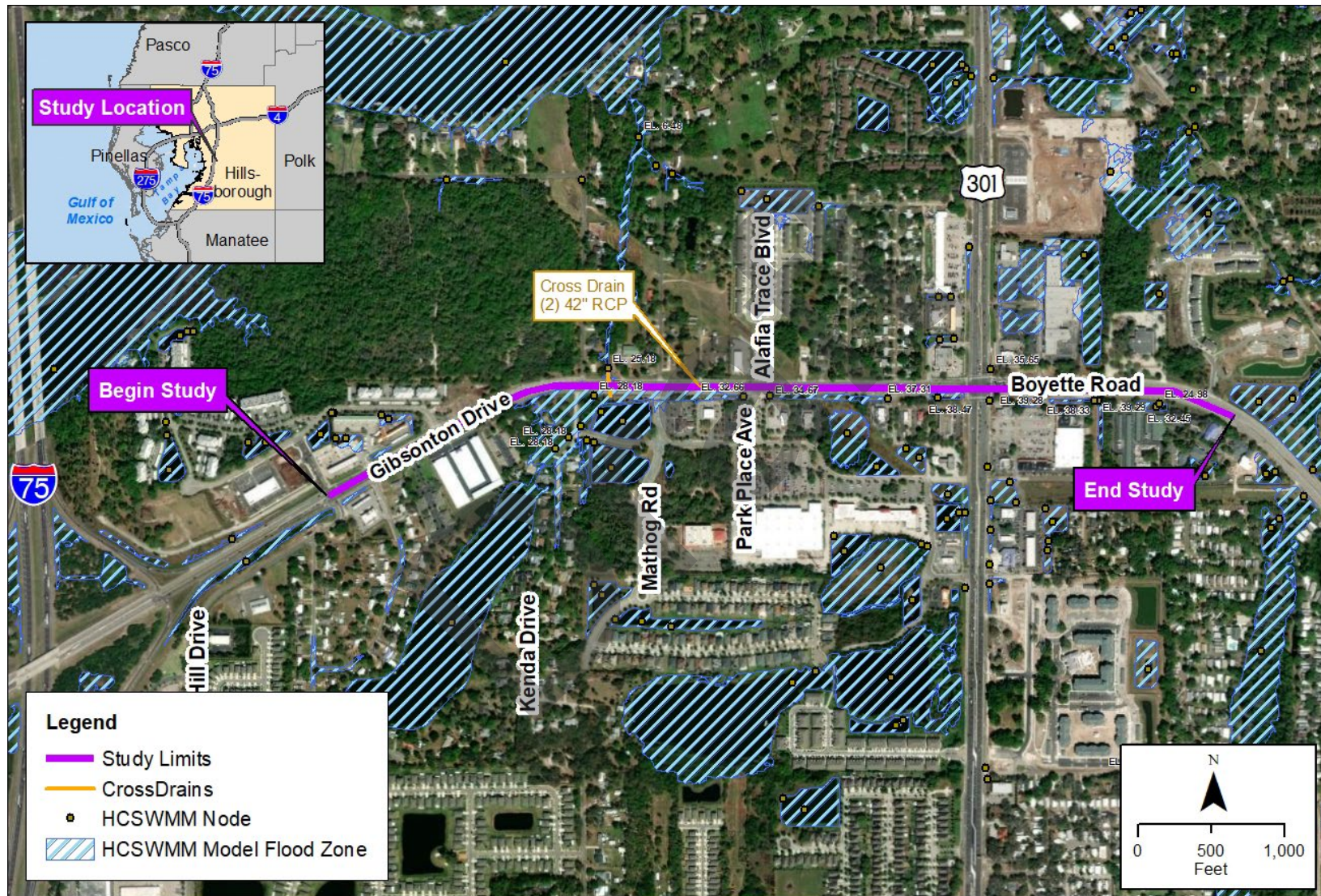


Figure B-2 Land Use Map



APPENDIX C
CALCULATIONS

Basin Evaluation

Existing Conditions

	Impervious	Pervious	Total	Curve Number
Basin 1	9.337	4.085	13.422	83.1
Roadway	8.914		8.914	98.0
Sidewalk	0.423		0.423	98.0
Pervious		4.085	4.085	49.0
Basin 2	2.611	0.368	2.979	92.0
Roadway	2.541		2.541	98.0
Sidewalk	0.070		0.070	98.0
Pervious		0.368	0.368	49.0
Total	11.948	4.452	16.400	

1.37

Preferred Alternative

	Impervious	Pervious	Total	Curve Number
Basin 1	12.168	1.254	13.422	93.4
Roadway	10.581		10.581	98.0
Sidewalk	1.587		1.587	98.0
Pervious		1.254	1.254	49.0
Basin 2	2.740	0.238	2.979	94.1
Roadway	2.620		2.620	98.0
Sidewalk	0.120		0.120	98.0
Pervious		0.238	0.238	49.0
Total	14.908	1.493	16.400	

Required Treatment

Basin 1

New Impervious Area (non-exempt) 1.667

Post Development Roadway minus Predevelopment Roadway

Proposed Treatment Type

Wet Detention

Required Treatment Volume

0.14

1 inch over the new impervious area

Basin 2

New Impervious Area (non-exempt) 0.080

Post Development Roadway minus Predevelopment Roadway

Treatment Type

Wet Detention

Required Treatment Volume

0.01

1 inch over the new impervious area

Required Attenuation

Basin 1

Total New Impervious Area
 Hydrologic Soil Group
 Open Area Curve Number
 Weighted Curve Number
 25 yr / 24hr rainfall

	Pre	Post	
A =	13.422	13.422	acres
	A		
	49		
	83.1	93.4	
P =	7.91		in

Total Runoff
Required Attenuation (Post minus Pre Runoff)

TR-55			
S =	2.04	0.70	in
I =	0.41	0.14	in
Q =	5.90	7.12	in
	6.60	7.97	ac-ft
		1.37	ac-ft

Basin 2

Total New Impervious Area
 Hydrologic Soil Group
 Open Area Curve Number
 Weighted Curve Number
 25 yr / 24hr rainfall

	Pre		
A =	2.979	2.979	acres
	A		
	49		
	92.0	94.1	ac-ft
P =	7.91		in

Total Runoff
Required Attenuation (Post minus Pre Runoff)

TR-55			
S =	0.87	0.63	in
I =	0.17	0.13	in
Q =	6.95	7.20	in
	1.72	1.79	ac-ft
		0.06	ac-ft

Stormwater Management Facility Alternatives

SMF 1A

Project Gibsonton Drive
 FPID NO: 254552 1 22 21

By: EKN Date: 7/13/2023
 Checked: WLA Date: 7/14/2023

Water Quality

Required Treatment Volume

0.14	Wet Detention
0.07	Dry Retention

Water Quantity

Required Attenuation

1.37

Total Required Pond Volume (Estimate 10% additional)

1.66	Wet Detention
1.58	Dry Retention

Treatment Type

Wet Detention

Stage Areas

Stage <i>ft-NAVD</i>	Area <i>ft²</i>	Area <i>acres</i>	Inc. Volume <i>ac-ft</i>	Total Volume <i>ac-ft</i>	Description	Remarks
23.50	77,747	1.78	0.00	0.00	Pond Bottom	
25.00	81,196	1.86	2.74	2.74	SHWT	Per ERP Permit 21779.009
25.07	81,427	1.87	0.14	2.88	Control	
26.40	85,657	1.97	2.54	5.42	DHW	
27.00	88,107	2.02			Top of Bank	

Parcel Area

75,260	<i>ft²</i>
1.73	acres



✓

Stormwater Management Facility Alternatives

SMF 1B

Project Gibsonton Drive
 FPID NO: 254552 1 22 21

By: EKN Date: 7/13/2023
 Checked: WLA Date: 7/14/2023

Water Quality

Required Treatment Volume

0.14	Wet Detention
0.07	Dry Retention

Water Quantity

Required Attenuation

1.37

Total Required Pond Volume (Estimate 10% additional)

1.66	Wet Detention
1.58	Dry Retention

Treatment Type

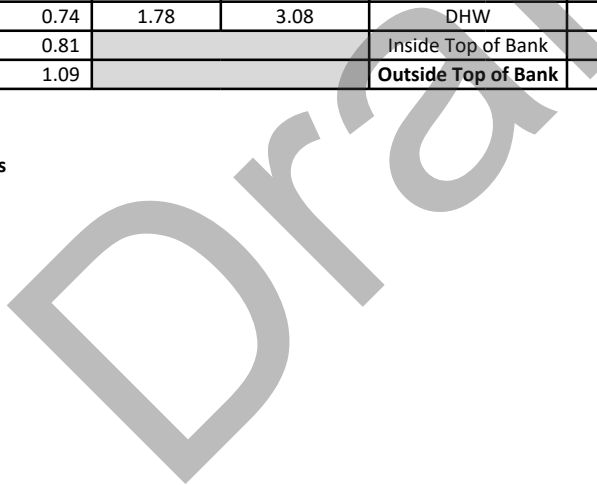
Wet Detention

Stage Areas

Stage <i>ft-NAVD</i>	Area <i>ft²</i>	Area <i>acres</i>	Inc. Volume <i>ac-ft</i>	Total Volume <i>ac-ft</i>	Description	Remarks
22.85	16,187	0.37	0.00	0.00	Pond Bottom	
24.35	19,854	0.46	0.40	0.40	Littoral Zone	
25.85	23,749	0.55	0.75	1.15	SHWT	Per ERP Permit 21779.009 Wetland "D"
26.10	24,359	0.56	0.14	1.29	Control	
28.85	32,215	0.74	1.78	3.08	DHW	
29.85	35,238	0.81			Inside Top of Bank	
30.85	47,471	1.09			Outside Top of Bank	

Parcel Area

75,260	<i>ft²</i>
1.73	acres



✓

Stormwater Management Facility Alternatives

SMF 1C

Project Gibsonton Drive
 FPID NO: 254552 1 22 21

By: EKN Date: 7/13/2023
 Checked: WLA Date: 7/14/2023

Water Quality

Required Treatment Volume

0.14
0.07

Wet Detention
Dry Retention

Water Quantity

Required Attenuation

1.37

Total Required Pond Volume (Estimate 10% additional)

1.66
1.58

Wet Detention
Dry Retention

Treatment Type

Wet Detention

Stage Areas

Stage <i>ft-NAVD</i>	Area <i>ft²</i>	Area <i>acres</i>	Inc. Volume <i>ac-ft</i>	Total Volume <i>ac-ft</i>	Description	Remarks
31.00	35,731	0.82	0.00	0.00	Pond Bottom	
32.50	40,233	0.92	0.85	0.85	Littoral Zone	
34.00	35,731	0.82	1.31	2.16	SHWT	Assumed 12" below Lowest Grade of 35'
34.17	36,529	0.84	0.14	2.30	Control	
36.00	46,589	1.07	1.75	4.05	DHW	
37.00	49,918	1.15			Inside Top of Bank	
38.00	63,295	1.45			Outside Top of Bank	

Parcel Area

75,260 <i>ft²</i>
1.73 acres

Y,

Stormwater Management Facility Alternatives

SMF 2B

Project Gibsonton Drive
 FPID NO: 254552 1 22 21

By: EKN Date: 7/13/2023
 Checked: WLA Date: 7/14/2023

Water Quality

Required Treatment Volume

0.01	Wet Detention
0.00	Dry Retention

Water Quantity

Required Attenuation

0.06

Total Required Pond Volume (Estimate 10% additional)

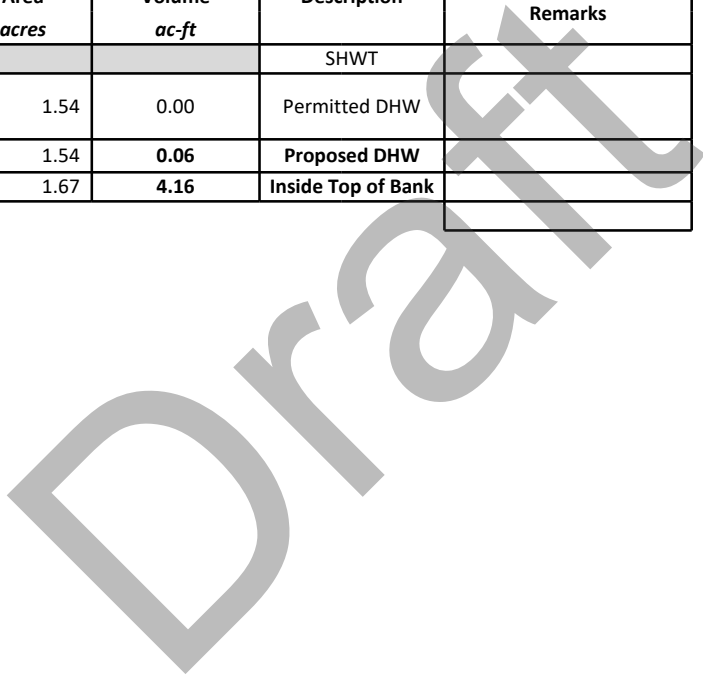
0.08	Wet Detention
0.07	Dry Retention

Treatment Type

Wet Detention

Stage Areas

Stage <i>ft-NAVD</i>	Area <i>ft²</i>	Area <i>acres</i>	Volume <i>ac-ft</i>	Description	Remarks
10.10				SHWT	
18.40	66,910	1.54	0.00	Permitted DHW	
18.44	66,996	1.54	0.06	Proposed DHW	
21.00	72,610	1.67	4.16	Inside Top of Bank	



Floodplain Encroachments

Area No.	Area	Area	Avg. Depth of	Approximate Volume	Approximate Volume
	<i>SF</i>	<i>ac</i>	<i>ft</i>	<i>CY</i>	<i>ac-ft</i>
1	11,077.00	0.254	0.560	230	0.142
2	1,170.00	0.027	0.270	12	0.007
3	8,735.00	0.201	0.380	123	0.076
4	8,909.00	0.205	0.080	26	0.016
Total				391	0.242

SHWT 25.85 *ft-NAVD*
 BFE 28.42 *ft-NAVD*

Draft

Catchment 1

Total Pre-Development Catchment Area	13.42	ac
Total Post-Development Catchment Area	13.42	ac
Pre-Development Non-DCIA CN	49	
Pre-Development DCIA Percentage	69.57	%
Post-Development Non-DCIA CN	49	
Post-Development DCIA Percentage	90.66	%
Wet Pond Area (No Loading)		ac
	SFM 1A	1.869 ac
	SFM 1B	0.559 ac
	SFM 1C	0.839 ac

SMF 1A

Permanent Pool Volume	2.74	ac-ft
Littoral Zones Improvement Credit	10	%

SMF 1B

Permanent Pool Volume	1.15	ac-ft
Littoral Zones Improvement Credit	10	%

SMF 1C

Permanent Pool Volume	2.16	ac-ft
Littoral Zones Improvement Credit	10	%

APPENDIX D

ENGINEER'S ESTIMATE OF CONSTRUCTION COST

Engineer's Estimate of Construction Cost

Earthwork							
SMF/FPC #	Cut	Fill	Unit Cost		Linear Ft of 30" Pipe	430175130	Total
	cy	cy	0120 1	0120 6			
SMF 1A	11,636	4	7.95	16.26	750.00	197.97	\$ 241,048.7
SMF 1B	8,506	376	7.95	16.26		197.97	\$ 73,736.5
SMF 1C	9,795	497	7.95	16.26	500.00	197.97	\$ 184,936.5
FPC 1A	4,630	0	7.95	16.26		197.97	\$ 36,808.5

Pipe Size	SMF 1A	SMF 1B	SMF 1C	
Runniff Coef	0.98	0.98	0.98	
Rainfall Itensity	6.38	6.38	6.38	<i>in, 10 yr / 24hr rainfall (Hillsborough County Requirement)</i>
Area	1.67	1.67	1.67	<i>ac</i>
Flow	10.42	10.42	10.42	<i>cfs</i>
Pipe Length	750	No Additional Conveyance Required	500	<i>ft</i>
Pipe Drop	1.00		0.38	<i>ft</i>
Slope	0.13%		0.08%	<i>ft/ft</i>
Pipe Size	30		30	<i>in</i>
Capacity	16.27		12.27	<i>cfs</i>

Draft

APPENDIX E

SUPPORTING DOCUMENTATION

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10310529-4.20

FM#: 450438-1	Alternate: SMF-1A	District: Seven
County: Hillsborough	Segment: N/A	Date: 8-Jun-23
State Rd.: N/A	FAP#: N/A	C.E. Sequence: N/A
Project Des.: Gibsonton Rd. Fern Hill to US 301 Ponds		

Parcels	Gross	Net	Estimated Relocates:
Commercial	0	0	Business
Residential	4	4	Residential
Unimproved	0	0	Signs
			Special
Total Parcels	4	4	Total Relocates

R/W SUPPORT COSTS (PHASE 41)				Amount		
1. Direct Labor Cost	(Parcels	4	x	20,000 =	Rate)	80,000
2. Indirect Overhead	(Parcels	4	x	0 =	Rate)	0
3.						
TOTAL PHASE 41						\$80,000

R/W OPS (PHASE 4B)				Amount		
4. Appraisal Fees Through Trial		4	Parcels	x	30,000 =	120,000
5. Business Damage CPA Fees Through Trial		0	Claims	x	19,000 =	0
6. Court Reporter & Process Servers		2	Parcels	x	500 =	1,000
7. Expert Witness	50%	x	4	=	3	Parcels
	75%	x	4	=	3	Parcels
8. Mediators	75%	x	4	=	3	Parcels
9. Demolition, Asb. Abate., Survey, etc.		9	Imprvmet	x	15,000 =	135,000
10. Miscellaneous Contracts		1	Per Project	x	15,000 =	15,000
11. Appraisal Fee Review		1	Parcels	x	5,000 =	5,000
12.						
TOTAL PHASE 4B						\$373,200

R/W LAND COSTS (PHASE 43)				Amount	Subtotal	
13. Land, Improvements & Severance Damages and Cost to Cure Amount		0	x	120% * Design plan stage	=	0
14. Water Retention & Mit. (1 Pond)		975,396	x	120% (0 Parcels w/o R/W Acq)	=	1,170,500
15. SUBTOTAL (105,099 SF)				(Lines 13 & 14)		1,170,500
16. Admin. Settlements (Factor	20%	x	60% of Line 15)	=	140,500	
17. Litigation Awards (Factor	45%	x	40% of Line 15)	=	210,700	
18. Business Damages (Claims	0	x	0)	=	0	
19. Bus. Damages Incrs. (Factor	25%	x	\$ -)	=	0	
20. Owner Appr. Fees (Parcels	4	x	\$15,000)	=	60,000	
21. Owner CPA Fees (Claims	0	x	\$16,000)	=	0	
22. Defend. Atty Fees (Sum of Lines 16, 17 & 19)	351,200	x	33%)	=	115,900	
23. Owner Expert Witness (Comm.+Unimp.)	0	+	0) x 18,000	=	0	
24. Other Condemn. Costs	4	x	\$1,000	=	4,000	
25. SUBTOTAL				(Lines 16 thru 24)		531,100
26.						
TOTAL PHASE 43						\$1,701,600

* 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)				Amount		
27. Acquisition Consultant-50% of parcels	\$20,000	x	0	=	0	
TOTAL PHASE 42						\$0

RELOCATION COSTS (PHASE 45)				Number	Amount	
Replacement Housing						
28. Owner	\$35,000	x	4	=	140,000	
29. Tenant	\$25,000	x	0	=	0	
Move Costs						
30. Residential	\$5,000	x	4	=	20,000	
31. Business/Farm	\$40,000	x	0	=	0	
32. Personal Property	\$3,000	x	0	=	0	
33. (Lines 28 thru 32)						
TOTAL PHASE 45						\$160,000

34. Relocation Services Cost	\$16,000	(Not in Phase Total)	
35.			
36.			
37.			
(All Phases) TOTAL ESTIMATE			\$2,314,800

Real Estate:	Roger D. Patton	Signed:		Date:	06/15/23
Bus. Dam. :	Alfred J. Thompson	Signed:		Date:	06/15/23
Relocation:	Roger D. Patton	Signed:		Date:	06/15/23
Overall Review:	Alfred J. Thompson	Signed:		Date:	06/15/23

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:
POND: SMF-1A

The following indicates the estimator's confidence in the above estimate:
 _____ Type A - indicates the most confidence
 _____ Type B - indicates above average confidence
 _____ x _____ Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ x _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10310529-4.20

FM#: 450438-1	Alternate: SMF-1B & FPC	District: Seven
County: Hillsborough	Segment: N/A	Date: 8-Jun-23
State Rd.: N/A	FAP#: N/A	C.E. Sequence: N/A
Project Des.: Gibsonton Rd. Fern Hill to US 301 Ponds		

Parcels	Gross	Net	Estimated Relocates:
Commercial	0	1	Business _____ 2
Residential	0	1	Residential _____ 2
Unimproved	0	0	Signs _____ 0
			Special _____ 0
Total Parcels	0	2	Total Relocates _____ 4

R/W SUPPORT COSTS (PHASE 41)				Amount
1. Direct Labor Cost	(Parcels)	2	x 20,000 =	Rate) 40,000
2. Indirect Overhead	(Parcels)	2	x 0 =	Rate) 0
3.				
TOTAL PHASE 41				\$40,000

R/W OPS (PHASE 4B)				Amount
4. Appraisal Fees Through Trial		2	Parcels x	30,000 = 60,000
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000 = 0
6. Court Reporter & Process Servers		1	Parcels x	500 = 500
7. Expert Witness	75%	x 2 =	2 Parcels x	30,000 = 60,000
8. Mediators	75%	x 2 =	2 Parcels x	2,400 = 4,800
9. Demolition, Asb. Abate., Survey, etc.		5	Imprvmet x	15,000 = 75,000
10. Miscellaneous Contracts		1	Per Project x	15,000 = 15,000
11. Appraisal Fee Review		1	Parcels x	5,000 = 5,000
12.				
TOTAL PHASE 4B				\$220,300

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages and Cost to Cure Amount		0	x 120% * Design plan stage	= 0	
14. Water Retention & Mit. (0 Ponds)		1,636,291	x 120% (0 Parcels w/o R/W Acq)	= 1,963,500	
15. SUBTOTAL (140,699 SF)			(Lines 13 & 14)		1,963,500
16. Admin. Settlements (Factor)	20%	x 60% of Line 15)	=	235,600	
17. Litigation Awards (Factor)	45%	x 40% of Line 15)	=	353,400	
18. Business Damages (Claims)	0	x (0)	=	0	
19. Bus. Damages Incrs. (Factor)	25%	x \$ -)	=	0	
20. Owner Appr. Fees (Parcels)	2	x \$15,000)	=	30,000	
21. Owner CPA Fees (Claims)	0	x \$16,000)	=	0	
22. Defend. Atty Fees (Sum of Lines 16, 17 & 19)	589,000	x 33%)	=	194,400	
23. Owner Expert Witness (Comm.+Unimp.)	1	+ 0) x 18,000	=	18,000	
24. Other Condemn. Costs	2	x \$1,000	=	2,000	
25. SUBTOTAL			(Lines 16 thru 24)		833,400
26.					
TOTAL PHASE 43					\$2,796,900

* 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)				Amount
27. Acquisition Consultant-50% of parcels		\$20,000	x 0	= 0
TOTAL PHASE 42				\$0

RELOCATION COSTS (PHASE 45)				Number	Amount
Replacement Housing					
28. Owner	\$35,000	x	0	=	0
29. Tenant	\$25,000	x	2	=	50,000
Move Costs					
30. Residential	\$5,000	x	2	=	10,000
31. Business/Farm	\$40,000	x	2	=	80,000
32. Personal Property	\$3,000	x	0	=	0
33. (Lines 28 thru 32)					
TOTAL PHASE 45					\$140,000
34. Relocation Services Cost			\$14,000	(Not in Phase Total)	

35.					
36.					
37.			(All Phases)	TOTAL ESTIMATE	\$3,197,200

Real Estate:	Roger D. Patton	Signed:		Date:	06/15/23
Bus. Dam. :	Alfred J. Thompson	Signed:		Date:	06/15/23
Relocation:	Roger D. Patton	Signed:		Date:	06/15/23
Overall Review:	Alfred J. Thompson	Signed:		Date:	06/15/23

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS:
POND: SMF-1B

The following indicates the estimator's confidence in the above estimate:
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 _____ Type B - indicates above average confidence
 x Type C - indicates below average confidence
 _____ Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ x _____ Docs to RW: _____
 Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

HDR#: 10310529-4.20

FM#: 450438-1	Alternate: FPC	District: Seven
County: Hillsborough	Segment: N/A	Date: 8-Jun-23
State Rd.: N/A	FAP#: N/A	C.E. Sequence: N/A
Project Des. Gibsonton Rd. Fern Hill to US 301 Ponds		

Parcels	Gross	Net	Estimated Relocates:
Commercial	1	1	Business 1
Residential	0	0	Residential 1
Unimproved	0	0	Signs 0
			Special 0
Total Parcels	1	1	Total Relocates 2

R/W SUPPORT COSTS (PHASE 41)					Amount
1. Direct Labor Cost	(Parcels	1	x	20,000 =	Rate) 20,000
2. Indirect Overhead	(Parcels	1	x	0 =	Rate) 0
3.					TOTAL PHASE 41 \$20,000

R/W OPS (PHASE 4B)					Amount
4. Appraisal Fees Through Trial		1	Parcels	x	30,000 = 30,000
5. Business Damage CPA Fees Through Trial		0	Claims	x	19,000 = 0
6. Court Reporter & Process Servers		1	Parcels	x	500 = 500
7. Expert Witness	50%	x	1	Parcels	x 30,000 = 30,000
8. Mediators	75%	x	1	Parcels	x 2,400 = 2,400
9. Demolition, Asb. Abate., Survey, etc.	75%	x	1	Parcels	x 2,400 = 2,400
10. Miscellaneous Contracts		2	Imprvmet	x	15,000 = 30,000
11. Appraisal Fee Review		1	Per Project	x	15,000 = 15,000
12.		0	Parcels	x	5,000 = 0
					TOTAL PHASE 4B \$107,900

R/W LAND COSTS (PHASE 43)					Amount	Subtotal
13. Land, Improvements & Severance Damages and Cost to Cure Amount	0	x	120% * Design plan stage	=	0	
14. Water Retention & Mit. (0 Ponds)	805,899	x	120% (0 Parcels w/o R/W Acq)	=	967,100	
15. SUBTOTAL (140,699 SF)			(Lines 13 & 14)			<u>967,100</u>
16. Admin. Settlements (Factor	20%	x	60% of Line 15)	=	116,100	
17. Litigation Awards (Factor	45%	x	40% of Line 15)	=	174,100	
18. Business Damages (Claims	0	x	0)	=	0	
19. Bus. Damages Incrs. (Factor	25%	x	\$ -)	=	0	
20. Owner Appr. Fees (Parcels	1	x	\$15,000)	=	15,000	
21. Owner CPA Fees (Claims	0	x	\$16,000)	=	0	
22. Defend. Atty Fees (Sum of Lines 16, 17 & 19)	290,200	x	33%)	=	95,800	
23. Owner Expert Witness (Comm.+Unimp.)	1	+	0) x 18,000	=	18,000	
24. Other Condemn. Costs	1	x	\$1,000	=	1,000	
25. SUBTOTAL			(Lines 16 thru 24)	=		<u>420,000</u>
26.						TOTAL PHASE 43 \$1,387,100

* 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)					Amount
27. Acquisition Consultant-50% of parcels	\$20,000	x	0	=	0
					TOTAL PHASE 42 \$0

RELOCATION COSTS (PHASE 45)					Amount
Replacement Housing					
28. Owner	\$35,000	x	0	=	0
29. Tenant	\$25,000	x	1	=	25,000
Move Costs					
30. Residential	\$5,000	x	1	=	5,000
31. Business/Farm	\$40,000	x	1	=	40,000
32. Personal Property	\$3,000	x	0	=	0
33. (Lines 28 thru 32)					TOTAL PHASE 45 \$70,000
34. Relocation Services Cost			\$7,000	(Not in Phase Total)	

35.					
36.					
37.			(All Phases)		TOTAL ESTIMATE \$1,585,000

Real Estate:	Roger D. Patton	Signed:		Date:	07/19/23
Bus. Dam.:	Alfred J. Thompson	Signed:		Date:	07/19/23
Relocation:	Roger D. Patton	Signed:		Date:	07/19/23
Overall Review:	Alfred J. Thompson	Signed:		Date:	07/19/23

Cost Estimate Sequence #: _____ Dated: _____ In the Amount of \$ _____ Data Input Completion Date: _____

REMARKS: POND: FPC

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 Type B - indicates above average confidence
 x Type C - indicates below average confidence
 Type D - indicates the least or no confidence

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ x _____ Docs to RW: _____
 Comments: _____

Permit 2166.001 (App 6220)
Boyette Rd.-US Hwy. 301 to Balm Riverview Rd



HILLSBOROUGH COUNTY
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION

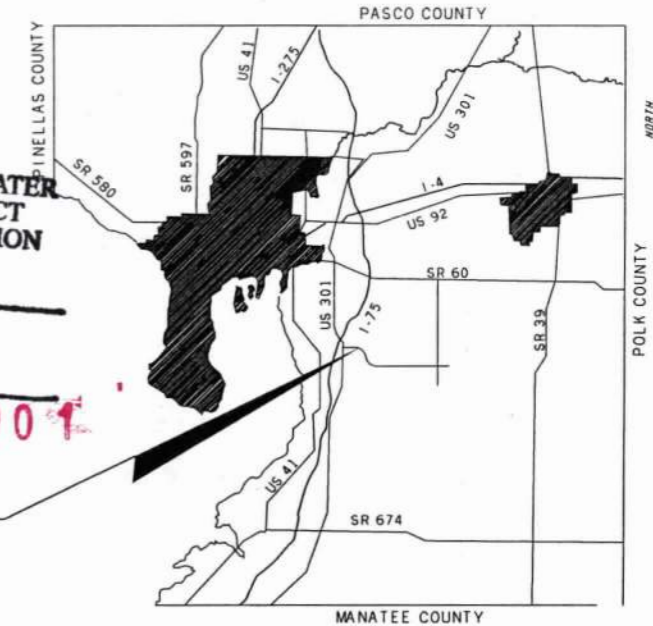
PLANS OF PROPOSED
BOYETTE ROAD
US 301 TO BALM-RIVERVIEW ROAD

CAPITAL IMPROVEMENT PROJECT NO. 69104

SOUTHWEST FLORIDA WATER
MANAGEMENT DISTRICT
PERMITTED CONSTRUCTION
DRAWINGS

FILE OF RECORD
PERMIT NO.

440216600



VICINITY MAP

THIS CONTRACT PLAN SET INCLUDES:

- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- LANDSCAPE PLANS

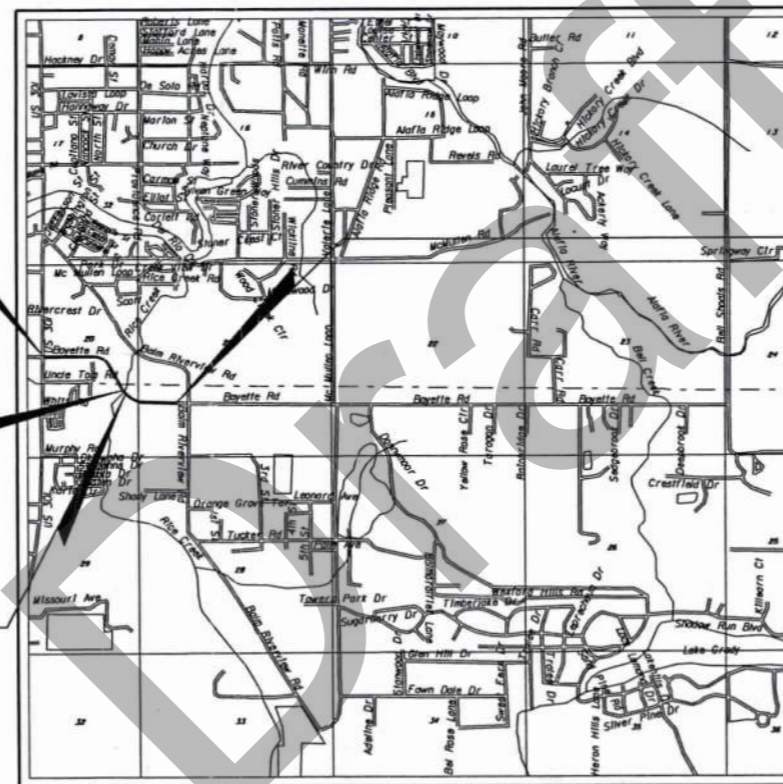
BEGIN PROJECT
STA. 21+36.00

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	DRAINAGE MAP
3-7	TYPICAL SECTIONS
8	GENERAL NOTES
9	TREE DISPOSITION CHART
10-11	SUMMARY OF DRAINAGE STRUCTURES
12	HORIZONTAL CONTROL
13-29	ROADWAY PLANS AND PROFILES
30-44	DRAINAGE STRUCTURE SHEETS
45	BRIDGE HYDRAULIC RECOMMENDATIONS SHEET
46-51	BOX CULVERT PLAN AND DETAILS
52-57	MSE RETAINING WALL SHEETS
58-59	REPORT OF CORE BORINGS-RICE CREEK
60-62	POND DETAIL SHEETS
63-64C	MITIGATION AREA PLANS
65	SOIL BORING LOCATION PLAN
66	SOIL SURVEY SHEET
67-80	CROSS SECTIONS
81-85	DRIVEWAY SECTIONS
86-93	UTILITY ADJUSTMENTS

BEGIN BRIDGE CULVERT
#104711
STA. 44+93.35

END BRIDGE CULVERT
#104711
STA. 45+21.23



LOCATION MAP

SECTIONS 20, 21 TOWNSHIP 30S, RANGE 20E

END PROJECT
STA. 62+60.00



THE BOARD OF COUNTY COMMISSIONERS

- | | |
|--------------|-----------------------|
| THOMAS SCOTT | DISTRICT 3/CHAIR |
| JIM NORMAN | DISTRICT 5/VICE CHAIR |
| KATHY CASTOR | DISTRICT 1 |
| KEN HAGAN | DISTRICT 2 |
| RONDA STORMS | DISTRICT 4 |
| JAN PLATT | DISTRICT 6 |
| PAT FRANK | DISTRICT 7 |

PLANS PREPARED FOR:

HILLSBOROUGH COUNTY DEPARTMENT OF PUBLIC WORKS,
ENGINEERING DIVISION, 22ND FLOOR
601 E. KENNEDY BLVD. TAMPA, FLORIDA 33601

PLANS PREPARED BY:



Orth - Rodgers & Associates, Inc.
TRANSPORTATION ENGINEERS and PLANNERS

3030 North Rocky Point Drive West - Suite 265 Tampa, FL 33607 (813) 287-1932

LENGTH OF PROJECT

	LINEAR FEET	MILES
ROADWAY	4124.00	0.781
BRIDGE CULVERTS	27.88	0.005
BRIDGES	N/A	N/A
NET LENGTH OF PROJECT	4124.00	0.781
EXCEPTIONS	-	-
GROSS LENGTH OF PROJECT	4124.00	0.781

C.I.P. PROJECT COORDINATOR/MANAGER: WILLIAM R. ALFORD

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE
FLORIDA DEPT. OF TRANSPORTATION, DESIGN STANDARDS
(DATED JAN. 2002) AND SUPPLEMENTALS THERETO, AND THE LATEST
HILLSBOROUGH COUNTY, STANDARD SPECIFICATIONS.

REVISIONS		
DATE	#	DESCRIPTION

ENGINEER OF RECORD:

JOHN S. METROKA, PE

100% SUBMITTAL
OCTOBER 24, 2003



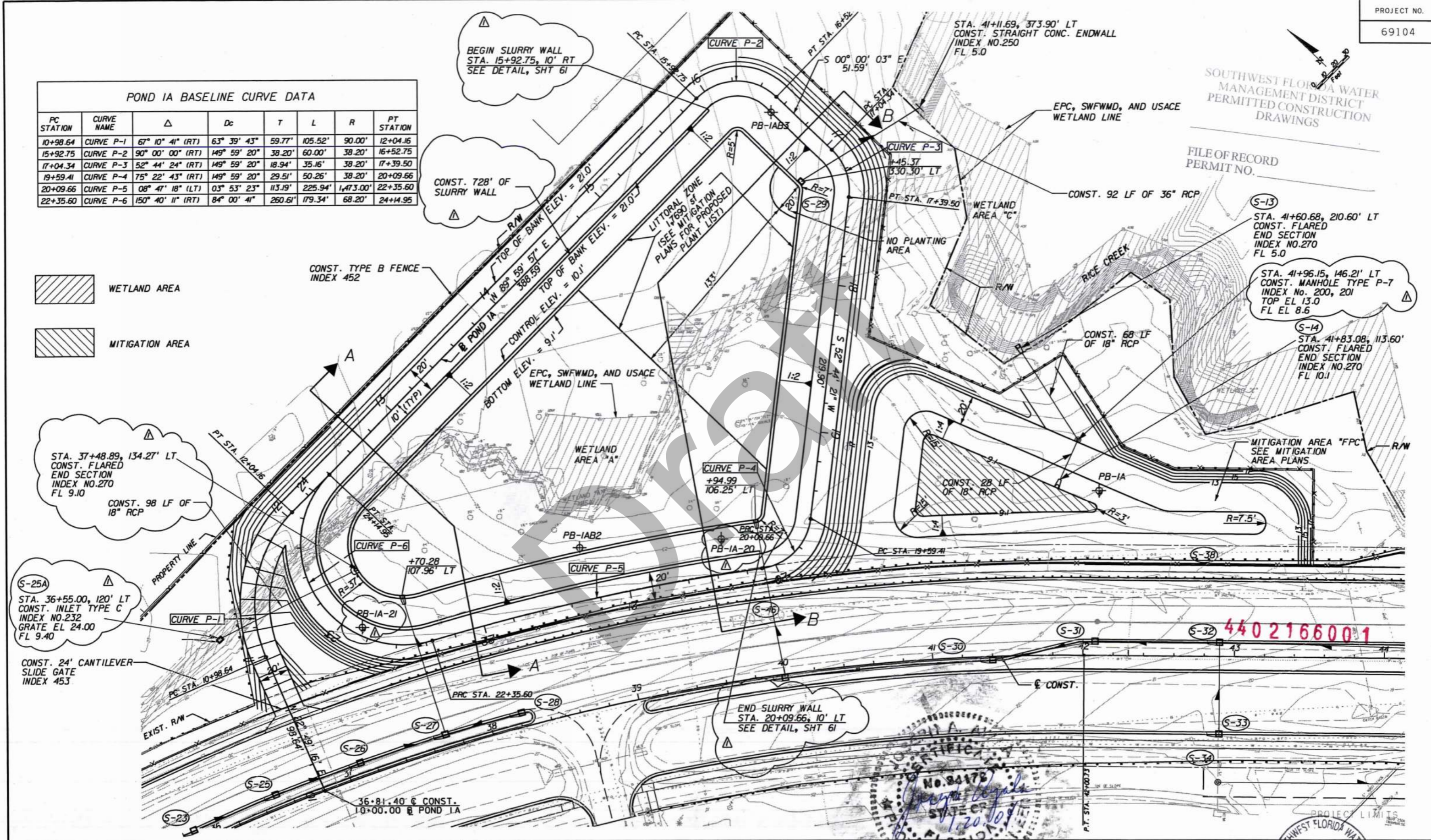
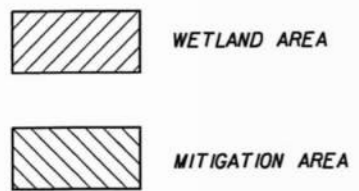
ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS
MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS
MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

SOUTHWEST FLORIDA WATER
MANAGEMENT DISTRICT
PERMITTED CONSTRUCTION
DRAWINGS

FILE OF RECORD
PERMIT NO.

POND IA BASELINE CURVE DATA

PC STATION	CURVE NAME	Δ	Dc	T	L	R	PT STATION
10+98.64	CURVE P-1	67° 10' 41" (RT)	63° 39' 43"	59.77'	105.52'	90.00'	12+04.16
15+92.75	CURVE P-2	90° 00' 00" (RT)	149° 59' 20"	38.20'	60.00'	38.20'	16+52.75
17+04.34	CURVE P-3	52° 44' 24" (RT)	149° 59' 20"	18.94'	35.16'	38.20'	17+39.50
19+59.41	CURVE P-4	75° 22' 43" (RT)	149° 59' 20"	29.51'	50.26'	38.20'	20+09.66
20+09.66	CURVE P-5	08° 47' 18" (LT)	03° 53' 23"	113.19'	225.94'	1,473.00'	22+35.60
22+35.60	CURVE P-6	150° 40' 11" (RT)	84° 00' 41"	260.61'	179.34'	68.20'	24+14.95



REVISIONS

NO.	DATE	DESCRIPTION	APPROVED
1	12-19-03	ADD MANHOLE, S-25A, SLURRY WALL AND BORINGS	

PREPARED BY:

OR&A
Orth - Rodgers & Associates, Inc.
TRANSPORTATION ENGINEERS AND PLANNERS
3030 North Rocky Point Dr. West Tampa, FL 33607 (813) 287-1932

HILLSBOROUGH COUNTY
DEPARTMENT OF PUBLIC WORKS
601 E. KENNEDY BLVD., TAMPA, FLORIDA 33602
18131 272-5912

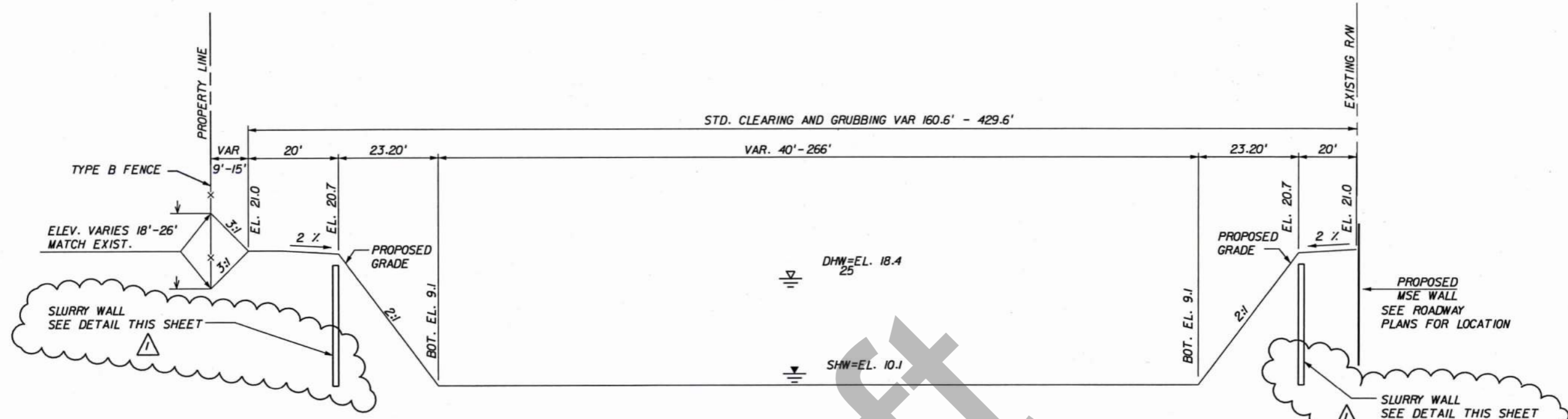
DESIGNED BY: DAVID D. GILLEY
DRAWN BY: ERIK CASTLE
CHECKED BY: DAVID D. GILLEY
SUPERVISED BY: JOHN S. METROKA, PE

NAME: DAVID D. GILLEY
DATE: 12/19/03
APPROVED BY: [Signature]
PROFESSIONAL ENGINEER
FLORIDA
No. 84178
12/20/03

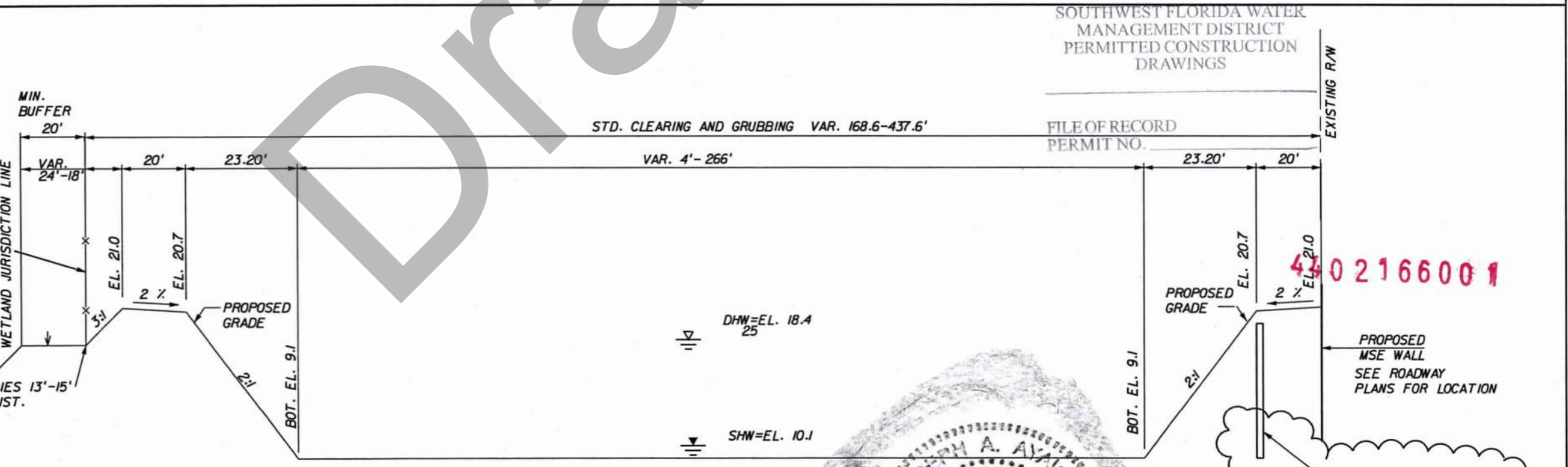
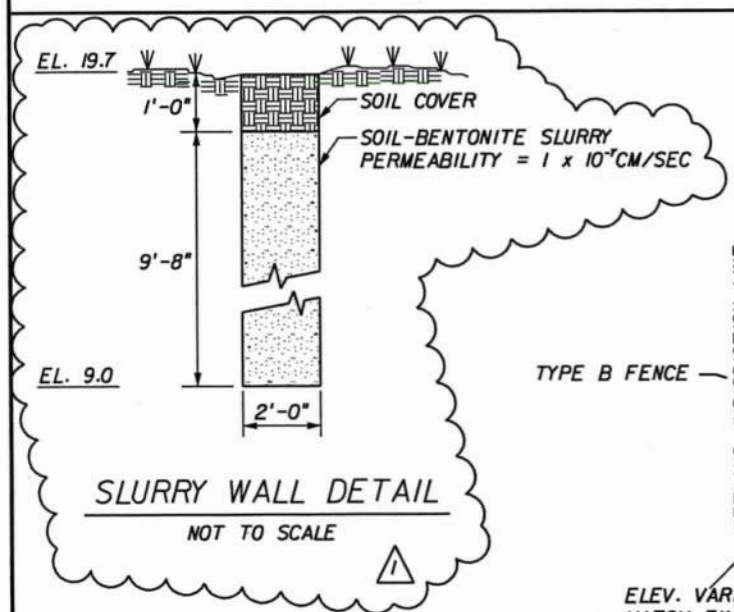
BOYETTE ROAD
POND DETAIL SHEET

SOUTHWEST FLORIDA WATER
MANAGEMENT DISTRICT
Received
JAN 22 2004
RRD - TAMPA

SHEET NO. 60
OF SHEETS



SECTION A-A
STA. 37+60 TO 40+00
SCALE : 1" = 20' HORIZ.
1" = 5' VERT.



SECTION B-B
STA. 40+00.00 TO 40+40
SCALE : 1" = 20' HORIZ.
1" = 5' VERT.

SOUTHWEST FLORIDA WATER
MANAGEMENT DISTRICT
PERMITTED CONSTRUCTION
DRAWINGS

FILE OF RECORD
PERMIT NO.



REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED
1	12-19-03	ADD SLURRY WALL & DETAIL	

PREPARED BY:
OR&A
Orth - Rodgers & Associates, Inc.
TRANSPORTATION ENGINEERS and PLANNERS
3030 North Rocky Point Dr. West Tampa, FL 33607 (813) 287-1932

HILLSBOROUGH COUNTY
DEPARTMENT OF PUBLIC WORKS
601 E. KENNEDY BLVD., TAMPA, FLORIDA 33602
18131 272-5912

	NAME	DATE	APPROVED BY:
DESIGNED BY:	JAA	03/11/03	
DRAWN BY:	DE/SAM	03/11/03	
CHECKED BY:	JAA	03/11/03	
SUPERVISED BY:	JOHN S. METROKA, P.E.		Lic. No.

BOYETTE ROAD
POND TYPICAL SECTIONS
SHEET NO. 61
OF SHEETS



Permit 21779.009
(App ID 45811)_Lowes Riverview Town Centre

"RECORD DRAWINGS"
DATE: 11-14-05 (NOT INCLUDING:
OFF-SITE U.S.301 CONSTRUCTION)

FACILITIES SHOWN HEREON HAVE BEEN, TO THE BEST OF MY KNOWLEDGE,
CONSTRUCTED IN SUBSTANTIAL ACCORDANCE WITH APPROVED PLANS,
SPECIFICATIONS AND MODIFICATIONS FOR THIS PROJECT. VERIFICATION IS
BASED ON PERIODIC CONSTRUCTION OBSERVATION AND SURVEY NOTATIONS
SHOWN ON PLANS. SURVEYED DIMENSIONS AND ELEVATIONS SHOWN AS
RECORD INFORMATION HAVE BEEN FIELD VERIFIED.

RECORD DRAWING LEGEND & NOTES

CLOUDED AREAS HAVE RECORD INFORMATION
PROPOSED/DESIGN ELEVATION OR DIMENSION LINED THROUGH,
"RECORD" ITEM, ELEVATION OR DIMENSION WRITTEN IN. FIRE HYDRANT 140.5'
ITEMS THAT ARE PER PLAN ARE SHOWN BY A CHECK MARK THUSLY: 10" VALVE /
LINES NOT INSTALLED PER PLAN LOCATION ARE SHOWN THUSLY:
ELEVATIONS ARE APPROXIMATE
RECORD INFORMATION PROVIDED BY LEFTCAST SURVEYORS, INC.
2363 1st Avenue North St. Petersburg, Florida 33713 AND
David Nelson Construction Co. 3483 Alternate 19 Palm Harbor,
Florida 34683

SITE CONSTRUCTION PLANS

FOR

LOWE'S RIVERVIEW TOWNCENTER

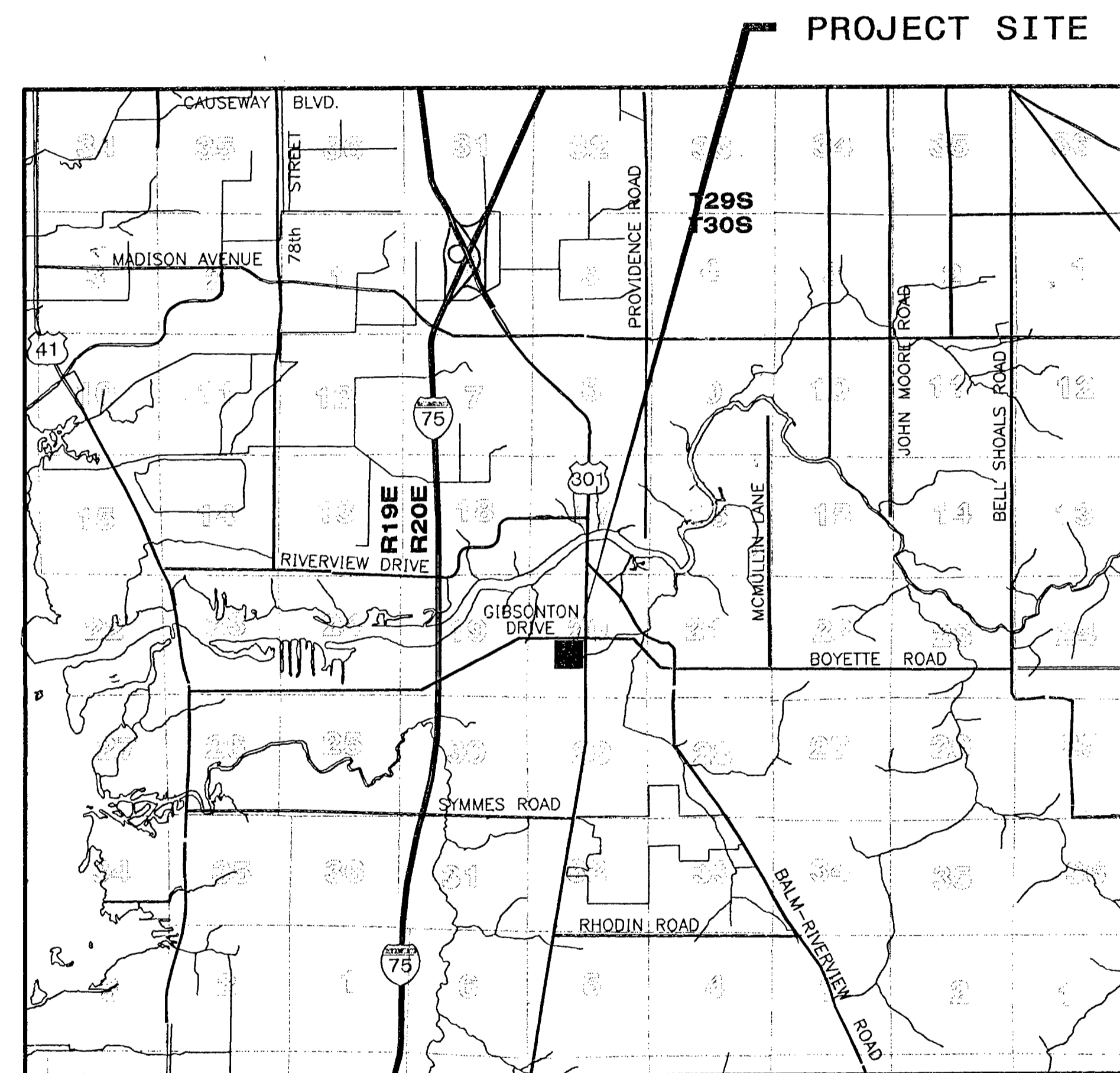
10425 GIBSONTON DRIVE

RIVERVIEW, FLORIDA 33569

PREPARED FOR

LOWE'S HOME CENTERS, INC.

P.O. Box 1111
N. Wilkesboro, NC 28656



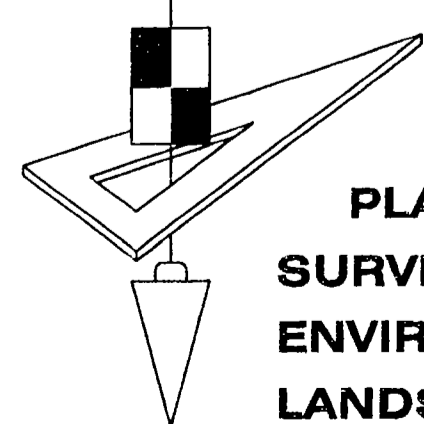
VICINITY MAP

SECTION 20, TOWNSHIP 30 SOUTH, RANGE 20 EAST
HILLSBOROUGH COUNTY, FLORIDA
LATITUDE: 27.855 NORTH
LONGITUDE: 82.329 WEST

Prepared By:

HEIDT & ASSOCIATES, Inc.

Engineering Business Certificate of Authorization No. 148



**CIVIL ENGINEERING
PLANNING
SURVEYING
ENVIRONMENTAL PERMITTING
LANDSCAPE ARCHITECTURE**

Tampa Office
1602 N. 15th Street
Tampa, Florida 33605-5046
Office: 813-253-5311
Fax: 813-253-2478
Toll Free: 877-253-5311

**Fort Myers
Sarasota • Manatee
Brooksville**

UTILITIES CONTACTS

OWNER	CONTACT PERSON	TELEPHONE
HILLSBOROUGH COUNTY WATER DEPT.	MARCEL DIAZ	813-272-5081
TAMPA BAY WATER	RICK MENZIES	813-740-4037
TECO-PEOPLES GAS	LUIS CASTELLANOS	813-275-3743
VERIZON COMMUNICATIONS	TOM FAULKNER	813-989-7911
TIME-WARNER COMMUNICATIONS	BARRY BEATTY	813-684-6100x325
TAMPA ELECTRIC COMPANY	ARLENE BROWN	813-228-4674
CENTRAL FLORIDA PIPELINE CORP.	JERRY COLEMAN	813-241-1104
AT&T	JERRY EUGENIO	813-230-2191

THE COMPLETE CONSTRUCTION PLANS FOR THE
LOWE'S RIVERVIEW TOWNCENTER CONSIST OF THE
FOLLOWING PLAN SETS:

1. SITE CONSTRUCTION PLANS
2. ROADWAY IMPROVEMENT PLANS

5-22-07 15

DATE	DESCRIPTION	BY
5-17-07	1, 14-19, 21	
5-29-07	21	
6-1-07	21, 19, 21	
6-1-07	24A	
6-1-07	1, 12	
12-18-06	24, 24A, 28, 29	
11-20-06	24, 24A, 28, 29	
08-31-06	28 & 29	
07-27-06	28 & 29	
06-02-06	24, 28, 29	
05-18-06	28 & 29	
04-06-06	28 & 29	
03-29-06	22, 28-29	
11-23-05	14, 19, 57	
12-05-05	24, 24A	
11-23-05	23, 23A, 24, 24A	
11-14-05	1, 22-26A, 30, 30A, 31	

DATE	SIGNED	JOB NO.
3/29/05	[Signature]	L&A-RV-019
REVISION	DESCRIPTION	SHEET
1		1
AA Beluocca PE No. 15044		OF 58

INDEX		
1	Cover Sheet	65A-66F Irrigation Plan (LOWE'S)
2	General Notes	66A-66F Irrigation Plan (RETAIL)
3	Demo. & Ph. 1 Erosion Control	57 Drainage Area Map
7-10	Phase 2 Erosion Control	58 Pre-Dev Drainage Area Map
11-13	Dimensional Layout	A-2.0 Exterior Elevations
14	Master Drainage Plan	W1-16 Segmental Wall Details
15	Storm Structure Data	
16-19	Grading & Drainage Plan	
20	Sections	
21	Control Structure Data	
22-25	Water, Sewer & Utilities Plans	
26	Sanitary Sewer Profiles	
27-27A	Pump Station Plan & Details	
28-30	Off-Site Water Main	
31	Easement Plan	
32-39	Details	
40-44	Survey Information	
45-46	Tree Well Aeration Plan	
47	RIPA Permit Landscape Plan	
48	RIPA Landscape NL & Details	
49	RIPA Permit Irrigation Plan	
50-52	Landscape Plan	
53	Plant List	
54	Landscape Notes & Details	

LOWE'S
HOME CENTERS, INC.
P.O. BOX 1111 N. WILKESBORO, NC 28656

LOWE'S
ENGINEERING AND
CONSTRUCTION
HWY 268 EAST, EAST DOCK N. WILKESBORO, NC 28659
336.658.4000 (V)
336.658.3257 (F)

THIS DRAWING IS THE PROPERTY OF LOWE'S HOME
CENTERS, INC. ANY USE OR REPRODUCTION IN
WHOLE OR PART IS PROHIBITED WITHOUT THE
EXPRESSED WRITTEN CONSENT OF LOWE'S HOME
CENTERS, INC. COPYRIGHT 2001 ALL RIGHTS RESERVED

ELEVATIONS DEPICTED HEREON REFERENCE
THE NORTH AMERICAN VERTICAL DATUM
OF 1988 (NAVD 88).
CONVERSION TO NGVD 29 = +0.89'

44021779.809
INSPECTION CONDUCTED BY DISTRICT
INSPECTION NOT CONDUCTED BY DISTRICT
PERMIT RESERVED FOR FUTURE INSPECTION

TRANSFERRED TO
OPERATION PHASE

RIVERVIEW TOWNCENTER LOWE'S ENGINEERING AND CONSTRUCTION, INC. 5/18/2007 12:13:37 PM, GARY

Permit 45227.000 (App ID 815372)
Gibson Dr. at Fern Hill Dr



Hillsborough County Florida

SM
CONTRACT PLANS COMPONENTS:
ROADWAY PLANS

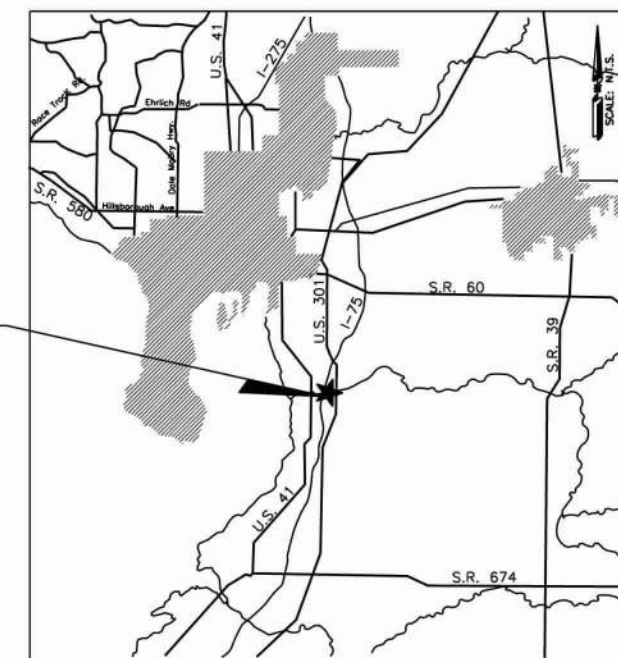
INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
1A	NOTES TO REVIEWER
2	SIGNATURE SHEET
3-4	SUMMARY OF PAY ITEMS
5	EXISTING STRUCTURE DATA
6-10	TYPICAL SECTIONS
11	TYPICAL SECTION DETAILS
12-13	SUMMARY OF DRAINAGE STRUCTURES
14	PROJECT LAYOUT
15-18	PROJECT CONTROL
19-20	GENERAL NOTES
21-26	ROADWAY PLAN
27-33	ROADWAY PROFILE
34	INTERSECTION DETAIL
35-49	DRAINAGE STRUCTURES
50	DRAINAGE DETAIL
51-53	POND DETAIL
54-56	SPECIAL DETAILS
57-81	CROSS SECTIONS
82-85	DRIVEWAY SECTIONS
86-88	STORMWATER POLLUTION PREVENTION PLAN
89-94	EROSION CONTROL PLAN
95-103	TEMPORARY TRAFFIC CONTROL PLAN
104-109	UTILITY ADJUSTMENTS
110-115	SIGNING AND PAVEMENT MARKING PLAN
116-117	SIGNALIZATION PLAN
118-122	SIGNAL COMMUNICATION PLAN
123-124	GUIDE SIGN WORKSHEET
125	SPECIAL SIGN DETAILS
126	MULTI-POST SIGN CROSS SECTION
127	MAST ARM TABULATION
128	MAST ARM SCHEDULE
129-130	SPLICING DETAIL
UT-1-UT-2	UTILITY RELOCATION GENERAL NOTES
UT-3-UT-6	UTILITY RELOCATION PLAN PROFILE
UT-7-UT-11	UTILITY RELOCATION STANDARD DETAILS

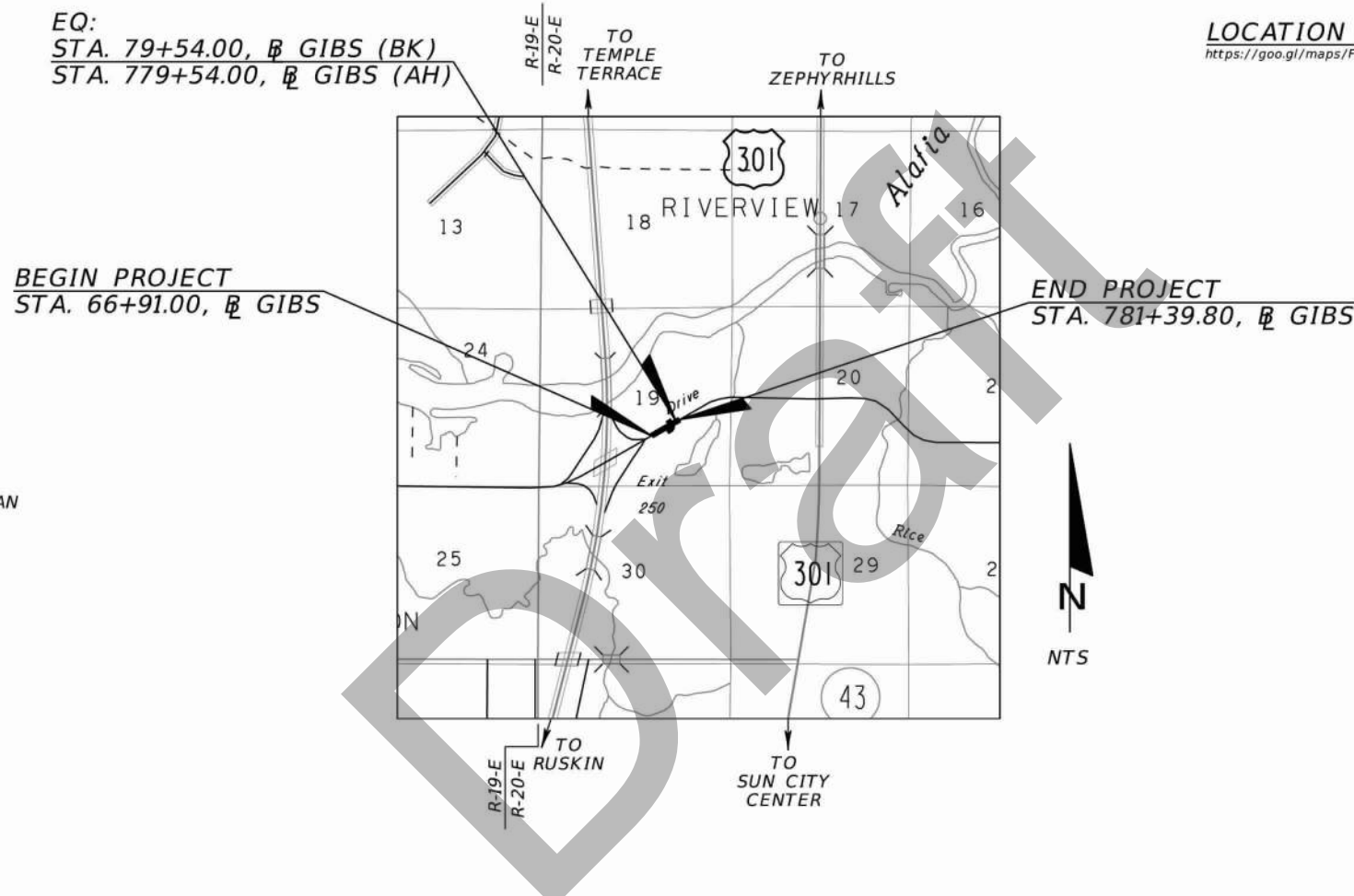
HILLSBOROUGH COUNTY CAPITAL PROGRAMS DEPARTMENT

CONTRACT PLANS GIBSONTON DR. AT FERN HILL DR. INTERSECTION IMPROVEMENT CIP # 69600311

CIP NO.	FISCAL YEAR	SHEET NO.
69600311	22	1



LOCATION OF PROJECT
<https://goo.gl/maps/Fpykgv16zaKBSagn9>



LOCATION MAP
SECTIONS 19 TOWNSHIP 30S, RANGE 20E

THE BOARD OF COUNTY COMMISSIONERS
 PAT KEMP CHAIRMAN
 KIMBERLY OVERMAN VICE-CHAIR
 STACY WHITE CHAPLAIN
 HARRY COHEN COMMISSIONER
 KEN HAGAN COMMISSIONER
 GWEN MYERS COMMISSIONER
 MARIELLA SMITH COMMISSIONER

PLANS PREPARED BY:
 ELEMENT ENGINEERING GROUP
 1713 E. 9th AVENUE
 TAMPA, FL 33605
 (813) 386-2101

CONTRACT NO.: BPCW12000245
 VENDOR NO.: 56-2565488

ENGINEER OF RECORD: HEATHER A. ROCHA, P.E.
 P.E. NO.: 80378

NOTE: THE SCALE OF THESE PLANS MAY HAVE
 CHANGED DUE TO REPRODUCTION.

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2021-22 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

GOVERNING STANDARD SPECIFICATIONS:

Hillsborough County Public Works Standard Specifications for Construction October 2017 and FDOT Standard Specifications for Roadway and Bridge Construction, Divisions II & III as directed under the Hillsborough County Standard Specifications for Construction.

REVISIONS		
DATE	BY	DESCRIPTION

LENGTH OF PROJECT		
DESCRIPTION	LINEAR FT.	MILES
ROADWAY	1448.8	0.274
BRIDGES	0.0	0.000
NET LENGTH OF PROJECT	1448.8	0.274
EXCEPTIONS	0.0	0.000
GROSS LENGTH OF PROJECT	1448.8	0.274

COUNTY PROJECT MANAGER: SANDRA GONZÁLEZ, P.E.

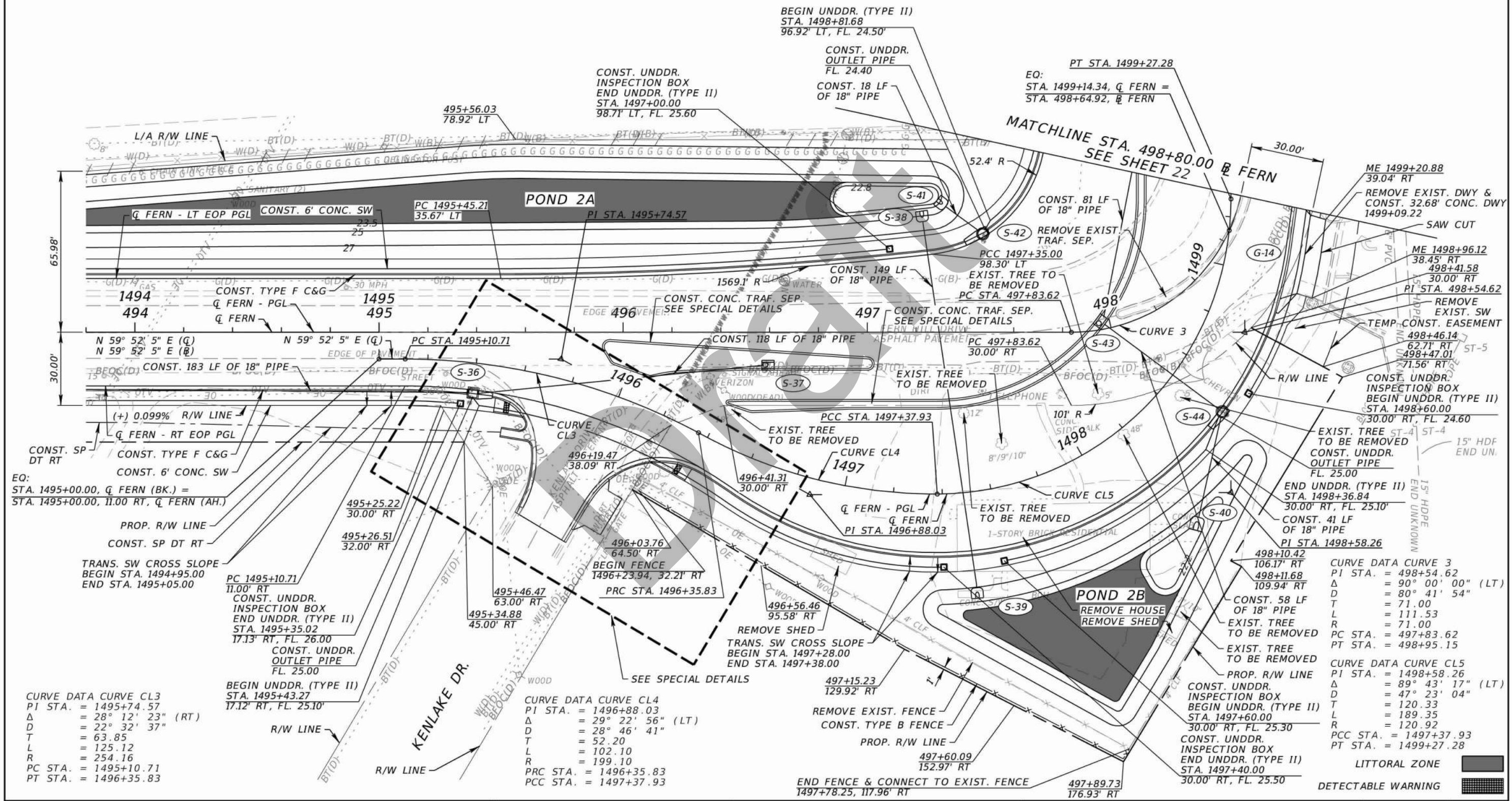
SWFWM D PLANS (NOVEMBER 2021)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

FERN HILL DR.



FOR ELEVATIONS AND GRADING
SEE INTERSECTION DETAIL



PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
 For construction permits, the permittee shall notify, in writing, the
 SWFWMD Tampa Regulation Department when construction begins.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CURVE DATA CURVE CL3
 PI STA. = 1495+74.57
 Δ = 28° 12' 23" (RT)
 D = 22° 32' 37"
 T = 63.85
 L = 125.12
 R = 254.16
 PC STA. = 1495+10.71
 PT STA. = 1496+35.83

CURVE DATA CURVE CL4
 PI STA. = 1496+88.03
 Δ = 29° 22' 56" (LT)
 D = 28° 46' 41"
 T = 52.20
 L = 102.10
 R = 199.10
 PRC STA. = 1496+35.83
 PCC STA. = 1497+37.93


CURVE DATA CURVE CL5
 PI STA. = 1498+58.26
 Δ = 89° 43' 17" (LT)
 D = 47° 23' 04"
 T = 120.33
 L = 189.35
 R = 120.92
 PCC STA. = 1497+37.93
 PT STA. = 1499+27.28

CURVE DATA CURVE 3
 PI STA. = 498+54.62
 Δ = 90° 00' 00" (LT)
 D = 80° 41' 54"
 T = 71.00
 L = 111.53
 R = 71.00
 PC STA. = 497+83.62
 PT STA. = 498+95.15

CURVE DATA CURVE CL5
 PI STA. = 1498+58.26
 Δ = 89° 43' 17" (LT)
 D = 47° 23' 04"
 T = 120.33
 L = 189.35
 R = 120.92
 PCC STA. = 1497+37.93
 PT STA. = 1499+27.28

REVISIONS	
DESCRIPTION	DATE

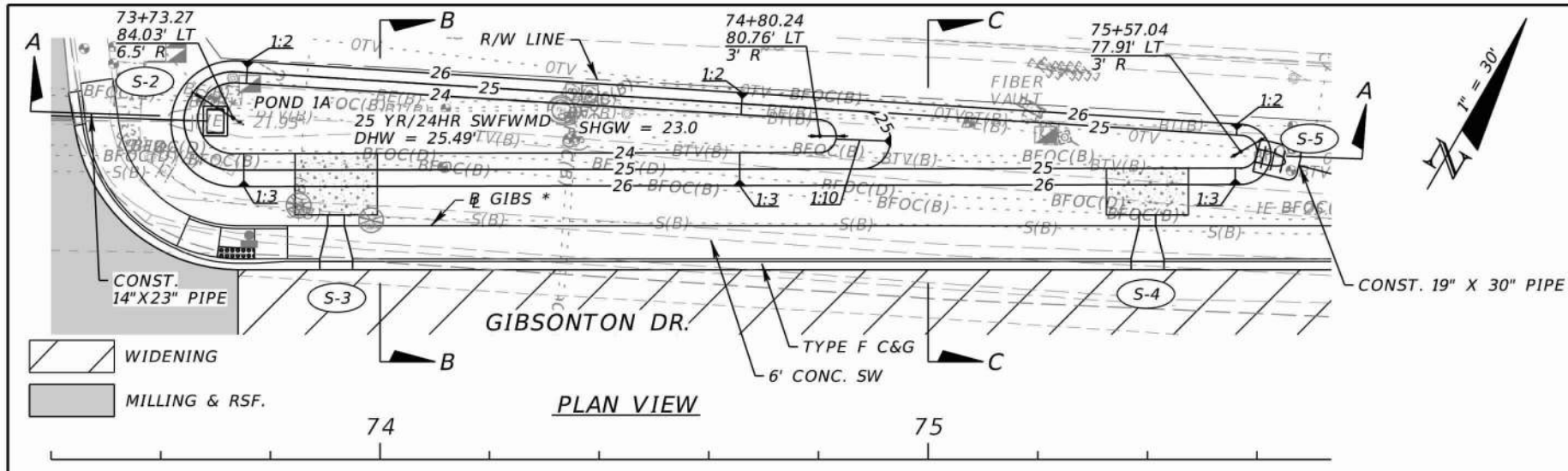
HEATHER ANN ROCHA, P.E.
 P.E. LICENSE NUMBER 80378
 ELEMENT ENGINEERING GROUP
 1713 E. 9th AVENUE
 TAMPA, FL 33605


 CAPITAL PROGRAMS DEPARTMENT
 601 E. KENNEDY BLVD.
 TAMPA, FLORIDA 33602

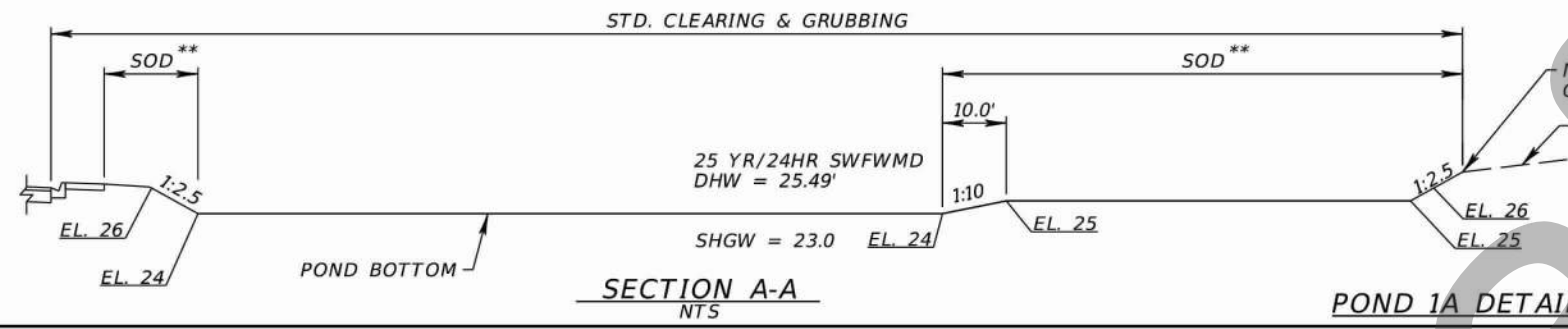
GIBSONTON DR. AT FERN HILL DR.
ROADWAY PLAN

CIP NO. 69600311
 SHT. NO. 26

PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
 For construction permits, the permittee shall notify, in writing, the
 SWFWMD Tampa Regulation Department when construction begins.

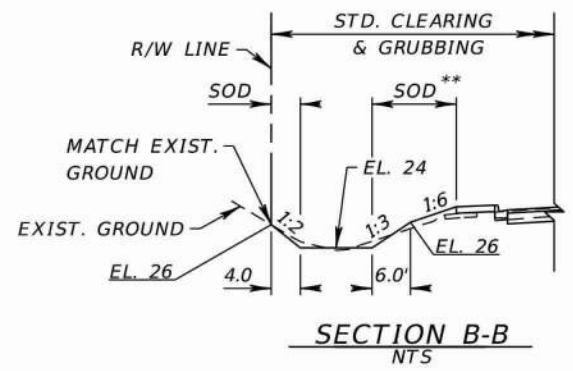


PLAN VIEW

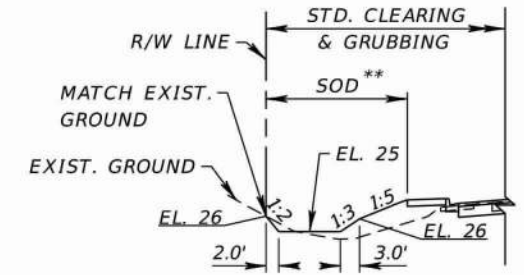


SECTION A-A
NTS

POND 1A DETAIL

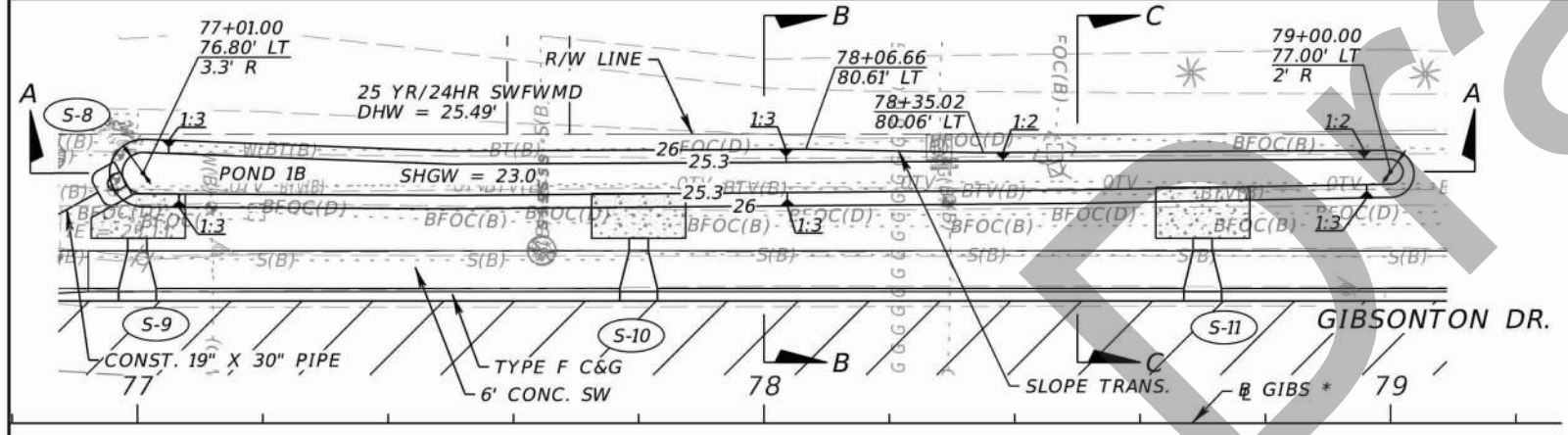


SECTION B-B
NTS

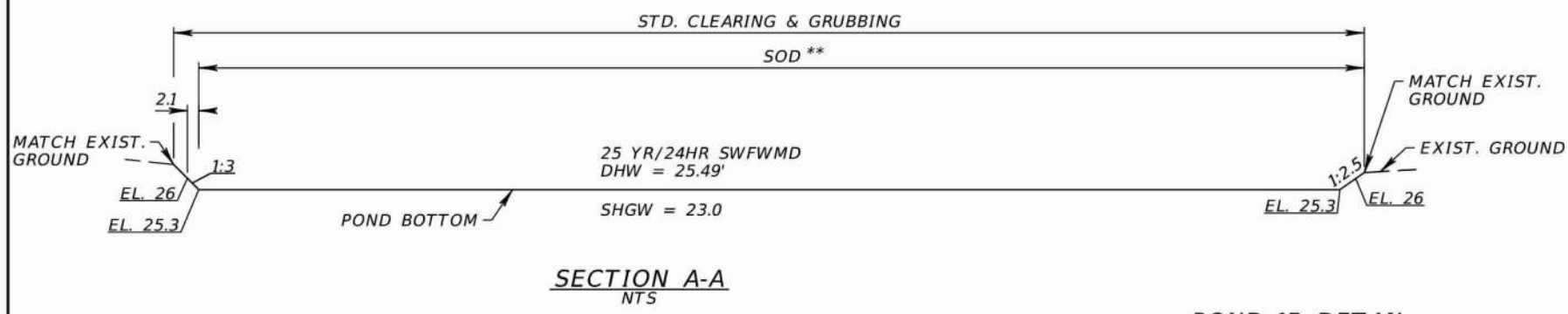


SECTION C-C
NTS

NOTE:
 * BASELINE IS FOR STATION REFERENCE ONLY. OFFSET IS NOT TO SCALE.
 ** PLACE PLASTIC EROSION MAT, TYPE 1, ON ALL SLOPES STEEPER THAN 1:3

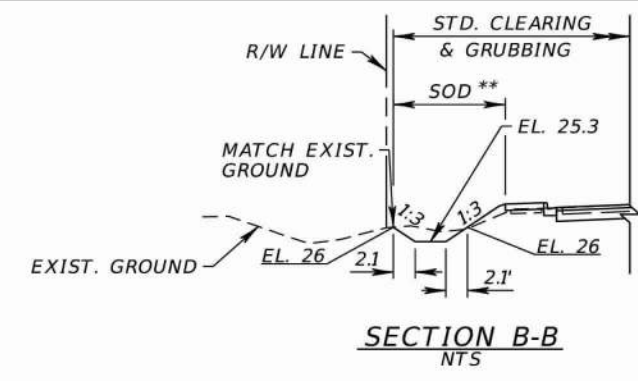


PLAN VIEW

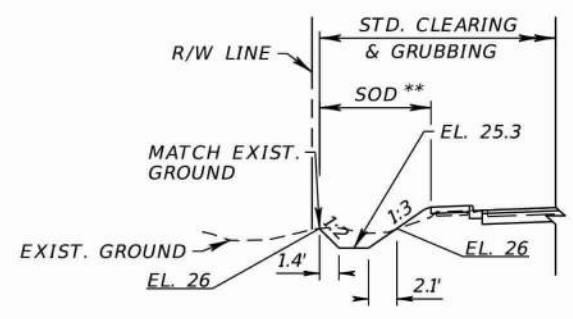


SECTION A-A
NTS

POND 1B DETAIL



SECTION B-B
NTS



SECTION C-C
NTS

NOTE:
 * BASELINE IS FOR STATION REFERENCE ONLY. OFFSET IS NOT TO SCALE.
 ** PLACE PLASTIC EROSION MAT, TYPE 1, ON ALL SLOPES STEEPER THAN 1:3

REVISIONS		
DESCRIPTION	DATE	DESCRIPTION

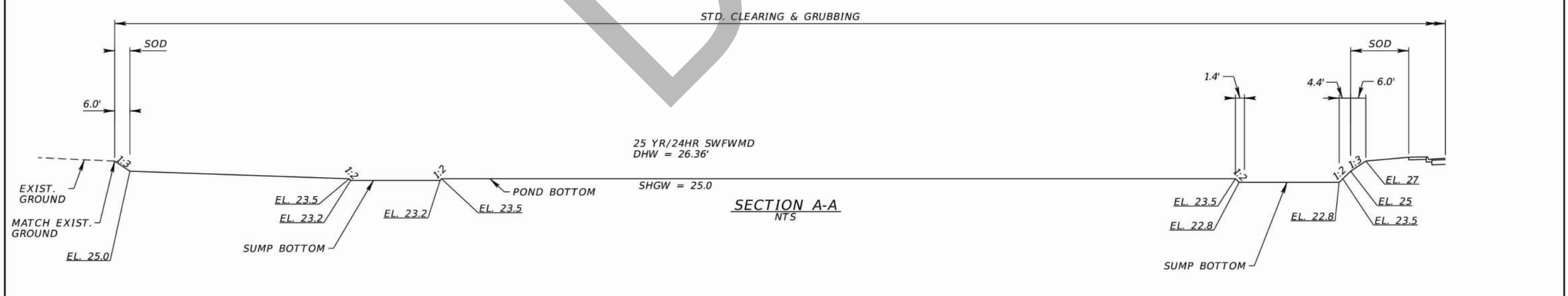
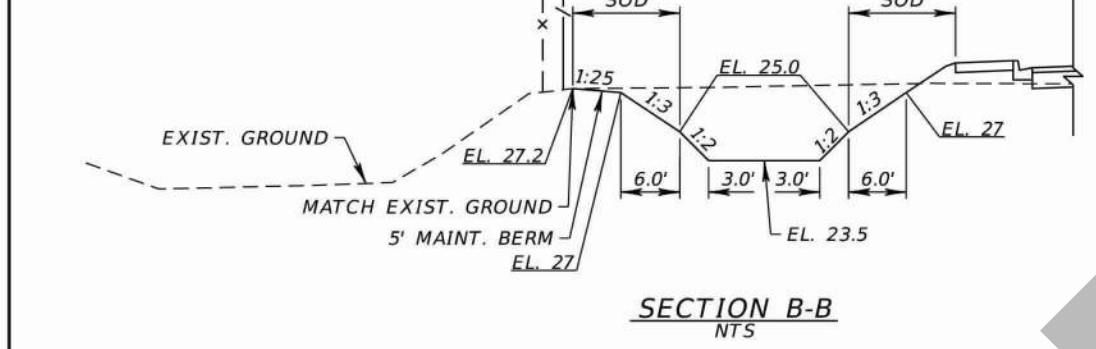
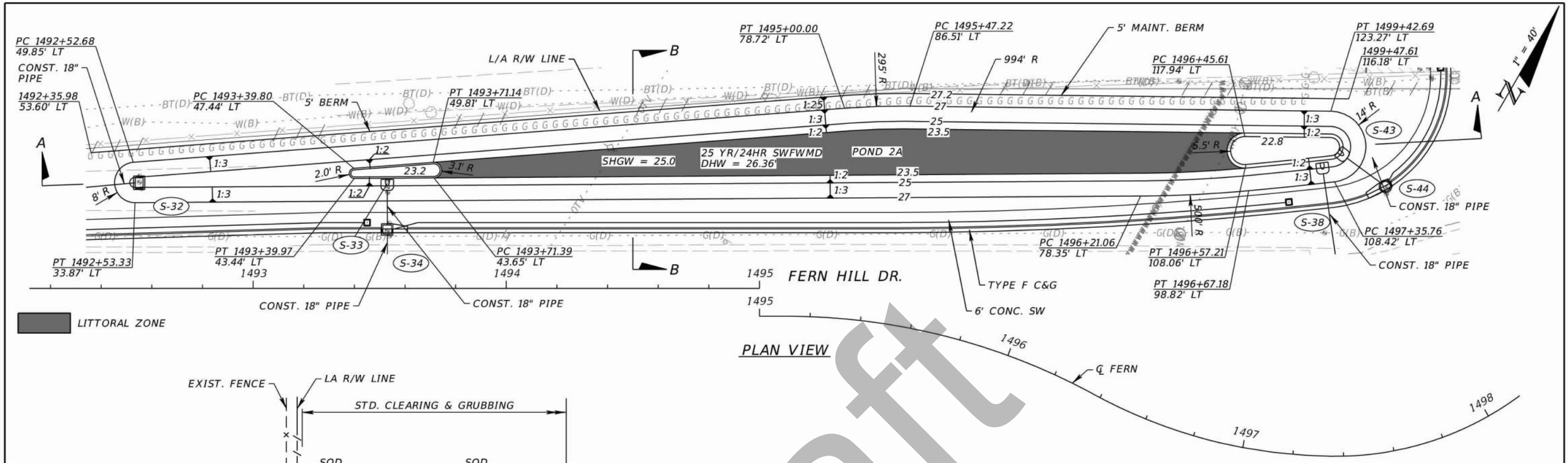
ANDREW GREGG, P.E.
 P.E. LICENSE NUMBER 72443
 ELEMENT ENGINEERING GROUP
 1713 E. 9th AVENUE
 TAMPA, FL 33605

CAPITAL PROGRAMS DEPARTMENT
 601 E. KENNEDY BLVD.
 TAMPA, FLORIDA 33602

GIBSONTON DR. AT FERN HILL DR.	CIP NO.	SHT. NO.
POND DETAIL	69600311	51

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
 For Construction permits, the permittee shall notify, in writing, the SWFWMD Tampa Regulation Department when construction begins.

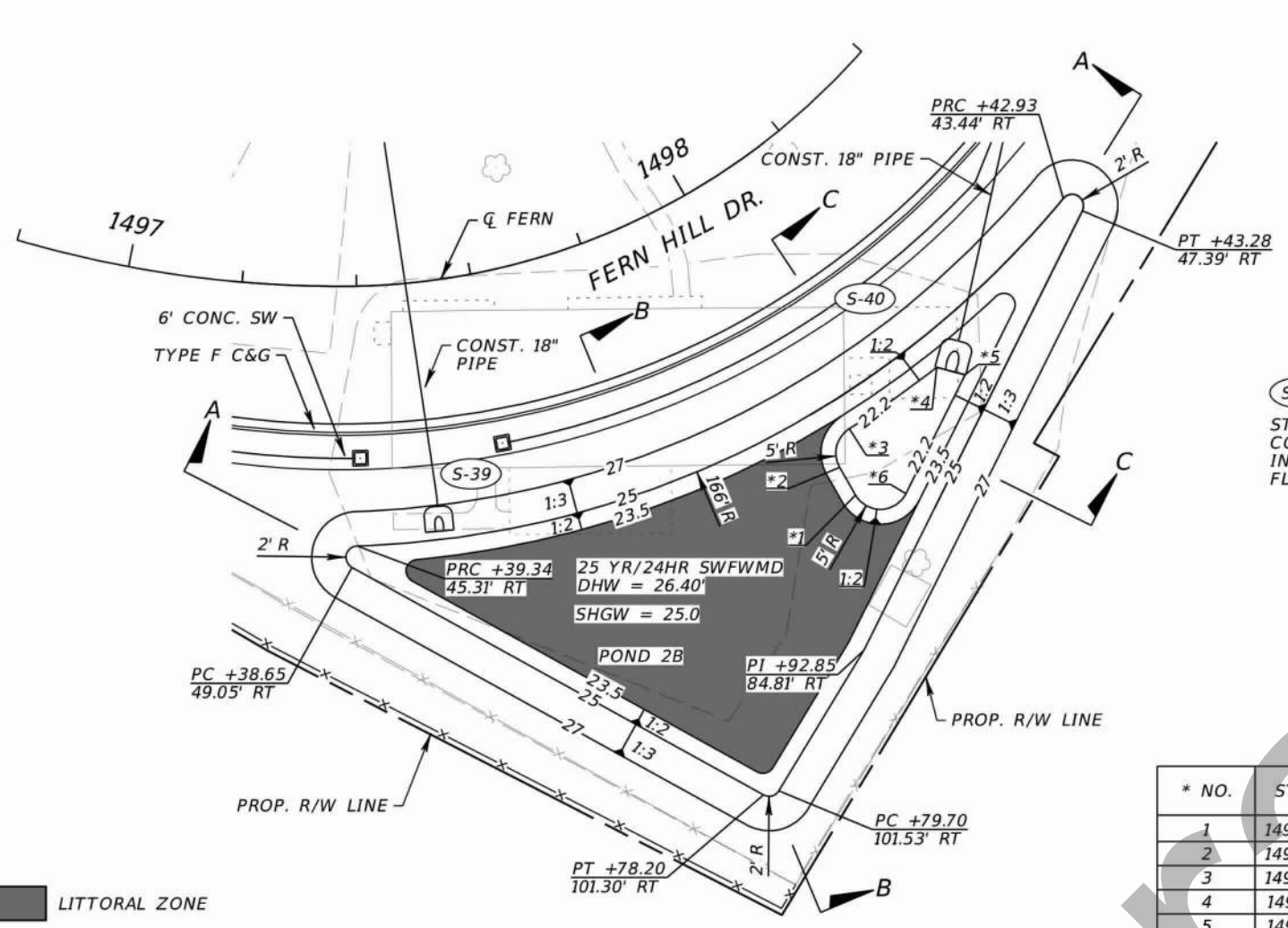


POND 2A DETAIL

REVISIONS		DESCRIPTION	ANDREW GREGG, P.E. P.E. LICENSE NUMBER 72443 ELEMENT ENGINEERING GROUP 1713 E. 9th AVENUE TAMPA, FL 33605	 CAPITAL PROGRAMS DEPARTMENT 601 E. KENNEDY BLVD. TAMPA, FLORIDA 33602	GIBSONTON DR. AT FERN HILL DR.		
DESCRIPTION	DATE				CIP NO.	SHT. NO.	
					POND DETAIL	69600311	52

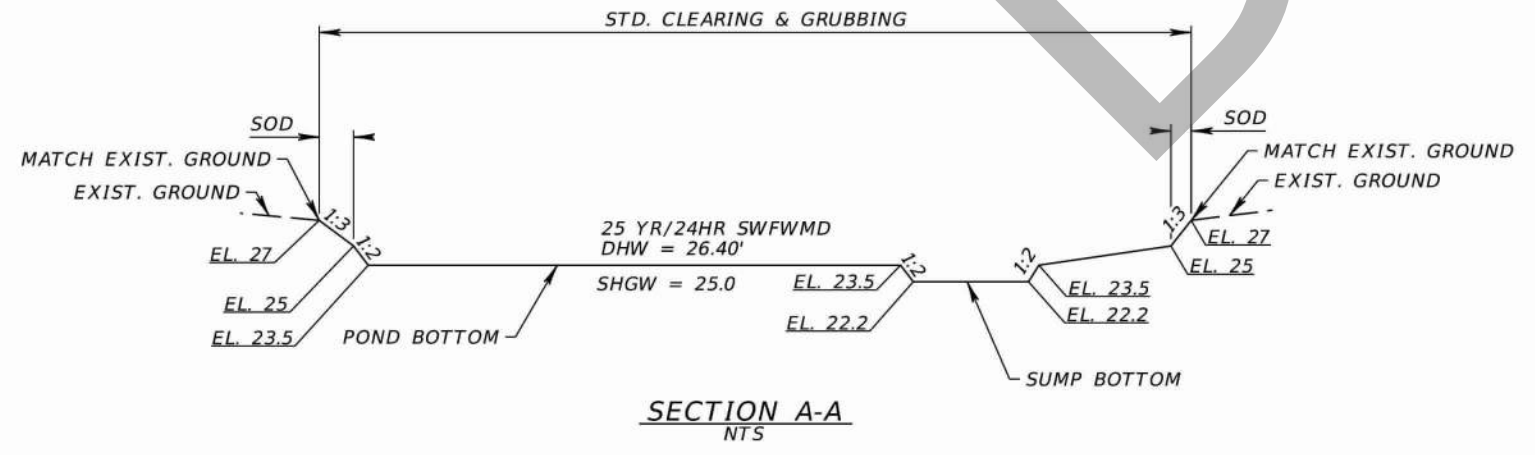
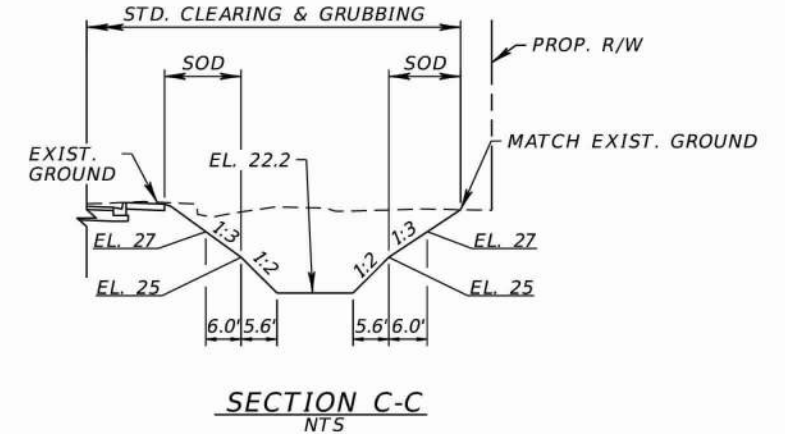
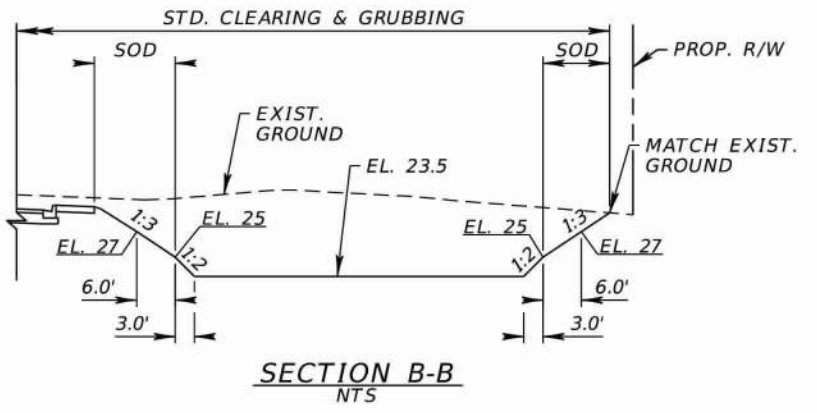
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
 For Construction permits, the permittee shall notify, in writing, the SWFWMD Tampa Regulation Department when construction begins.



(S-40)
 STA. 1498+19.70 (49.30' RT.)
 CONST. CROSS DRAIN MES (1:2)
 INDEX 430-021
 FL 22.20

* NO.	STATION	OFFSET (RT)
1	1498+00.00	60.17'
2	1498+00.00	54.61'
3	1498+03.40	49.68'
4	1498+16.63	49.45'
5	1498+18.80	53.52'
6	1498+05.08	64.49'



POND 2B DETAIL

REVISIONS	
DESCRIPTION	DATE

ANDREW GREGG, P.E.
 P.E. LICENSE NUMBER 72443
 ELEMENT ENGINEERING GROUP
 1713 E. 9th AVENUE
 TAMPA, FL 33605

CAPITAL PROGRAMS DEPARTMENT
 601 E. KENNEDY BLVD.
 TAMPA, FLORIDA 33602

GIBSONTON DR. AT FERN HILL DR.		CIP NO.	SHT. NO.
POND DETAIL		69600311	53

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Draft

APPENDIX F

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 410396**

Date:	05/08/2023		
Time:	09:00		
Project Name:	Gibsonton Drive Project Development and Environment (PD&E) Study		
District Engineer:	Rob McDaniel, Julio Herrera		
District ES:	Al Gagne		
Attendees:	Tom Daniel, Eric Nelson, Cameron Jones		
County:	Hillsborough	Sec/Twp/Rge:	19, 20/30/20
Total Land Acreage:	1.0 mile	Project Acreage:	1.0 mile

- Prior On-Site/Off-Site Permit Activity:**
- Permit No 2166.001 issued for the east side of US 301; Permit No. 45227.000 issued for the west side near I-75. Permit No. 9622.000 for a force main. ETDM # - 14493

- Project Overview:**
- 1.0 mile long FDOT PD&E Study along Gibsonton Drive from Fern Hill Drive to US 301 within Hillsborough County. Widening this section of Gibsonton Drive from a 4-lane divided facility to a 6-lane divided facility and includes pedestrian and bicycle accommodations. A stormwater management system is proposed.

- 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.)
- There are wetlands/surface waters located within the project area. There are both upland and wetland cut ditches along with two wetland areas that may be impacted.
 - Provide the limits of jurisdictional wetlands and surface waters. Roadside ditches or other water conveyances, including permitted and constructed water conveyance features, can be claimed as surface waters per Chapter 62-340 F.A.C. if they do not meet the definition of a swale as stated under Rule 403.803 (14) F.S.
 - Demonstrate elimination and reduction of wetland impacts. The elimination and reduction criteria can be found in subsection 10.2.1 of Applicant's Handbook Volume 1. Be advised that the use of subsection 10.2.1.2 (a) of the handbook may put the project in conflict with the state's 404 program. Coordination with the DEP, the during application review process, is recommended if the applicant wishes to use subsection 10.2.1.2 (a).
 - Maintain minimum 15 foot, average 25 foot wetland conservation area setback or address secondary impacts.
 - Provide appropriate mitigation using UMAM for impacts.
 - The site is located in the Alafia River ERP Basin. Mitigation Banks that serve this area include the Alafia River Mitigation Bank and the Alafia River Wetland Mitigation Bank. For an interactive map of permitted mitigation banks and their service areas, use this [LINK](#). Be advised that use of a bank with a modified service area (i.e. a service area that is larger than the basin the bank is located in), may require the submittal of a cumulative impact analysis pursuant to subsection 10.2.8 of Applicant's Handbook volume 1.
 - If the wetland mitigation is appropriate and the applicant is proposing to utilize mitigation bank credit as wetland mitigation, provide a letter of reservation of credits from the wetland mitigation bank. The wetland mitigation bank current credit ledgers can be found out the following link: <https://www.swfwmd.state.fl.us/business/epermitting/environmental-resource-permit>, Go to "ERP Mitigation Bank Wetland Credit Ledgers"
 - Please note, the Florida Department of Environmental Protection (FDEP) has assumed the Federal dredge and fill permitting program under section 404 of the Federal Clean Water Act within certain waters. State 404 Program streamlining intentions direct Agency staff to coordinate joint site visits for overall consistency between the two State programs. As such, District staff and the FDEP will need to conduct a joint site visit for evaluation of the wetland/surface water systems proposed for impact. District staff will coordinate with FDEP staff on determining dates/times of joint Agency availability. Upon determination of joint availability,

staff will provide the applicant's representative with site visit scheduling options. A site visit will not be scheduled until the appropriate signatures on the application and the fee is submitted.

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

- WBIDs need to be independently verified by the consultant - WBID 1621G – Alafia River Above Hillsborough Bay. There is a BMAP for nutrients and dissolved oxygen.
 - Net improvement is required.
 - Document/justify SHWE's at pond locations, wetlands, and OSWs.
 - Determine normal pool elevations of wetlands.
 - Determine 'pop-off' locations and elevations of wetlands.
 - Provide documentation to support tailwater conditions for quality and quantity design.
 - Contamination issues need to be resolved with the FDEP. Check FDEP MapDirect layer for possible contamination points within/adjacent to the project area. Multiple markers shown near the intersection of US 310 according [FDEP MapDirect Link](#)
- FDEP Contacts:
- For projects located within Citrus, Hernando, Pasco, Hillsborough, Pinellas, Manatee, Polk and Hardee Counties: Phil Wilkerson Philip.Wilkerson@floridadep.gov
- Stormwater retention and detention systems are classified as moderate sanitary hazards with respect to public and private drinking water wells. Stormwater treatment facilities shall not be constructed within 100 feet of an existing public water supply well and shall not be constructed within 75 feet of an existing private drinking water well. Subsection 4.2, A.H.V.II.
 - District GIS identifies multiple Well Construction Permits (WCP) along the corridor. These may not be mapped correctly.
 - Any wells on site 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.)

- Demonstrate that post development peak discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- 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).
- Delineate the area and quantify the volume of any fill placement within the floodplain.
- Alafia River Watershed Model (2020) information may be available for download using the following link: <https://watermatters.sharefile.com/d-s8c9019e00fd243908654e733a6b2016c>. The county may have a more recent version.
- 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 100-year 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.)

- Provide water quality treatment for entire project area and all contributing off-site flows.
- 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.
- Also, replace treatment function of existing ditches to be filled.
- Presumptive Water Quality Treatment for Alterations to Existing Public Roadway Projects:
 - 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.

- **Net improvement**
-Refer to Rule 62-330.301(2), F.A.C.
-The application must demonstrate a net improvement for nutrients. Applicant may 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. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(g).
-Effluent filtration is known to be ineffective for treating nutrient related impairments, unless special nutrient adsorption media is provided. However, please note special nutrient adsorption media has extremely low conductivity values compared to typical sand type effluent filtration filter media. Note: if treatment volume required for net improvement is less than the treatment volume required for 'presumptive' treatment, then use of effluent filtration is ok.

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

- N/A

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

- The permit must be issued to the entity that owns or controls the property, the county. FDOT may be involved in the western portion.
- Provide evidence of ownership or control by deed, easement, contract for purchase, etc. Evidence of ownership or control must include a legal description. A Property Appraiser summary of the legal description is NOT acceptable.

Application Type and Fee Required:

- SWERP New Individual – Sections A, C, and E of the ERP Application.
- Between 10 and 40 acres of project area and between 1 and 3 acres of wetland or surface water impacts - \$2,491.50
- Consult the [fee schedule](#) for different thresholds.

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.
- Provide a copy of the legal description (of all applicable parcels within the project area) in one of the following forms:
 - a. Deed with complete Legal Description attachment.
 - b. Plat.
 - c. Boundary survey of the property(ies) with a sketch.
- The plans and drainage report submitted electronically must include the appropriate information required under Rules 61G15-23.005 and 61G15-23.004 (Digital), F.A.C. The following text is required by the Florida Board of Professional Engineers (FBPE) to meet this requirement when a digitally created seal is not used and must appear where the signature would normally appear:

ELECTRONIC (Manifest): *[NAME] State of Florida, Professional Engineer, License No. [NUMBER] This item has been electronically signed and sealed by [NAME] on the date indicated here 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*

DIGITAL: *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]; This item has been digitally signed and sealed by [NAME] on the date indicated here; Printed copies of this document are not considered signed and sealed and the signature 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.
- Demonstrate that excavation of any stormwater ponds does not breach an aquitard (see Subsection 2.1.1, A.H.V.II) such that it would allow for lesser quality water to pass, either way, between the two systems. In those geographical areas of the District where there is not an aquitard present, the depth of the pond(s) shall

not be excavated to within two (2) feet of the underlying limestone which is part of a drinking water aquifer. [Refer to Subsection 5.4.1(b), A.H.V.II]

- On December 17, 2020, the Environmental Protection Agency (EPA) formally transferred permitting authority under CWA Section 404 from the U.S. Army Corps of Engineers (Corps) to the State of Florida for a broad range of water resources within the State. The primary State 404 Program rules are adopted by the Florida Department of Environmental Protection (FDEP) as Chapter 62-331 of the Florida Administrative Code (F.A.C.). While the State 404 Program is a separate permitting program from the Environmental Resource Permitting program (ERP) under Chapter 62-330, F.A.C., and agency action for State 404 Program verifications, notices, or permits shall be taken independently from ERP agency action, the FDEP and the Southwest Florida Water Management District (SWFWMD) will be participating in a Joint application Process. Upon submittal of an ERP application that proposes dredge/fill activities in wetlands or surface waters within state assumed waters, the SWFWMD will forward a copy of your application to the FDEP for activities under State 404 jurisdiction. The applicant may choose to have the State 404 Program and ERP agency actions issued concurrently to help ensure consistency and reduce the need for project modifications that may occur when the agency actions are issued at different times. Additional information on the FDEP's 404 delegation can be found at: <https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program>

Additionally, for those projects located in areas where the Corps retains jurisdiction, the applicant is advised that the District will not 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/>

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.

MEETING NOTES

Meeting Date: March 9, 2023 **Date Issued:** March 9, 2023
Location: D7-HQ, Planning Conference Room and virtual via Microsoft Teams
Project Name: WPI Seg # 450438-1 – Gibsonton Drive PD&E Study from Fern Hill to US 301
Purpose: Pond Siting Long List Meeting
Notes by: Eric Nelson **American Project #:** 5217733.02

Attendees:

FDOT: Kirk Bogen, Ashley Henzel, Anthony Celani, Bill McTeer, Robin Rhinesmith, Allison Conner, Marcel Goss, Craig Fox
American Consulting: Eric Nelson, Jeff Novotny

A meeting agenda is attached. The meeting began at approximately 11am and was held in the D7-HQ, Planning Conference Room and virtually via Microsoft Teams. The purpose of the meeting was to discuss pond siting and floodplain compensation site options to consider as alternatives for the PD&E study.

Jeff Novotny discussed the background of the project, status and schedule. Google Earth aerial mapping was shown for reference during the meeting along with potential pond site options. Kirk Bogen mentioned this is a County project that FDOT is funding and executing the PD&E study. The status of future phases (design/ROW/construction) is unknown, but the County may be seeking a grant to construct the I-75 interchange improvements which could also include this project.

Eric Nelson discussed the drainage criteria for the project. The anticipated pond design will be wet retention which requires treatment for the first 1 inch of runoff. The basins are open basins and must meet 25yr/24hr pre vs post discharge. The majority of the project is within WBID 1621G – Alafia River Basin, which is impaired for DO and is within a Basin Management Action Plan (BMAP). There is a potential for minor floodplain involvement near Kendra Drive. American will look to minimize the encroachment in that area where there is already an existing boardwalk and possible use of retaining walls. There are 2 general drainage basins. West of US 301 is Basin 1 and east of US 301 is Basin 2.

Mr. Nelson then discussed the potential pond site options to consider as SMF Alternatives as follows (naming is based upon the provided KMZ file):

- Basin 1 Options
 - SMF 10-A is the furthest west site and north of Gibsonton Drive. These two parcels are proposed to be developed and were dropped from further consideration.
 - SMF 10-B is an existing residential site 2 parcels west of Kendra Drive and on the south side of Gibsonton Drive. This site appears to be a viable option. The size may depend on actual needs and may need to be combined with SMF 10-C below
 - SMF 10-C is a residential site immediately west of Kendra Drive and on the south side of Gibsonton Drive (east of 10-B). This site appears to be a viable option. This site would also be ideal for floodplain compensation since it is adjacent to the potential encroachment and the floodplain appears to already cross the site. See note concerning combining with SMF 10-B
 - SMF 10-D is on the north side of Gibsonton Drive between Mathog Rd. and Alafia Trace Blvd. The site is permitted for future development and most likely not a viable option and was dropped from further consideration.
 - SMF 10-E would be an offline pond site about 800' south of Gibsonton Drive and on the west side Mathog Rd. The site is permitted for future development and most likely not a viable option and was dropped from further consideration.

- SMF 10-F would be an offline pond site about 500' south of Gibsonton Drive and on the east side of Mathog Rd. The site is permitted for future development and most likely not a viable option and was dropped from further consideration.
- SMF 10-G is a series of several residential parcels along the north side of Gibsonton near Oakridge and Pineridge side streets. Four are single family residential lots. A fifth has a utility easement (power, gas, etc.) crossing at an angle which may not be viable to consider. These residential sites will require right of way acquisition for the proposed roadway widening improvements. The remnants of the parcels may not be large enough to accommodate a pond large enough needed to treat and attenuate the proposed runoff. Therefore, additional acquisition of parcels north of them may be necessary. Thus, some combination of the properties will be evaluated further. Closing off Oakridge Ave or Pineridge Ave. to make one contiguous pond is not a viable option due to needing to keep the roads open for access. American will further evaluate this area to better refine the drainage needs and identify impacted parcels.
- Basin 2 Option
 - SMF 20 is an existing county pond east of US 301 which is large enough to provide additional treatment and attenuation for the increased impervious area east of US 301. An adjustment in the control elevation may only be needed to support the drainage needs at this location. No additional pond site alternatives would be required for this basin.

Bill McTeer suggested looking at an additional site in Basin 1 south of the proposed Pond 2B located at the bend in Fern Hill Drive on the south side of Gibsonton Drive. This is part of the Gibsonton Drive at Fern Hill Intersection Improvement project (CIP #69600311). The proposed pond could potentially be expanded to the south to accommodate the proposed improvements for this project.

There is a large parcel owned by Hillsborough County that is designated as Alafia Scrub Preserve and Trails north of Gibsonton Drive and extends to the Alafia River. This is not a viable alternative since it's a County ELAPP parcel and would open potential Section 4f coordination and lengthy coordination with the County. This parcel will be discussed at the next coordination meeting with the County engineering staff to confirm.

Anthony Celani noted that there is a Hillsborough County SWMM model that has different floodplain boundaries than the FEMA FIRM, and suggested that American contact the County to obtain this information.

Action items:

- American will proceed further with evaluation of SMF 10-B/10-C, 10-G and the site south of Pond 2B on Fern Hill as SMF alternatives for Basin 1. Basin 2 will not have any options.
- American will contact Hillsborough County to obtain the SWMM model and Floodplain information, then verify floodplain involvement.
- American will schedule a meeting with SWFWMD to discuss stormwater criteria, specifically the Alafia River BMAP criteria. Anthony Celani and Craig Fox requested to be in attendance. American will forward a list of available meeting times.
- American will provide status on these alternative sites being evaluated for information and comment at the next coordination meeting with Hillsborough County when the proposed typical section and traffic analysis are discussed.
- American will provide Bill McTeer (through Craig Fox) with aerial maps and information needed to prepare ROW cost estimates on the alternative sites and will initiate desktop environmental screening in order further identify the preferred SMF sites in the coming months.

Meeting Agenda

Gibson Drive PD&E Study
From Fern Hill to US 301
WPI Seg No: 450438-1

**Drainage Coordination – SMF/FPC Longlist meeting
Thursday March 9, 2023 – 11am – FDOT District 7 – FDOT Planning**

1. Welcome and Introductions
2. Current Project Status & Proposed Improvements – Jeff Novotny
3. Design Criteria – Eric Nelson
 - a. Water Quality
 - b. Discharge
 - c. Floodplain Compensation
 - d. Existing Permits
4. Basin requirements and options under consideration – Eric Nelson
5. Next steps
 - a. Finalize SMF/FPC viable alternatives
 - b. Desktop environmental review
 - c. Cost estimates & ROW estimates
 - d. Arrive at Preferred Sites (May)
 - e. Pond Siting Report & Location Hydraulics Report

MEETING NOTES

Meeting Date: August 23, 2023 **Date Issued:** August 30, 2023
Location: D7-HQ, Pelican Conference Room and virtual via Microsoft Teams
Project Name: WPI Seg # 450438-1 – Gibsonton Drive PD&E Study from Fern Hill to US 301
Purpose: Pond Siting Selection
Notes by: Jeff Novotny **American Project #:** 5217733.02
Copies to: File

Attendees:

FDOT: Kirk Bogen, Ashley Henzel, Anthony Celani, Bill McTeer, Robin Rhinesmith, Allison Conner, Lisa Quinn, Marcel Goss, Craig Fox, Lonnie Whitmeyer, Matt (ROW), Robert (Relocations)
American Consulting: Eric Nelson, Tom Daniel, Jeff Novotny

A concept plan map showing alternatives sites and an evaluation matrix was distributed to FDOT staff in advance of the meeting.

The meeting began at approximately 9:30am and was held in the D7-HQ, Pelican Conference Room and virtually via Microsoft Teams.

The purpose of the meeting was to discuss alternative pond sites further evaluated following an earlier March 3, 2023 pond shortlist meeting. Since the meeting, the pond alternatives were refined, ROW cost information was provided by the District and the sites were evaluated for potential environmental effects through a desktop review of archaeological, biological and contamination resources. Construction costs were also estimated for the alternative sites. The results of this information was provided on the matrix.

Jeff Novotny discussed the background of the project, status and schedule. The concept plan map was shown Google Earth aerial mapping was shown for attendees reference during the meeting showing the pond site alternatives.

Eric Nelson discussed the alternative pond sites (SMF 1a, 1b, 1c). Site SMF 2 is located east of US 301 and an existing site. There will be no footprint change to that site. The control elevation would be proposed to change very slightly to gain the required treatment/attenuation. There is one FPC site (FPC 1a) located in the parcel east of SMF 1b and would work for all other SMF sites as well.

Other than potential relocations, there was no appreciable difference in other environmental impacts for the alternative sites. Based on the evaluation matrix, SMF 1b and FPC 1a would result in lower costs and relocations than for SMF 1a/FPC1a or SMF 1c/FPC1a.

After short discussion, SMF 1b and FPC1a were selected as the preferred pond site/floodplain compensation site.

Action Items: American will finalize draft Pond Siting Report for review submittal. The field work will be initiated for the clearance evaluation of cultural resources, wetlands/protected species, and contamination to keep the project moving forward.

Table 5-1 SMF and FPC Site Matrix

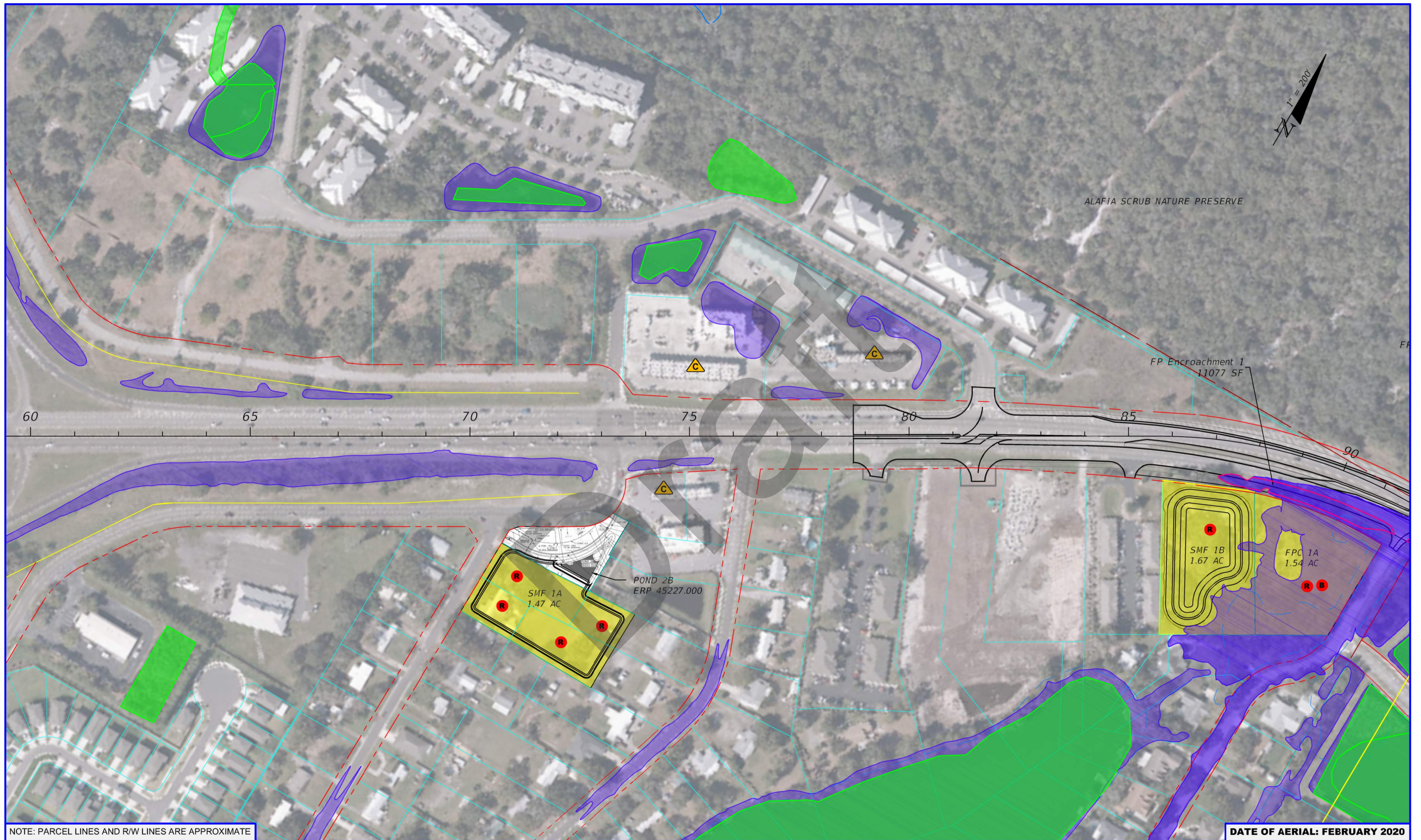
SMF #	Pond Area (Ac)	FPC #	FPC Area (Ac)	Conveyance Easement (Ac)	Est. Wetland Impacts (Ac)	Wildlife and Habitat	Contamination	Cultural Resources	Potential Relocations ¹	Est. Construction Cost ²	Est. Wetland Mitigation Cost	Est. Right of Way Cost SMF ²	Est. Total Cost	Comments
1A	1.47	1A	1.49	N/A	-	None	None	None	5R + 1B	\$277,857	\$0	\$3,899,800	\$4,177,657	
1B	1.66	1A	²	N/A	-	None	None	None	2R + 2B	\$73,736	\$0	\$3,197,200	\$3,270,936	Recommended Alternative
1C	1.79	1A	1.49	N/A	-	None	None	None	9R + 1B	\$221,745	\$0	\$5,733,500	\$5,955,245	

¹R = Residential; B = Business

²Total of SMF and FPC cost.




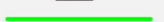
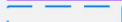






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APPENDIX A
CONCEPTUAL DRAINAGE MAPS



NOTE: PARCEL LINES AND R/W LINES ARE APPROXIMATE

DATE OF AERIAL: FEBRUARY 2020

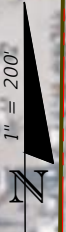
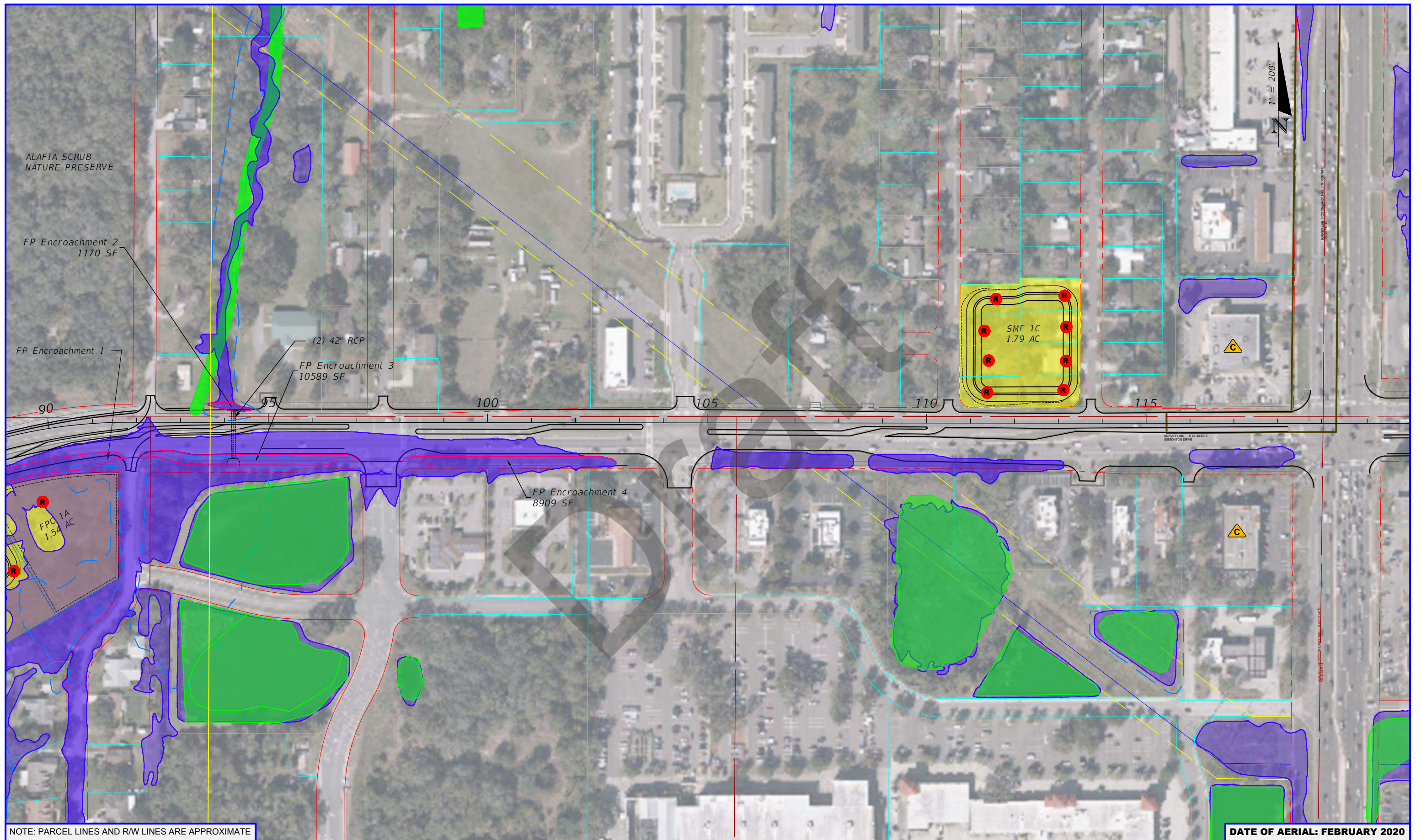
LEGEND		WETLANDS BOUNDARY		POTENTIALLY CONTAMINATED SITE
		FLOODPLAIN (HCMM)		PROPERTY LINE
		FLOODPLAIN (FEMA)		EXISTING R/W
		SMF AND FPC AREA		PROPOSED R/W
		POTENTIAL BUSINESS RELOCATION		PROPOSED IMPROVEMENTS
		POTENTIAL RESIDENTIAL RELOCATION		

American Consulting Professionals, LLC
 2818 Cypress Ridge Blvd, Suite 200
 Wesley Chapel, Florida 33544
 Phone: (813) 435-2600 Fax: (813) 435-2601
 Certificate of Authorization No. 9302
 Eric K. Nelson, P.E. No. 79361

**GIBSONTON DR PD&E STUDY
 FROM FERN HILL DR TO US 301
 CONCEPTUAL SMF & FPC MAP (1)**



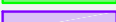
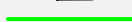

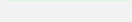
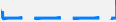
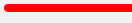



WPI No.: 450438-1

SHEET NO.
 1



NOTE: PARCEL LINES AND R/W LINES ARE APPROXIMATE

DATE OF AERIAL: FEBRUARY 2020

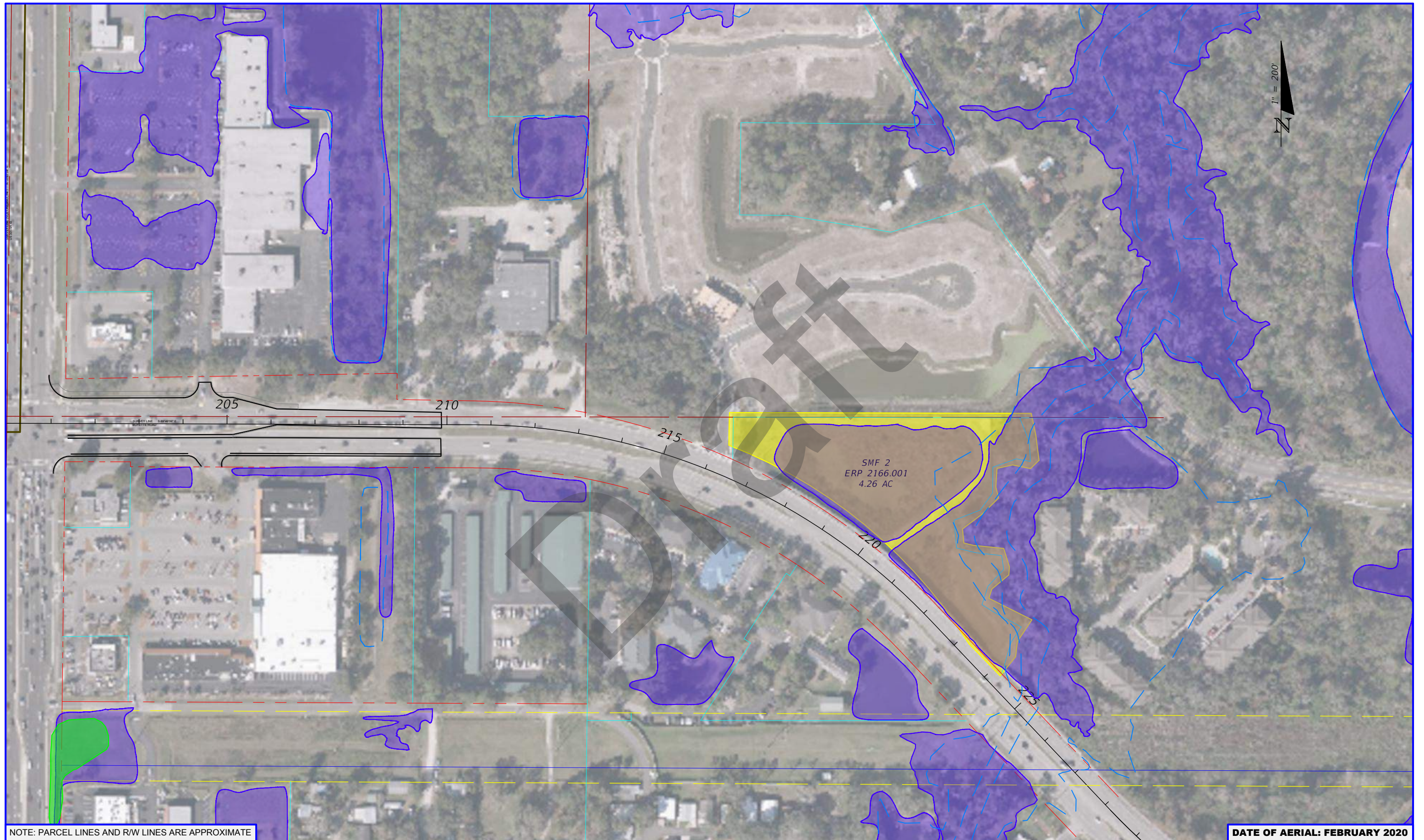
LEGEND		WETLANDS BOUNDARY		POTENTIALLY CONTAMINATED SITE
		FLOODPLAIN (HCSMM)		PROPERTY LINE
		FLOODPLAIN (FEMA)		EXISTING R/W
		SMF AND FPC AREA		PROPOSED R/W
		POTENTIAL BUSINESS RELOCATION		PROPOSED IMPROVEMENTS
		POTENTIAL RESIDENTIAL RELOCATION		

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**GIBSONTON DR PD&E STUDY
 FROM FERN HILL DR TO US 301
 CONCEPTUAL SMF & FPC MAP (2)**




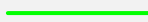
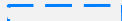
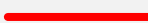



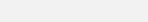

WPI No.: 450438-1

SHEET NO.
 2



NOTE: PARCEL LINES AND R/W LINES ARE APPROXIMATE

DATE OF AERIAL: FEBRUARY 2020

LEGEND		WETLANDS BOUNDARY		POTENTIALLY CONTAMINATED SITE
		FLOODPLAIN (HCSMM)		PROPERTY LINE
		FLOODPLAIN (FEMA)		EXISTING R/W
		SMF AND FPC AREA		PROPOSED R/W
		POTENTIAL BUSINESS RELOCATION		PROPOSED IMPROVEMENTS
		POTENTIAL RESIDENTIAL RELOCATION		

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**GIBSONTON DR PD&E STUDY
 FROM FERN HILL DR TO US 301
 CONCEPTUAL SMF & FPC MAP (3)**

WPI No.: 450438-1

SHEET NO.
3