



Pond Siting Report

US 92 PD&E Study

from County Line Road to Wabash Avenue
Polk County



Financial Project ID: 433558-1-22-01

Federal Aid Project No.: TBD

ETDM No.: 3192

FINAL

Pond Siting Report

US 92

Project Development and Environment Study

from County Line Road to Wabash Avenue

Polk County, Florida

Financial Project ID: 433558 1 22 01

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The Pond Siting Report includes a summary of data collection efforts and design analysis for the US 92 PD&E Study from County Line Road to Wabash Avenue. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of civil engineering as applied through design standards and criteria set forth by the federal, state and local regulatory agencies as well as professional judgment and experience.

Florida Department of Transportation

District One

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October 2016

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I am a registered professional engineer in the State of Florida practicing with **Kisinger Campo & Associates, Inc.** and that I have supervised the preparation and approve the findings, opinions, conclusions, and technical advice hereby reported in:

PROJECT: **Final Pond Siting Report: US 92 from County Line Road to Wabash Avenue (PD&E): dated October 2016**

FPID: **433558-1-22-01**

LOCATION: **Polk County**

CLIENT: **FDOT – District One**

The following duly authorized engineering business performed the engineering work represented by this document:

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The Pond Siting Report includes a summary of data collection efforts and design analysis for the pond sites, and other primary drainage system alternatives for the US 92 widening project. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of civil engineering as applied through design standards and criteria set forth by the federal, state, and local regulatory agencies as well as professional judgment and experience.

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DATE: _____

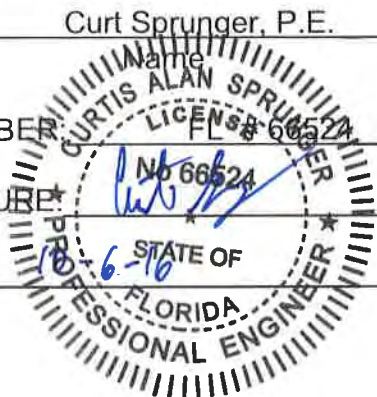


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EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) study to evaluate the proposed widening of US 92 from County Line Road to Wabash Avenue in Polk County. The purpose of this PD&E study is to evaluate engineering and environmental data and document information that will aid FDOT, Polk County and the Federal Highway Administration (FHWA) in determining the type, preliminary design and location of proposed improvements. The study is being conducted to meet the requirements of the National Environmental Policy Act (NEPA) and other related federal and state laws.

Existing Conditions

US 92 is classified as an Urban Other Principal Arterial, is an evacuation route and is a two-lane undivided roadway with two 12-foot lanes and 12-foot shoulders (5-feet paved). Stormwater runoff is collected in roadside swales and discharges to crossdrains with no stormwater treatment. The corridor is approximately 4.1 miles in length and the existing ROW is 100 feet wide for the majority of the project. The posted speed limit is 55 miles per hour (mph) from County Line Road to Galloway Road/Airport Road and 45 mph from Galloway Road/Airport Road to Wabash Avenue. Signalized intersections are located at County Line Road, Clark Road, Galloway Road/Airport Road, Publix Gate 8/10, and Wabash Avenue. The Citrus Connection Bus Route 45 currently operates along the north side of US 92. There are no sidewalks or other pedestrian features located within the project limits.

Project Need

The proposed widening improvements for US 92 will accommodate traffic demand generated by projected population and employment growth in Polk County. Although the roadway currently operates at Level of Service (LOS) D, an acceptable LOS for this type of facility, the corridor is projected to operate at LOS F by the design year 2040 if widening improvements are not implemented. The proposed widening improvements are anticipated to meet the mobility needs of the area by alleviating future congestion throughout the corridor and maintaining important east-west access between Hillsborough County and Polk County.

FDOT anticipates this project will improve connectivity between downtown Lakeland and Interstate 4 for both industrial and residential traffic, enhance safety along the project corridor, and improve emergency evacuation. The proposed improvements to US 92 will also include sidewalks, bicycle lanes and transit enhancements. This project is identified as a cost affordable project in the 2035 Polk County Transportation Planning Organization (TPO) Cost Affordable Long Range Transportation Plan (LRTP).

The project is located in Sections 15, 19, 20, 21 and 22 of Township 28 South, Range 23 East, within the Hillsborough River Watershed. The soils along the project corridor are generally sandy with a SHWT at the ground surface to 1 foot below the existing ground. The assumptions for the SHWT determinations are critical for pond design. For each pond site, an average ground elevation was determined using Lidar data. The *Soil Survey of Polk County* was used to determine the depth to the SHWT. Using this information the elevation of the SHWT was determined for each pond site.

Stormwater management and floodplain compensation sites have been identified along the project limits. The analysis estimates right-of-way needs using a volumetric analysis, which accounts for water quality treatment and water quantity attenuation. Floodplain compensation sites were sized using the 100-year elevations from the Draft SWFWMD Itchepackesassa Watershed model. GIS data provided with the model was converted into CADD files and used to determine impact locations. Contours were used to determine impact volumes from right-of-way to right-of-way. Compensation for floodplain impacts was provided in floodplain compensation ponds to show no adverse floodplain stage increases. One stormwater management facility (SMF) alternative was analyzed for each basin as was a regional stormwater pond alternative. The calculations presented in this report are preliminary and help in estimating the preliminary size of the stormwater and floodplain ponds for each basin.

Table 1: Summary of Pond Recommendations

Basin	Preferred SMF Alternative	Proposed SMF Type	SMF Area (AC.)
1	SMF 1	Wet Detention	2.35
2	SMF 2	Wet Detention	3.38
3	SMF 3	Wet Detention	4.00
4	SMF 4	Wet Detention	2.53
5	SMF 5	Wet Detention	2.88
6	SMF 6	Wet Detention	3.96
Floodplain Compensation Ponds	FPC 1, FPC 2, FPC 3	-	0.70, 6.95, 2.82

1.0 GENERAL PROJECT INFORMATION

1.1 INTRODUCTION

The Florida Department of Transportation (FDOT) is performing a Project Development and Environment (PD&E) study to evaluate the widening of approximately 4.1 miles of US 92 from County Line Road to Wabash Avenue in Polk County. This Pond Siting Report discusses the stormwater management plan for the project. Stormwater management facility (SMF) locations were analyzed to determine right-of-way requirements and associated environmental impacts for each site. One SMF alternative was analyzed for each basin as was a regional stormwater pond alternative. Three floodplain compensation sites are required for the proposed floodplain impacts. The project limits are shown on **Exhibit 1-1**.



Exhibit 1-1 Project Location Map

1.2 SITE LOCATION AND DESCRIPTION

The project involves analyzing different alternatives to improve operational capacity along US 92 from County Line Road to Wabash Avenue in Polk County. The existing two-lane undivided rural roadway (**Exhibit 1-2**) will be widened to a four-lane divided urban roadway. The proposed typical section consists of four 11-foot travel lanes with Type E curb on the inside and 7-foot paved outside shoulders/bike lanes on both sides of the road with Type F curb. A 6-foot sidewalk will be provided along both the north and south sides of the road. Refer to **Figure**

3 – Existing/Proposed Typical Sections, in Appendix 1. The required right-of-way is 122' throughout the project.

The project is located in Sections 15, 19, 20, 21 and 22 of Township 28 South, Range 23 East. Refer to **Figure 2 – USGS Quadrangle Map, in Appendix 1.**



Exhibit 1-2 US 92 – Looking East

1.3 SOIL CHARACTERISTICS

The *Soil Survey of Polk County* classifies the majority of soils within the project area as Pomona fine sand (#7), Urban Land (#16), Smyrna/ Myakka fine sand (#17), Pomona-Urban land complex (#51), and Myakka-Immokalee-Urban land complex (#53). Pomona fine sand (#7) is described as a poorly drained soil with a seasonal high water table (SHWT) depth of zero to 1 foot below the existing ground and Hydrologic Soil Group (HSG) Type A/D. Urban land (#16) consists of areas that are more than 85 percent covered by existing development and does not have any reported soil characteristics. Smyrna and Myakka fine sands (#17) are described as a poorly drained soils with a SHWT depth of zero to 1 foot below the existing ground and HSG Type A/D. Pomona-Urban land complex (#51) consists of areas of poorly drained Pomona soil and Urban land (both previously described) with Pomona soil making up 50 to 75 percent of the map unit. Myakka and Immokalee

fine sands (#53) are described as poorly drained soils with a SHWT depth of zero to 1 foot below the existing ground and HSG Type A/D. The make-up of the map unit is as follows: the Myakka soil is 25 to 50 percent, the Immokalee soil is 20 to 35 percent, and the Urban land is 20 to 45 percent. Refer to **Figure 4 – NRCS Soils Map**, in **Appendix 1**.

The soils are generally sandy with a SHWT at the grounds surface to 1 foot below the existing ground. The assumptions for the SHWT determinations are critical for pond design. For each pond site, an average ground elevation was determined using Lidar data. The *Soil Survey of Polk County* was used to determine the depth to the SHWT. Using this information the elevation of the SHWT was determined for each pond site. Refer to **Appendix 8** for the project **Soil Survey**.

1.4 FEMA FLOODPLAIN INFORMATION

The project site is located on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community-Panel Numbers 12105C0291F, 12105C0292F, 12105C0293F, and 12105C0311F (dated December 20, 2000) in Polk County. The project crosses Itchepackesassa Creek which is designated as FEMA floodplain Zone AE and a FEMA designated floodway. Zone AE are areas of the 100-year floodplain where the base flood elevation has been determined. The proposed alignment also impacts several areas designated as Zone A, which are areas of the 100-year floodplain where the base flood elevation has not been determined. The FEMA floodway is located where Hamilton Branch (BR 160117) crosses US 92. Refer to **Figure 6 – FEMA FIRM Map**, in **Appendix 1**.

The Southwest Florida Water Management District (SWFWMD) retained CivilSurv to develop a model for the Itchepackesassa Creek watershed in order to revise the 100-year floodplain elevations in Polk County and to update the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Maps (FIRM). A phone conversation with Dawn Turner, the project manager of the Itchepackessa watershed model for SWFWMD, revealed that the model was in draft status and that it will not be finalized due to lack of funds to address extensive peer review comments. However, the model is the best available information and will be used to determine floodplain elevations within the project area for this PD&E study. The Itchepackesassa Creek basin was modeled using the Interconnected Channel and Pond Routing (ICPR) computer program. This model was used to simulate the hydrologic response of the watershed and route stormwater through the natural and man-made features of the basin for the 100-year/ 24 hour storm event. Refer to **Table 2** for the 100 Yr/ 24 hour elevations from the SWFWMD model.

Table 2: Floodplain Elevations

Area	Begin Station	End Station	Side	Road	Node	100 Yr/ 24 Hr Elevation (NAVD '88)
1	93+00	98+00	RT	US 92	NK1385	126.1
2	95+00	98+00	LT	US 92	NK1390	125.3
3	108+00	131+00	LT	US 92	NC1400, NC1460, NC1500	125.9
4	113+00	131+00	RT	US 92	NC1390	126.3
5	156+00	166+00	RT	US 92	NH1040	130.1
6	157+00	166+50	LT	US 92	NH1044	129.1
7	SMF 4		RT	US 92	NH1000	130.1
8	SMF 5		RT	US 92	NH1000	130.1
* 9	182+50	188+00	LT	US 92	NC0500	133.3

* Minimal encroachment in Area 9 compensated for within right-of-way.

2.0 DRAINAGE REFERENCE AND RESOURCE INFORMATION

2.1 MEETINGS

A pre-application meeting was held at the SWFWMD Tampa service office on June 4, 2014 to discuss the permitting requirements. A drainage design methodology meeting was held May 27, 2014 at the FDOT D-1 office. Meeting notes are provided in **Appendix 2**.

2.2 RAINFALL INTENSITY DATA

In accordance with SWFWMD requirements, the FLMOD SWFWMD 25 year/24 hour storm (7.5 inches) will be modeled for the existing and proposed conditions.

2.3 RESOURCE FOR ANALYSIS

The following sources were used to locate and size the pond sites and floodplain compensation sites:

- FDOT Drainage Manual Standards
- SWFWMD ERP Applicant's Handbook II
- SWFWMD Preliminary Watershed Model (Itchepackassassa Creek, Hillsborough River Watershed)

- Contours derived from Lidar, SWFWMD, 2007
- USDA SCS Soil Survey of Polk County, Florida, October 1990
- USGS Quadrangle Maps (Plant City East, Lakeland)
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), December 20, 2000 (12105C0291F, 12105C0292F, 12105C0293F and 12105C0311F)
- Cultural Resource Assessment Survey
- Contamination Report
- Wetland and Protected Species Evaluation

3.0 EXISTING DRAINAGE CHARACTERISTICS

3.1 WATERSHED DESCRIPTIONS

The existing drainage patterns were determined using United States Geological Survey (USGS) quadrangle maps and LiDAR contours. The off-site drainage basins are shown in the exhibits in **Appendix 3**. The roadway drains through roadside ditches to the seven (7) existing crossdrains within the project limits. Each crossdrain was evaluated in the Location Hydraulic Report (KCA). Refer to **Table 3** for a description of the existing bridges and crossdrains.

Table 3: Crossdrain Summary

No.	MP	Description
CD-1	0.846	8'x3' CBC
CD-2	0.954	42" PIPE
-	1.620	Bridge # 160117 Hamilton Branch
CD-3	1.881	5'x2.5' CBC
CD-4	2.257	30" & 36" PIPE
CD-5	2.833	30" PIPE
-	2.873	Bridge # 160026 Winston Creek
CD-6	3.155	36" PIPE
CD-7	3.570	24" PIPE

There are also two flat slab bridges within the project limits, one at Hamilton Branch (#160117) and one at Winston Creek (#160026). They were both built in 1926 and will be replaced due to the roadway widening.

4.0 PROPOSED DRAINAGE DESIGN

Stormwater runoff from US 92 will be collected and conveyed to stormwater management facilities by curb and gutter. These stormwater management facilities will provide water quality (treatment) and water quantity (attenuation). The design of the drainage and stormwater facilities will comply with the standards set forth by the FDOT Drainage Manual, and the SWFWMD ERP Applicant's Handbook II.

4.1 STORMWATER MANAGEMENT DESIGN APPROACH

The following factors were considered in the selection of potential pond and floodplain compensation sites:

- Present use of the land (vacant, proposed, developed or conservation)
- Parcel Size
- Proximity of the sites to US 92
- Proximity of the sites to an outfall
- Location of any nearby wells
- Which portions of roadway can be drained to the potential pond sites
- Are the sites accessible for construction and future maintenance of the ponds
- Joint use facilities (SMF & FPC)
- Jurisdictional Wetland Issues
- Threatened/ Endangered Species
- Hazardous Materials Contamination
- Archeological/ Historical Resources
- Estimated area for right-of-way acquisition

4.2 DESIGN CRITERIA

Water quality and quantity requirements will comply with the guidelines as defined in Chapter 40D-4 of the Florida Administrative Code (F.A.C.) and the SWFWMD ERP Applicant's Handbook II.

4.2.1 WATER QUALITY CRITERIA

The method of stormwater treatment for this project includes wet detention due to the high SHWT.

The wet detention method involves storing the stormwater in a wet pond above the SHWT. Treatment will be provided for the first one inch of stormwater runoff from the DCIA. For wet detention, the treatment volume shall be no greater than 18 inches above the control elevation (orifice elevation/SHWL). An orifice shall be designed allowing no more than one-half of this treatment volume to bleed down in the first 60 hours and the remainder of the treatment volume in not less than 120 hours. Due to the detention time required for wet detention systems, only that volume which drains below the overflow elevation within 36 hours may be counted as part of the volume required for water quantity storage.

4.2.2 WATER QUANTITY CRITERIA

The Southwest Florida Water Management District (SWFWMD) requires that the 25-year/24-hour post-development maximum discharge rate must be attenuated to no greater than the 25-year/24-hour pre-development discharge rate for open basins.

4.2.3 IMPAIRED WATERBODY CRITERIA

The US 92 project includes four basins within the Hillsborough River watershed. Refer to **Figure 7 – Overall Basin/Watershed Map**, in **Appendix 1**. These include water body identification number (WBID) 1531, 1495B, 1551 and 1543A from west to east. Itchepaceksassa Creek (1495B) is verified impaired for dissolved oxygen, nutrients and fecal coliform and Lake Hunter Outlet (1543A) is verified impaired for dissolved oxygen. For impaired water bodies, there can be no increase in nutrient loadings for nitrogen and phosphorous between the pre and post conditions. Therefore pond sites within Basins 3 through 6 were designed using impaired criteria. Refer to **Table 4** below for a summary of the waterbodies.

Table 4: Waterbodies

WBID	Name	Planning Unit	Grp.	Comments
1495B	Itchepackesassa Creek	Hillsborough River	2	Dissolved Oxygen (phosphorous) Nutrients (chlorophyll) Fecal Coliform
1531	Wiggins Prairie Drain	Hillsborough River	2	Not Impaired
1543A	Lake Hunter Outlet	Hillsborough River	2	Dissolved Oxygen (phosphorous)
1551	Winston Drain	Hillsborough River	2	Not Impaired

Refer to **Appendix 3 (page 20)** for the Group 2 Verified spreadsheet from the Florida Department of Environmental Protection (FDEP).

4.3 POND SITE CONFIGURATION

Pond and floodplain compensation sites will include a 20 ft berm for maintenance activities, minimum 4:1 side slopes, and a minimum of 1 ft of freeboard for pond sites. The inside berm radius of the pond should be a minimum of 30 ft. A 25 ft buffer will be provided between the pond locations and wetlands, if possible. The design will provide treatment for the four-lane typical section with bike lanes and sidewalks. Refer to **Exhibit 4-1** for the Pond Typical Section below:

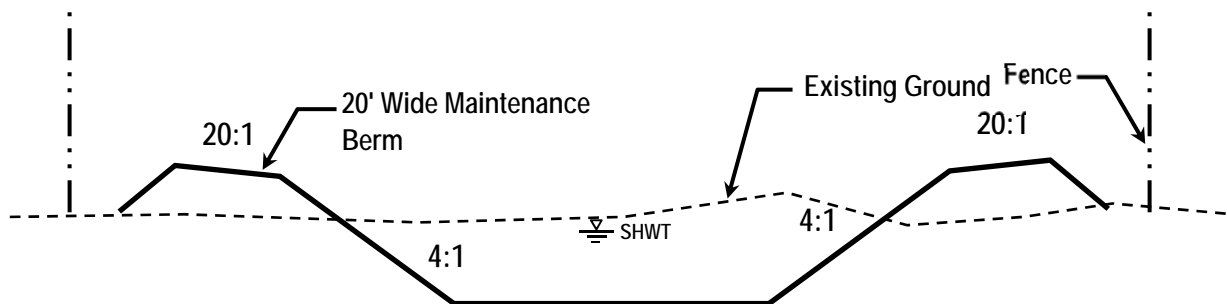


Exhibit 4-1: Pond Typical Section

4.4 POND SITE SIZING

The pond sizes were estimated using SWFWMD water quality treatment and attenuation requirements. Offsite flows could be allowed to pass through the pond located in basins 1, 4 and 5. For basins 2, 3 and 6, basins limits are being increased from the pre-developed condition and over-attenuation is being provided for this additional basin area. Throughout the extended limits of these basins, offsite runoff would need to be kept separate to avoid having to over-attenuate the offsite flows being directed to a different outfall location than in the pre-developed condition. Through these extended basin limits, all offsite-runoff was assumed by-passed using off-site, right-of-way ditches or piping.

4.5 FPC SITE SIZING

Floodplain compensation sites were sized using the 100-year elevations from the Draft SWFWMD Itchepackesassa Watershed model. GIS data provided with the model was converted into CADD files and used to determine impact locations. Contours were used to determine impact volumes from right-of-way to right-of-way. Compensation for floodplain impacts was provided in floodplain compensation ponds to show no adverse floodplain stage increases. Refer to the floodplain calculations in **Appendix 4**.

5.0 POND AND FPC SITE INFORMATION

5.1 POND SITE LOCATIONS

One pond site was located within each basin and one regional option. Aerial photographs, field reconnaissance, and information from the Polk County Property Appraiser were used to locate these potential pond sites. Pond configurations will be determined during the design phase of the project and may vary from the assumptions in this report based on actual conditions. SWFWMD also requires that all ponds be located a minimum of 100 feet from existing wells or be lined. The basin for each of the pond sites is shown on the drainage maps in **Appendix 3**. All ponds are sized for the DCIA with treatment and attenuation for the proposed four lanes, shoulders and sidewalks. A discussion of a regional option is included in Section 5.1.7.

5.1.1 BASIN 1

This basin extends along US 92 from Sta. 10+40 to 64+95; however, to use existing FDOT right-of-way for SMF 1 and due to low edge of pavement restrictions, the drainage basin to SMF 1 will be from Sta. 10+40 to 42+00 and is 10.26-acres in size. The remaining portion of basin 1 will be taken to basin 2 in the post condition and over-attenuated. The shift in basin boundaries between basins 1 and 2 is due to the lack of an available pond site west of the Polk Parkway. There is an existing pond site on the west side of the Polk Parkway and I-4 interchange, north of US 92; however, this site was designed by the FDOT Turnpike to handle the ultimate build-out for the Polk Parkway. As discussed with FDOT on May 27, 2014 this existing pond will not be considered during the PD&E study. This pond was also designed with a slurry wall on the west side to act as a groundwater barrier between the existing wetland to the west and the pond site. The existing US 92 profile was favorable for sending water that could not be drained to SMF 1 to the east into Basin 2 and providing over-attenuation in SMF 2.

SMF 1 is a wet detention pond located within the FDOT right-of-way from Sta. 31+00 to 37+00 RT in an area previously used as an FDOT Weigh station. This site is currently used by the FDOT Maintenance Department as a storage area when working in this portion of the district. This is the only undeveloped parcel within this basin and therefore the best option for a stormwater management facility. Coordination will need to be done during the design phase of the project to locate an alternative site for the maintenance department, possibly in a remnant portion of a parcel required for roadway widening or stormwater management.

The soil is Pomona fine sand (7) which has the SHW estimated to be 1 foot below existing ground. An adjacent pond to the north was permitted with a SHW elevation of 139.7 feet; however, this pond appears dry to elevation 133.0 feet. Further geotechnical borings may allow this pond to be designed as dry retention. Preliminary pond sizing calculations indicate that this pond requires 2.35 acres of area, including tie-downs. The pond control elevation is set at 138.0 feet. The outfall is an 8'x3' CBC crossdrain located at Sta. 54+86. The site has low to moderate prehistoric archeological potential, low historic archaeological potential and moderate historic resource potential. There are no wetlands at the site.

There is low potential impact to protected species. The site is considered to have a medium contamination potential.

5.1.2 BASIN 2

This basin extends along US 92 from Sta. 64+95 to 112+00; however, a portion of basin 1 from Sta. 42+00 to 64+95 will also drain to basin 2 with over-attenuation for this additional area provided in the post condition. The portion of basin 2 north of the Hamilton Branch Bridge from Sta. 96+15 to 112+00 will drain to and be over-attenuated in basin 3 in the post condition. The post developed basin 2 is from Sta. 42+00 to 96+15 and is 17.55-acres in size. SMF 2 is a wet detention pond located along the south side of US 92 from Sta. 68+00 to 72+00 RT within three vacant parcels. The soil is Pomona fine sand (7) which has the SHW estimated to be 1 foot below existing ground; however, a liner will be required to lower the pond control elevation to 121.0 feet. Preliminary pond sizing calculations indicate that this pond requires 3.38 acres of area, including tie-downs. The pond control elevation is set at 121.0 feet. The outfall is the Hamilton Branch Bridge located at Sta. 96+15. The site has low prehistoric archeological potential, low historic archaeological potential and low to moderate historic resource potential. There are no wetlands at the site. There is low potential impact to protected species. The site is considered to have a medium contamination potential.

5.1.3 BASIN 3

This basin extends along US 92 from Sta. 112+00 to 147+00; however, basin 2 from Sta. 96+15 to 112+00 will also drain to basin 3 with over-attenuation for this additional area provided in the post condition. This entire basin 3 from Sta. 96+15 to 147+00 is 16.89-acres in size. SMF 3 is a wet detention pond located along the south side of US 92 from Sta. 132+00 to 136+00 RT within one vacant parcel. The soils include Pomona fine sand (7), Pomona-Urban land complex (51) and Myrna and Myakka fine sands (17) which have their SHW estimated to be 1 foot below existing ground; however, a liner will be required to lower the pond control elevation to 122.0 feet. Preliminary pond sizing calculations indicate that this pond requires 4.00 acres of area, including easement and tie-downs. The pond control elevation is set at 122.0 feet. The outfall is the 1-36" and 1-30" crossdrain located at Sta. 129+32. The site has low to moderate prehistoric

archeological potential, low historic archaeological potential and low to moderate historic resource potential. This site has a high potential for wetland involvement with approximately 1.71 acres of wetlands at the site. There is low potential impact to protected species. The site is considered to have a low contamination potential.

5.1.4 BASIN 4

This basin extends along US 92 from Sta. 147+00 to the Winston Creek Bridge at 162+10 and is 5.49-acres in size. SMF 4 is a wet detention pond located along the south side of US 92 from Sta. 156+00 to 160+00 RT within two vacant parcels. The soil is Pomona fine sand (7) which has the SHW estimated to be 1 foot below existing ground. Preliminary pond sizing calculations indicate that this pond requires 2.53 acres of area, including easements and tie-downs. The pond control elevation is set at 130.0 feet. The outfall is the Winston Creek Bridge located at Sta. 162+10. The site has a low prehistoric archeological potential, low historic archaeological potential and low historic resource potential. This site has a low potential for wetland involvement with approximately 0.13 acres of wetlands at the site. There is low potential impact to protected species. The site is considered to have a medium contamination potential.

5.1.5 BASIN 5

This basin extends along US 92 from Sta. 174+65 to 195+25; however, the portion of US 92 from the Winston Creek Bridge at Sta. 162+10 to 174+65 will also drain to basin 5 in the post condition. This entire basin 5 from Sta. 162+10 to 195+25 is 11.08-acres in size. SMF 5 is a wet detention pond located along the south side of US 92 from Sta. 170+00 to 176+00 RT within one parcel. The pond site is currently vacant. The soil is Pomona fine sand (7) which has the SHW estimated to be 1 foot below existing ground. Preliminary pond sizing calculations indicate that this pond requires 2.88 acres of area, including easement and tie-downs. The pond control elevation is set at 130.0 feet. This pond will outfall to both the Winston Creek Bridge located at Sta. 162+10 and the 36" crossdrain located at Sta. 176+59. The site has a low prehistoric archeological potential, low historic archaeological potential and a low to moderate historic resource potential. There are no wetlands at the site. There is low potential impact to protected species. The site is considered to have a medium contamination potential.

5.1.6 BASIN 6

This basin extends along US 92 from Sta. 195+25 to 224+00; however, with the project ending at Wabash Avenue, the basin limits will be extended to Sta. 228+75 to include the last 475 feet of the project. This entire basin 6 from Sta. 195+25 to 228+75 is 11.72-acres in size. SMF 6 is a wet detention pond located along the south side of US 92 from Sta. 201+00 to 206+00 RT within two vacant parcels. The soils include Pomona fine sand (7), Samsula muck (13) and Basinger mucky fine sand (36) which have an average SHW estimated to be at the existing ground. Preliminary pond sizing calculations indicate that this pond requires 3.96 acres of area, including easement and tie-downs. The pond control elevation is set at 133.5 feet. The outfall is the 24" crossdrain located at Sta. 199+00. The site has a low to moderate prehistoric archeological potential, low historic archaeological potential and low historic resource potential. This site has a high potential for wetland involvement with approximately 2.30 acres of wetlands at the site. There is low potential impact to protected species. The site is considered to have a medium contamination potential.

5.1.7 REGIONAL TREATMENT ALTERNATIVE

Florida Statute 373.413 allows FDOT the alternative of using a regional stormwater treatment system for roadway projects if it is the most effective and cost efficient use of public funds. The regional system must meet water quantity requirements and should meet state water quality standards or at a minimum demonstrate net improvement for discharge to impaired waters. The regional system should be first located within the same WBID, then within the same Planning Unit and lastly the same Group. This project discharges to two impaired waterbodies: WBID 1495B (Itchepackasassa Creek) and WBID 1543A (Lake Hunter Outfall). All runoff from the US 92 project discharges to the Hillsborough River Planning Unit which are all included as Group 2.

The regional treatment system is 13.94 acres in size and is located between Hamilton Branch and Swindell Road in an existing floodplain compensation pond north of I-4. This existing floodplain compensation would be replaced in low areas adjacent to the creek and above the DHW within the regional pond. Basins 2 through 6 drain through Hamilton Branch at the regional pond site before it's confluence with Itchepackesassa Creek. The regional pond can provide water quality treatment for the proposed improvements

to the majority of the US 92 project site as well as for existing untreated runoff contributing from residential, commercial and industrial pollution sources upstream. Basin 1 discharges through another tributary before it merges with Itchepackasassa Creek; however, the additional treatment provided to existing untreated runoff can offset the Basin 1 project area not directed through the regional pond. This treatment will improve nutrient loadings downstream of the regional site, before the Hamilton Branch confluence with Itchepackasassa Creek.

Water quantity attenuation could be provided in the regional pond, however this does not address the flow rates between the project site and the regional pond. Additional runoff due to the proposed improvements will need to be attenuated to pre-developed rates before leaving the project right of way through a combination of providing attenuation in the floodplain compensation sites as well as an additional 10' of right of way that will be needed on both the north and south sides of the roadway where runoff can be attenuated in ditches. This additional right of way required to attenuate discharges from the site make this alternative not the preferred stormwater management facility alternative.

The pond control elevation is set at elevation 119.2 feet with the weir set at elevation 120.2 feet to provide 8.54 ac-feet of treatment (Appendix 3, page 40). Pollutant loading calculations are included in Appendix 3, page 41. The site has a low to moderate prehistoric archeological potential, low historic archaeological potential and low to moderate historic resource potential. This site has a high potential for wetland involvement with approximately 0.16 acres of surface waters and 1.12 acres of wetlands at the site. There is low potential impact to protected species. The site is considered to have a medium contamination potential.

5.2 FLOODPLAIN COMPENSATION SITE LOCATIONS

Floodplain compensation sites will be required for the floodplain impacts located along the project corridor. Aerial photographs, field reconnaissance, and information from the Polk County Property Appraiser were used to locate these potential sites. During the design phase of the project, the FPC configurations may vary from the assumptions in this report based on actual conditions. Floodplain encroachment calculations were performed using the Draft Itchepackasassa Watershed model. A determination will need to be done during the design phase of the project to determine any changes to the 100-year floodplain elevations. Refer to **Appendix 4** for floodplain encroachment/compensation calculations.

5.2.1 FLOODPLAIN COMPENSATION SITE 1

The US 92 roadway crosses the 100-year floodplain at Areas 1 and 2. Area 1 is from Sta. 93+00 to Sta. 98+00 on the right side with a 100-year elevation of 126.1 feet. Impacts for this area is estimated at 0.60 acre-feet. Area 2 is from Sta. 95+00 to Sta. 98+00 on the left side with a 100-year elevation of 125.3 feet. Impacts for this area is estimated at 0.17 acre-feet.

FPC 1 is a 0.70 acre pond located on the north side of US 92 from Sta. 96+00 to 97+00 LT within a vacant parcel. This site will provide approximately 0.96 acre-feet of floodplain compensation between elevations 121.0 and 124.0 for encroachment Areas 1 and 2. The site has a low prehistoric archeological potential, low historic archaeological potential and moderate historic resource potential. This site has a low potential for wetland involvement with approximately 0.14 acres of surface waters at the site. There is low potential impact to protected species. The site is considered to have a high contamination potential.

5.2.2 FLOODPLAIN COMPENSATION SITE 2

The US 92 roadway crosses the 100-year floodplain at Areas 3 and 4. Area 3 is from Sta. 108+00 to Sta. 131+00 on the left side with a 100-year elevation of 125.9 feet. Impacts for this area is estimated at 2.65 acre-feet. Area 4 is from Sta. 113+00 to Sta. 131+00 on the right side with a 100-year elevation of 126.3 feet. Impacts for this area is estimated at 6.50 acre-feet.

FPC 2 is a 6.95 acre pond located on the south side of US 92 from Sta. 121+00 to 131+00 RT within a vacant parcel just west of Airport Road. This site will provide approximately 9.55 acre-feet of floodplain compensation

between elevations 123.4 and 125.5 for encroachment Areas 3 and 4. The site has a low prehistoric archeological potential, low historic archaeological potential and low historic resource potential. There are no wetlands at the site. There is low potential impact to protected species. The site is considered to have a low contamination potential.

5.2.3 FLOODPLAIN COMPENSATION SITE 3

The US 92 roadway crosses the 100-year floodplain at Areas 5 and 6. Encroachment due to SMF 4 and SMF 5 are at Areas 7 and 8. Area 5 is from Sta. 156+00 to Sta. 166+00 on the right with a 100-year elevation of 130.1 feet. Impacts for this area is estimated at 2.17 acre-feet. Area 6 is from Sta. 157+00 to Sta. 166+50 on the left side with a 100-year elevation of 129.1 feet. Impacts for this area is estimated at 0.66 acre-feet. Areas 7 and 8 have a 100-year elevation of 130.1 feet and encroachments of 0.15 acre-feet and 0.50 ac-feet, respectively.

FPC 3 is a 2.82 acre pond located on the north side of US 92 from Sta. 153+00 to 158+00 LT within an open area within one parcel at the back of a subdivision. The pond is accessed by an existing roadway. This site will provide approximately 4.12 acre-feet of floodplain compensation between elevations 125.2 and 127.5 for encroachment Areas 5, 6, 7 and 8. The site has a low to moderate prehistoric archeological potential, low historic archaeological potential and low historic resource potential. This site has a high potential for wetland involvement with approximately 1.15 acres of wetlands at the site. There is low potential impact to protected species. The site is considered to have a low contamination potential.

6.0 EVALUATION OF SITES

Pond and floodplain compensation sites were identified using recent aerials. Factors considered in evaluating pond sites included hydraulics, estimated area for right-of-way acquisition and any required inflow or outflow easements, costs of inflow and outflow structures, potential wetland impacts, potential for presence of protected species, hazardous material contamination potential, and the potential for presence of cultural and/or historical structures. The above factors were used to determine the locations for the pond and floodplain compensation sites.

6.1 ENVIRONMENTAL EVALUATION

Environmental factors that were investigated included wetland impacts, potential for presence of protected species, hazardous material contamination potential, and potential of presence of cultural and/or historic structures.

6.1.1 JURISDICTIONAL WETLAND INVOLVEMENT

A preliminary review of the pond sites was conducted by Kisinger Campo and Associates. All existing and available data was reviewed to determine if any wetlands would be adversely affected by the proposed widening of US 92. Pedestrian surveys were conducted at all pond sites to determine the ecological characteristics (jurisdictional wetlands, plant communities, present condition, unique features, etc.) within the proposed pond locations. Visual observations were recorded for potential protected species and to characterize vegetative communities to determine any jurisdictional wetlands. Refer to **Appendix 6** for the **Wetlands and Protected Species Evaluation**.

Existing land uses were classified in accordance with FLUCFCS (FDOT 1999). Wetlands were classified using the U.S. Fish and Wildlife Service (FWS) Classification System of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979). The following categories were used to rate the potential wetland involvement at each site:

None = No wetland involvement

Low = Little wetland involvement (< 0.5 acres)

Medium = Some wetland involvement (0.5 acres to 1 acre)

High = Substantial wetland involvement (> 1 acre)

Wetland impacts ranged from none (SMF 1, SMF 2, SMF 4, SMF 5 and FPC

2) to 2.3 acres for SMF 6.

6.1.2 THREATENED AND ENDANGERED SPECIES

Kisinger Campo and Associates evaluated this project for impacts to federal and state listed threatened and endangered species. The following categories were used to rate the potential involvement with threatened and endangered species at each Pond site:

None = No habitat for protected species

Low = Minimal/ suboptimal habitat for protected species

Medium = Conditions are favorable for protected species

High = Protected species confirmed or highly likely

Project area reviews and in house assessments concluded that the following Federal and state protected species have the potential to occur within the project area: gopher tortoise, Eastern indigo snake, Florida pine snake, limpkin, American alligator, little blue heron, roseate spoonbill, snowy egret, tricolored heron, white ibis, wood stork, Florida sandhill crane and bald eagle. All pond sites received a low ranking for potential protected species involvement. Refer to **Appendix 6** for the **Wetlands/Protected Species Evaluation**.

6.1.3 HAZARDOUS MATERIALS CONTAMINATION

Tierra, Inc. performed a preliminary environmental review of the proposed alternative pond sites for the US 92 project. The following categories were used to rate the contamination potential at each site: no probability of contamination "No", low probability of potential contamination "Low", some contamination potential "Medium", substantial contamination potential "High". SMF 3, FPC 2 and FPC 3 were determined to have a "Low" rating. Sites SMF 1, SMF 2, SMF 4, SMF 5, SMF 6 and the Regional Pond Alternative were ranked a "Medium" rating. FPC 1 was rated "High" due to the presence of storage containers and drums. All ponds selected for final design will require Level II testing. Sites ranked "High" or "Medium" may require additional testing based on the related historical Contaminants of Concern identified during the Level 1 review. Refer to **Appendix 7** for the **Contamination Screening Evaluation (Letter Report (Level 1))**. This report is a preliminary Level 1 CSER (Letter Report) and a "full" Level 1 CSER is forthcoming.

6.1.4 HISTORICAL/ ARCHEOLOGICAL RESOURCES

Archeological Consultants, Inc. (ACI) completed a preliminary analysis of the project area and pond sites along with background research to determine the location of any historic or archeological structures. ACI concluded that no archaeological sites or historic structures which are determined eligible, or considered potentially eligible for listing in the National Register of Historic Places (NRHP) are located within or adjacent to the proposed pond sites.

The following categories were used to assess the archeology at each site low, low to moderate, moderate and high. Sites with a “Low” ranking have little opportunity for archaeological/historic potential. Conditions favorable to archaeological/historic potential at the site include a “Moderate” ranking. A “High” ranking is limited to those site with confirmed archaeological/historic sites. For prehistoric archaeological rankings, SMF 2, SMF 4, SMF 5, FPC1 and FPC 2 were given a “Low” ranking, while SMF 1, SMF 3, SMF 6, RPA and FPC 3 were given a “Low to Moderate” ranking. For historic archaeological rankings, all sites were given a “Low” ranking. For historical resource rankings, SMF 4, SMF 6, FPC 2 and FPC 3 were given a “Low” ranking; SMF 2, SMF 3, SMF 5 and RPA were given a “Low to Moderate” ranking, while SMF 1 and FPC 1 were given “Moderate” rankings. Refer to **Appendix 5** for the **Cultural Resource Assessment Survey (ACI, August 2014)**.

6.1.5 SECTION 4(F) LANDS

This project is not located adjacent to any conservation lands.

7.0 CONCLUSIONS

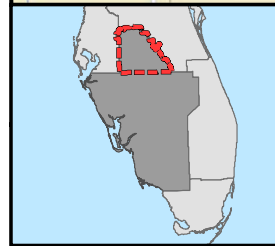
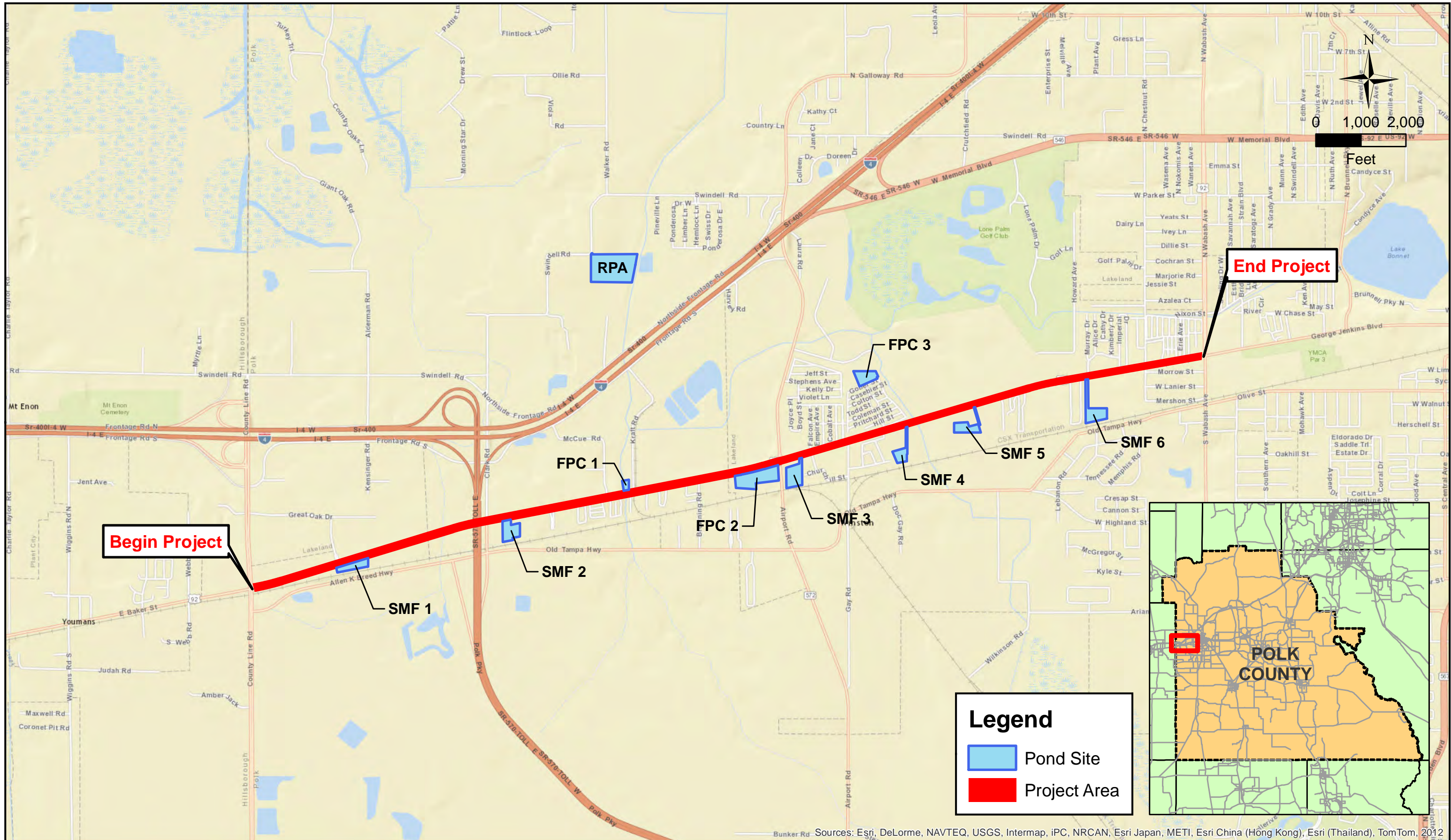
Users of this report are cautioned that the following pond sizes and locations were determined from preliminary data and calculations and reasonable engineering judgment and assumptions. Pond sizes and configurations may change during final design as more detailed information on seasonal high water elevations, property boundaries, etc. becomes available. The summary of pond and floodplain sites are included in **Table 5** below:

Table 5: Summary of Pond and Floodplain Sites

Pond Site	Location (Station/ Side)	Historical Resources Ranking	Prehistoric Archeological Ranking	Historical Archeological Ranking	Contamination Ranking	Protected Species Potential	Surface Water / Wetland Impact (acres)	R/W Area (acres)
SMF 1	34+00, RT	Moderate	Low to Moderate	Low	Medium	Low	-	2.35
SMF 2	70+00, RT	Low to Moderate	Low	Low	Medium	Low	-	3.38
SMF 3	134+00, RT	Low to Moderate	Low to Moderate	Low	Low	Low	1.71	4.00
SMF 4	157+00, RT	Low	Low	Low	Medium	Low	0.13	2.53
SMF 5	172+00, RT	Low to Moderate	Low	Low	Medium	Low	-	2.88
SMF 6	203+00, RT	Low	Low to Moderate	Low	Medium	Low	2.30	3.96
RPA	95+00, 4800' LT	Low to Moderate	Low to Moderate	Low	Medium	Low	1.28	13.94
FPC 1	97+00, LT	Moderate	Low	Low	High	Low	0.14	0.70
FPC 2	125+00, RT	Low	Low	Low	Low	Low	-	6.95
FPC 3	155+00, LT	Low	Low to Moderate	Low	Low	Low	1.15	2.82

APPENDIX 1

FIGURES

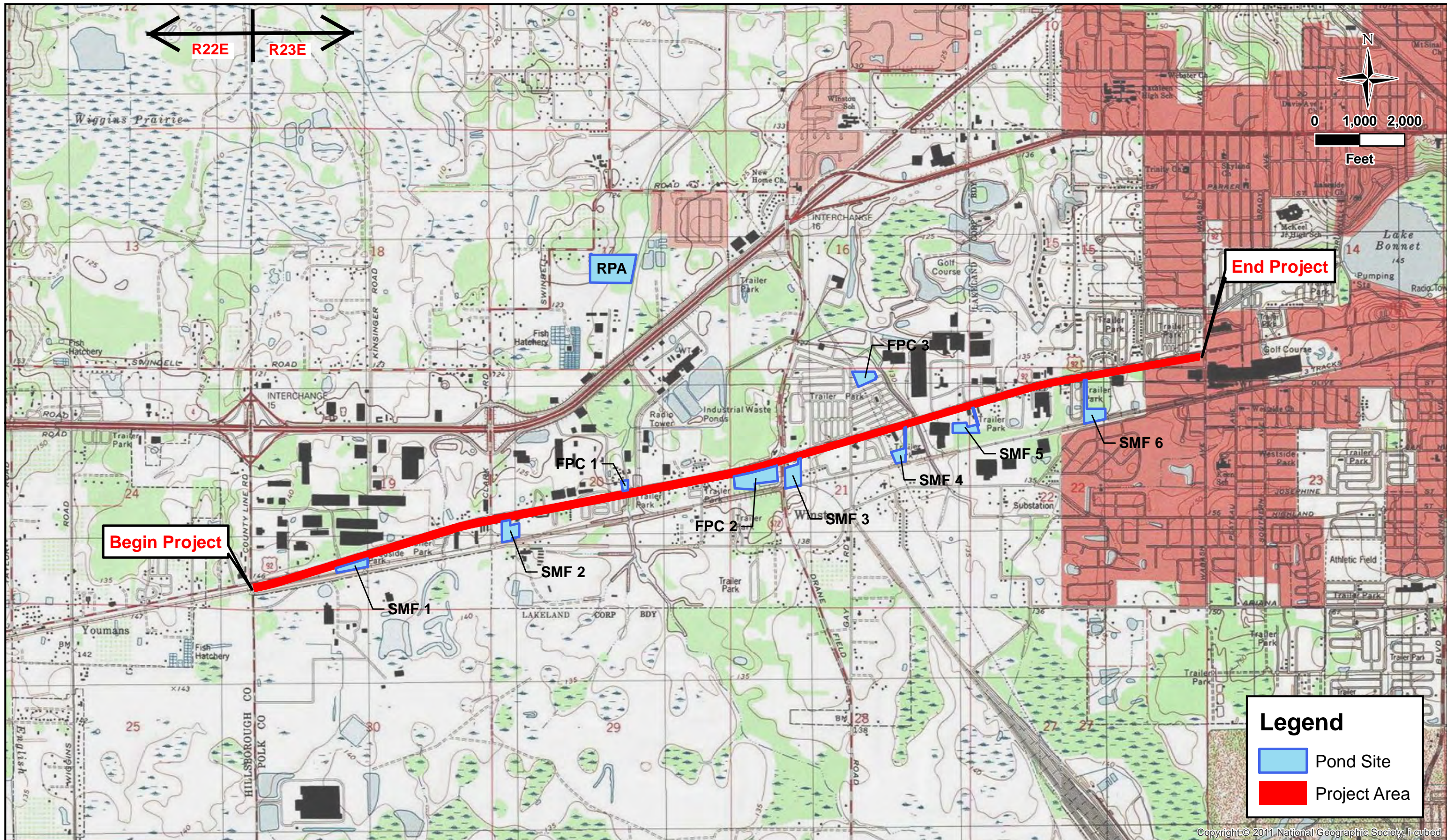


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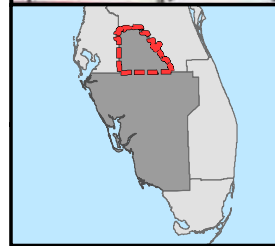
US 92 PD&E Study
From County Line Road to Wabash Avenue
Polk County, Florida
FPID Number: 433558-1-22-01

Project Location Map

Figure 1
Appendix 1-Page 1



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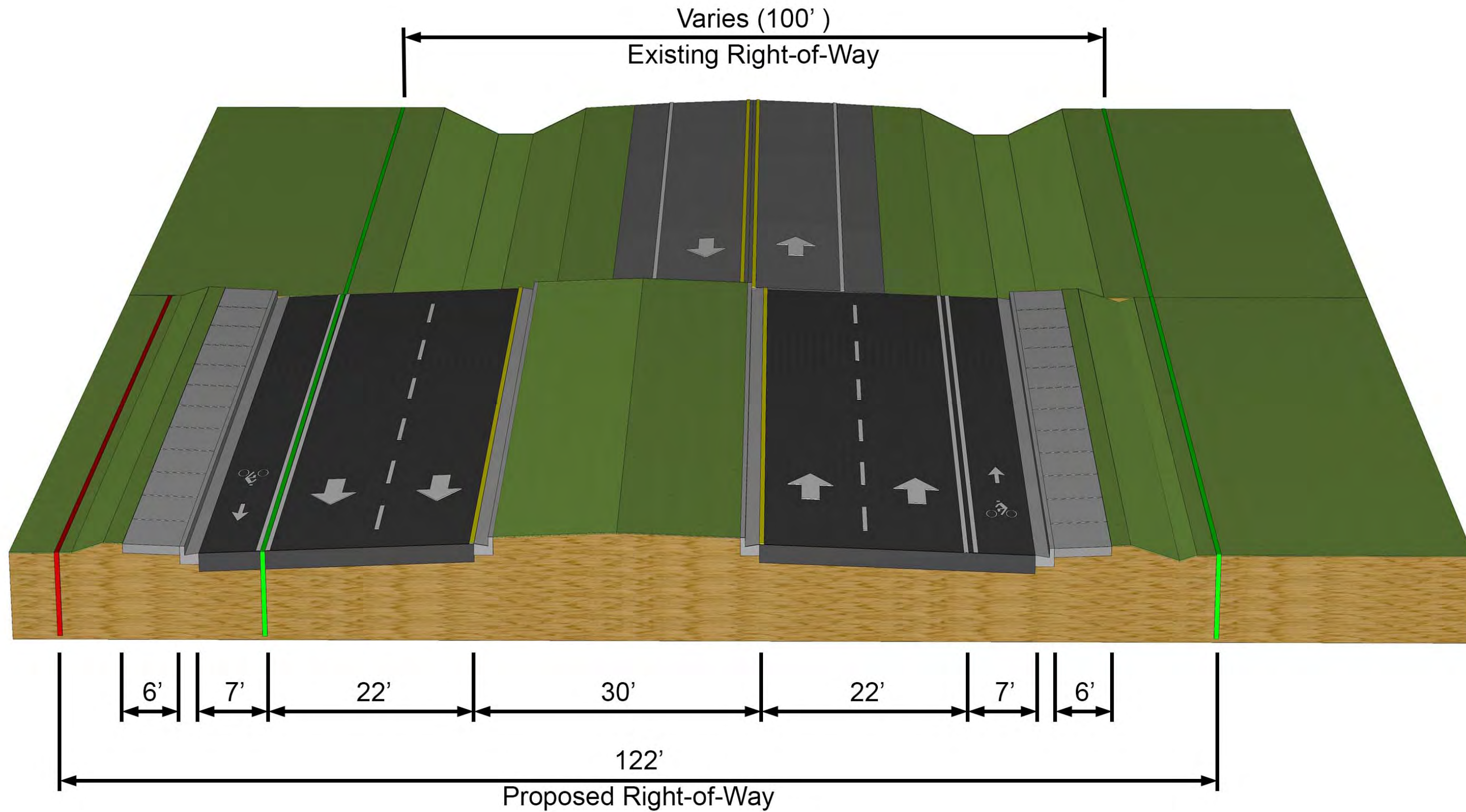
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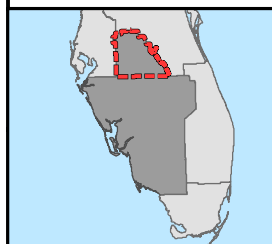
USGS Quadrangle Map

Figure 2

Appendix 1-Page 2



US 92

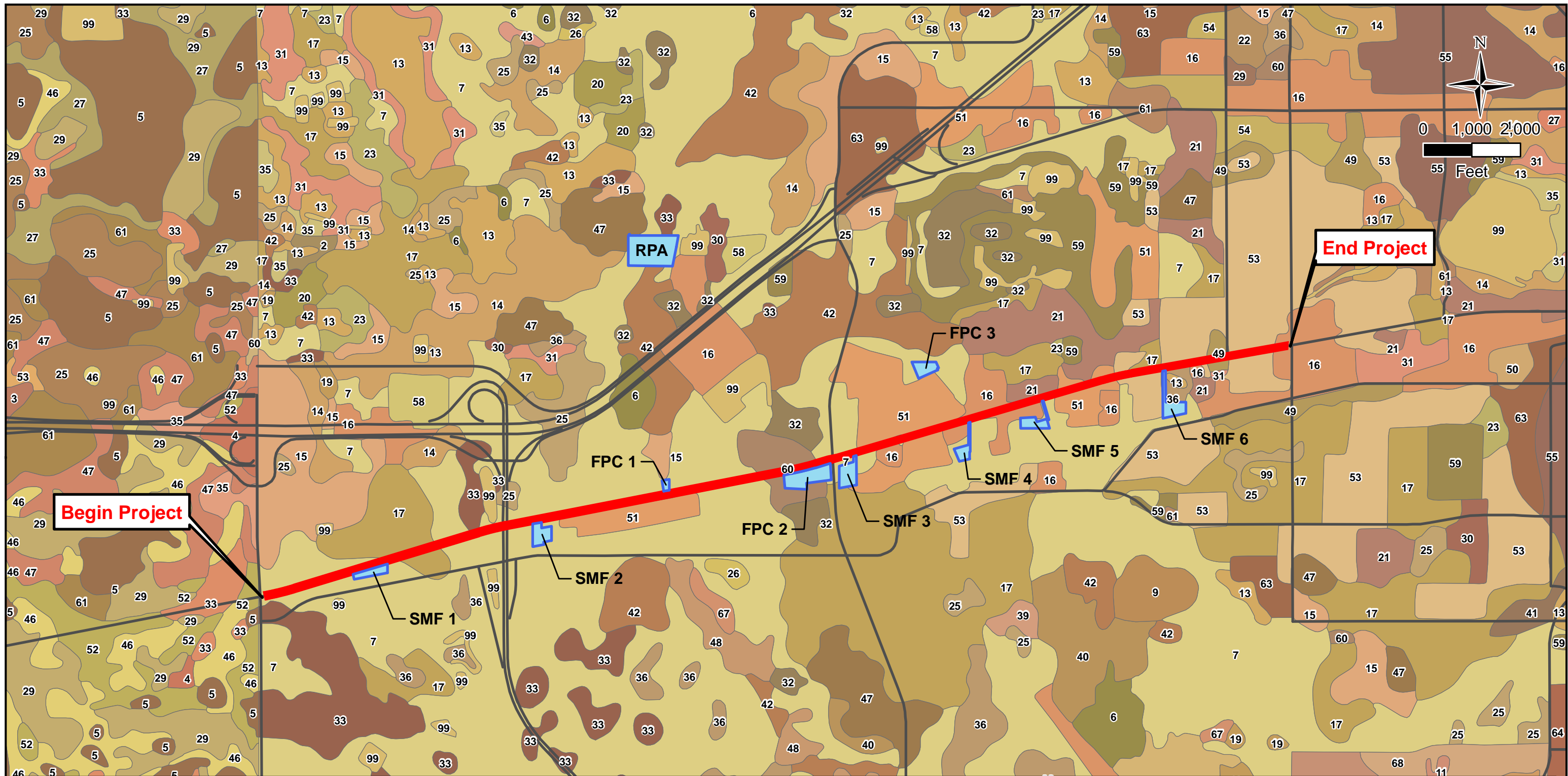


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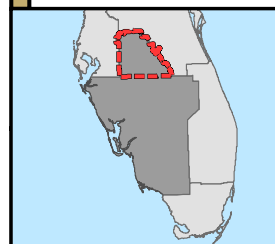
Typical Sections

Figure 3

Appendix 1-Page 3



Legend				
5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL	17: SMYRNA AND MYAKKA FINE SANDS	32: KALIGA MUCK	46: ST. JOHNS FINE SAND	53: MYAKKA-IMMOKOLEE-URBAN LAND COMPLEX
7: POMONA FINE SAND	21: IMMOKALEE SAND	33: HOLOPAW FINE SAND, DEPRESSIONAL	47: SEFFNER FINE SAND	59: ARENTS-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES
13: SAMSULA MUCK	23: ONA FINE SAND	33: ONA FINE SAND	49: ADAMSVILLE-URBAN LAND COMPLEX	60: ARENTS, SANDY
15: TAVARES FINE SAND, 0 TO 5 PERCENT SLOPES	25: PLACID AND MYAKKA FINE SANDS, DEPRESSIONAL	35: ORLANDO FINE SAND, 0 TO 5 PERCENT SLOPES	51: POMONA-URBAN LAND COMPLEX	99: WATER
16: URBAN LAND	31: ADAMSVILLE FINE SAND	36: BASINGER MUCKY FINE SAND, DEPRESSIONAL	52: SMYRNA FINE SAND	



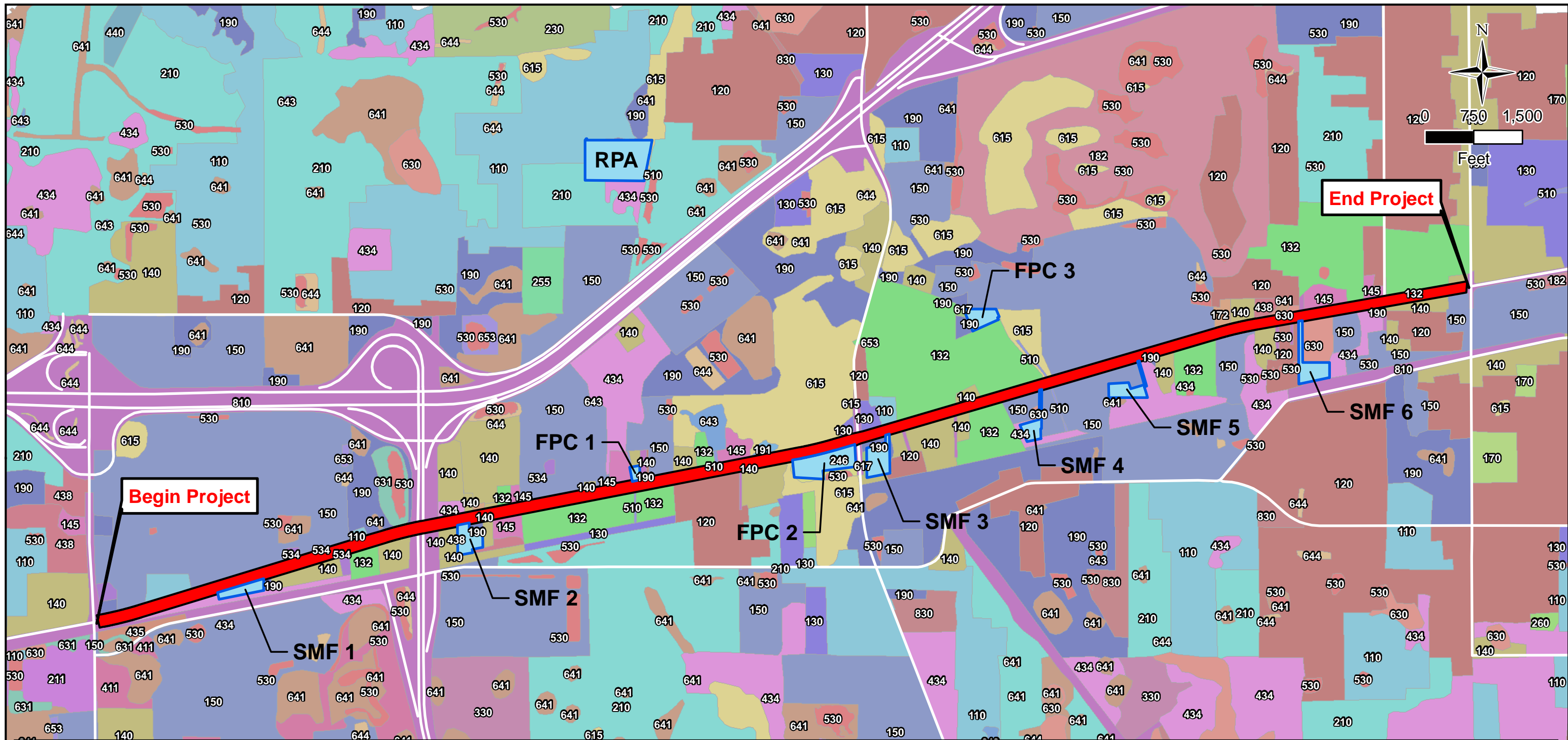
FDOT Florida Department of Transportation
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US 92 PD&E Study
From County Line Road to Wabash Avenue
Polk County, Florida
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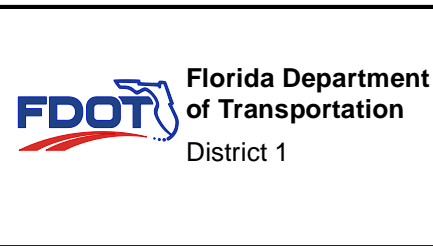
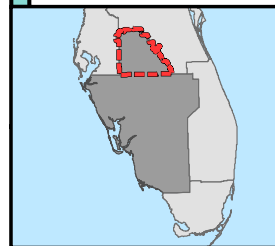
NRCS Soils Map

Figure 4
Appendix 1-Page 4

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Legend			
110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS	170: INSTITUTIONAL	246: TIMBER NURSERY	438: MIXED HARDWOODS
120: RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT	172: RELIGIOUS	255: TROPICAL FISH FARMS	440: TREE PLANTATIONS
130: RESIDENTIAL HIGH DENSITY	182: GOLF COURSES	260: OTHER OPEN LANDS <RURAL>	510: STREAMS AND WATERWAYS
132: MOBILE HOME UNITS	190: OPEN LAND	320: SHRUB AND BRUSHLAND	530: RESERVOIRS
140: COMMERCIAL AND SERVICES	191: UNDEVELOPED LAND WITHIN URBAN AREAS	330: MIXED RANGELAND	534: RESERVOIRS LESS THAN 10 ACRES
145: TOURIST SERVICES	210: CROPLAND AND PASTURELAND	411: PINE FLATWOODS	615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
150: INDUSTRIAL	211: IMPROVED PASTURES	434: HARDWOOD CONIFER MIXED	617: MIXED WETLAND HARDWOODS
165: RECLAIMED LAND	230: FEEDING OPERATIONS	435: MIXED HARDWOODS	621: CYPRESS
			630: WETLAND FORESTED MIXED
			631: WETLAND SCRUB
			641: FRESHWATER MARSHES
			643: WET PRAIRIES
			644: EMERGENT AQUATIC VEGETATION
			653: INTERMITTENT PONDS
			810: TRANSPORTATION
			830: UTILITIES



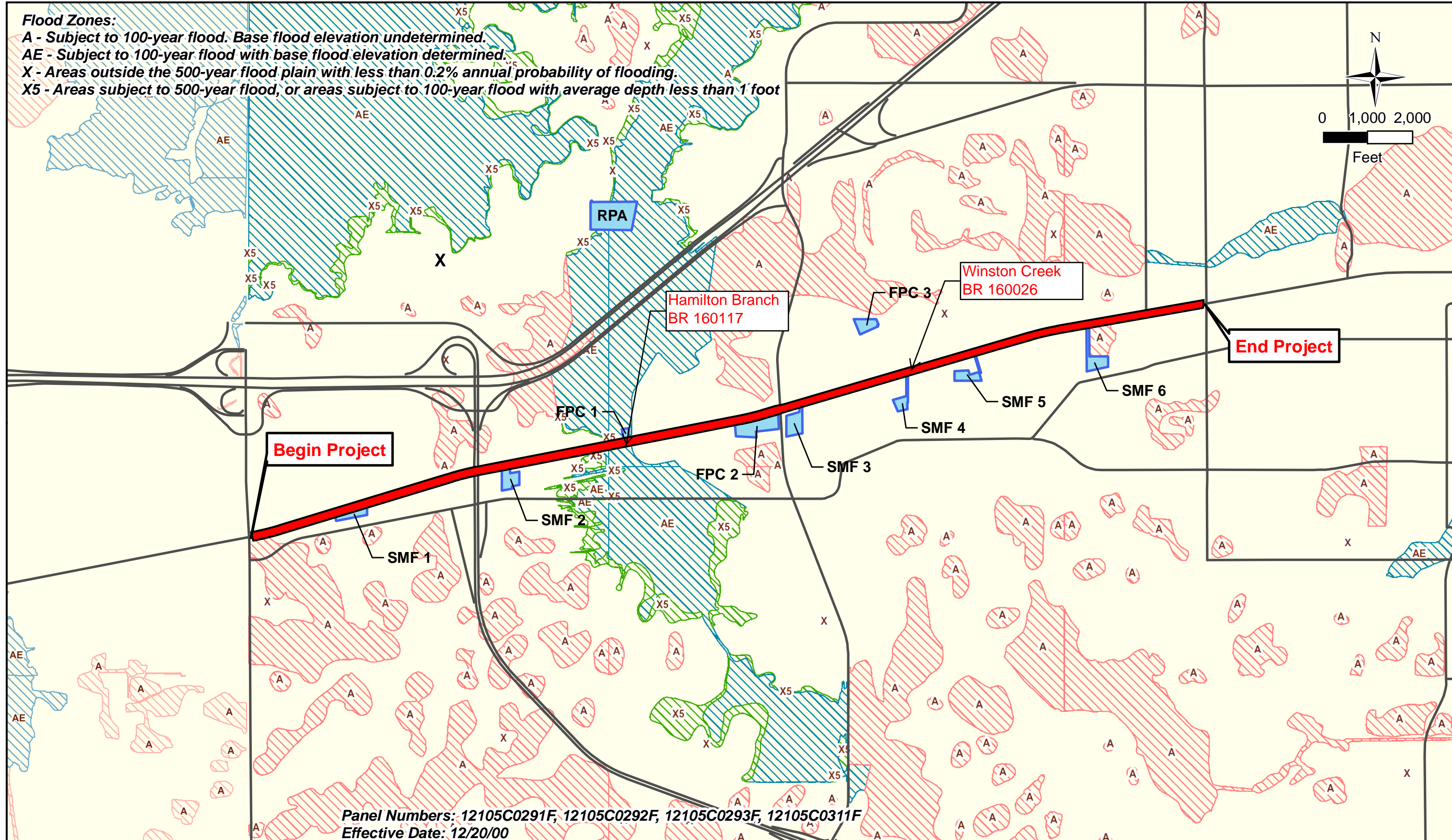
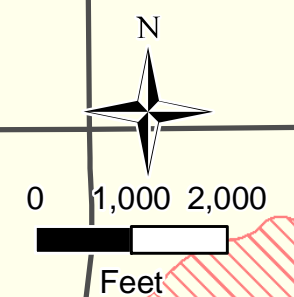
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Existing Land Use Map

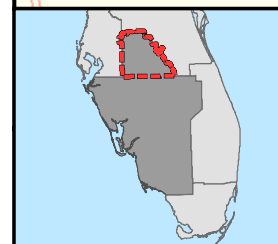
Figure 5

Appendix 1-Page 5

Flood Zones:
A - Subject to 100-year flood. Base flood elevation undetermined.
AE - Subject to 100-year flood with base flood elevation determined.
X - Areas outside the 500-year flood plain with less than 0.2% annual probability of flooding.
X5 - Areas subject to 500-year flood, or areas subject to 100-year flood with average depth less than 1 foot



Panel Numbers: 12105C0291F, 12105C0292F, 12105C0293F, 12105C0311F
 Effective Date: 12/20/00



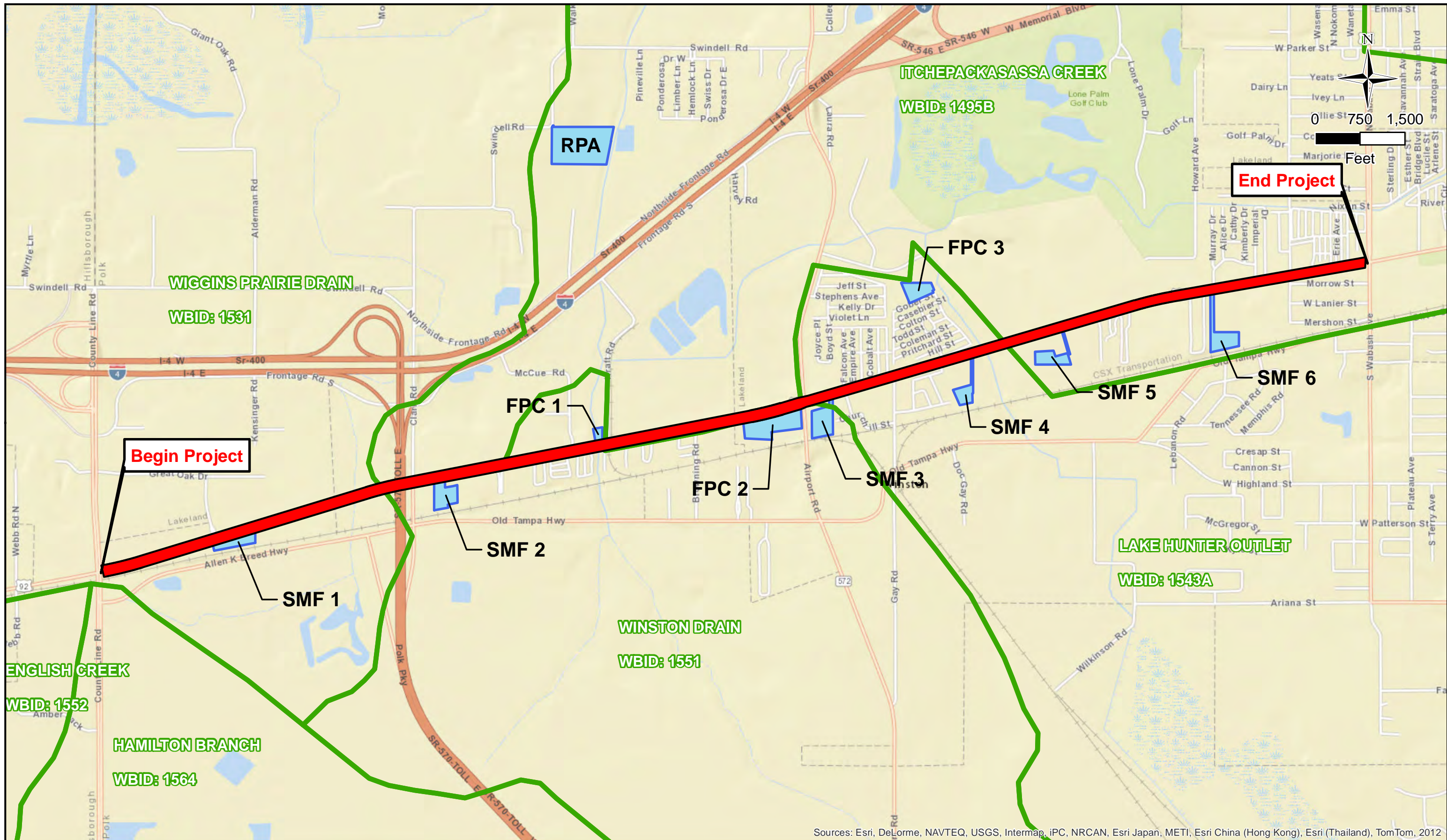
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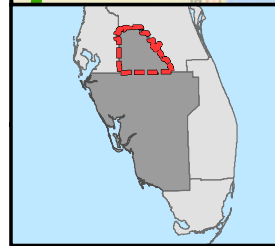
FEMA Firm Map

Figure 6
 Appendix 1-Page 6

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Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012



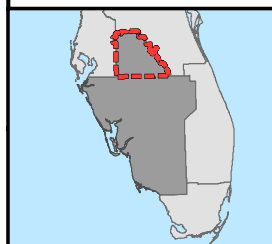
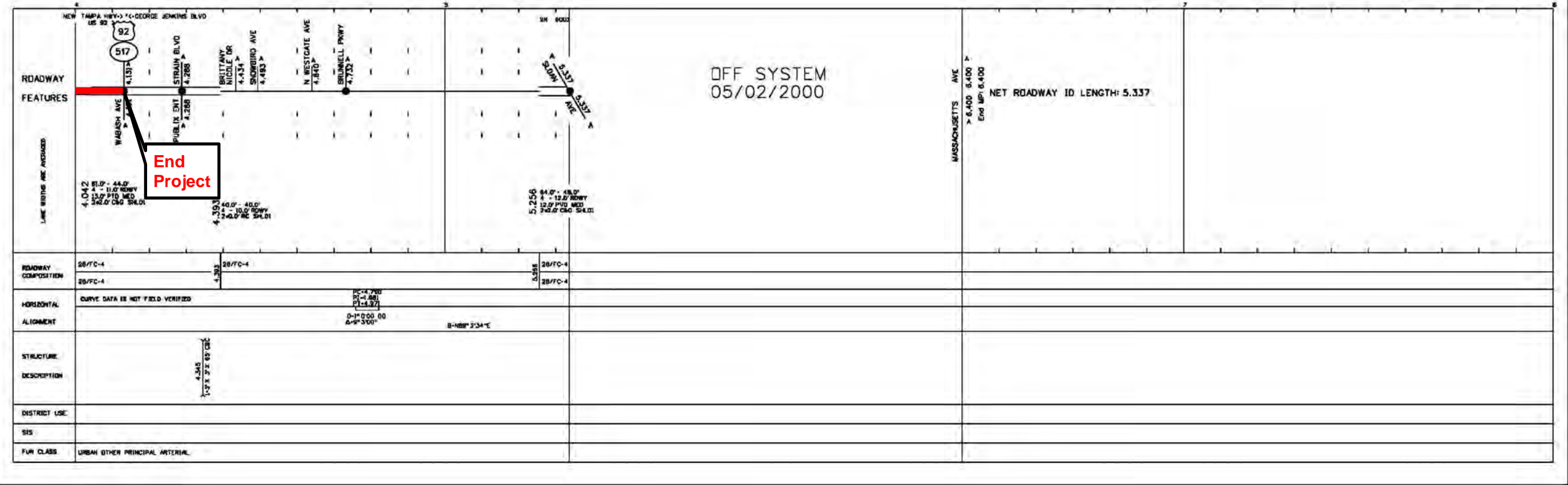
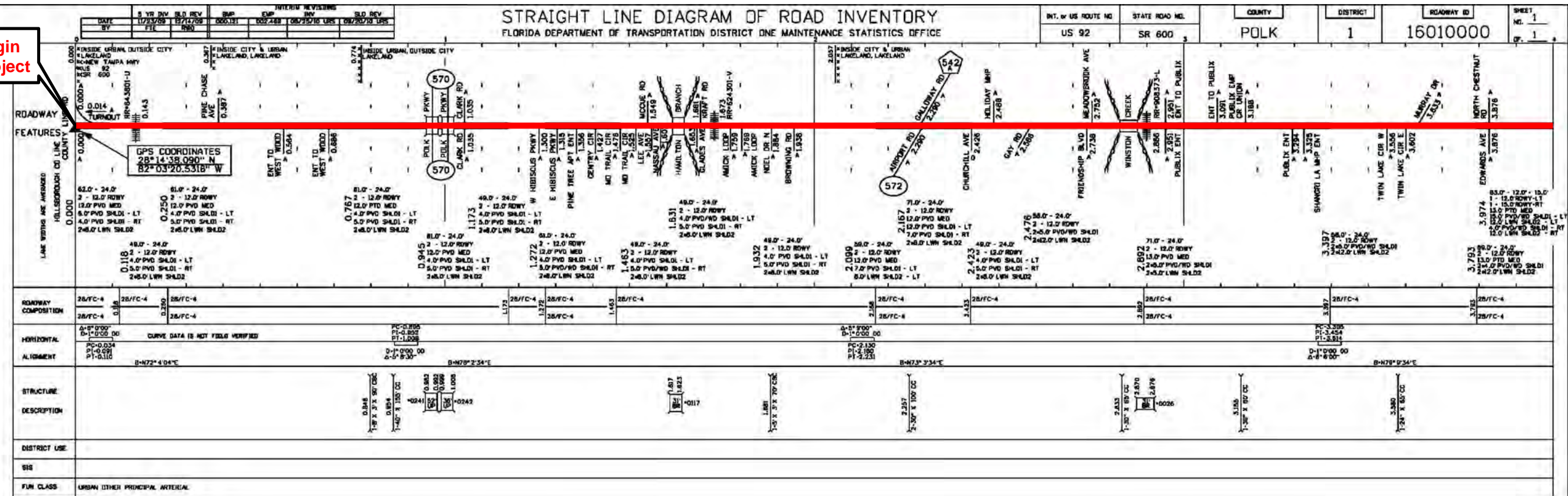
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Overall Basin/Watershed Map

Figure 7
Appendix 1-Page 7

Begin Project



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APPENDIX 2
CORRESPONDENCE



MEETING NOTES
Drainage Kickoff Meeting
US 92 PD&E Study: County Line Road to Wabash Avenue
Polk County
Financial Project No.: 433558-1-22-01

Date: May 27, 2014

Attendees:

Carl Spirio, FDOT
Tony Sherrard, FDOT
Bill Hartmann, FDOT
Erik Fleming, AIM

Curt Sprunger, KCA
Tara Spieler, KCA
Mark Easley, KCA

Handouts:

Agenda
Typical Sections
Impaired Waterbody map
Aerial with potential SMF and FPC locations

A drainage kick-off meeting was held at the FDOT District One office in Bartow beginning at 1:30 PM. A copy of the agenda, alternative typical sections, impaired waterbody map, aerial with potential Stormwater Management Facilities (SMF) and Floodplain Compensation Sites (FPC) sites and the sign in sheet are included at the end of the meeting minutes. Below is a summary of the discussion.

- AIM provided a brief overview of the project location (US 92 from County Line Road to Wabash Avenue). The project is divided in two Sections. Section 1 includes US 92 from County Line Road to Airport Road where the posted speed limit is 55 mph. The second section includes US 92 from Airport Road to Wabash Avenue where the posted speed is 45 mph. The average speed is around 50 mph for both sections. There are several typical sections that include both urban and suburban options. The FDOT is currently looking at R/W cost estimates for each typical section and alignment.
- KCA stated that the project is located within the Itchepackesassa Creek Watershed. All roadway basins are “Open”. Due to the high water table, the base clearance requirement may need to be reduced from 3 feet to 2 feet if a suburban section is used.
- There is one existing Turnpike pond located just west of the Polk Parkway and north of US 92 that treats a small section of US 92. The existing wet detention pond includes a littoral shelf and a slurry wall and was sized for future expansion of the Polk Parkway. This



pond will not be considered as an alternative site for the PD&E study. However, Carl asked KCA to see if using the unused infield areas as ponds or a regional pond site at I-4 and the Polk Parkway interchange is viable.

- The roadway drains through roadside ditches to the eight (8) existing crossdrains within the project limits. Each of the crossdrains will be evaluated as part of the Location Hydraulic Report (LHR). There are also two flat slab bridges within the project limits, one at Hamilton Branch and one at Winston Creek. They were both built in 1926 and will be replaced. Carl asked KCA to determine if the bridges could be replaced as box culverts.
- The project includes areas of impact to the FEMA floodplain. KCA is using the latest model from SWFWMD to evaluate the floodplain impacts along US 92. KCA is checking with SWFWMD if this model has been approved.
- The project from County Line Road to the Polk Parkway is not impaired. However, the rest of the project is included within impaired waterbodies including Itchepackesassa Creek (1495B) and Lake Hunter Outfall (1543A). Pollutant loading analyses is required for Basins 3, 4 and 5.
- There are nine drainage basins along US 92. KCA is looking at combining drainage basins, so there are only five or six pond sites. Some of the ponds may require a liner to lower the SHW at the site due to the proposed low edge of pavement. There is one alternative pond site per basin along with a regional site. Due to the revised floodplain model, KCA is looking at three floodplain compensation sites for the project. Polk County recently constructed a regional stormwater treatment pond north of I-4 that treats the water from Winston Creek and Itchepackesassa Creeks. KCA will look at a regional site prior to the Polk County treatment pond.
- Carl asked KCA to look into the potential SMF and FPC sites that are on vacant land to determine if there was any previous issues with the property such as contamination or permitted pond sites. Bill mentioned that the 1929 NRCS aerials are useful. Mark said he had a copy of them. KCA will look at old aerials of the properties along with SWFWMD permits.
- There are no Outstanding Florida Waters (OFW) in the project limits, therefore, the required treatment volume will follow the guidelines set forth by the SWFWMD: 1” of runoff over the Directly Connected Impervious Area (DCIA) for Wet Detention ponds and 0.5” of runoff over the DCIA for Dry retention ponds. The ponds will also be sized to attenuate the difference in pre-development and post-development runoff volume for the 25yr/24hr storm event. KCA asked for a pre-application meeting with SWFWMD to document the above requirements. Carl stated that the next FDOT meeting with SWFWMD is on June 4th and KCA could attend that meeting. KCA is to send an e-mail to Carl requesting that meeting date.
- Carl stated that improvements are proposed along Wabash and extend along US 92 about 800 to 1000 feet. Erik mentioned there are also improvements proposed at US 92 and Airport and US 92 and County Line Road. AIM will be coordinating the design with these other proposed projects.
- KCA stated that the Draft Pond Siting report is scheduled to be submitted on September 5, 2014.



US 92 PD&E Study FDOT Drainage

Methodology Meeting

From County Line Road to Wabash
Polk County

Tuesday, May 27, 2014

1:30 PM

SIGN-IN SHEET

Name	Initials	Business or Group	E-mail	Phone
Carl Spirio	C.D.S.	FDOT	Carlton.Spirio@dot.state.fl.us	863-519-2497
Brent Setchell		FDOT	Brent.Setchell@dot.state.fl.us	863-519-2557
Tony Sherrard	TS	FDOT	Antone.Sherrard@dot.state.fl.us	863-519-2304
Bill Hartmann	WH	FDOT	William.Hartmann@dot.state.fl.us	863-519-2293
Erik Fleming	EF	AIM	efleming@aimengr.com	813-627-4144
Mark Easley	ME	KCA	Mark.Easley@kisingercampo.com	813-871-5331
Curt Sprunger	CS	KCA	Curtis.Sprunger@kisingercampo.com	813-871-5331
Tara Spieler	TS	KCA	Tara.Spieler@kisingercampo.com	813-871-5331



US 92 PD&E Study

from County Line Road to Wabash Avenue

FDOT DRAINAGE Kickoff Meeting Agenda

May 27, 2014

1) Project Overview

- a) Segment 1 from County Line Road to Airport Road (Posted 55 mph)
- b) Segment 2 from Airport Road to Wabash (Posted 45 mph)
- c) Widening from two lane rural to four lane suburban or urban
- d) Three alternative alignments (North, South and Center Widening)
- e) Typical section alternatives
 - i) Urban, 110' and 120' right-of-way, design speed 45 mph
 - ii) Suburban, 140' right-of-way, design speed 50 mph
 - iii) Suburban, 152' right-of-way, design speed 55 mph (Segment 1 only)

2) Existing Drainage (Open basin)

- a) Itchepackesassa Creek Watershed
- b) Existing stormwater pond at Polk Parkway (97160-3306)
- c) 8 existing cross drains
- d) Bridge over Hamilton Branch (BR 160117) & Winston Creek (BR 160026), Built 1926
- e) Floodplain impacts
 - i) FEMA Floodway at Hamilton Branch
 - ii) Obtained Itchepackesassa Creek Model from SWFWMD (5/14)
- f) WBID Identification
 - i) 1459B Itchepackesassa Creek – Impaired for dissolved oxygen, nutrients, fecal coliform
 - ii) 1534A Lake Hunter Outlet – Impaired for dissolved oxygen

3) Proposed Drainage Approach

- a) 5 drainage basins
- b) Pond Siting Report
 - i) Evaluate one (1) viable pond site per basin + regional site
 - ii) Submit Draft report to FDOT on September 5, 2014
- c) Criteria for Pond Sizing
 - i) SWFWMD
 - (1) No OFW
 - (a) Design ponds for 4-lanes
 - (b) 0.5" of runoff over DCIA (Dry Retention)
 - (c) 1" of runoff over DCIA (Wet Detention)
 - (d) Pre vs. Post attenuation (25 year/ 24 hour)
 - (e) Pollutant loading analysis
 - ii) FDOT
 - (1) No critical duration
 - (2) Co-mingle onsite and offsite water
 - (3) Combine basins
- d) Location Hydraulics Report
 - i) Crossdrains and bridges
 - ii) Floodplains

4) Potential Permits

- a) SWFWMD - ERP
- b) United States Army Corps of Engineers – 404 Dredge and Fill
- c) FDEP/SWFWMD – Sovereign Submerged Lands Easement

5) Action Items

- a) Schedule a SWFWMD Pre-application meeting

Segment 1

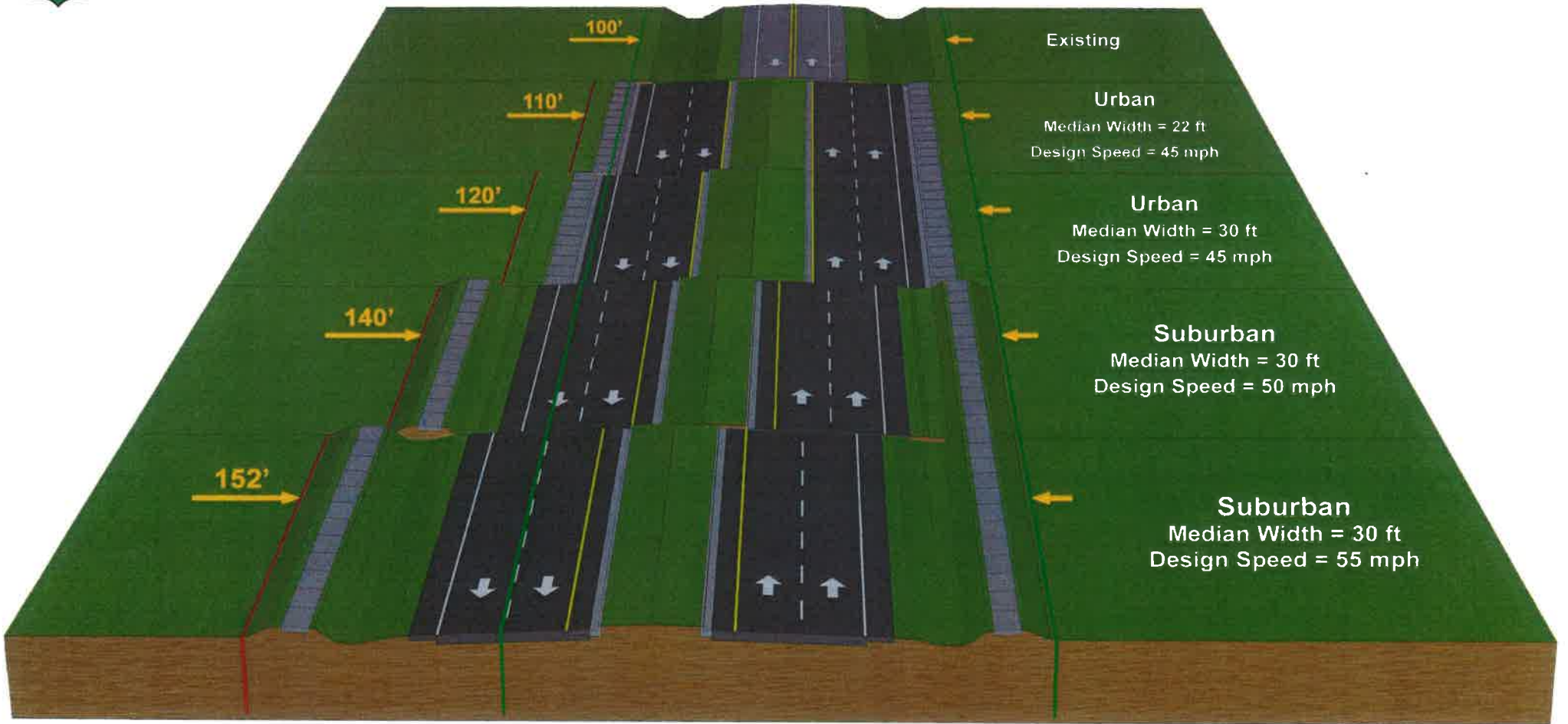


US 92 (New Tampa Highway)

from County Line Road to Wabash Avenue
Polk County

RIGHT-OF-WAY WIDTH

TYPICAL SECTION
(CONCEPT NAME)



Segment 2

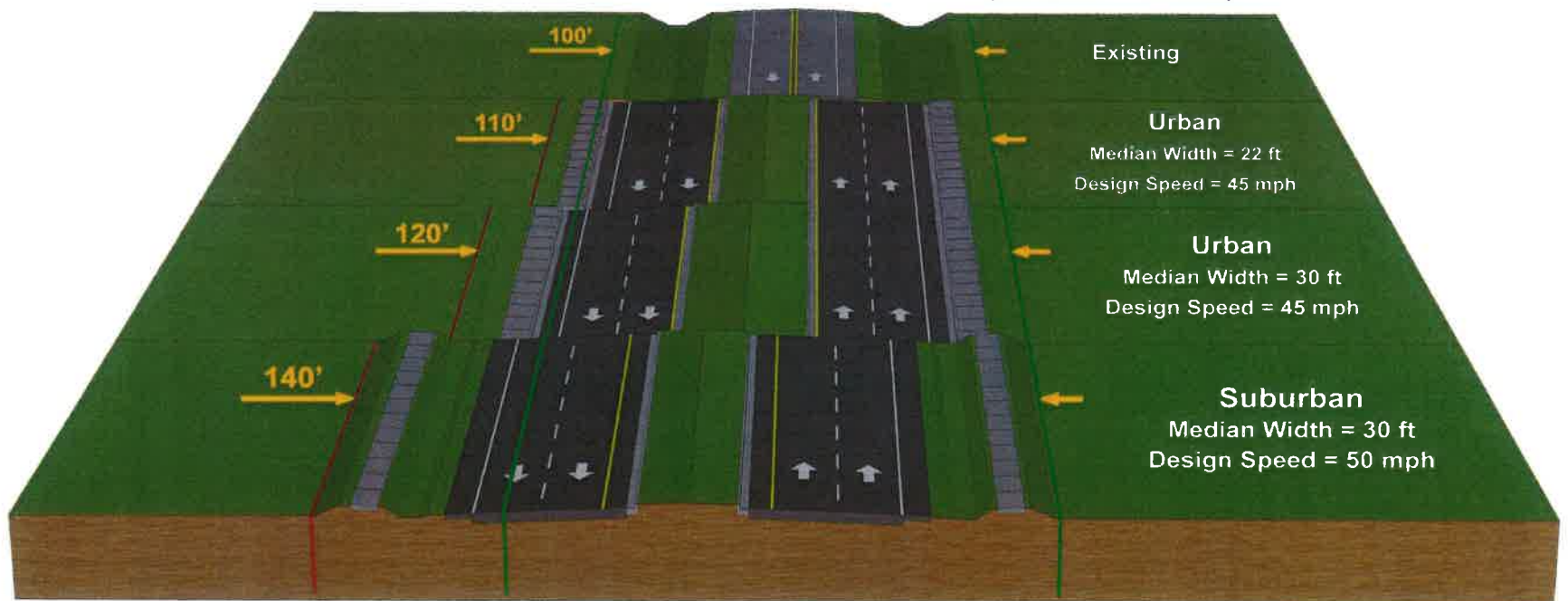


US 92 (New Tampa Highway)

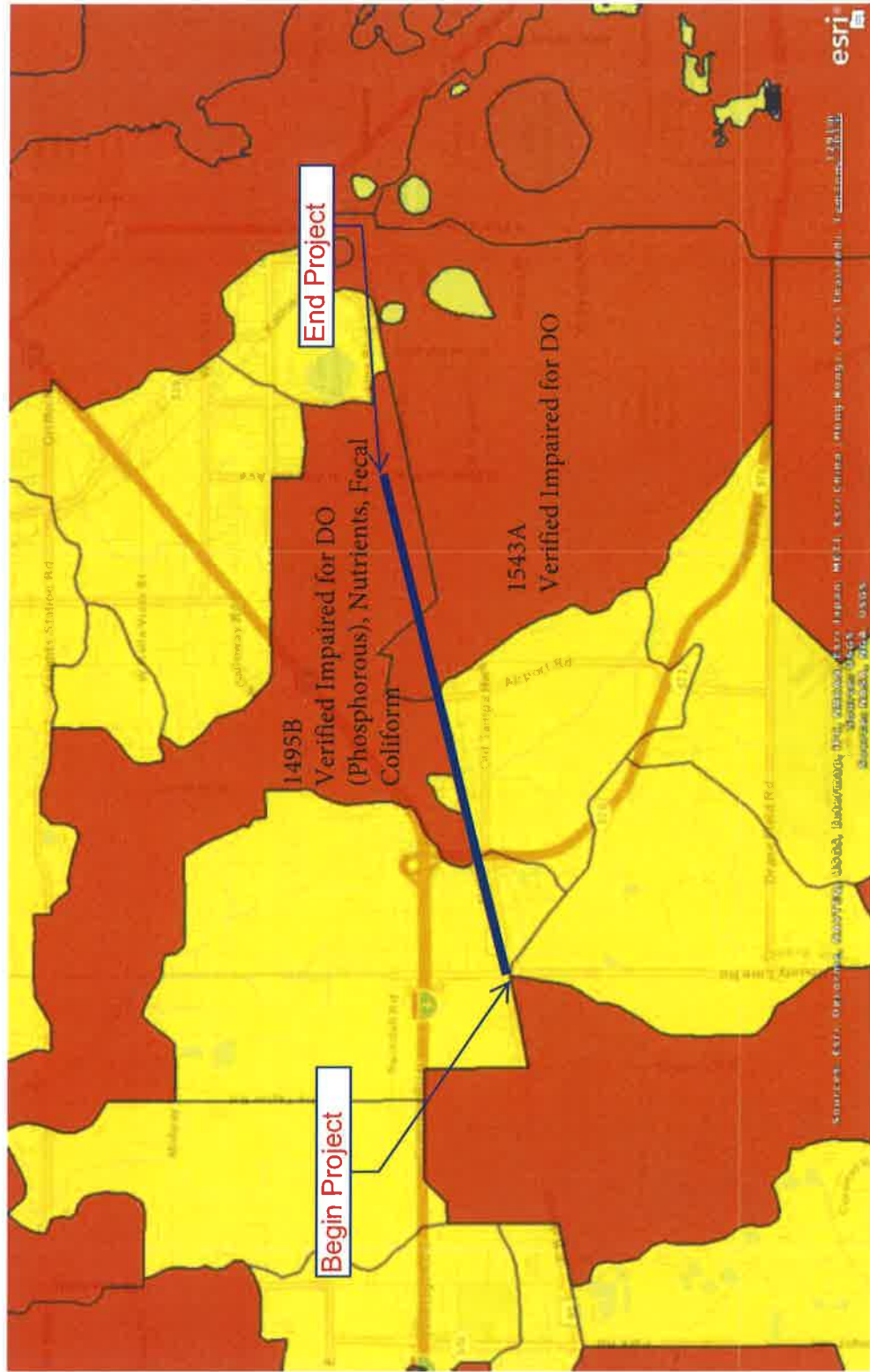
from County Line Road to Wabash Avenue
Polk County

RIGHT-OF-WAY WIDTH

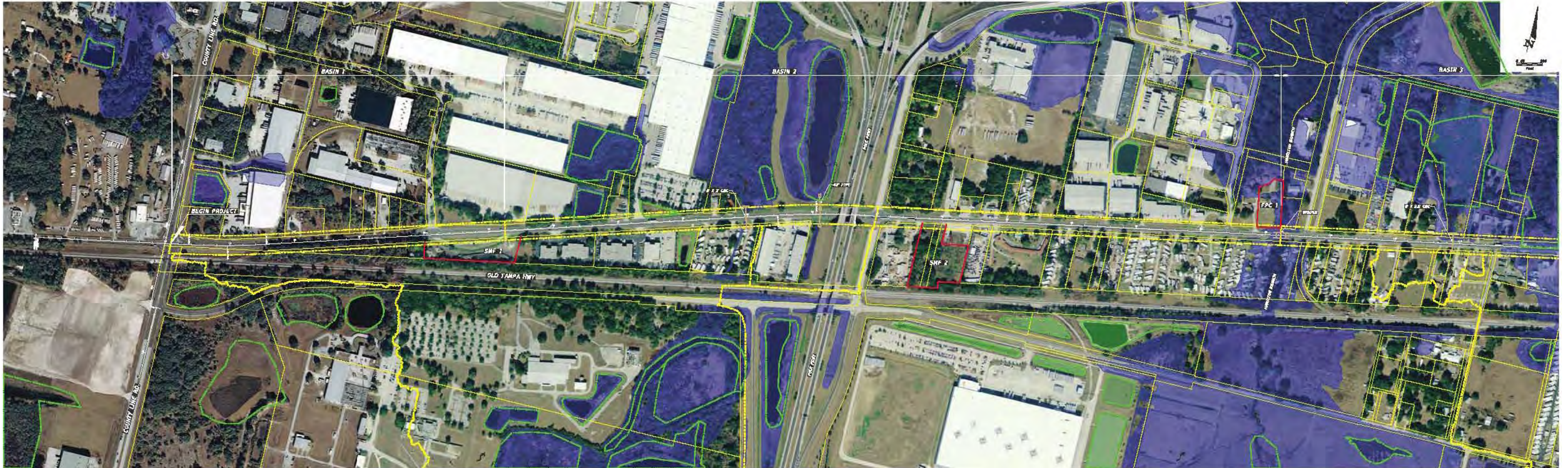
TYPICAL SECTION
(CONCEPT NAME)



IMPAIRED WATERBODY MAP



US 92 PD&E COUNTY LINE ROAD TO WABASH AVENUE (FPID: 433558-1-22-01)





MEETING NOTES
SWFWMD Coordination Meeting
US 92 PD&E Study: County Line Road to Wabash Avenue
Polk County
Financial Project No.: 433558-1-22-01

Date: June 4, 2014

Attendees:

David Kramer, SWFWMD
Michelle Hopkins, SWFWMD
Al Gagne, SWFWMD
Brent Setchell, FDOT

Rob Bullinger, FDOT
Curt Sprunger, KCA
Mark Easley, KCA

Attachment:

Aerial with potential SMF and FPC locations

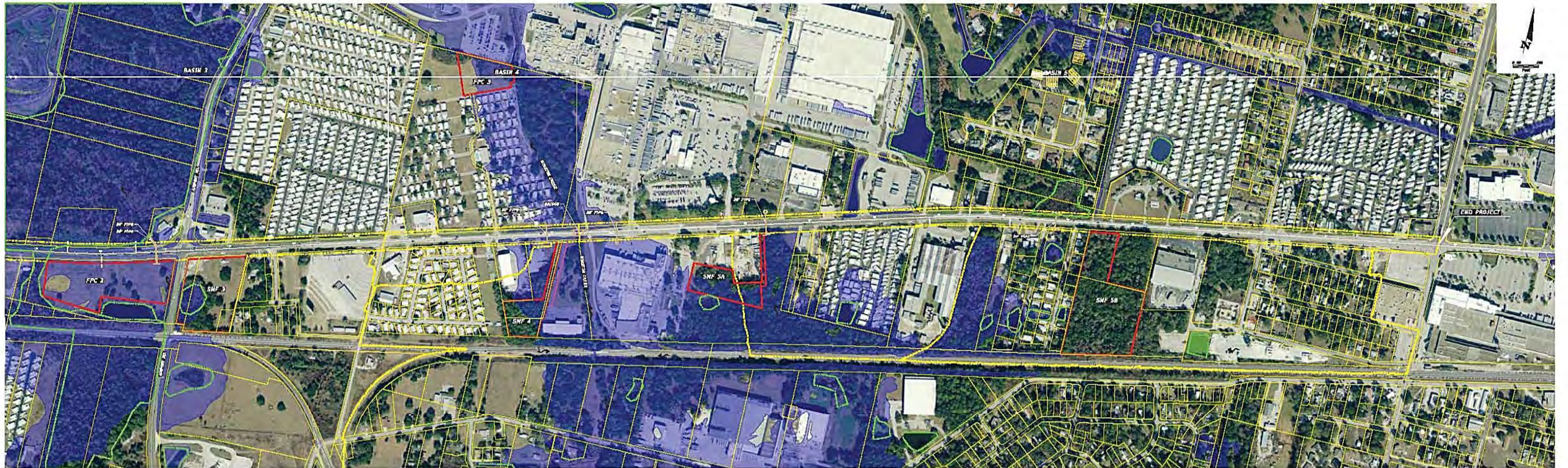
A project coordination meeting was held at the Southwest Florida Water Management office in Tampa beginning at 2:00 PM. Below is a summary of the discussion.

- KCA provided a brief overview of the project location (US 92 from County Line Road to Wabash Avenue). The project is divided in two Sections. Section 1 includes US 92 from County Line Road to Airport Road where the posted speed limit is 55 mph. The second section includes US 92 from Airport Road to Wabash Avenue where the posted speed is 45 mph. The average speed is around 50 mph for both sections. There are several typical sections being assessed as part of the study, including both urban and suburban options. The FDOT is currently looking at R/W cost estimates for each typical section and alignment.
- There are nine drainage basins along US 92. KCA is looking at combining drainage basins, so there are only five or six pond sites. This proposed PD&E involves reconstruction of the existing roadway and will require treatment of all Directly Connected Impervious Area (DCIA). The required treatment volume will follow the guidelines set forth by the SWFWMD: 1" of runoff over the DCIA for Wet Detention ponds and 0.5" of runoff over the DCIA for Dry retention ponds. There are no Outstanding Florida Waters (OFW) in the project limits. All drainage basins are "open" basins. Water quantity requirements will be as follows: *The allowable discharge is the historic discharge, which is the peak rate at which runoff leaves a parcel of land by gravity under existing site conditions, computed using the Southwest Florida Water Management District's 24-hour, 25-year rainfall maps and the Natural Resources Conservation Service type II Florida Modified 24-hour rainfall distribution with an antecedent moisture condition II.*



- The project segment from County Line Road to the Polk Parkway is not impaired. However, the rest of the project is impaired and includes Itchepackesassa Creek (1495B) and Lake Hunter Outfall (1543A). Pollutant loading analyses is required for Basins 3, 4 and 5. Dave Kramer mentioned that allowing untreated offsite to be treated in the stormwater ponds would help meet impaired waterbody net improvement.
- The project includes areas of impact to the FEMA floodplain. KCA is using the latest “draft” Itchepackesassa Creek model from SWFWMD to evaluate the floodplain impacts along US 92. KCA has contacted the SWFWMD project manager for the Itchepackesassa watershed study, Dawn Turner, to get a status update on the model’s progress. Dawn informed KCA the model is in draft status and the project was terminated due to lack of funds to address the extensive peer review comments. She did state the model results aligned fairly well with the verification event. Brent Setchell agreed with the use of the Itchepackesassa Creek model in the PD&E phase assessment of floodplain impacts. During the design phase, additional data and/or model updates will need to be explored.
- Mark Easley stated that only minor wetland impacts are expected. The project is located in the Hillsborough River Basin and mitigation may be accomplished at the North Tampa or Hillsborough River mitigation banks, assuming the appropriate type of credits are available.

US 92 PD&E COUNTY LINE ROAD TO WABASH AVENUE (FPID: 433558-1-22-01)





TELEPHONE CONVERSATION RECORD

DATE: 7-8-13 **TIME:** 4:30 pm

CONTACT PERSON : Curtis Porterfield
Stormwater Manager
City of Lakeland

COMPANY: 407 Fairway Ave
Lakeland, FL 33801

TELEPHONE/FAX NO: 863-834-8439

RE: Drainage Problems/ Flooding Issues

KCA PROJECT No: US 92 Presentation

cc: file

SUBJECT MATTER:

I contacted the City of Lakeland Stormwater Department to determine if there has been any flooding or drainage problems along US 92 from County Line Road (MP 0.000) to Wabash Avenue (MP 4.131). This project is located in Polk County. He stated to call Robert Chen at 863-834-6031 Public Works Engineering to any detailed information on the pipes and recent work in that area. I called Robert Chen; he stated that he had not heard of any drainage or flooding issues west of Wabash just a problem east of Wabash across from the Public Golf Course. He said I should contact Mike Whigham at 863-834-3301 since he is in Construction& Maintenance and would get any complaints in that area. I called Mike Whigham he said he knew a lot about the drainage in this area since he had worked previously for Polk County drainage for 20 years before moving to the City of Lakeland. This area has a high groundwater table and the area from Clark Road to the east drains North up to I-4. This area contains a major drainage outlet from the City of Lakeland that flows North up to I-4 and then into Itchepackesassa Creek. There is flooding on the south side of US 92 from Chestnut Road to Wabash. Near Twin Lakes Circle, the woods (wetlands) on both sides of the roadway have risen to the edge of the pavement during heavy rains, but have not overtopped US 92. Just east of Meadowbrook, US 92 almost flooded at the bridge (#160026), and water did flood Gober Street in the mobile home park to the west. There have also been issues between McCue Road and Kraft Road, north of US 92. Kraft Road and the RR trestle were under water and the building at the adjacent fertilizer plant had 1 foot of water in it. This area overtopped I-4 (in the 1990's). Polk County has done several studies on Itchepackesassa Creek. Mike said to call back if we have any more questions.



TELEPHONE CONVERSATION RECORD

DATE: 10-27-14 **TIME:** 10:50 am

CONTACT PERSON : Dennis Murray
Bartow Operations

COMPANY: FDOT D-1
Bartow Operations Center
2740 State Rd. 60 West
Bartow, FL 33830

TELEPHONE/FAX NO: 863-519-4108

RE: SMF 1 Site Current Usage by FDOT Maint.

KCA PROJECT No: US 92 PD&E PSR

cc: file

SUBJECT MATTER:

I contacted Dennis Murray of FDOT District 1 Maintenance regarding the maintenance departments current usage of the abandoned weigh station parcel located at the SMF 1 pond site. Mr. Murray stated the maintenance department currently uses the parcel in question on an as-needed basis depending on where they are working in the district. I mentioned to Mr. Murray that this FDOT owned parcel is the only undeveloped parcel large enough to use for stormwater management within this basin. Mr. Murray said this “pit” was important to the maintenance department when working in this area and it would be his preference that they not lose the site. I stated that since the project would require right of way for the road widening and stormwater management, another remnant could potentially become available during the construction phase of this project which could be used by the maintenance department in exchange for the SMF 1 parcel.

APPENDIX 3

POND CALCULATIONS & EXHIBITS

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 1 / SMF 1	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 10+40
 To STA.= 64+95
 R/W Width = 122 ft

R/W Area = 15.28 ac
 SMF Area = 1.41 ac
 Basin Area = 16.69 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Smyrna and Myakka fine sands (17)	A/D	80	11.75	939.84
Impervious (Asphalt)	N/A		98	3.53	345.94
SMF Site	Pomona fine sand (7)	A/D	80	1.41	112.80
TOTALS				16.69	1398.58

COMPOSITE CN =	83.8
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR
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1) DETERMINE SOIL STORAGE - S S= (1000/CN) - 10	SOIL STORAGE (inches)	S	1.93
2) DETERMINE RUNOFF - R R= (7.5-0.2*S) ² / (7.5+0.8*S)	RUNOFF (inches)	R	5.59
3) DETERMINE RUNOFF VOLUME- V(R) V(R)= R/12*AREA	RUNOFF (Ac-ft.)	V(R)	7.78

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 1 / SMF 1	
BASIN ANALYSIS (PRE/POST)	Post	

From STA.= 10+40
 To STA.= 42+00
 R/W Width = 122 ft

R/W Area = 8.85 ac
 *SMF Area = 1.41 ac
 Basin Area = 10.26 ac

*SMF Area including tie-downs = 2.35 AC

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Smyrna and Myakka fine sands (17)	A/D	80	3.01	240.84
Impervious (Asphalt)	N/A		98	5.84	572.30
SMF Site (Berm)	Pomona fine sand (7)	A/D	80	0.69	55.20
SMF Site (Water)	N/A		100	0.72	72.00
TOTALS				10.26	940.34

COMPOSITE CN =	91.6
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR	
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1)	DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	0.92
2)	DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	6.50
3)	DETERMINE RUNOFF VOLUME- V(R) $V(R) = R/12 * AREA$	RUNOFF (Ac-ft.)	V(R)	5.56

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 1 / SMF 1	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 10.26 ac
DCIA (4-lanes) = 5.84 ac

Treatment Volume Required = 1.0" Runoff Over DCIA = **0.49 Ac-Ft**

TREATMENT PROVIDED =	0.57 Ac-Ft
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STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	141.00	0.83				2.02
			0.78	1.00	0.78	
DHW	140.00	0.72				1.24
			0.67	1.00	0.67	
WEIR	139.00	0.62				0.57
			0.57	1.00	0.57	
* CONTROL (SHW)	138.00	0.51				0.00

* SHW = 139.0	Low exist. ground in SMF site = 140.0
Source: (USDA Soil Survey)	Source: Lidar Contours
Pomona fine sand (7)	
Assumed 1.0 ft below exist. ground	Assumed Low EOP = 141.0

* Notes: Used SHW of 138.0
Permitted SHW in adjacent pond to east = 139.7 (NAVD); however, pond appears dry to elev. 133.0 (Permit # 16806)

VOLUMETRIC CALCULATIONS

Treatment Volume Required =	0.49 Ac-Ft	
Attenuation Volume Required =	0.00 Ac-Ft	
Total Volume Required		
(Between Control Elev. & DHW) =	0.49 Ac-Ft	
 Total Volume Provided		
(Between Control Elev. & DHW) =	1.24 Ac-Ft	OK

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 2 / SMF 2	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 64+95
 To STA.= 112+00
 R/W Width = 122 ft

R/W Area = 13.18 ac
 SMF Area = 2.38 ac
 Basin Area = 15.56 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Pomona-Urban land complex (51)	A/D	80	9.79	783.00
Impervious (Asphalt)	N/A		98	3.39	332.22
SMF Site	Pomona fine sand (7)	A/D	80	2.38	190.40
TOTALS				15.56	1305.62

COMPOSITE CN =	83.9
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR	
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1) DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	1.92
2) DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	5.60
3) DETERMINE RUNOFF VOLUME- V(R) $V(R) = R/12 * AREA$	RUNOFF (Ac-ft.)	V(R)	7.27

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 2 / SMF 2	
BASIN ANALYSIS (PRE/POST)	Post	

From STA.= 42+00
 To STA.= 96+15
 R/W Width = 122 ft

R/W Area = 15.17 ac
 *SMF Area = 2.38 ac
 Basin Area = 17.55 ac

*SMF Area including tie-downs = 3.38 AC

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Smyrna and Myakka fine sands (17), Holopaw fine sand (33), Pomona-Urban land complex (51)	A/D	80	5.16	412.71
Impervious (Asphalt)	N/A		98	10.01	980.69
SMF Site (Berm)	Pomona fine sand (7)	A/D	80	0.85	68.00
SMF Site (Water)	N/A		100	1.53	153.00
TOTALS				17.55	1614.41

COMPOSITE CN =	92.0
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR

1) DETERMINE SOIL STORAGE - S S= (1000/CN) - 10	SOIL STORAGE (inches)	S	0.87
2) DETERMINE RUNOFF - R R= (7.5-0.2*S) ² / (7.5+0.8*S)	RUNOFF (inches)	R	6.55
3) DETERMINE RUNOFF VOLUME- V(R) V(R)= R/12*AREA	RUNOFF (Ac-ft.)	V(R)	9.58

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 2 / SMF 2	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 17.55 ac
DCIA (4-lanes) = 10.01 ac

Treatment Volume Required = 1.0" Runoff Over DCIA = 0.83 Ac-Ft

TREATMENT PROVIDED =	1.11 Ac-Ft
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STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	128.00	1.79				9.99
			1.66	2.50	4.15	
DHW	125.50	1.53				5.84
			1.35	3.50	4.73	
WEIR	122.00	1.16				1.11
			1.11	1.00	1.11	
CONTROL W/ LINER (SHW)	121.00	1.05				0.00

SHW = 133.5 Low exist. ground in SMF site = 134.5
Source: (USDA Soil Survey) Source: Lidar Contours
Pomona fine sand (7)
Assumed 1.0 ft below exist. ground Assumed Low EOP = 128.0

Notes: Liner required to lower control to outfall at Hamilton Branch Bridge.
Permitted SHW in pond to southeast across RR tracks = 132.2 (NAVD)
(Permit # 27384)

VOLUMETRIC CALCULATIONS

Treatment Volume Required = 0.83 Ac-Ft
Attenuation Volume Required = 2.31 Ac-Ft

Total Volume Required (Between Control Elev. & DHW) = 3.14 Ac-Ft

Total Volume Provided (Between Control Elev. & DHW) = 5.84 Ac-Ft OK

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 3 / SMF 3	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 112+00
 To STA.= 147+00
 R/W Width = 122 ft

R/W Area = 9.80 ac
 SMF Area = 2.65 ac
 Basin Area = 12.45 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT	
Open space (good condition)	Pomona fine sand (7), Pomona-Urban land complex (51)	A/D	80	3.25	260.21	
Open space (good condition)	Arents (60)	A	39	3.19	124.41	
Impervious (Asphalt)	N/A		98	3.36	329.28	
SMF Site	Pomona fine sand (7), Pomona-Urban land complex (51), Smyrna and Myakka fine sands (17)	A/D	80	2.65	212.00	
				TOTALS	12.45	925.90
COMPOSITE CN =					74.4	

ESTIMATE OF RUNOFF VOLUME - 25YR/24HR

1)	DETERMINE SOIL STORAGE - S S= (1000/CN) - 10	SOIL STORAGE (inches)	S	3.44
2)	DETERMINE RUNOFF - R R= (7.5-0.2*S) ² / (7.5+0.8*S)	RUNOFF (inches)	R	4.53
3)	DETERMINE RUNOFF VOLUME- V(R) V(R)= R/12*AREA	RUNOFF (Ac-ft.)	V(R)	4.70

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 3 / SMF 3	
BASIN ANALYSIS (PRE/POST)	Post	

From STA.= 96+15
 To STA.= 147+00
 R/W Width = 122 ft

R/W Area = 14.24 ac
 *SMF Area = 2.65 ac
 Basin Area = 16.89 ac

*SMF Area including easement & tie-downs = 4.00 AC

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Pomona-Urban land complex (51)	A/D	80	2.95	236.36
Open space (good condition)	Arents (60)	A	39	1.89	73.71
Impervious (Asphalt)	N/A		98	9.40	920.93
SMF Site (Berm)	Pomona fine sand (7), Pomona-Urban land complex (51), Smyrna and Myakka fine sands (17)	A/D	80	0.66	52.80
SMF Site (Water)	N/A		100	1.99	199.00
TOTALS				16.89	1482.80

COMPOSITE CN =	87.8
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR

1)	DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	1.39
2)	DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	6.06
3)	DETERMINE RUNOFF VOLUME - V(R) $V(R) = R / 12 * AREA$	RUNOFF (Ac-ft.)	V(R)	8.53

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 3 / SMF 3	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 16.89 ac
DCIA (4-lanes) = 9.40 ac

Treatment Volume Required = 1.0" Runoff Over DCIA = **0.78 Ac-Ft**

TREATMENT PROVIDED = 0.86 Ac-Ft
--

STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	126.00	2.09				7.55
			2.04	1.00	2.04	
DHW	125.00	1.99				5.51
			1.86	2.50	4.65	
WEIR	122.50	1.73				0.86
			1.71	0.50	0.86	
CONTROL W/ LINER (SHW)	122.00	1.68				0.00

SHW = 124.0 Low exist. ground in SMF site = 125.0
Source: (USDA Soil Survey) Source: Lidar Contours
Pomona fine sand (7), Pomona-Urban land complex (51), Smyrna and Myakka fine sands (1)
Assumed 1.0 ft below exist. ground Assumed Low EOP = 126.0

Notes: Liner required to lower control elevation to 122.0.

VOLUMETRIC CALCULATIONS

Treatment Volume Required = 0.78 Ac-Ft
Attenuation Volume Required = 3.83 Ac-Ft

Total Volume Required (Between Control Elev. & DHW) = 4.61 Ac-Ft

Total Volume Provided (Between Control Elev. & DHW) = 5.51 Ac-Ft OK

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 4 / SMF 4	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 147+00
 To STA.= 162+10
 R/W Width = 122 ft

R/W Area = 4.23 ac
 SMF Area = 1.26 ac
 Basin Area = 5.49 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona-Urban land complex (51)	A/D	80	1.35	107.93
Open space (good condition)	Urban Land (16)		80	1.36	108.80
Impervious (Asphalt)	N/A		98	1.52	148.96
SMF Site	Pomona fine sand (7)	A/D	80	1.26	100.80
TOTALS				5.49	466.49

COMPOSITE CN =	85.0
-----------------------	------

ESTIMATE OF RUNOFF VOLUME - 25YR/24HR	
--	--

1)	DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	1.76
2)	DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	5.73
3)	DETERMINE RUNOFF VOLUME- V(R) $V(R) = R/12 * AREA$	RUNOFF (Ac-ft.)	V(R)	2.62

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 4 / SMF 4	
BASIN ANALYSIS (PRE/POST)	Post	

From STA.= 147+00
 To STA.= 162+10
 R/W Width = 122 ft

R/W Area = 4.23 ac
 *SMF Area = 1.26 ac
 Basin Area = 5.49 ac

*SMF Area including easement & tie-downs = 2.53 AC

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona-Urban land complex (51)	A/D	80	0.63	50.29
Open space (good condition)	Urban Land (16)		80	0.81	64.80
Impervious (Asphalt)	N/A		98	2.79	273.47
SMF Site (Berm)	Pomona fine sand (7)	A/D	80	0.55	44.00
SMF Site (Water)	N/A		100	0.71	71.00
TOTALS				5.49	503.56

COMPOSITE CN =	91.7
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR

1)	DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	0.91
2)	DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	6.51
3)	DETERMINE RUNOFF VOLUME- V(R) $V(R) = R/12 * AREA$	RUNOFF (Ac-ft.)	V(R)	2.98

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 4 / SMF 4	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 5.49 ac
DCIA (4-lanes) = 2.79 ac

Treatment Volume Required = 1.0" Runoff Over DCIA = 0.23 Ac-Ft

TREATMENT PROVIDED = 0.34 Ac-Ft
--

STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	132.00	0.77				1.43
			0.74	1.00	0.74	
DHW	131.00	0.71				0.69
			0.70	0.50	0.35	
WEIR	130.50	0.68				0.34
			0.67	0.50	0.34	
CONTROL (SHW)	130.00	0.65				0.00

SHW = 130.0	Low exist. ground in SMF site = 131.0
Source: (USDA Soil Survey)	Source: Lidar Contours
Pomona fine sand (7)	
Assumed 1.0 ft below exist. ground	Assumed Low EOP = 132.0

Notes:

VOLUMETRIC CALCULATIONS

Treatment Volume Required =	0.23 Ac-Ft	
Attenuation Volume Required =	0.36 Ac-Ft	
Total Volume Required		
(Between Control Elev. & DHW) =	0.59 Ac-Ft	
Total Volume Provided		
(Between Control Elev. & DHW) =	0.69 Ac-Ft	OK

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 5A / SMF 5	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 162+10
 To STA.= 174+65
 R/W Width = 122 ft

R/W Area = 3.51 ac
 SMF Area = -
 Basin Area = 3.51 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Urban Land (16)		80	1.68	134.79
Impervious (Asphalt)	N/A		98	1.83	179.34
TOTALS				3.51	314.13

COMPOSITE CN =	89.4
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR
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1)	DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	1.19
2)	DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	6.24
3)	DETERMINE RUNOFF VOLUME- V(R) $V(R) = R/12 * AREA$	RUNOFF (Ac-ft.)	V(R)	1.83

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 5B / SMF 5	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 174+65
 To STA.= 195+25
 R/W Width = 122 ft

R/W Area = 5.77 ac
 SMF Area = 1.80 ac
 Basin Area = 7.57 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Smyrna and Myakka fine sands (17), Pomona-Urban land complex (51), Myakka-Immokalee-Urban land complex (53)	A/D	80	2.70	215.96
Open space (good condition)	Immokalee sand (21)	B/D	80	0.25	20.00
Open space (good condition)	Urban Land (16)		80	0.15	12.00
Impervious (Asphalt)	N/A		98	2.67	261.66
SMF Site	Pomona fine sand (7)	A/D	80	1.80	144.00
TOTALS				7.57	653.62

COMPOSITE CN =	86.3
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR	
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1)	DETERMINE SOIL STORAGE - S S= (1000/CN) - 10	SOIL STORAGE (inches)	S	1.59
2)	DETERMINE RUNOFF - R R= (7.5-0.2*S) ² / (7.5+0.8*S)	RUNOFF (inches)	R	5.88
3)	DETERMINE RUNOFF VOLUME- V(R) V(R)= R/12*AREA	RUNOFF (Ac-ft.)	V(R)	3.71

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 5 / SMF 5	
BASIN ANALYSIS (PRE/POST)	Post	

From STA.= 162+10
 To STA.= 195+25
 R/W Width = 122 ft

R/W Area = 9.28 ac
 *SMF Area = 1.80 ac
 Basin Area = 11.08 ac

*SMF Area including easement & tie-downs = 2.88 AC

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Pomona fine sand (7), Smyrna and Myakka fine sands (17), Pomona-Urban land complex (51), Myakka-Immokalee-Urban land complex (53)	A/D	80	0.67	53.46
Open space (good condition)	Immokalee sand (21)	B/D	80	0.23	18.40
Open space (good condition)	Urban Land		80	2.26	180.80
Impervious (Asphalt)	N/A		98	6.13	600.37
SMF Site (Berm)	Pomona fine sand (7)	A/D	80	0.69	55.20
SMF Site (Water)	N/A		100	1.11	111.00
TOTALS				11.08	1019.23

COMPOSITE CN =	92.0
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR

1)	DETERMINE SOIL STORAGE - S S= (1000/CN) - 10	SOIL STORAGE (inches)	S	0.87
2)	DETERMINE RUNOFF - R R= (7.5-0.2*S) ² / (7.5+0.8*S)	RUNOFF (inches)	R	6.55
3)	DETERMINE RUNOFF VOLUME- V(R) V(R)= R/12*AREA	RUNOFF (Ac-ft.)	V(R)	6.05

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 5 / SMF 5	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 11.08 ac
DCIA (4-lanes) = 6.13 ac
Treatment Volume Required = 1.0" Runoff Over DCIA = 0.51 Ac-Ft

TREATMENT PROVIDED = 0.52 Ac-Ft
--

STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	132.00	1.22				2.24
			1.17	1.00	1.17	
DHW	131.00	1.11				1.07
			1.09	0.50	0.55	
WEIR	130.50	1.06				0.52
			1.03	0.50	0.52	
CONTROL (SHW)	130.00	1.00				0.00

SHW = 130.0	Low exist. ground in SMF site = 131.0
Source: (USDA Soil Survey)	Source: Lidar Contours
Pomona fine sand (7)	
Assumed 1.0 ft below exist. ground	Assumed Low EOP = 132.0

Notes:

VOLUMETRIC CALCULATIONS

Treatment Volume Required =	0.51 Ac-Ft	
Attenuation Volume Required =	0.51 Ac-Ft	
Total Volume Required		
(Between Control Elev. & DHW) =	1.02 Ac-Ft	
Total Volume Provided		
(Between Control Elev. & DHW) =	1.07 Ac-Ft	OK

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 6 / SMF 6	
BASIN ANALYSIS (PRE/POST)	Pre	

From STA.= 195+25
 To STA.= 224+00
 R/W Width = 122 ft

R/W Area = 8.05 ac
 SMF Area = 2.34 ac
 Basin Area = 10.39 ac

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT	
Open space (good condition)	Smyrna and Myakka fine sands (17), Basinger mucky fine sand (36), Myakka-Immokalee-Urban land complex (53)	A/D	80	3.67	293.77	
Open space (good condition)	Adamsville - Urban land complex (49)	A	39	0.88	34.32	
Open space (good condition)	Urban Land (16)		80	0.09	7.20	
Impervious (Asphalt)	N/A		98	3.41	334.18	
SMF Site	Pomona fine sand (7), Samsula muck (13), Basinger mucky fine sand (36)	A/D	80	2.34	187.20	
				TOTALS	10.39	856.67

COMPOSITE CN =	82.4
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR
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1) DETERMINE SOIL STORAGE - S S= (1000/CN) - 10	SOIL STORAGE (inches)	S	2.14
2) DETERMINE RUNOFF - R R= (7.5-0.2*S) ² / (7.5+0.8*S)	RUNOFF (inches)	R	5.43
3) DETERMINE RUNOFF VOLUME- V(R) V(R)= R/12*AREA	RUNOFF (Ac-ft.)	V(R)	4.70

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 6 / SMF 6	
BASIN ANALYSIS (PRE/POST)	Post	

From STA.= 195+25
 To STA.= 228+75
 R/W Width = 122 ft

R/W Area = 9.38 ac
 *SMF Area = 2.34 ac
 Basin Area = 11.72 ac

*SMF Area including easement & tie-downs = 3.96 AC

BASIN RUNOFF CURVE NUMBER WORKSHEET

LAND-USE DESCRIPTION	SOIL NAME	SOIL GROUP	CN	AREA (ac)	PRODUCT
Open space (good condition)	Smyrna and Myakka fine sands (17), Basinger mucky fine sand (36), Myakka-Immokalee-Urban land complex (53)	A/D	80	2.93	234.53
Open space (good condition)	Adamsville-Urban land complex (49)	A	39	0.21	8.19
Open space (good condition)	Urban Land (16)		80	0.05	4.00
Impervious (Asphalt)	N/A		98	6.19	606.71
SMF Site (Berm)	Pomona fine sand (7), Samsula muck (13), Basinger mucky fine sand (36)	A/D	80	0.65	52.00
SMF Site (Water)	N/A		100	1.69	169.00
TOTALS				11.72	1074.42

COMPOSITE CN =	91.7
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ESTIMATE OF RUNOFF VOLUME - 25YR/24HR

1)	DETERMINE SOIL STORAGE - S $S = (1000/CN) - 10$	SOIL STORAGE (inches)	S	0.91
2)	DETERMINE RUNOFF - R $R = (7.5 - 0.2 * S)^2 / (7.5 + 0.8 * S)$	RUNOFF (inches)	R	6.51
3)	DETERMINE RUNOFF VOLUME - V(R) $V(R) = R / 12 * AREA$	RUNOFF (Ac-ft.)	V(R)	6.36

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Basin 6 / SMF 6	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 11.72 ac
DCIA (4-lanes) = 6.19 ac

Treatment Volume Required = 1.0" Runoff Over DCIA = 0.52 Ac-Ft

TREATMENT PROVIDED = 0.79 Ac-Ft

STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	136.00	1.79				4.17
			1.74	1.00	1.74	
DHW	135.00	1.69				2.43
			1.64	1.00	1.64	
WEIR	134.00	1.59				0.79
			1.57	0.50	0.79	
CONTROL (SHW)	133.50	1.54				0.00

SHW = 133.0 Low exist. ground in SMF site = 133.0
Source: (USDA Soil Survey) Source: Lidar Contours
Pomona fine sand (7), Samsula muck (13), Basinger mucky fine sand (36)
Assumed 0.0 ft Assumed Low EOP = 136.0
below exist. ground

Notes: Used orifice elevation of 133.5 to ensure tailwater is below control.
Permitted SHW in pond to northeast = 135.6 (NAVD)
(Permit # 26236)

VOLUMETRIC CALCULATIONS

Treatment Volume Required = 0.52 Ac-Ft
Attenuation Volume Required = 1.66 Ac-Ft

Total Volume Required
(Between Control Elev. & DHW) = 2.25 Ac-Ft

Total Volume Provided
(Between Control Elev. & DHW) = 2.43 Ac-Ft OK

Cycle	Group	OGC Case Number	Group Name	Planning Unit	County (-ies)	WBID	Water Segment Name	Water-body Type	Water-body Class ¹	1998 303(d) Parameters of Concern	Parameters Assessed Using the Impaired Waters Rule (IWR)	Dissolved Oxygen/Biology Pollutant of Concern	DO / Nutrient / Biology TN , TP , BOD Median Values (mg/L) ²	Concentration of Criterion or Threshold Not Met	Priority for TMDL Development ³	Projected Year For TMDL Development ³	Verified Period Assessment Data ⁸	Comments ^{7,8}
1	2	03-2280	Tampa Bay Tributaries	Hillsborough River	Hillsborough, Polk	1495B	Itchepackasassa Creek	Stream	3F		Fecal Coliform			> 400 colonies per 100 ml	Medium	2008		PP - 4/8 Insufficient data; VP - 13/20 Verified impaired.
2	2	09-2313	Tampa Bay Tributaries	Hillsborough River	Hillsborough, Polk	1495B	Itchepackasassa Creek	Stream	3F	Dissolved Oxygen	Dissolved Oxygen	Nutrients (added from comments)		≥ 5.0 mg/L	High			EPA finalized a TMDL in December, 2005. Dissolved oxygen impairment linked to total phosphorus.
2	2	09-2314	Tampa Bay Tributaries	Hillsborough River	Hillsborough, Polk	1495B	Itchepackasassa Creek	Stream	3F	Nutrients	Nutrients (Chlorophyll-a)			≤ 20 µg/L	High			Delisted from the 1998 303(d) list in Cycle 1, re-listed in Cycle 2. Annual chlorophyll-a average did not exceed 20 µg/L in 2005 (13.05 µg/L), 2006 (2.7 µg/L) and 2007 (3.2 µg/L). Nitrogen is the limiting nutrient based on a median TN/TP ratio of 2.56 (88 values). EPA finalized a TMDL in December, 2005. Listing based on dissolved oxygen and nutrient (total phosphorus) impairment.
2	2	09-2324	Tampa Bay Tributaries	Hillsborough River	Polk	1543A	Lake Hunter Outlet	Stream	3F		Dissolved Oxygen			≥ 5.0 mg/L	Medium			

GENERAL SITE INFORMATION:	V6.2	GO TO INTRODUCTION PAGE	Blue Numbers = Input data Red Numbers = Calculated or Carryover
STEP 1: Select the appropriate Meteorological Zone, input the appropriate Mean Annual Rainfall amount and select the type of analysis		NAME OF PROJECT US 92 - Cty Line Rd to Wabash Ave	HELP VIEW ZONE MAP
Meteorological Zone (Please use zone map):	<input type="text" value="Zone 2"/>	<input type="button" value="CLICK ON CELL BELOW TO SELECT"/>	VIEW MEAN ANNUAL RAINFALL MAP
Mean Annual Rainfall (Please use rainfall map):	<input type="text" value="50.50"/>	<input type="text" value="Inches"/>	GO TO WATERSHED CHARACTERISTICS
Type of analysis:	<input type="text" value="Net improvement"/>	<input type="text" value=""/>	Model documentation and example problems.
STEP 2: Select the STORMWATER TREATMENT ANALYSIS to begin analyzing Best Management Practices.		STORMWATER TREATMENT ANALYSIS	There is a user's manual for the BMPTRAINS model. It can be downloaded from www.stormwater.ucf.edu . The results from the example problems shown in the manual however may not reflect current model results due to ongoing updates of the model.
Systems available for analysis: Retention Basin with option for calculating effluent concentration Wet Detention Exfiltration Trench Pervious Pavement Stormwater Harvesting Underdrain Biofiltration Greenroof Rainwater Harvesting Floating Island with Wet Detention Vegetated Natural Buffer Vegetated Filter Strip Swale Rain Garden Lined reuse pond User Defined BMP	RESET INPUT FOR STORMWATER TREATMENT ANALYSIS	METHODOLOGY FOR CALCULATING REQUIRED TREATMENT EFFICIENCY	METHODOLOGY FOR WET DETENTION SYSTEMS METHODOLOGY FOR WATER HARVESTING SYSTEMS
		METHODOLOGY FOR RETENTION SYSTEMS	METHODOLOGY FOR GREENROOF SYSTEMS

WET DETENTION:		US 92 - Cty Line Rd to Wabash Ave				V6.2
WET DETENTION POND SERVING:		Catchment 1	Catchment 2	Catchment 3	Catchment 4	
Total pre-development catchment area:		12.450	5.490	11.080	10.390	ac
Total post-development catchment area:		14.240	4.230	9.280	9.380	ac
Average annual residence time (between 1 and 500 days):		50.00	60.00	40.00	66.00	days
Littoral Zone used in the design:		NO	NO	NO	NO	
Littoral Zone efficiency credit (user specifies 10 or 15%):		10.00	10.00	10.00	10.00	%
Total Nitrogen removal required:		60.025	31.045	17.817	37.701	%
Total Phosphorus removal required:		60.025	31.045	17.817	37.701	%
Total Nitrogen removal efficiency provided:		40.226	40.774	39.432	41.027	%
Total Phosphorus removal efficiency provided:		68.317	69.790	66.534	70.565	%
Is the wet detention sufficient:		NO	YES	YES	YES	
Average annual runoff volume:		32.83477949	10.182315	22.365844	22.34900999	ac-ft/yr
Wet Detention Pond Characteristics:						
To Achieve the Treatment Efficiency Shown in the Graph Below, the Following Must Hold						
Maximum Permanent Pool Depth:		12.03	12.46	11.58	12.71	ft
Minimum Permanent Pool Volume:		4.498	1.674	2.451	4.041	ac-ft

Blue Numbers = Input data
 Red Numbers = Calculated or Carryover

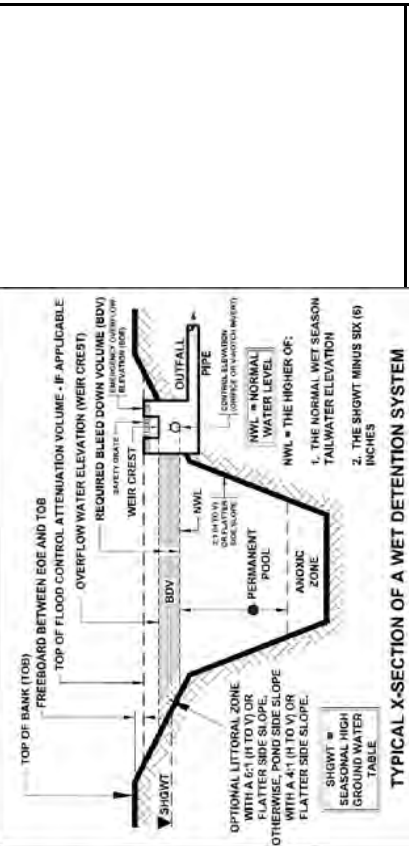
GO TO STORMWATER TREATMENT ANALYSIS

HELP - EXAMPLE PROBLEM 4

REQUIRED REMAINING TREATMENT EFFICIENCIES OF TREATMENT SYSTEM IN SERIES WITH WET DETENTION. USE FOR SIZING OF TREATMENT SYSTEM IN SERIES WITH WET DETENTION.

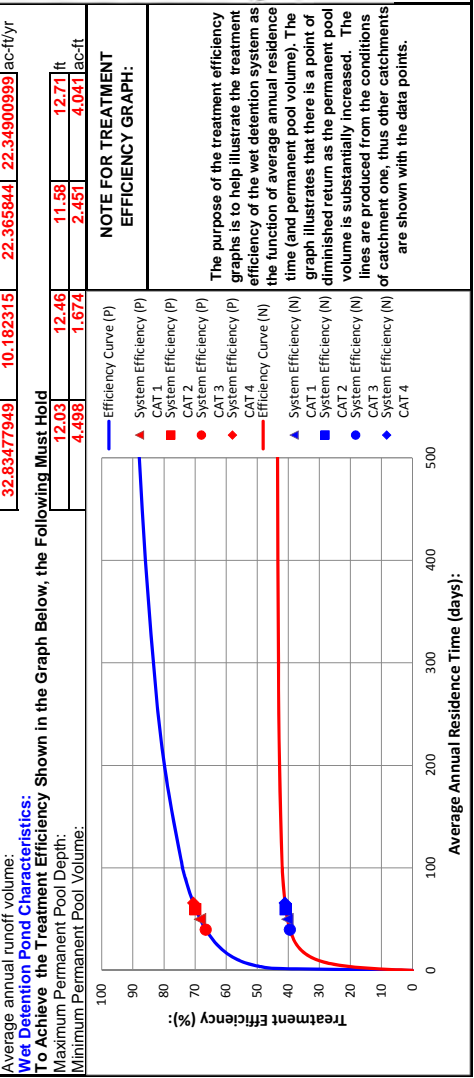
Catchment 1	Catchment 2	Catchment 3	Catchment 4
33.123	0.000	0.000	0.000
0.000	0.000	0.000	0.000

Remaining treatment efficiency needed (Nitrogen):
 Remaining treatment efficiency needed (Phosphorus):



TYPICAL X-SECTION OF A WET DETENTION SYSTEM

Source of Graphic: draft STORMWATER QUALITY APPLICANT'S HANDBOOK dated March 2010, by the Department of Environmental Protection, available at: http://www.dep.state.il.us/water/wetland/dsrp/rules/stormwater_March_2010

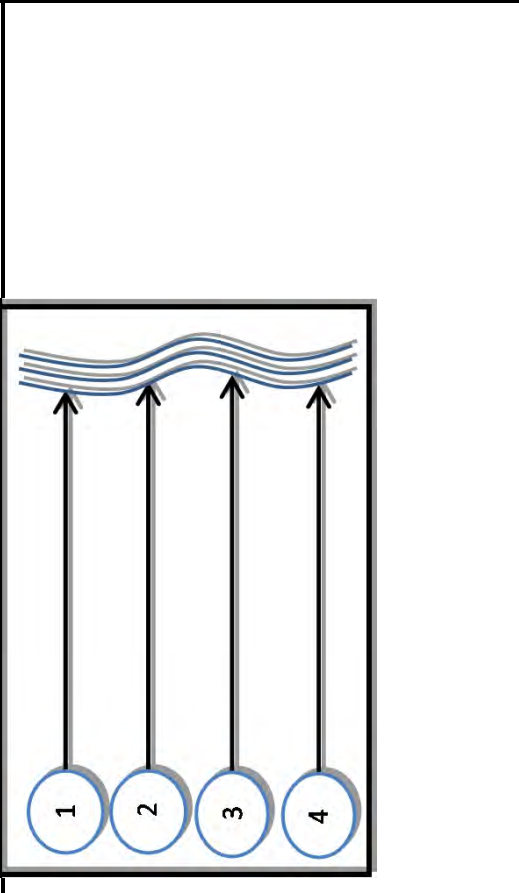


STEP 1: Specify pre- and post-development watershed characteristics.

GO TO WATERSHED CHARACTERISTICS

Total Required Treatment Efficiency:

Required Treatment Eff (Nitrogen):	40.214 %
Required Treatment Eff (Phosphorus):	40.214 %



STEP 2: Select one of the systems below to analyze efficiency.

RETENTION BASIN	WET DETENTION	EXFILTRATION TRENCH	RAIN (BIO) GARDEN	SWALE	USER DEFINED BMP
PERVIOUS PAVEMENT	STORMWATER HARVESTING	FILTRATION including BIOFILTRATION	LINED REUSE POND & UNDERDRAIN INPUT		
GREENROOF	RAINWATER HARVESTING	FLOATING ISLANDS WITH WET DETENTION			
VEGETATED NATURAL BUFFER	VEGETATED FILTER STRIP	VEGETATED AREA Example tree well			

NOTE !!!: All individual system must be sized prior to being analyzed in conjunction with other systems. Please read instructions in the CATCHMENT AND TREATMENT SUMMARY RESULTS tab for more information.

CATCHMENT AND TREATMENT SUMMARY RESULTS

CATCHMENTS AND TREATMENT SUMMARY RESULTS

V6.2

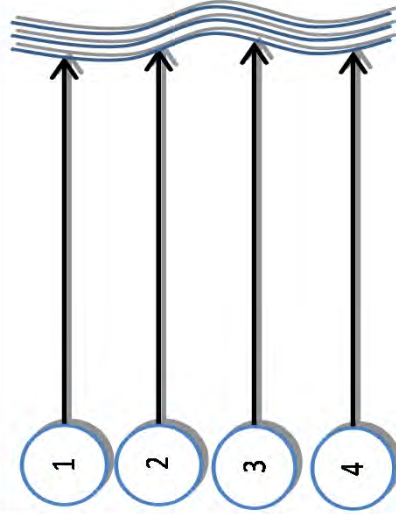
CALCULATION METHODS:

1. The effectiveness of each BMP in a single catchment is converted to an equivalent capture volume.
2. Certain BMP treatment train combinations have not been evaluated and in practice they are at this time not used, an example is a greenroof following a tree well.
3. If multiple BMPs are used in a single catchment and one of them is detention, then it is assumed to be last in series.

PROJECT TITLE	Optional Identification		
US 92 - Cty Line Rd to Wabash Ave	Catchment 1:	Catchment 2:	Catchment 3:
	Wet Detention	Wet Detention	Wet Detention
BMP Name			
BMP Name			
BMP Name			

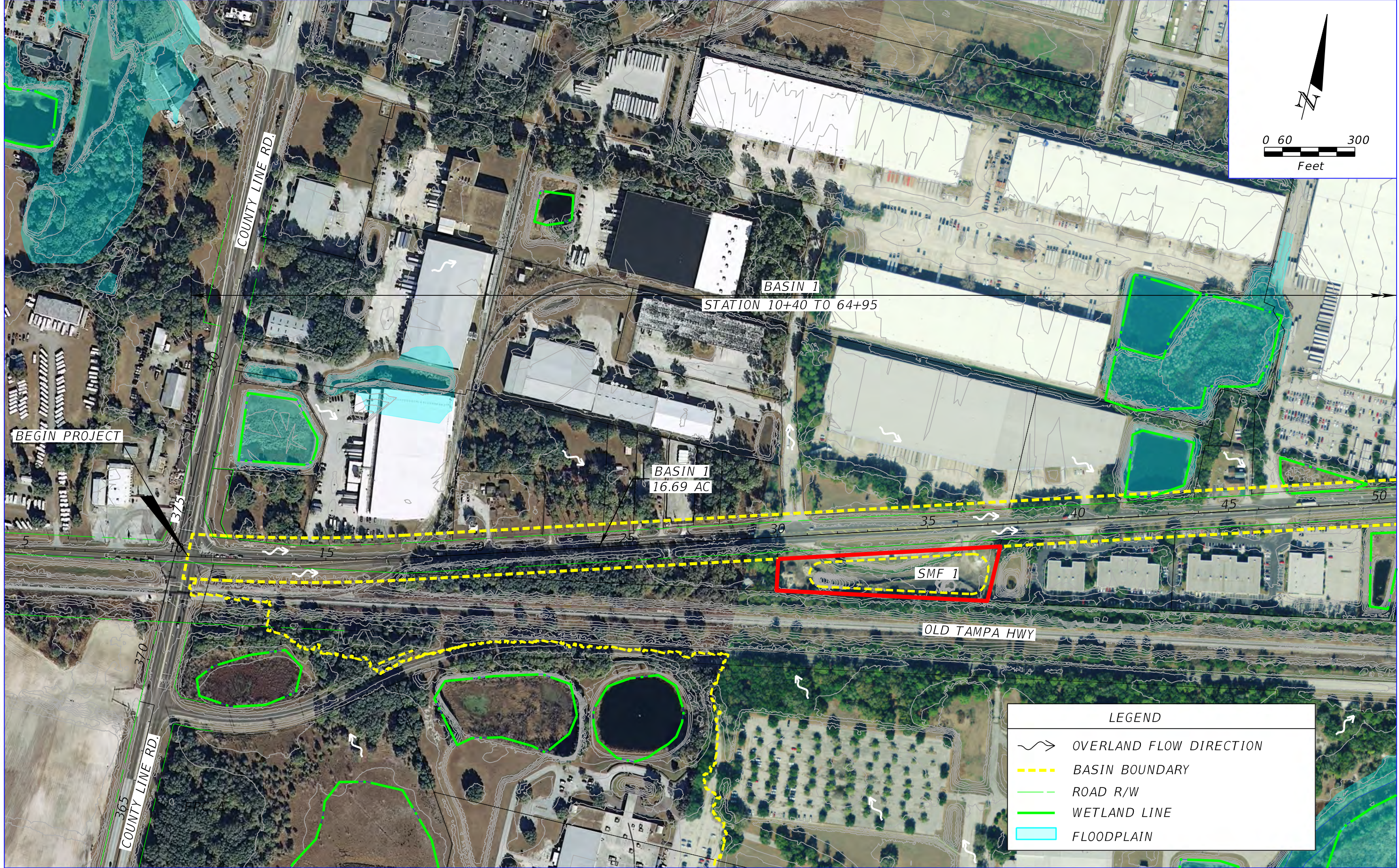
Summary Performance

Catchment Configuration	L - 4 Catchment-Parallel	9/13/2016
Nitrogen Pre Load (kg/yr)	76.98	BMPTRAINS MODEL
Phosphorus Pre Load (kg/yr)	10.03	
Nitrogen Post Load (kg/yr)	128.75	
Phosphorus Post Load (kg/yr)	16.77	
Target Load Reduction (N) %	40	
Target Load Reduction (P) %	40	
Target Discharge Load, N (kg/yr)	76.98	
Target Discharge Load, P (kg/yr)	10.03	
Provided Overall Efficiency, N (%):	40	
Provided Overall Efficiency, P (%):	69	
Discharged Load, N (kg/yr & lb/yr):	76.88	169.33
Discharged Load, P (kg/yr & lb/yr):	5.25	11.56
Load Removed, N (kg/yr & lb/yr):	51.88	114.27
Load Removed, P (kg/yr & lb/yr):	11.52	25.37



Highway EMC Values	TN (mg/L)	TP (mg/L)
Lee, Charlotte, Collier and Hendry Counties	1.16	0.157
All Other Locations within FDOT District One	1.19	0.155

Instructions for determining if your project is located within Impaired Waters are also attached for your reference. It is District One's position that only those WBIDs listed for nutrients would require pollutant loading calculations. Impairments for fecal coliform or mercury in fish are not considered contributing pollutants by District One. Therefore, nutrient loading calculations are not required for these impairments.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

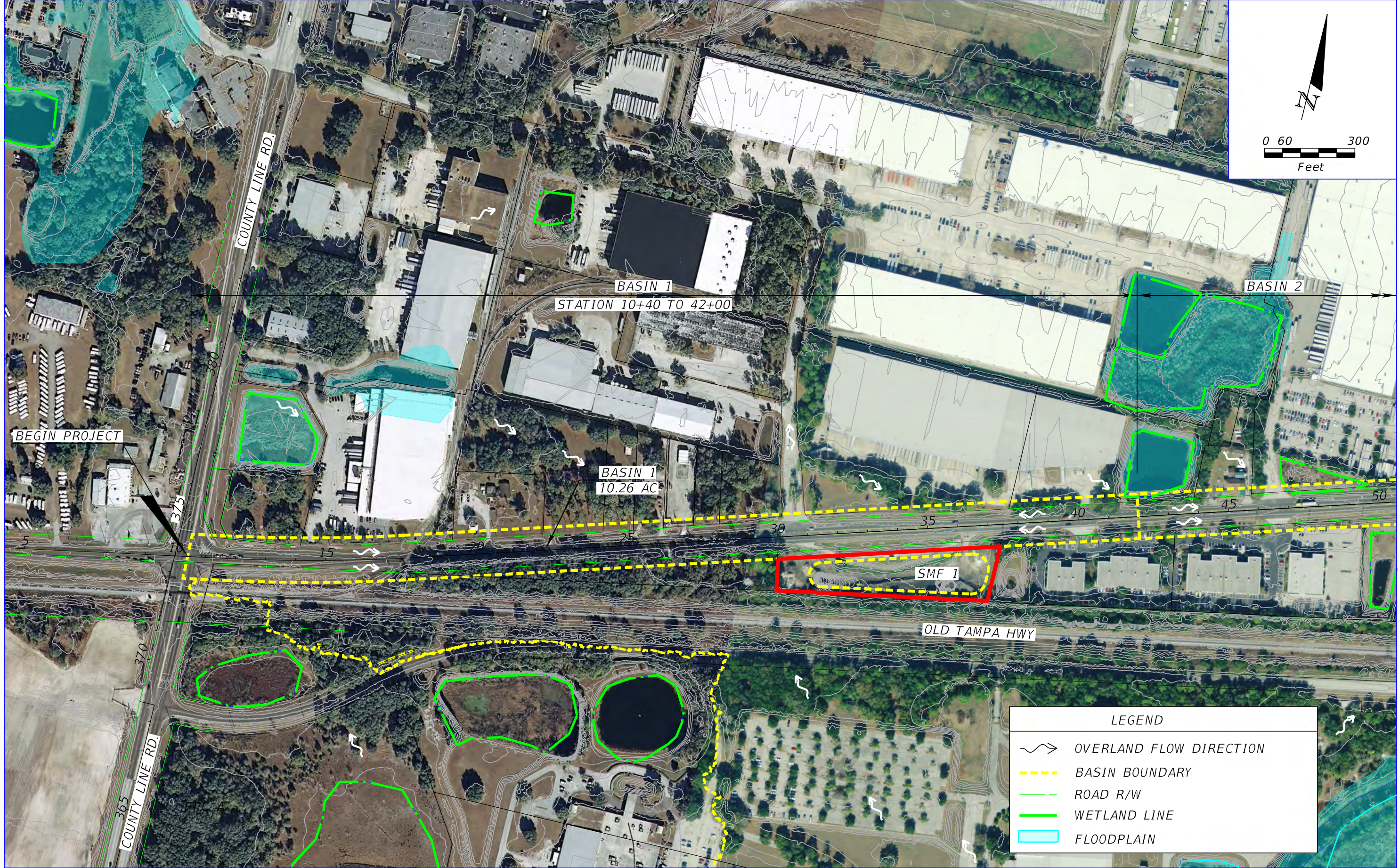
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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SR 600	POLK	433558-1-22-01

**BASIN 1 PRE-DEVELOPMENT
EXHIBIT**
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SHEET NO.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

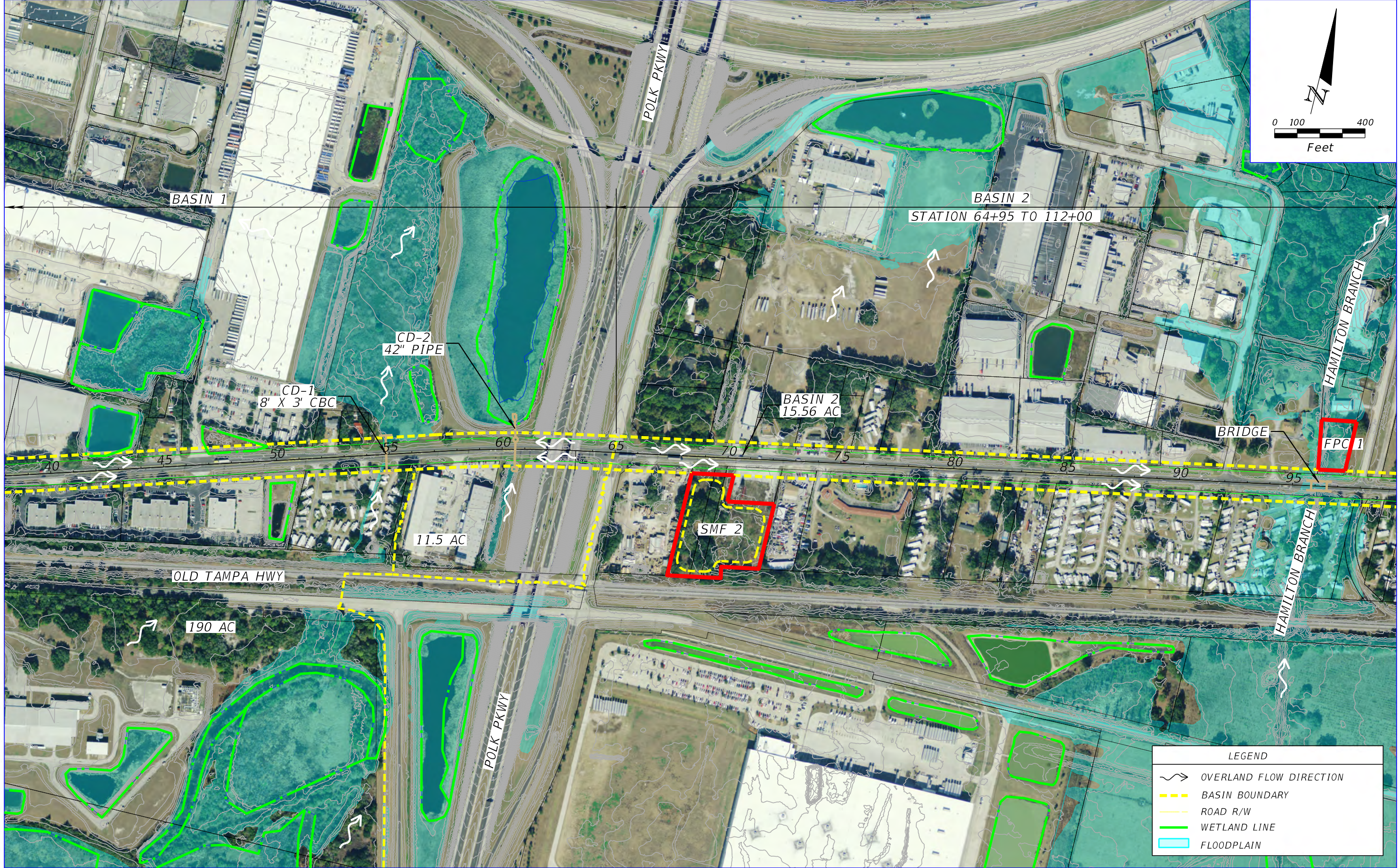
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SR 600	POLK	433558-1-22-01

**BASIN 1 POST-DEVELOPMENT
EXHIBIT**
 Appendix 3-Page 28

SHEET NO.



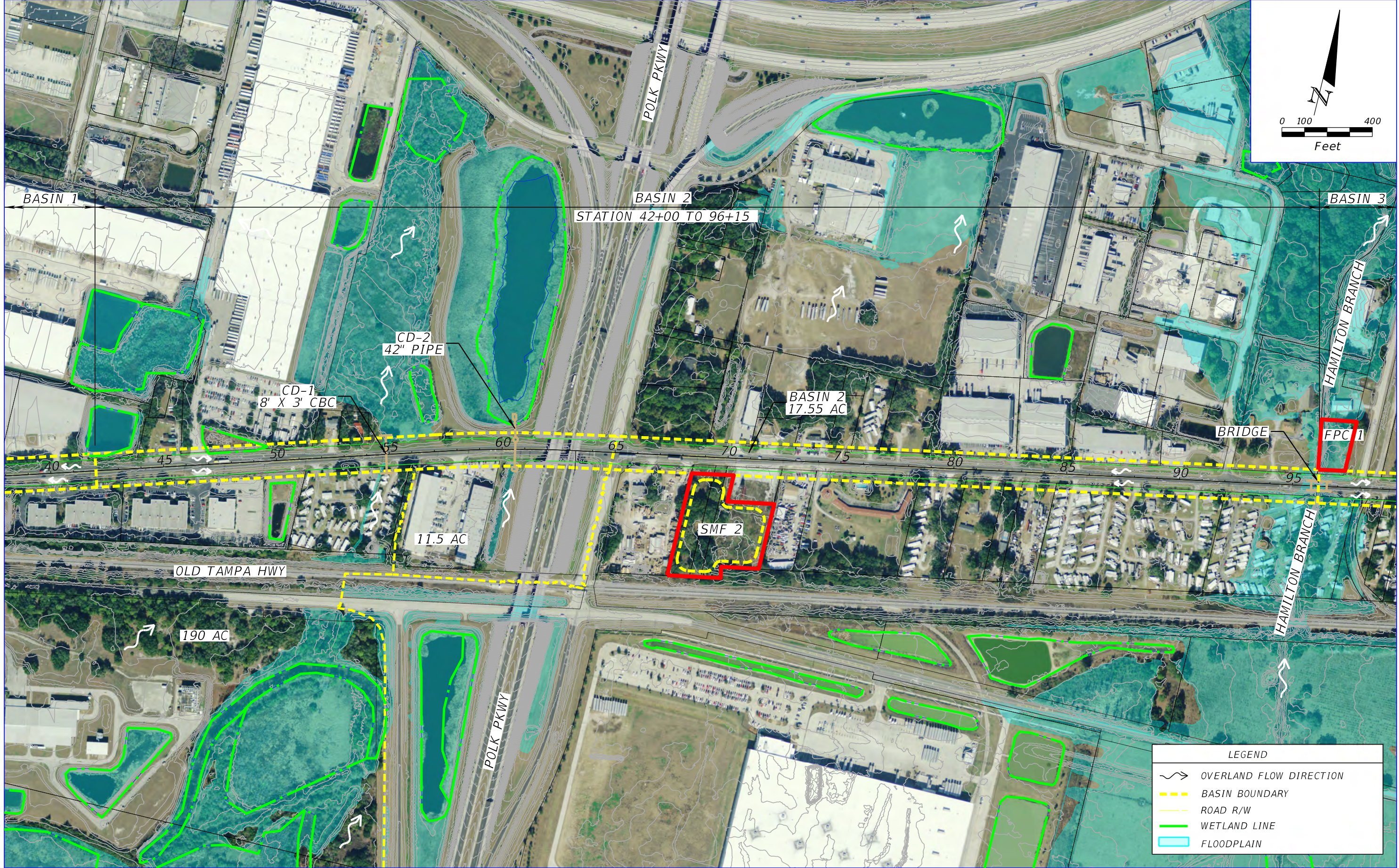
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BASIN 2 PRE-DEVELOPMENT
EXHIBIT
 Appendix 3-Page 29

SHEET NO.



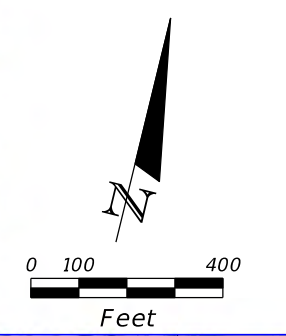
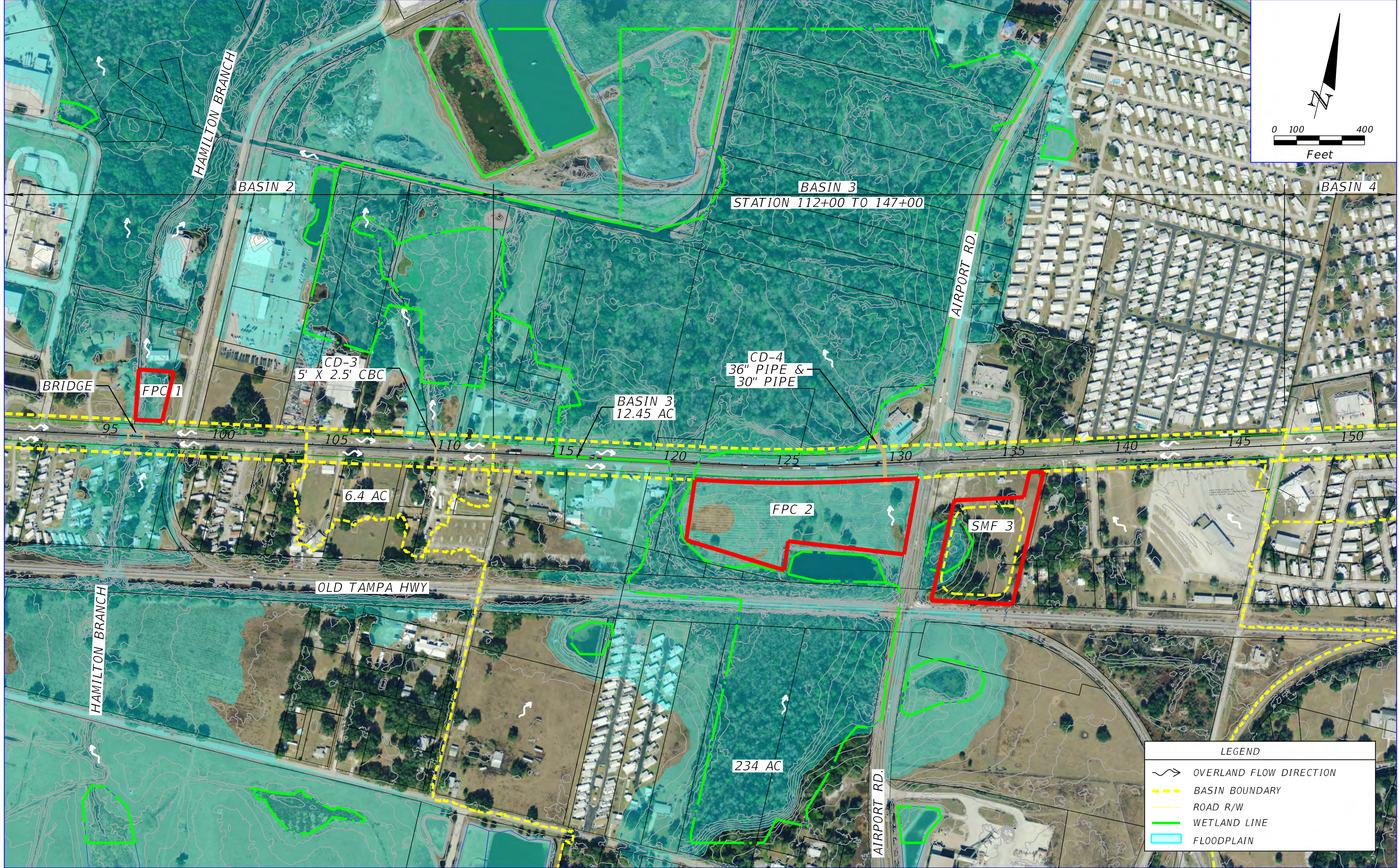
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SR 600	POLK	433558-1-22-01

BASIN 2 POST-DEVELOPMENT
EXHIBIT
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SHEET NO.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

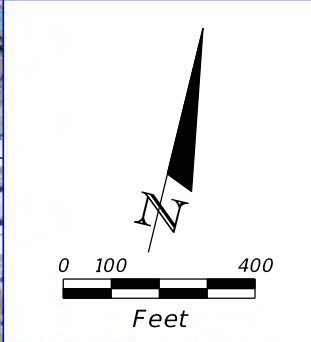
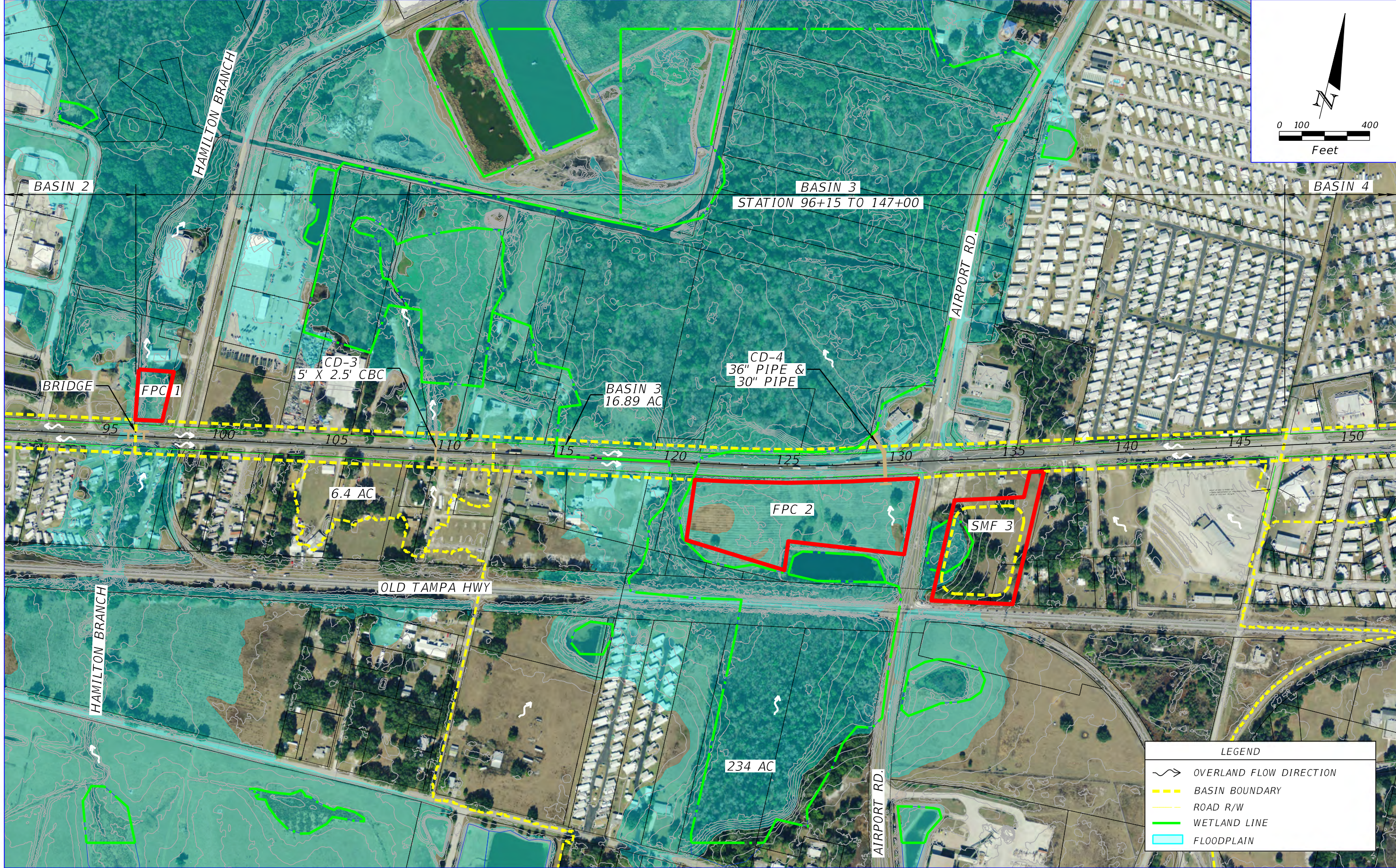
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BASIN 3 PRE-DEVELOPMENT
EXHIBIT
 Appendix 3-Page 31

SHEET NO.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

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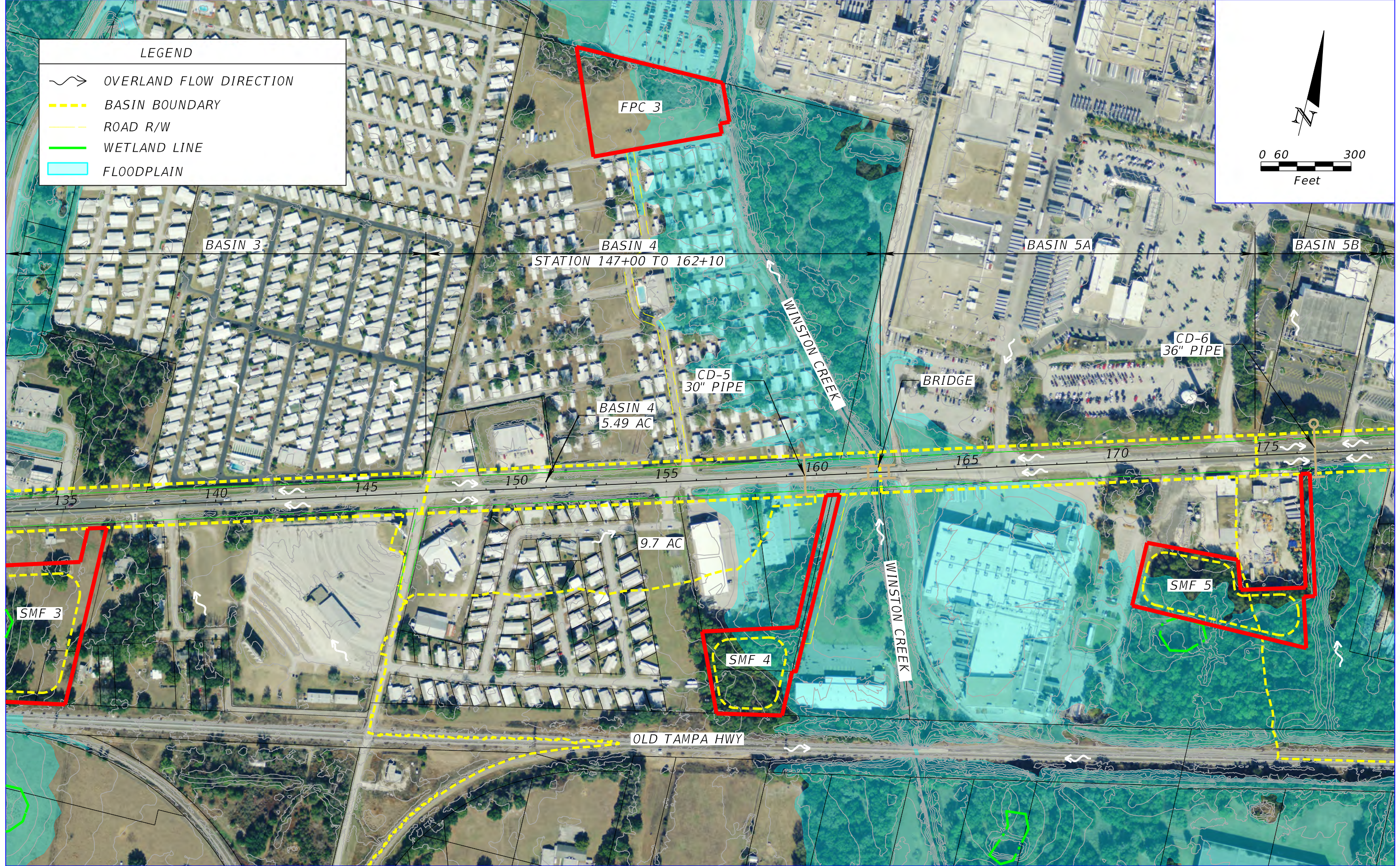
BASIN 3 POST-DEVELOPMENT
EXHIBIT
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SHEET NO.

LEGEND

- OVERLAND FLOW DIRECTION
- BASIN BOUNDARY
- ROAD R/W
- WETLAND LINE
- FLOODPLAIN

0 60 300
Feet



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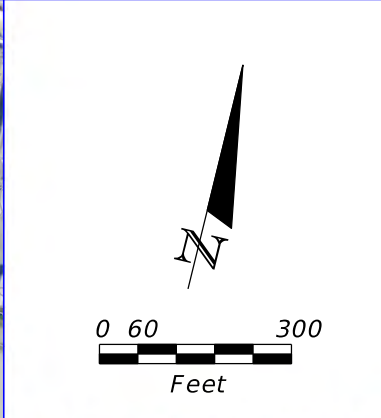
**BASIN 4 PRE-DEVELOPMENT
EXHIBIT**

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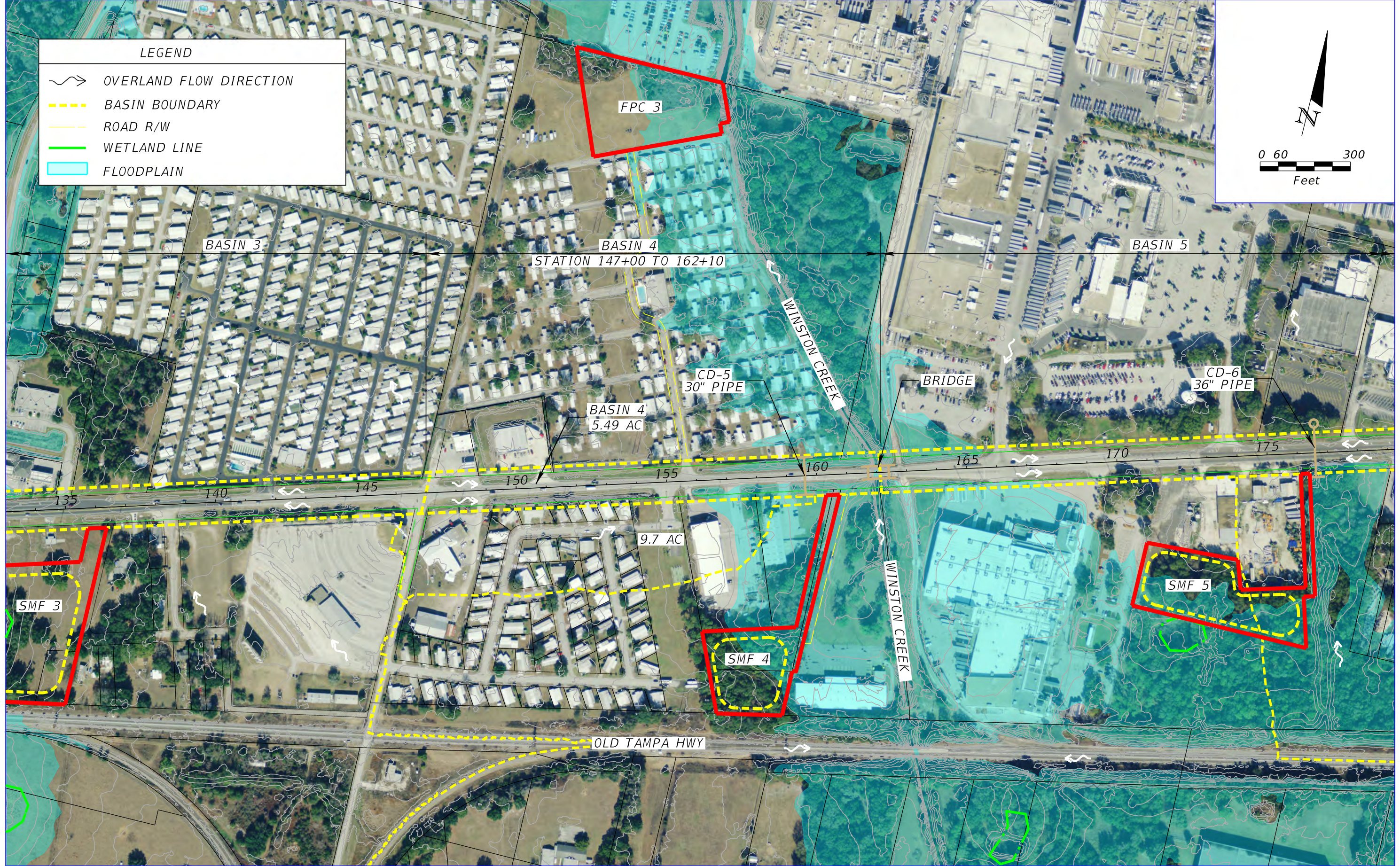
SHEET NO.

LEGEND

-  OVERLAND FLOW DIRECTION
-  BASIN BOUNDARY
-  ROAD R/W
-  WETLAND LINE
-  FLOODPLAIN



0 60 300
Feet



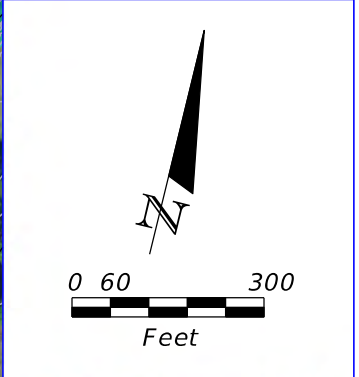
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BASIN 4 POST-DEVELOPMENT
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LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

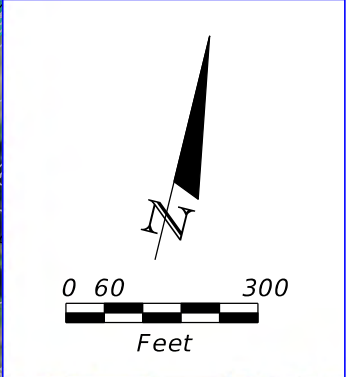
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BASIN 5 PRE-DEVELOPMENT
EXHIBIT
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SHEET NO.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

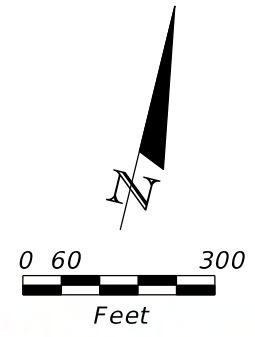
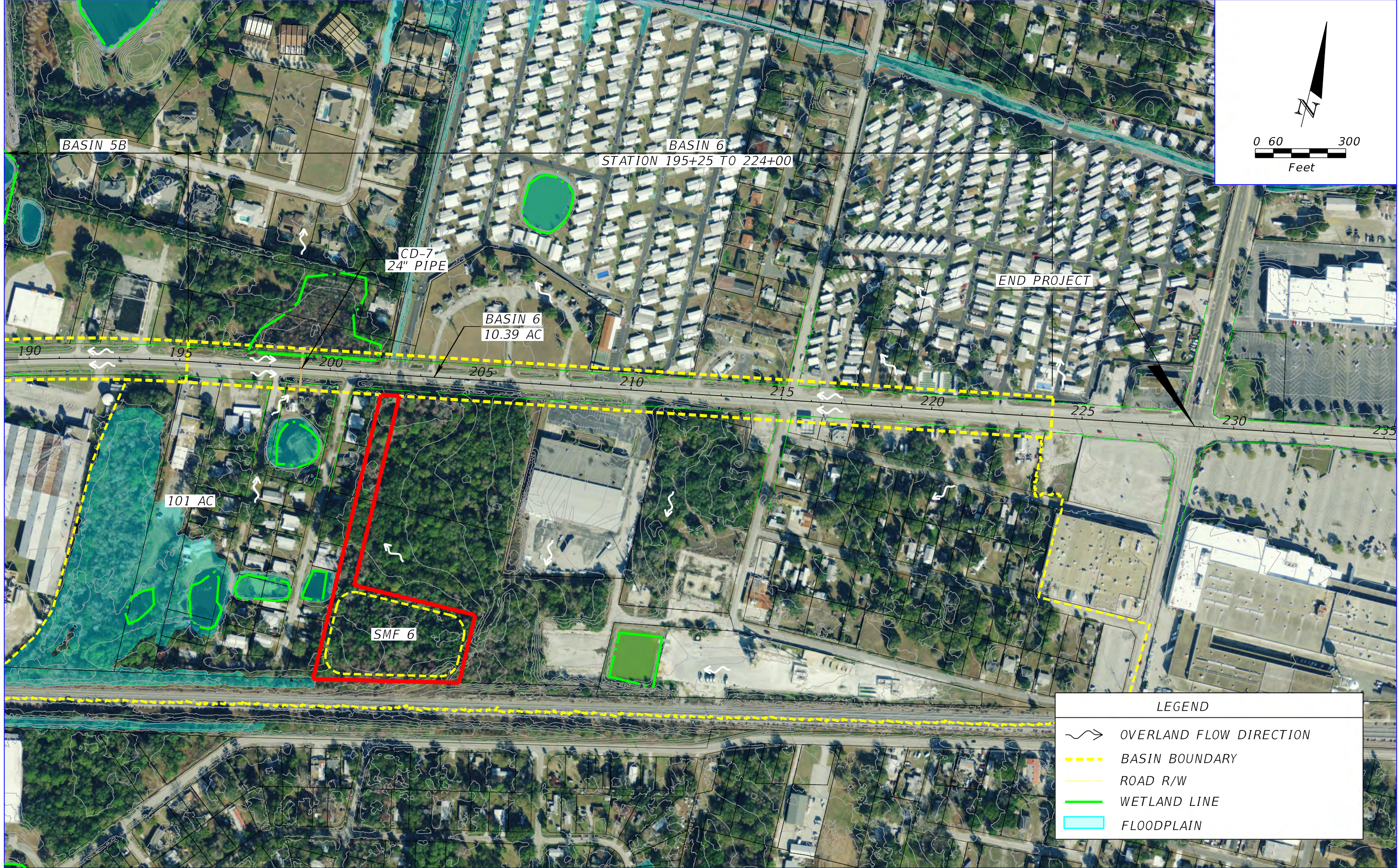
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BASIN 5 POST-DEVELOPMENT
EXHIBIT
 Appendix 3-Page 36

SHEET NO.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

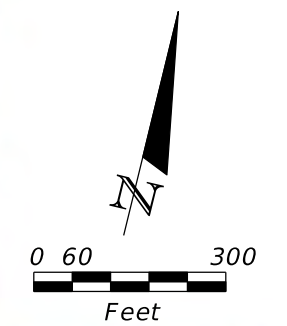
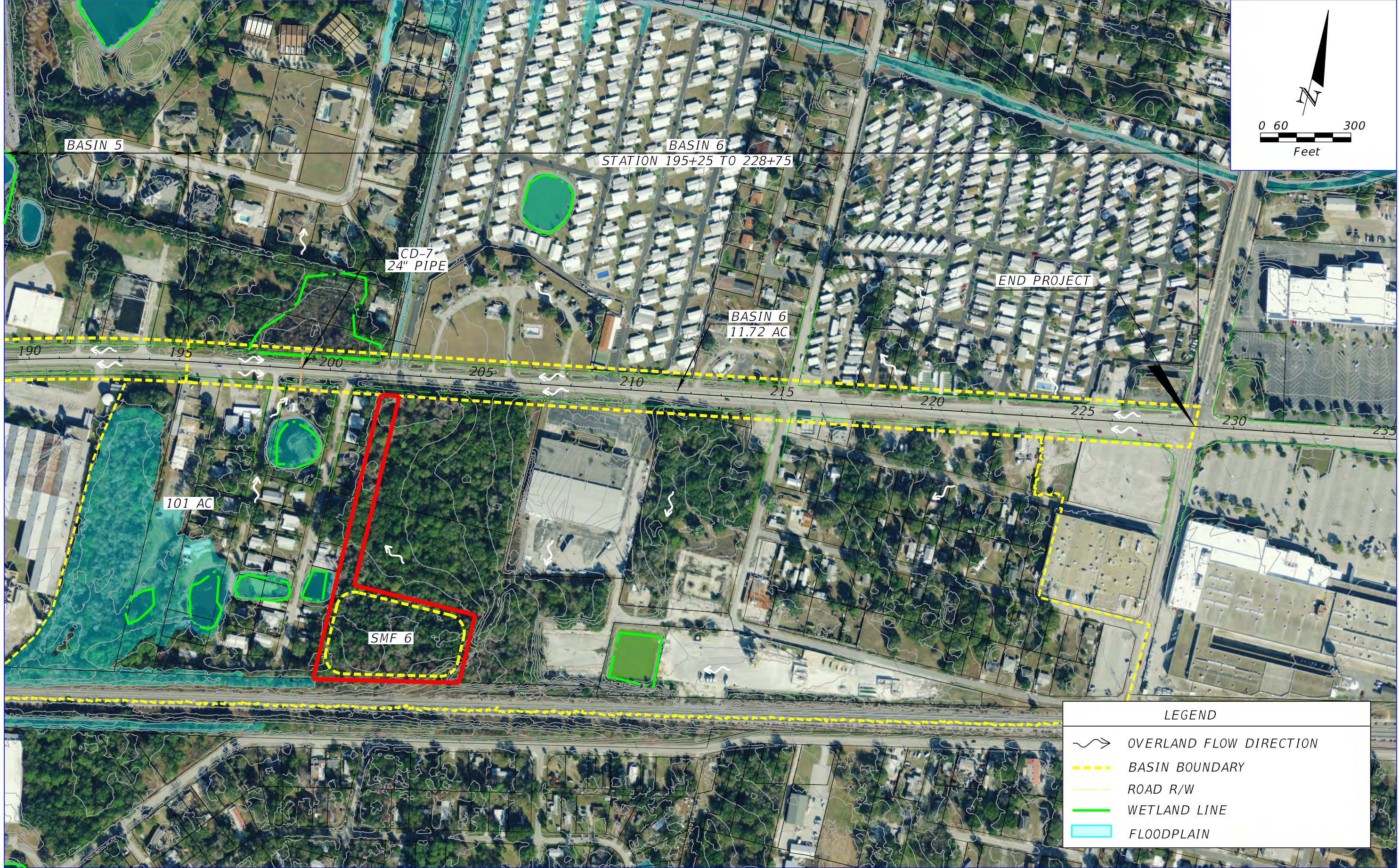
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BASIN 6 PRE-DEVELOPMENT
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SHEET NO.



LEGEND	
	OVERLAND FLOW DIRECTION
	BASIN BOUNDARY
	ROAD R/W
	WETLAND LINE
	FLOODPLAIN

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**BASIN 6 POST-DEVELOPMENT
EXHIBIT**
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SHEET NO.

REGIONAL POND ALTERNATIVE

PROJECT NAME:	US 92 (County Line Road to Wabash Ave.)	KISINGER CAMPO & ASSOCIATES
BASIN / SMF DESIGNATION:	Regional Pond	
SMF TYPE:	Wet-Detention	

WATER QUALITY CALCULATIONS

Total Basin Area = 61.15 ac
DCIA (4-lanes) = 40.36 ac

Treatment Volume Required = 1.0" Runoff Over DCIA = 3.36 Ac-Ft

TREATMENT PROVIDED =	8.54 Ac-Ft
-----------------------------	-------------------

STAGE STORAGE CALCULATIONS

	ELEV.	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
BERM	124.00	9.53				43.10
			9.42	1.00	9.42	
DHW	123.00	9.30				33.68
			8.98	2.80	25.14	
WEIR	120.20	8.65				8.54
			8.54	1.00	8.54	
* CONTROL (SHW)	119.20	8.42				0.00

* Notes: Permitted SHW in Wetland 7 on site = 119.2 (NAVD).
(Permit # 33935)

GENERAL SITE INFORMATION:	V6.2	GO TO INTRODUCTION PAGE	Blue Numbers = <input type="text"/> Input data Red Numbers = <input type="text"/> Calculated or Carryover HELP
STEP 1: Select the appropriate Meteorological Zone, input the appropriate Mean Annual Rainfall amount and select the type of analysis		NAME OF PROJECT US 92 - Cty Line Rd to Wabash Ave	VIEW ZONE MAP
Meteorological Zone (Please use zone map): Mean Annual Rainfall (Please use rainfall map):		CLICK ON CELL BELOW TO SELECT Zone 2 Inches 50.50	VIEW MEAN ANNUAL RAINFALL MAP
Type of analysis: Treatment efficiency (N, P) (leave empty if net improvement or BMP analysis is used):		CLICK ON CELL BELOW TO SELECT Net improvement %	GO TO WATERSHED CHARACTERISTICS
STEP 2: Select the STORMWATER TREATMENT ANALYSIS to begin analyzing Best Management Practices.			
STORMWATER TREATMENT ANALYSIS		Model documentation and example problems.	
Systems available for analysis: Retention Basin with option for calculating effluent concentration Wet Detention Exfiltration Trench Pervious Pavement Stormwater Harvesting Underdrain Biofiltration Greenroof Rainwater Harvesting Floating Island with Wet Detention Vegetated Natural Buffer Vegetated Filter Strip Swale Rain Garden Lined reuse pond User Defined BMP		There is a user's manual for the BMPTRAINS model. It can be downloaded from www.stormwater.ucf.edu . The results from the example problems shown in the manual however may not reflect current model results due to ongoing updates of the model.	
RESET INPUT FOR STORMWATER TREATMENT ANALYSIS		METHODOLOGY FOR CALCULATING REQUIRED TREATMENT EFFICIENCY	METHODOLOGY FOR WET DETENTION SYSTEMS
		METHODOLOGY FOR RETENTION SYSTEMS	METHODOLOGY FOR WATER HARVESTING SYSTEMS
		METHODOLOGY FOR GREENROOF SYSTEMS	

WATERSHED CHARACTERISTICS V6.2		GO TO STORMWATER TREATMENT ANALYSIS		HELP - LAND USES/EMC	
SELECT CATCHMENT CONFIGURATION		CLICK ON CELL BELOW TO SELECT CONFIGURATION		Blue Numbers =	Input data
		A - Single Catchment		Red Numbers =	Calculated
VIEW CATCHMENT CONFIGURATION					
CATCHMENT NO.1 CHARACTERISTICS:					
Pre-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	POST:
with default EMCs					1,190 mg/L
Post-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	0.155 mg/L
with default EMCs					
Total pre-development catchment area:	CLICK ON CELL BELOW TO SELECT				
Total post-development catchment or BMP analysis area:	CLICK ON CELL BELOW TO SELECT				
Pre-development Non DCIA CN:	Highway: TN=1.640 TP=0.220				
Pre-development DCIA percentage:	Highway: TN=1.640 TP=0.220				
Post-development Non DCIA CN:					
Post-development DCIA percentage:					
Estimated Area of BMP (used for rainfall excess not loadings)					
CATCHMENT NO.2 CHARACTERISTICS:					
Pre-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	POST:
with default EMCs					120,067 kg/year
Post-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	15,639 kg/year
with default EMCs					181,322 kg/year
Total pre-development catchment area:	CLICK ON CELL BELOW TO SELECT				
Total post-development catchment or BMP analysis area:	CLICK ON CELL BELOW TO SELECT				
Pre-development Non DCIA CN:					
Pre-development DCIA percentage:					
Post-development Non DCIA CN:					
Post-development DCIA percentage:					
Estimated Area of BMP (used for rainfall excess not loadings)					
CATCHMENT NO.3 CHARACTERISTICS:					
Pre-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	POST:
with default EMCs					mg/L
Post-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	mg/L
with default EMCs					
Total pre-development catchment area:	CLICK ON CELL BELOW TO SELECT				
Total post-development catchment or BMP analysis area:	CLICK ON CELL BELOW TO SELECT				
Pre-development Non DCIA CN:					
Pre-development DCIA percentage:					
Post-development Non DCIA CN:					
Post-development DCIA percentage:					
Estimated Area of BMP (used for rainfall excess not loadings)					
CATCHMENT NO.4 CHARACTERISTICS:					
Pre-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	POST:
with default EMCs					mg/L
Post-development land use:	Land use	Area Acres	non DCIA CN	%DCIA	mg/L
with default EMCs					
Total pre-development catchment area:	CLICK ON CELL BELOW TO SELECT				
Total post-development catchment or BMP analysis area:	CLICK ON CELL BELOW TO SELECT				
Pre-development Non DCIA CN:					
Pre-development DCIA percentage:					
Post-development Non DCIA CN:					
Post-development DCIA percentage:					
Estimated Area of BMP (used for rainfall excess not loadings)					

WET DETENTION:		US 92 - Cty Line Rd to Wabash Ave				V6.2
WET DETENTION POND SERVING:		Catchment 1	Catchment 2	Catchment 3	Catchment 4	
Total pre-development catchment area:		61.200	0.000	0.000	0.000	ac
Total post-development catchment area:		52.200	0.000	0.000	0.000	ac
Average annual residence time (between 1 and 500 days):		80.000				days
Littoral Zone used in the design:		NO				
Littoral Zone efficiency credit (user specifies 10 or 15%):		10.00				%
Total Nitrogen removal required:		33.782				%
Total Phosphorus removal required:		33.782				%
Total Nitrogen removal efficiency provided:		41.479				%
Total Phosphorus removal efficiency provided:		72.142				%
Is the wet detention sufficient:		YES				
Average annual runoff volume:		123.551283				ac-ft/yr
To Achieve the Treatment Efficiency Shown in the Graph Below, the Following Must Hold						
Maximum Permanent Pool Depth:		13.28	0.00	0.00	0.00	ft
Minimum Permanent Pool Volume:		27.080	0.000	0.000	0.000	ac-ft
<p>Wet Detention Pond Characteristics:</p> <p>Remaining treatment efficiency needed (Nitrogen):</p> <p>Remaining treatment efficiency needed (Phosphorus):</p>		Catchment 1	Catchment 2	Catchment 3	Catchment 4	
		0.000	0.000	0.000	0.000	%
		0.000	0.000	0.000	0.000	%

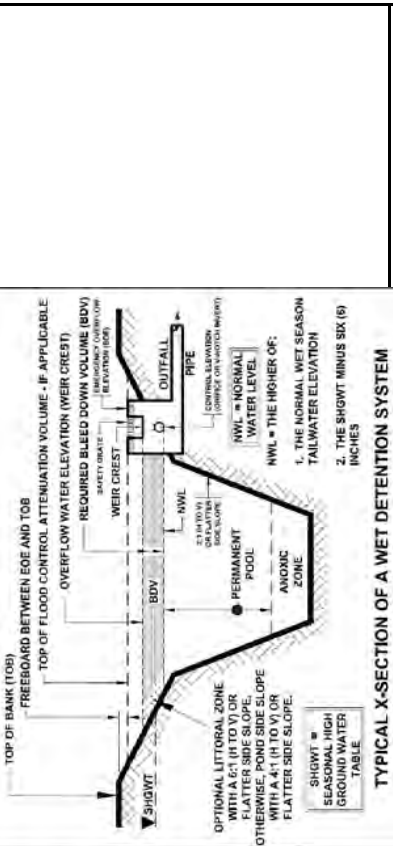
Blue Numbers = Input data
 Red Numbers = Calculated or Carryover

GO TO STORMWATER TREATMENT ANALYSIS

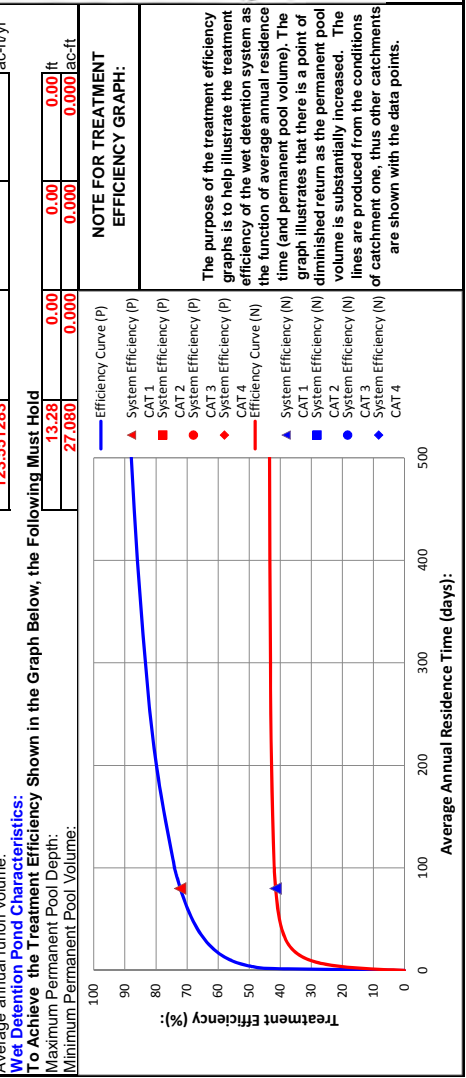
HELP - EXAMPLE PROBLEM 4

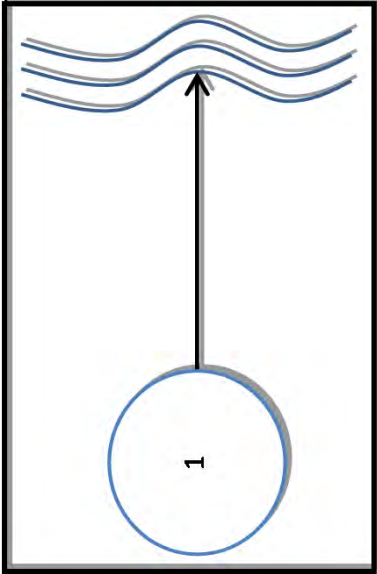
REQUIRED REMAINING TREATMENT EFFICIENCIES OF TREATMENT SYSTEM IN SERIES WITH WET DETENTION. USE FOR SIZING OF TREATMENT SYSTEM IN SERIES WITH WET DETENTION.

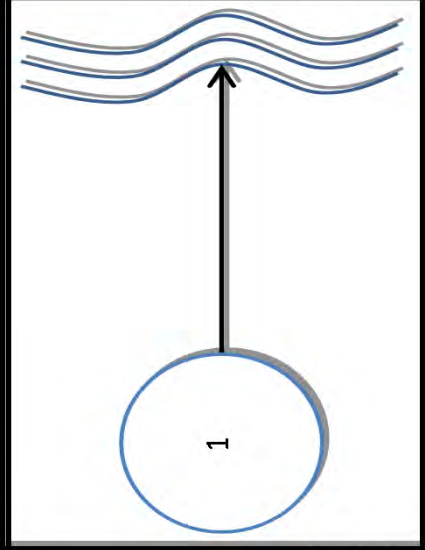
Catchment 1 Catchment 2 Catchment 3 Catchment 4

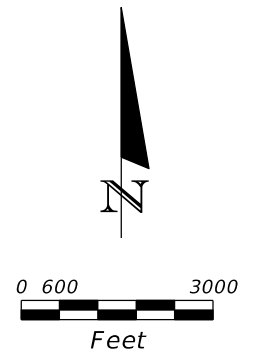


Source of Graphic: draft STORMWATER QUALITY APPLICANT'S HANDBOOK dated March 2010, by the Department of Environmental Protection, available at: http://www.dep.state.il.us/water/wetland/dsrp/rules/stormwater_March_2010



STORMWATER TREATMENT ANALYSIS:	V6.2	GO TO GENERAL SITE INFORMATION PAGE	Blue Numbers = Input data Red Numbers = Calculated				
STEP 1: Specify pre- and post-development watershed characteristics.							
GO TO WATERSHED CHARACTERISTICS							
<p><u>Total Required Treatment Efficiency:</u></p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 2px;">Required Treatment Eff (Nitrogen):</td> <td style="border: 1px solid black; padding: 2px; text-align: center; color: red;">33.782 %</td> </tr> <tr> <td style="padding: 2px;">Required Treatment Eff (Phosphorus):</td> <td style="border: 1px solid black; padding: 2px; text-align: center; color: red;">33.782 %</td> </tr> </table>				Required Treatment Eff (Nitrogen):	33.782 %	Required Treatment Eff (Phosphorus):	33.782 %
Required Treatment Eff (Nitrogen):	33.782 %						
Required Treatment Eff (Phosphorus):	33.782 %						
							
STEP 2: Select one of the systems below to analyze efficiency.							
RETENTION BASIN	WET DETENTION	EXFILTRATION TRENCH	RAIN (BIO) GARDEN				
PERVIOUS PAVEMENT	STORMWATER HARVESTING	FILTRATION including BIOFILTRATION	LINED REUSE POND & UNDERDRAIN INPUT				
GREENROOF	RAINWATER HARVESTING	FLOATING ISLANDS WITH WET DETENTION	NOTE !!!: All individual system must be sized prior to being analyzed in conjunction with other systems. Please read instructions in the CATCHMENT AND TREATMENT SUMMARY RESULTS tab for more information.				
VEGETATED NATURAL BUFFER	VEGETATED FILTER STRIP	VEGETATED AREA Example tree well					
CATCHMENT AND TREATMENT SUMMARY RESULTS							
SWALE		USER DEFINED BMP					

CATCHMENTS AND TREATMENT SUMMARY RESULTS		V6.2	
CALCULATION METHODS:			
1. The effectiveness of each BMP in a single catchment is converted to an equivalent capture volume.			
2. Certain BMP treatment train combinations have not been evaluated and in practice they are at this time not used, an example is a greenroof following a tree well.			
3. If multiple BMPs are used in a single catchment and one of them is detention, then it is assumed to be last in series.			
PROJECT TITLE	US 92 - Cty Line Rd to Wabash Ave	Optional Identification	
	Catchment 1:	Catchment 2:	Catchment 3:
BMP Name	Wet Detention		Catchment 4:
BMP Name			
BMP Name			
Summary Performance			
Catchment Configuration	A - Single Catchment		
Nitrogen Pre Load (kg/yr)	120.07		
Phosphorus Pre Load (kg/yr)	15.64		
Nitrogen Post Load (kg/yr)	181.32		
Phosphorus Post Load (kg/yr)	23.62		
Target Load Reduction (N) %	34		
Target Load Reduction (P) %	34		
Target Discharge Load, N (kg/yr)	120.07		
Target Discharge Load, P (kg/yr)	15.64		
Provided Overall Efficiency, N (%):	41		
Provided Overall Efficiency, P (%):	72		
Discharged Load, N (kg/yr & lb/yr):	233.72		
Discharged Load, P (kg/yr & lb/yr):	14.49		
Load Removed, N (kg/yr & lb/yr):	165.66		
Load Removed, P (kg/yr & lb/yr):	37.53		
	9/14/2016		BMPTRAINS MODEL
			



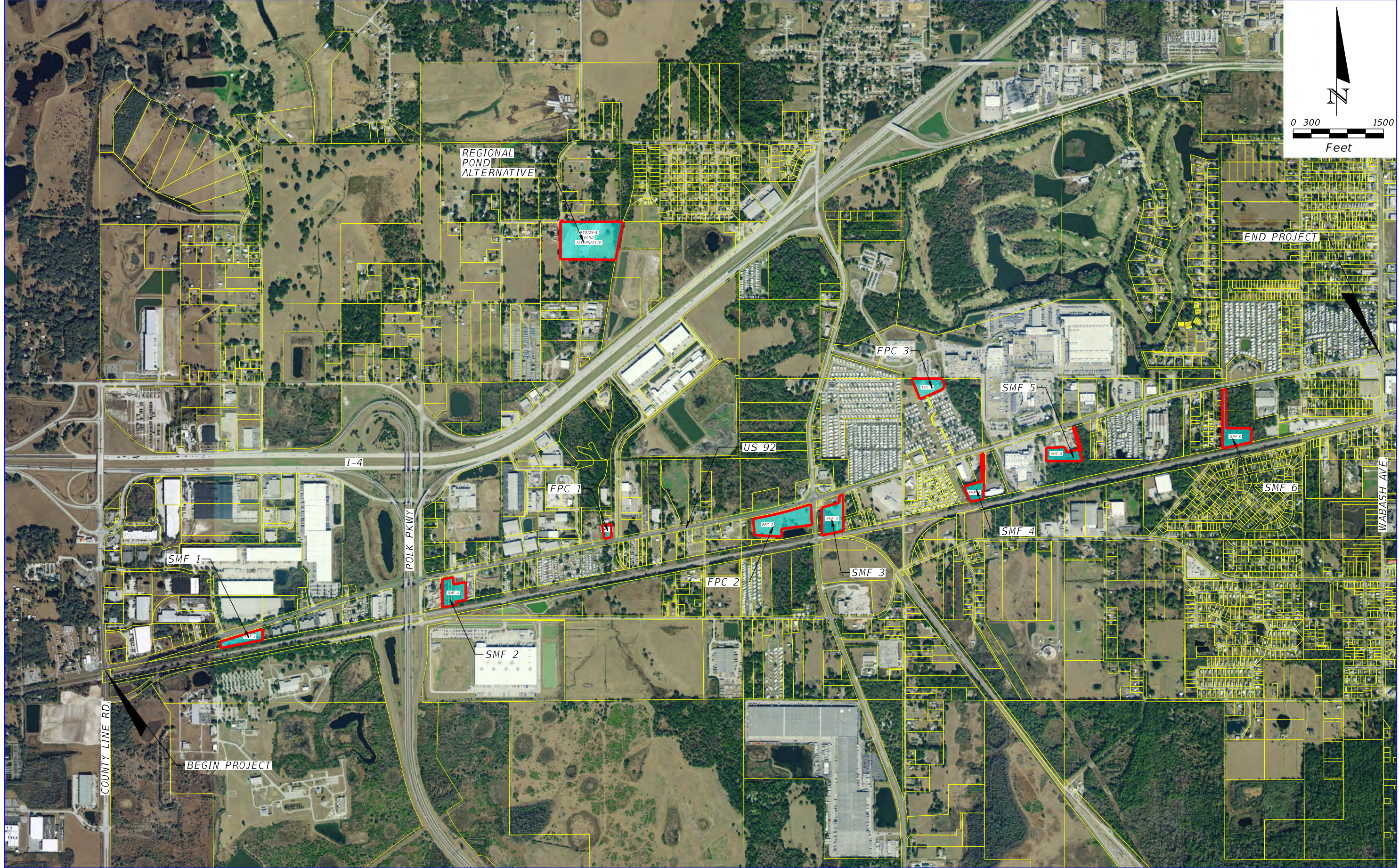
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PD&E
REGIONAL POND
SITE EXHIBIT
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SHEET NO.



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PD&E
MASTER POND SITE EXHIBIT
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SHEET NO.

APPENDIX 4
FLOODPLAIN CALCULATIONS

AREA 1
ENCROACHMENT CALCULATION: (NODE NK1385)

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	126.1	0.64				0.60
			0.38	1.10	0.42	
	125.0	0.11				0.18
			0.06	3.00	0.18	
LOW ELEV.	122.0	0.01				0.00

Total Encroachment = 0.60 AC-FT

AREA 2
ENCROACHMENT CALCULATION: (NODE NK1390)

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	125.3	0.17				0.17
			0.10	1.30	0.13	
	124.0	0.04				0.04
			0.02	2.00	0.04	
LOW ELEV.	122.0	0.00				0.00

Total Encroachment = 0.17 AC-FT

COMPENSATION CALCULATION: FPC 1

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
INSIDE BERM	124.0	0.27				0.96
			0.32	3.00	0.96	
* SHW	121.0	0.36				0.00

Total Compensation = 0.96 AC-FT

* ASSUMED FOR CHANNEL

AREA 4

ENCROACHMENT CALCULATION: (NODE NC1390)

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	126.3	3.17				6.50
			2.73	1.30	3.55	
	125.0	2.30				2.95
			1.36	2.00	2.72	
	123.0	0.42				0.23
			0.23	1.00	0.23	
LOW ELEV.	122.0	0.05				0.00

Total Encroachment = 6.50 AC-FT

AREA 3

ENCROACHMENT CALCULATION: (NODE NC1400, NC1460, NC1500)

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	125.9	1.80				2.65
			1.34	0.90	1.21	
	125.0	0.88				1.44
			0.48	3.00	1.44	
LOW ELEV.	122.0	0.07				0.00

Total Encroachment = 2.65 AC-FT

COMPENSATION CALCULATION: FPC 2

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
INSIDE BERM	125.5	4.77				9.55
			4.55	2.10	9.55	
SHW	123.4	4.32				0.00

Total Compensation = 9.55 AC-FT

**AREA 5
ENCROACHMENT CALCULATION: (NODE NH1040)**

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	130.1	1.590				2.17
			1.32	0.10	0.13	
	130.0	1.040				2.04
			0.68	2.00	1.36	
	128.0	0.320				0.68
			0.17	4.00	0.68	
LOW ELEV.	124.0	0.017				0.00

Total Encroachment = 2.17 AC-FT

**AREA 7
ENCROACHMENT CALCULATION: (NODE NH1000) (SMF 4)**

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	130.1	0.150				0.15
			0.14	0.10	0.01	
	130.0	0.130				0.14
			0.07	2.00	0.14	
LOW ELEV.	128.0	0.001				0.00

Total Encroachment = 0.15 AC-FT

**AREA 6
ENCROACHMENT CALCULATION: (NODE NH1044)**

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	129.1	0.470				0.66
			0.33	1.10	0.36	
	128.0	0.197				0.30
			0.12	1.00	0.12	
	127.0	0.047				0.18
			0.03	6.00	0.18	
LOW ELEV.	121.0	0.008				0.00

Total Encroachment = 0.66 AC-FT

**AREA 8
ENCROACHMENT CALCULATION: (NODE NH1000) (SMF 5)**

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	130.1	0.850				0.50
			0.84	0.10	0.08	
	130.0	0.830				0.42
			0.42	1.00	0.42	
LOW ELEV.	129.0	0.001				0.00

Total Encroachment = 0.50 AC-FT

**AREA 9
ENCROACHMENT CALCULATION: (NODE NC0500)**

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
100 YR ELEV.	133.3	0.170				0.13
			0.16	0.30	0.05	
	133.0	0.140				0.08
			0.08	1.00	0.08	
LOW ELEV.	132.0	0.010				0.00

* Compensate in R/W

* Total Encroachment = 0.13 AC-FT

COMPENSATION CALCULATION: FPC 3

	ELEV. NAVD '88	AREA (AC)	AVG AREA (AC)	DELTA (FT)	DELTA STORAGE (AC-FT)	SUM STORAGE (AC-FT)
INSIDE BERM	127.5	1.910				4.12
			1.79	2.30	4.12	
SHW	125.2	1.670				0.00

Total Compensation = 4.12 AC-FT



ITCHEPACKESASSA CREEK WATERSHED MANAGEMENT PROGRAM (L672)

WATERSHED MANAGEMENT PLAN

AUGUST 2010



PREPARED FOR:

SOUTHWEST FLORIDA
WATER MANAGEMENT DISTRICT
BROOKSVILLE, FLORIDA



POLK COUNTY BOARD OF COUNTY
COMMISSIONERS NATURAL
RESOURCES DIVISION



CIVIL SURV
A Tradition of Innovative Engineering

Itchepackesassa Creek Watershed Management Plan - Node Max Report
 100 Year 1 Day Storm Event

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
NC0500	Lake Bonnet Dr	100Yr 24hr	15.91	133.3	134.0	0.0002	134953	13.33	40.825	13.73	22.730
NC1390	Lake Bonnet Dr	100Yr 24hr	37.57	126.3	124.0	0.0002	1020350	15.00	96.611	14.06	76.447
NC1400	Lake Bonnet Dr	100Yr 24hr	38.02	125.9	126.0	0.0003	1979405	37.21	1143.447	37.77	1141.506
NC1460	Lake Bonnet Dr	100Yr 24hr	38.03	125.9	126.0	0.0003	946345	37.77	1141.506	38.01	1141.283
NC1500	Lake Bonnet Dr	100Yr 24hr	38.02	125.8	126.0	0.0003	386528	38.19	1141.349	38.28	1141.472
NH1000	Winston Creek	100Yr 24hr	29.98	130.1	134.0	0.0003	648944	29.39	1023.577	29.85	1022.015
NH1040	Winston Creek	100Yr 24hr	29.98	130.1	132.0	0.0013	98113	29.85	1022.015	29.91	1021.945
NH1044	Winston Creek	100Yr 24hr	30.19	129.1	130.0	0.0004	150127	29.91	1021.945	29.96	1021.812
NK1385	Tributary 2	100Yr 24hr	22.34	126.1	129.0	0.0054	81145	22.17	698.457	22.25	698.329
NK1390	Tributary 2	100Yr 24hr	22.44	125.3	129.0	-0.0080	21399	22.25	698.329	22.26	698.306

US 92 PD&E COUNTY LINE ROAD TO WABASH AVENUE (FPID: 433558-1-22-01)



APPENDIX 5
CULTURAL RESOURCE ASSESSMENT SURVEY

**PRELIMINARY ANALYSIS
PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF),
REGIONAL POND ALTERNATIVE (RPA),
AND FLOODPLAIN COMPENSATION (FPC) SITES
US 92 FROM COUNTY LINE ROAD
TO WABASH AVENUE SOUTH
POLK COUNTY, FLORIDA**

Financial Project ID No.: 433558-1-22-01

Prepared for:

**Florida Department of Transportation
District One
801 North Broadway Avenue
Bartow, Florida 33830**

August 2014

**PRELIMINARY ANALYSIS
PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF),
REGIONAL POND ALTERNATIVE (RPA),
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POLK COUNTY, FLORIDA**

Financial Project ID No.: 433558-1-22-01

Prepared for:

**Florida Department of Transportation
District One
801 North Broadway Avenue
Bartow, Florida 33830**

On behalf of:

**AIM Engineering & Surveying, Inc.
3802 Corporex Park Drive, Suite 225
Tampa, Florida 33619**

Prepared by:

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

August 2014

**PRELIMINARY ANALYSIS
PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF),
REGIONAL POND ALTERNATIVE (RPA),
AND FLOODPLAIN COMPENSATION (FPC) SITES
US 92 FROM COUNTY LINE ROAD TO WABASH AVENUE SOUTH
POLK COUNTY, FLORIDA
Financial Project ID No.: 433558-1-22-01**

1.0 INTRODUCTION

Archaeological Consultants, Inc. (ACI) conducted a preliminary analysis to determine if any significant or potentially significant cultural resources, including archaeological sites and historic buildings, were within the project's area of potential effect (APE). The archaeological APE is defined as the area contained within each of the six Stormwater Management Facilities (SMF), one Regional Pond Alternative (RPA), and three Floodplain Compensation (FPC) sites along US 92 between County Line Road and Wabash Avenue South, Polk County, Florida (**Figure 1**). The historical APE is defined as the archaeological APE and adjacent structures within 250 feet. More specifically, the project is located within Sections 15, 19, 20, 21, and 22 of Township 28 South, Range 23 East (USGS 1977, 1978). Known or potentially significant cultural resources are defined as sites listed, determined eligible, or considered eligible, for listing in the National Register of Historic Places (NRHP).

Based on this preliminary analysis, no proposed SMF/RPA/FPC needs to be avoided because of significant resources. This work was conducted in compliance with the provisions of the *National Historic Preservation Act of 1966* (Public Law 89-665), as amended, and the implementing regulations 36 CFR 800, as well as with the provisions contained in the revised Chapter 267, *Florida Statutes (FS)*.

2.0 BACKGROUND

Prior to initiating the archaeological and historical review of the proposed SMF/RPA/FPC sites, ACI reviewed the field work conducted for the US 92 corridor, which is currently underway. As a result of this review, no NRHP listed, determined eligible, or newly considered eligible cultural resources have been identified within or adjacent to the proposed SMF/RPA/FPC sites. Other surveys conducted in and adjacent to the project area also were reviewed (see **Table 1**). These surveys resulted in negative findings within the project APE.

Table 1. Previous Surveys within Two Miles of the APE.

Survey Title	Author/Date
CRAS US 92 (New Tampa Highway) from SR 572 to SR 563, Polk County	ACI 1994a
CRAS Nine Proposed Pond Sites on I-4, Polk County	ACI 1994b
CRAS Interstate 4 PD&E Study, Polk County	ACI 1995a
CRAS Ten Proposed Pond Sites on I-4 west of County Line Rd, Hillsborough County	ACI 1995b
Archaeological Site Location Predictive Model for the City of Lakeland, Polk County	ACI 1999
Proposed Cellular Tower Site: Winston (FL-0488-B), 3395 W. Memorial Blvd, Lakeland, Polk County	ACI 2000
CRAS Report Florida High Speed Rail Authority, PD&E, from Tampa to Orlando, Hillsborough, Polk, Osceola, and Orange Counties	ACI 2003
Archaeological and Historical Survey of the Proposed Drane Field Tower Location, Polk County	Ambrosino 2003
Archaeological and Historical Survey of the Proposed Kirkland Land Company Tower Location, Polk County	Driscoll 2004
Section 106 Review, FCC Form 621 Publix IBRD-George Jenkins Tower Colocate), Polk County	Florida Archaeological Consulting 2007
Archaeological/Historical Resource Evaluation for Polk Parkway (West Leg), Hillsborough and Polk Counties	HDR 1993
CRAS Panda Energy Corporation Cogeneration Plant and Associated Linear Facilities, Polk County	Janus Research and Piper Archaeology 1994
Verizon Wireless-Munday Lake Bonnett (Cell Tower Survey), Polk County	Parker 2002
Phase I Cultural Resource Survey of the Lakeland Central Park DRI, Polk County	Stokes 2006

The background research also entailed research of the computerized database at the Florida Master Site File (FMSF) and NRHP listings (conducted in July 2014), a review of the Lakeland (United States Geological Survey[USGS] 1977) and Plant City East (USGS 1978) quadrangle maps, the *Soil Survey of Polk County* (United States Department of Agriculture [USDA] 1990), as well as the standard archaeological predictive model for the Central Peninsular Gulf Coast and Caloosahatchee archaeological regions (Milanich and Fairbanks 1980; Milanich 1994). This research revealed no previously recorded archaeological sites are located within or adjacent to the 10 SMF/RPA/FPC sites; however, there are 8 previously recorded archaeological sites within a mile (**Figure 2**). These consist primarily of small lithic scatters and single artifact sites, which are culturally indeterminate. The sites were recorded during several different cultural resource assessment surveys for transportation projects (ACI 1994a,1995a; Estabrook and Fuhrmeister 1992; HDR 1993). Of the eight sites, six are considered ineligible for listing on the NRHP by the SHPO, one was not evaluated by the SHPO, and for one there is insufficient information for an assessment.

Based upon the results of background research, all proposed SMF/RPA/FPC sites were assigned to either a low or a low to moderate zone of archaeological potential (ZAPs) for site discovery; none was assigned to a high category (**Table 2**). For prehistoric period archaeological sites, distance to a fresh water source, soil type and drainage, relative elevation, proximity to known sites, and overall integrity (i.e., the

degree of modern land alterations) were the key variables used in the classification of each proposed SMF/RPA/FPC site. The potential for historic period archaeological sites was assessed on the basis of documentary research. Sites, if found, were expected to be small, low artifact density lithic and/or artifact (ceramics and lithics) scatters. Based upon an examination of the nineteenth century federal surveyor's plat and field notes, no homesteads, forts, battle sites, military trails, or Native American (Seminole) encampments were expected.

Table 2. Archaeological and Historic Data.

SMF/FPC/RPA	ZAPs*	Comments (i.e. soils, vegetation, drainage, previously recorded sites, etc.)
SMF 1	Low to Moderate	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Moderate	Historical: FDOT Weigh station within; South Florida Railroad (8PO7219) adjacent
SMF 2	Low	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low to Moderate	Historical: No buildings or structures within; South Florida Railroad (8PO7219) adjacent
SMF 3	Low to Moderate	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low to Moderate	Historical: No buildings or structures within; two buildings adjacent
SMF 4	Low	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low	Historical: No buildings or structures within or adjacent
SMF 5	Low	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low to Moderate	Historical: No buildings or structures within; one building adjacent
SMF 6	Low to Moderate	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low	Historical: No buildings or structures within or adjacent
RPA	Low to Moderate	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low to Moderate	Historical: No buildings or structures within or adjacent
FPC 1	Low	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Moderate	Historical: No buildings or structures within; one building and one building complex adjacent
FPC 2	Low	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low	Historical: No buildings or structures within or adjacent
FPC 3	Low to Moderate	Prehistoric Archaeological: no previously recorded sites
	Low	Historic Archaeological: no sites
	Low	Historical: No buildings or structures within or adjacent

Historical data indicated that one historic structure (50 years of age or older), the South Florida Railroad (CSX Railroad) (8PO7219), was previously recorded within or adjacent to any of the proposed SMF/RPA/FPC sites. Background research also indicated the potential for a few historic buildings within and/or adjacent to some of the proposed sites (**Table 2**).

3.0 ARCHAEOLOGICAL AND HISTORICAL RESOURCE POTENTIAL AND RECOMMENDATIONS

Archaeological Sites: Based upon the results of previous archaeological surveys in the vicinity, an understanding of the known patterns of aboriginal settlement and historical activity in the general region, as well as a review of the appropriate quadrangle maps, the USDA soil survey, and the ZAPs defined in the CRAS (ACI 2005a), each of the proposed SMF/RPA/FPC sites was evaluated for archaeological site potential.

As a result, five proposed SMF/RPA/FPC sites had a low to moderate site potential and the remainder had a low potential given the generally level and poorly drained conditions, and/or the extent of land alteration and development (**Table 2**). Sites, if present, are expected to be low artifact density lithic or artifact scatters.

Historic Resources: Background research indicated an absence of previously recorded historic buildings within the 10 proposed SMF/RPA/FPC sites. The potential for as yet unrecorded historic buildings was determined by examining the appropriate USGS quadrangle maps, the *Polk County Soil Survey* report (USDA 1990), the Polk County Property Appraiser (2014), historic aerials on file at the State University System of Florida Publication of Archival Library and Museum Materials (PALMM), and previous studies.

As a result, four proposed SMF/RPA/FPC sites had a low potential for historic structures within or adjacent to the site, four had a low to moderate potential, and two had a moderate potential. Only one site, SMF 1, contained a historic resource, 50 years of age or older; five sites, SMF 1, SMF 2, SMF 3, SMF 5, and FPC 1 have one or more historic resources adjacent to the site (**Table 2**).

Results: Based on this preliminary analysis, no proposed SMF/RPA/FPC site should be avoided because of significant cultural resources. Further, in keeping with Florida Department of Transportation (FDOT) requirements, it is recommended that a systematic archaeological survey should be conducted within each proposed SMF/RPA/FPC site considered to have a low to moderate archaeological potential (**Table 2**). Archaeological work should include systematic subsurface testing at 164 foot (50 meter) intervals. Proposed SMF/RPA/FPC sites assigned a low archaeological potential should be tested judgmentally. The purpose of this investigation will be to locate, identify, and evaluate any precontact or historic period archaeological sites present. If any historic resources 50 years of age or older are observed, they will be recorded in the FMSF and evaluated for NRHP eligibility.

4.0 REFERENCES CONSULTED

Archaeological Consultants, Inc. (ACI)

- 1994a Cultural Resource Assessment Survey of US 92 (New Tampa Highway) from SR 572 to SR 563, Polk County, Florida, ACI, Sarasota.
- 1994b Nine Proposed Pond Sites on I-4, Polk County, Florida. ACI, Sarasota.
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- 1999 Archaeological Site Location Predictive Model for the City of Lakeland, Polk County. ACI, Sarasota.
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Stokes, Anne V.

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1978 Plant City East. LABINS mrg.3317.tif

United States Department of Agriculture (USDA)

- 1990 *Soil Survey of Polk County*. USDA, Soil Conservation Services, Washington, D.C.

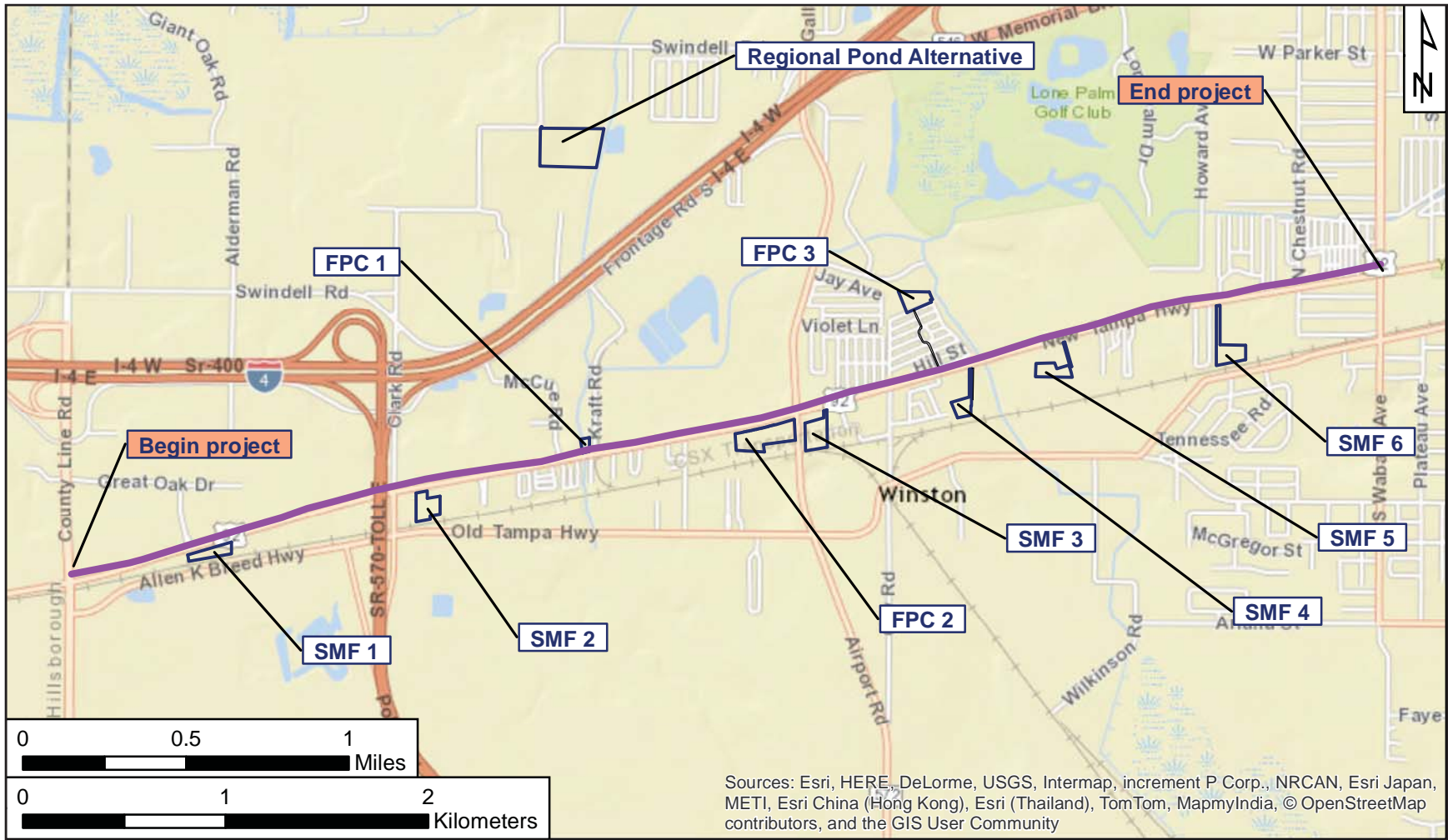


Figure 1. Location of the proposed SMF, Regional Pond Alternative, and FPC sites for the US 92 PD&E Study, Polk County.

**Preliminary Analysis
Proposed SMF, RPA, and FPC Sites
US 92 from County Line Road to
Wabash Avenue South
Polk County, Florida
FPID No.: 433558-1-22-01**

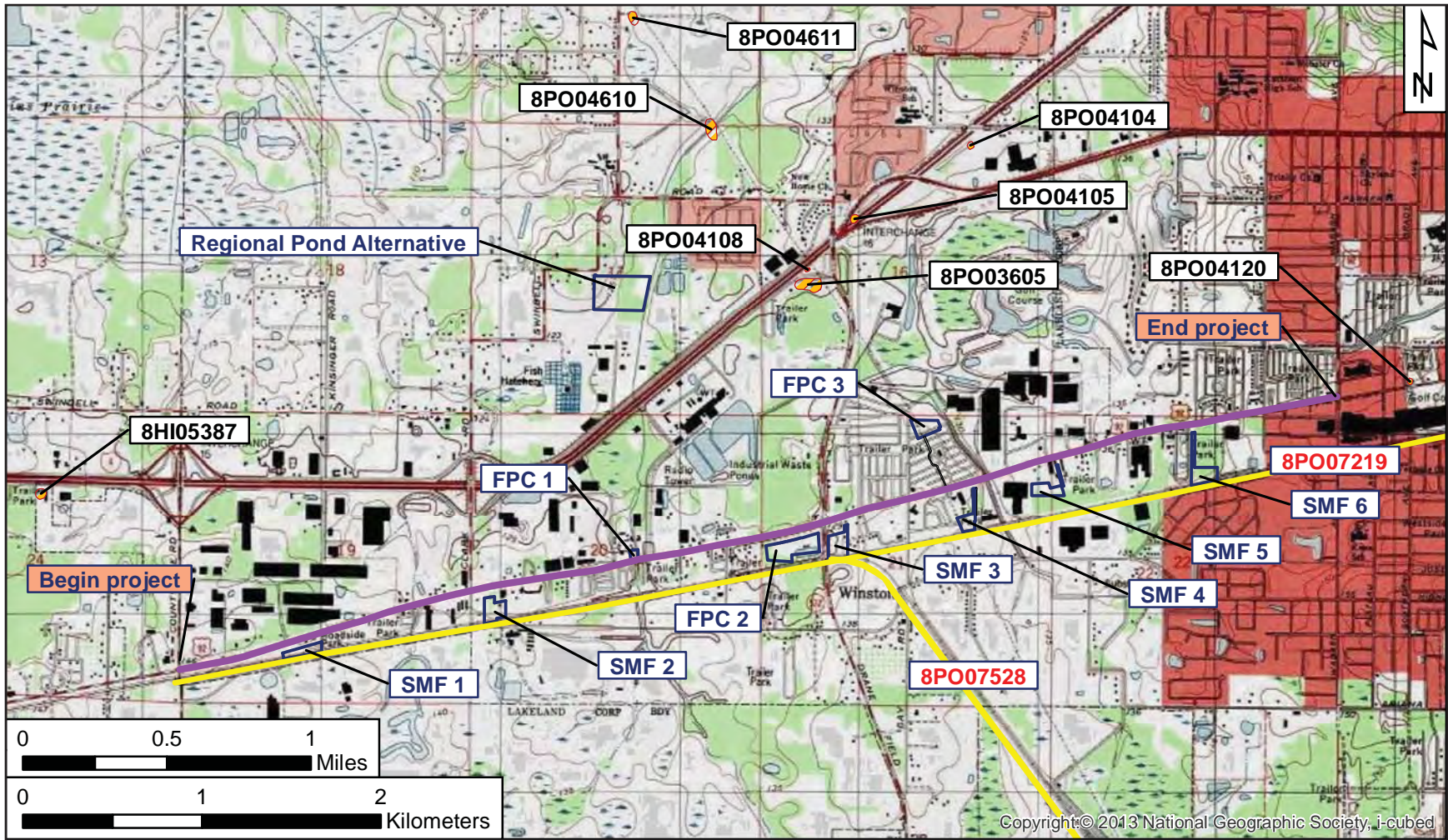


Figure 2. Environmental setting of the proposed SMF, Regional Pond Alternative, and FPC sites, archaeological sites (orange) within one mile, and the adjacent linear resources (yellow). Township 28 South, Range 23 East, Sections 19-21; USGS Plant City East and Lakeland.

**Preliminary Analysis
Proposed SMF, RPA, and FPC Sites
US 92 from County Line Road to
Wabash Avenue South
Polk County, Florida
FPID No.: 433558-1-22-01**

APPENDIX 6

WETLAND & PROTECTED SPECIES EVALUATION

FINAL POND SITING REPORT
WETLANDS AND PROTECTED SPECIES
EVALUATION

US 92

**FROM COUNTY LINE ROAD TO WABASH AVENUE
ROADWAY IMPROVEMENT PROJECT
FINANCIAL PROJECT NUMBER: 433558 1 22 01**

POLK COUNTY, FLORIDA

Prepared for:



**Florida Department of Transportation
District One
Environmental Management Office
801 North Broadway Avenue
Bartow, Florida 33830**

October 2016

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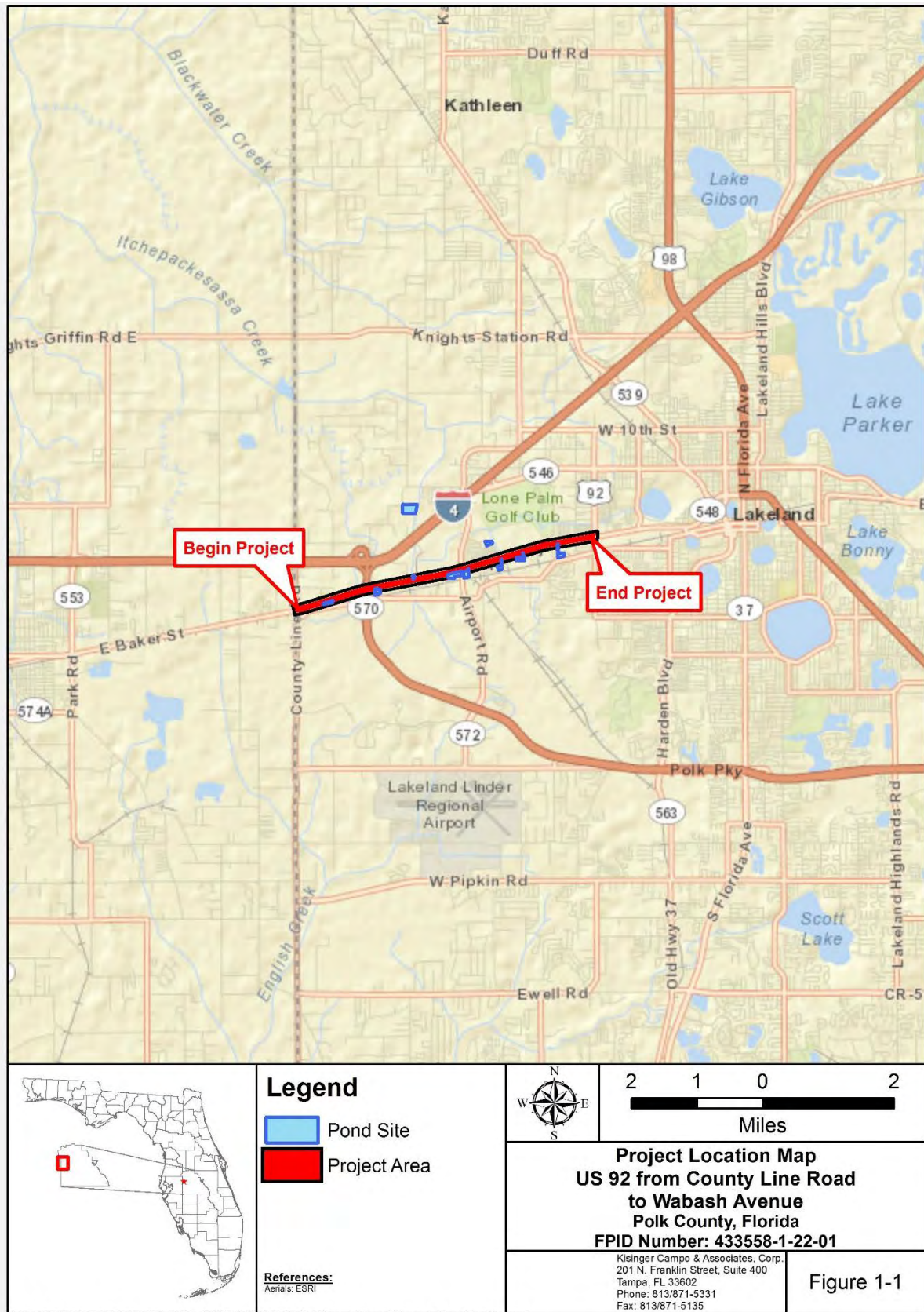
Appendix A	Land Use Map
Appendix B	Potentially Occurring Threatened and Endangered Species
Appendix C	Listed Species Observed Map
Appendix D	Wood Stork Nesting Colony Location Map
Appendix E	Bald Eagle Nest Location Map
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1.0 INTRODUCTION

The Florida Department of Transportation (FDOT), District One, is proposing capacity improvements to a segment of US 92 (New Tampa Highway) from County Line Road to Wabash Avenue, located in the City of Lakeland, Polk County, Florida, a distance of 4.1 miles (see Project Location Map, **Figure 1-1**).

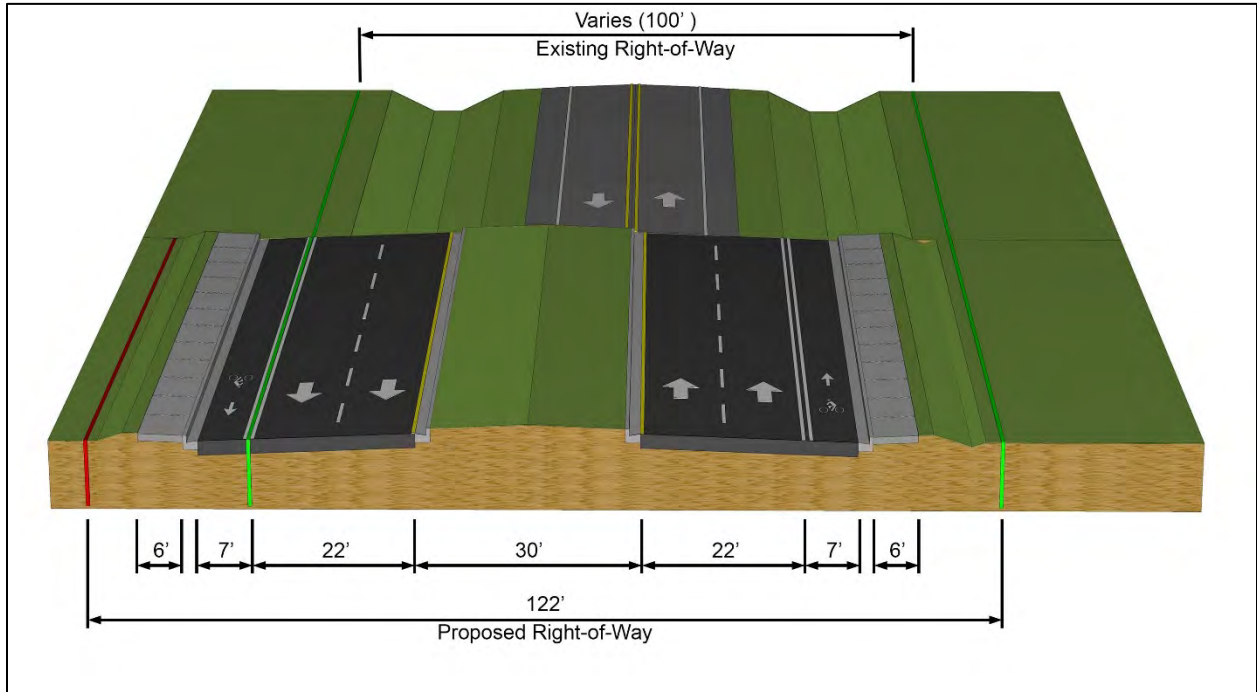
The existing two-lane undivided rural roadway will be widened to a four-lane divided suburban roadway. The existing US 92 typical section is a two-lane undivided rural roadway featuring 12-foot travel lanes and 5-foot outside shoulders. The proposed typical section consists of four 11-foot travel lanes with Type E curb on the inside and 7-foot paved outside shoulders/bike lanes on both sides of the road with Type F curb. A 6-foot sidewalk will be provided along both the north and south sides of the road. (see Proposed Typical Section, **Figure 1-2**).

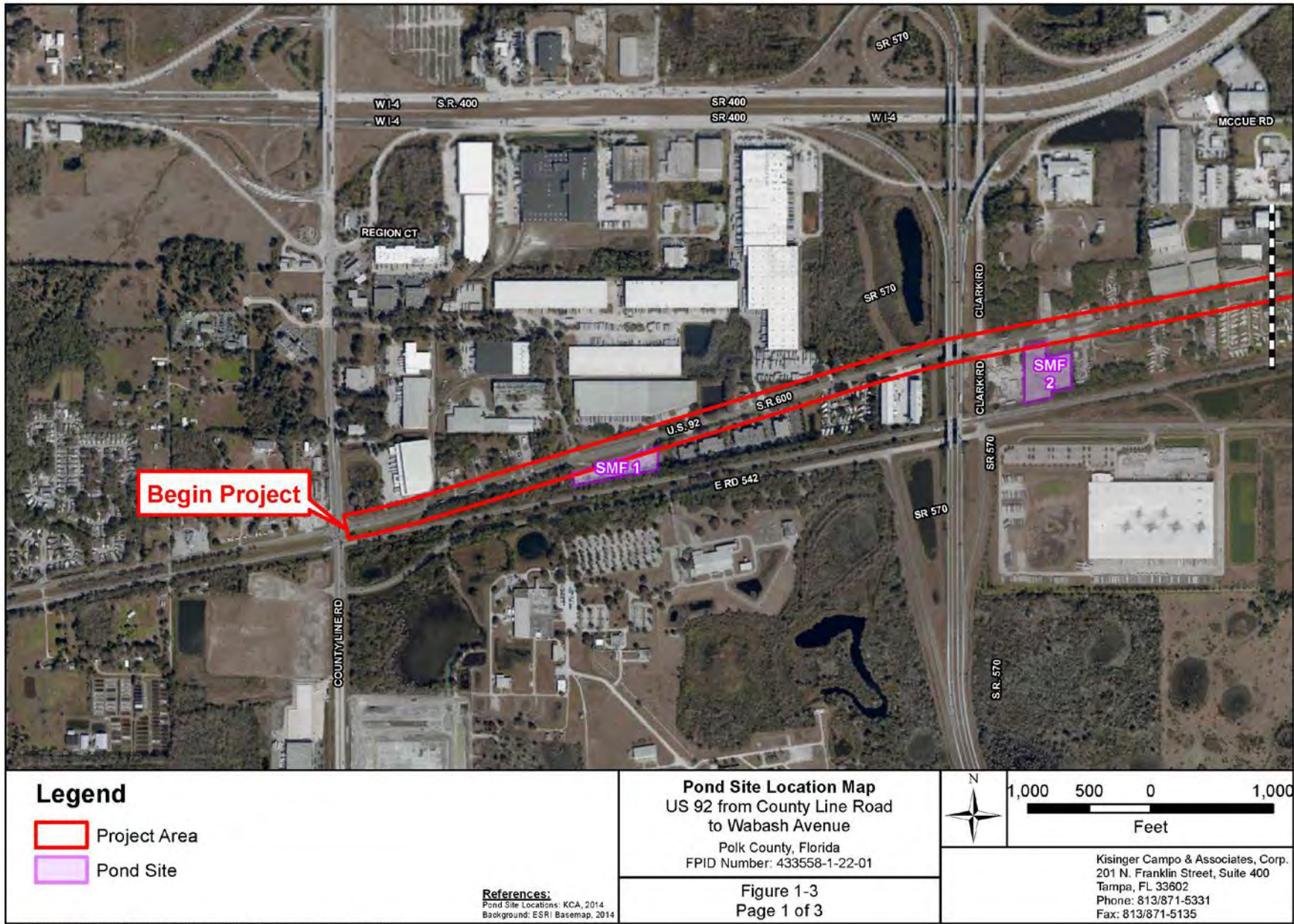
Currently, runoff within the project limits is collected in roadside swales and small sections of storm sewer that discharge to the existing ditches and cross drains that flow north into Winston Creek and Lake Bonnet outfall canal and ultimately into Itchepackesassa Creek. The proposed capacity improvements will require construction of stormwater management facilities (SMF) for six basins and three (3) floodplain compensation (FPC) areas. Six (6) SMF alternatives, (1) regional SMF that would compensate for all six basins, and three (3) floodplain compensation areas were reviewed (see Pond Site Location Map, **Figure 1-3**). This report documents the review of the SMF and FPC site locations for potential impacts to wetlands and protected wildlife.



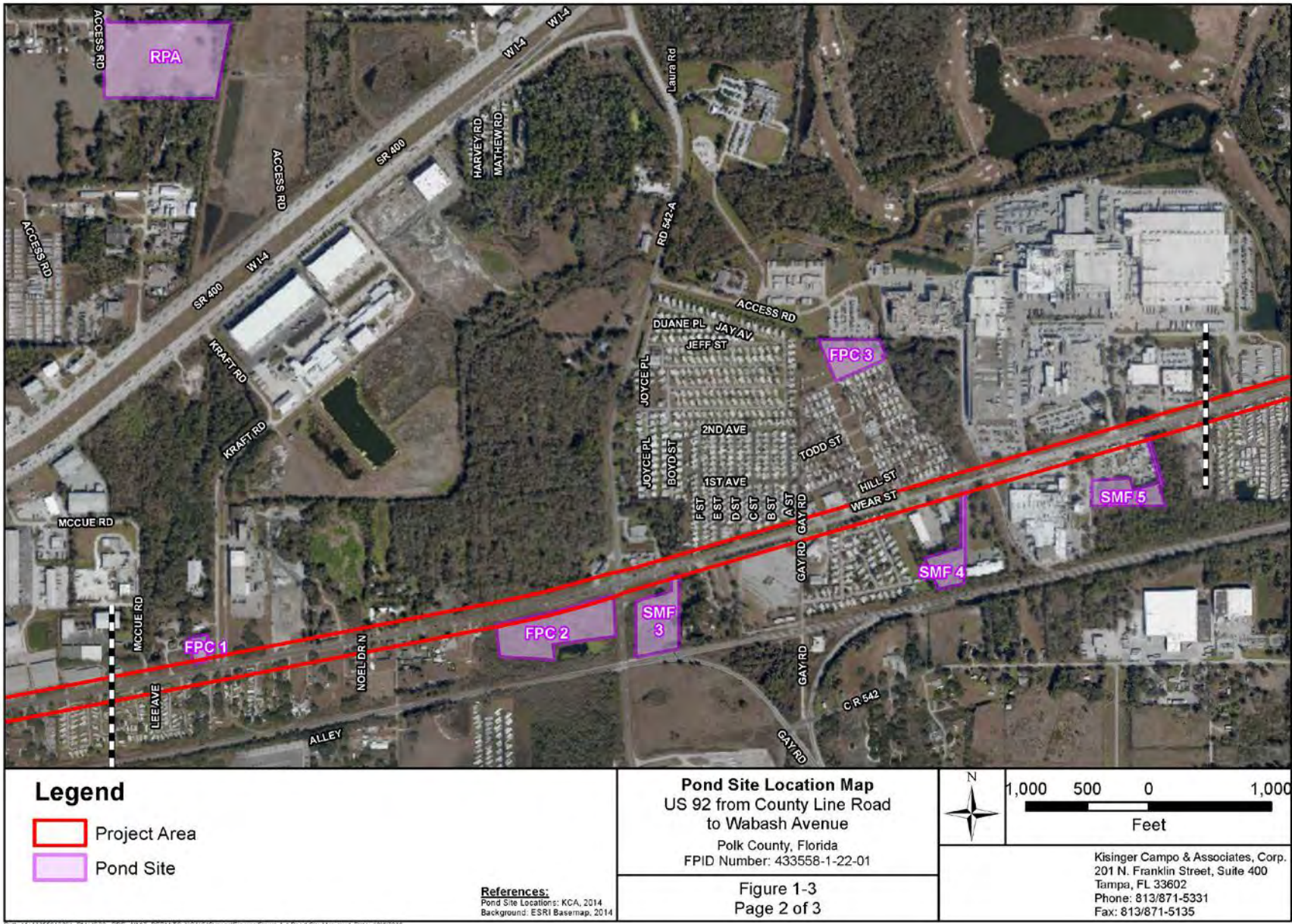
1-2 US 92 from County Line Road to Wabash Avenue
Final Pond Siting Report
Wetland and Protected Species Evaluation
Financial Project Number: 433558-1-22-01

Figure 1-2 Proposed Typical Section





Path: M:\433558\1-22-01_P\1-22-01_P\01_ARMY_PERMITS\01-AV\Simac\p\gones\Figure 1-4 Pond Site Map.mxd_Date: 10/4/2016





2.0 METHODOLOGY

To determine the approximate locations and boundaries of existing upland and wetland communities within each SMF and FPC site and potential utilization of these sites by protected species, available site-specific data was collected and reviewed.

The literature and databases reviewed as part of this evaluation included:

- True color aerial imagery of the assessment area, (1"=200') ESRI 2014;
- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), Soil Survey of Polk County, Florida, 1985;
- Florida Association of Environmental Soil Scientists, Hydric Soils of Florida Handbook, 4th ed., (Hurt et. al. 2007);
- Florida Department of Transportation (FDOT), Florida Land Use Cover, and Forms Classification System (FLUCFCS), 3rd ed., January 1999;
- FDOT, ETDM Screening Summary Report, Project #3192 - US 92 Add Lanes, January 30, 2008;
- FDOT, US 92 (New Tampa Highway) from Airport Road (SR 572) to North-South Route (SR 563), June 1995;
- Florida Fish and Wildlife Conservation Commission (FWC), Florida's Endangered and Threatened Species, January 2013;
- FWC, Eagle Nest Locator website
(<http://myfwc.com/eagle/eaglenests/nestlocator.aspx>);
- FWC, Fish and Wildlife Research Institute. Wading Bird Colonies Florida database
(http://ocean.floridamarine.org/TRGIS/Description_Layers_Terrestrial.htm);
- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix Map Server
(<http://www.fnai.org/biointro.cfm>)
- Southwest Florida Water Management District (SWFWMD), FLUCFCS, 2011;
- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), Soil Survey of Polk County, Florida, 1985;

- U.S. Fish and Wildlife Service, Critical Habitat Portal website (<http://criticalhabitat.fws.gov/crithab/>)
- U.S. Fish and Wildlife Service, National Wetlands Inventory (NWI), Wetlands Online Mapper (June 2014);
- U.S. Fish and Wildlife Service, Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12, June 2007, as amended;
- U.S. Fish and Wildlife Service, Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et. al. 1979); and
- U.S. Fish and Wildlife Service, Wood Stork database (<http://www.fws.gov/northflorida/woodstorks/woodstorks.htm#Recovery%20Plan>).

KCA environmental scientists familiar with Florida natural communities conducted pedestrian field surveys of six (6) SMF sites, one (1) regional SMF site, and three (3) FPC sites in July 2014. The purpose of these field reviews was to assess existing ecological conditions at each site. Observations were recorded to characterize vegetative communities present, determine if potential SMF/FPC sites contain state or federal jurisdictional wetlands, and evaluate the potential of the sites to support protected wildlife species.

3.0 RESULTS

3.1 EXISTING LAND USES

The assessment area consists of six (6) SMF sites, one (1) regional SMF site, and three (3) FPC sites. Existing land use and habitats within the assessment area were classified using the FLUCFCS (FDOT 1999). Wetlands were also classified using USFWS Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al. 1979). The assessment areas consists primarily of cropland and pastureland (FLUCFCS 210), urban open land (FLUCFCS 190), timber nursery (FLUCFCS 246), upland forests (FLUCFCS 434 and 438), and forested wetlands (FLUCFCS 617 and 630). A map of existing land uses found within the assessment area is provided in **Appendix A**.

SMF Sites

SMF 1 is located on the south side of US 92 beginning at Station (Sta.) 30+00 and ending at Sta. 37+00. This proposed SMF site consists predominately of urban open land (FLUCFCS 190) and a small area of upland hardwoods/conifers (FLUCFCS 434).

SMF 2 is located on the south side of US 92 beginning at Sta. 68+00 and ending at Sta.72+00. This proposed SMF site consists of commercial and services (FLUCFCS 140), urban open land (FLUCFCS 190), and mixed hardwoods (FLUCFCS 438).

SMF 3 is located on the south side of US 92 beginning at Sta. 132+50 and ending at Sta. 137+50. This proposed SMF site consists of urban open land (FLUCFCS 190) and mixed wetland hardwoods (FLUCFCS 617).

SMF 4 is located on the south side of US 92 beginning at Sta. 155+50 and ending at Sta. 161+00. This proposed SMF site consists of upland hardwoods/conifers (FLUCFCS 434), industrial (FLUCFCS 150) and wetland forested mix (FLUCFCS 630).

SMF 5 is located on the south side of US 92 beginning at Sta. 171+50 and ending at Sta. 176+50. This proposed SMF site consists of upland hardwoods/conifers (FLUCFCS 434) and industrial (FLUCFCS 150).

SMF 6 is located on the south side of US 92 beginning at Sta. 201+50 and ending at Sta. 206+50. This proposed SMF site consists of wetland forested mix (FLUCFCS 630), upland hardwoods/conifers (FLUCFCS 434), and medium density residential (FLUCFCS 120).

The regional pond site (RPA) is located approximately 0.9 miles north of US 92, east of Swindell Road. This proposed SMF site consists of cropland and pastureland (FLUCFCS 210), stream and lake swamps (FLUCFCS 615), and streams and waterways (FLUCFCS 510).

FPC Sites

FPC 1 is located on the north side of US 92, beginning at Sta. 96+00 and ending at Sta. 97+50. This proposed FPC site consists of urban open land (FLUCFCS 190) and streams and waterways (FLUCFCS 510).

FPC 2 is located on the south side of US 92, beginning at Sta. 121+00 and ending at Sta. 131+00. This proposed FPC site consists entirely of a timber nursery (FLUCFCS 246).

FPC 3 is located approximately 0.2 miles north of US 92, beginning at Sta. 158+00 and ending at Sta. 159+00. This proposed FPC site consists of urban open land (FLUCFCS 190), mixed wetland hardwoods (FLUCFCS 617), and freshwater marshes (FLUCFCS 641).

3.2 THREATENED AND ENDANGERED SPECIES

Based upon in house assessments and assessment area reviews, the following federal and state listed protected species were identified as having the potential to occur within the assessment area: gopher tortoise (*Gopherus polyphemus*), American alligator (*Alligator mississippiensis*), eastern indigo snake (*Drymarchon couperi*), Florida pine snake (*Pituophis melanoleucus mugitus*), limpkin (*Aphelocoma coerulescens*), little blue heron (*Egretta caerulea*), roseate spoonbill (*Platalea ajaja*), snowy egret (*Egretta thula*), tricolored heron (*Egretta tricolor*), white ibis (*Eudocimus albus*), wood stork (*Mycteria americana*), bald eagle (*Haliaeetus leucocephalus*), and Florida sandhill crane (*Grus canadensis pratensis*). These species, their state and/or federal designation, and preferred habitat are provided in **Appendix B**. **Appendix C** shows the locations of all listed species documented within one (1) mile of the assessment area as well as the locations of all protected species observed during field reviews of the assessment area.

The project falls within consultation areas for the Florida scrub-jay (*Aphelocoma coerulescens*), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), and crested caracara (*Caracara cheriway*). However, habitat for these species does not exist within the assessment area, therefore; it is anticipated that the proposed project will have no involvement with these species.

The **gopher tortoise** is listed as threatened by the FWC. It requires well-drained, loose sandy soils for burrowing, and low-growing herbs and grasses for food. These conditions can be found in a number of habitats including xeric oak, sandhills, dry pine flatwoods, scrub habitats, as well as old fields, pastures and roadsides. There is limited suitable habitat for the gopher tortoise in the SMF/FPC sites. However, there have been no documented occurrences of this species and it was not observed during field surveys of the assessment area. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

The **American alligator** is listed as threatened by the USFWS due to its similarity of appearance to the American crocodile. The American alligator is known to utilize swamps, lakes, marshes

and canals. There is potential habitat for the American alligator within SMF and FPC sites; however, there have been no documented occurrences of this species and it was not observed during field surveys of the sites. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

The **eastern indigo snake** is listed as threatened by the USFWS. This large black snake can be found in a variety of habitats including pine flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. It may utilize gopher tortoise burrows for shelter to escape hot or cold ambient temperatures. No eastern indigo snakes were observed during the field surveys and there is minimal habitat for this species available within SMF and FPC site alternatives. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

The **Florida pine snake** is listed as a species of special concern by the FWC. The Florida pine snake prefers xeric habitats including oak woodlands and pine flatwoods located on well-drained sandy soils. The pine snake is also known to utilize tunnel systems of pocket gophers and burrows of gopher tortoises. There have been no documented sightings of the Florida pine snake within one (1) mile of the assessment area and it was not observed during field reviews. Even though no Florida pine snakes were observed during the field surveys, minimal potential habitat used by this species is present several of the SMF and FPC site alternatives. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

Wading birds, including the **limpkin, little blue heron, roseate spoonbill, snowy egret, tricolored heron, and white ibis** are listed as species of special concern by the FWC. These species utilize a wide variety of wetland habitats including canals, ditches, forested wetlands and marshes. While none of these species were observed during field surveys, they may be expected to occur in the wetland habitats found in the assessment area. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

The **wood stork** is listed as threatened by the USFWS. This wading bird species is opportunistic and utilizes various habitat types, including forested wetlands, freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures, and ditches for feeding. The assessment area is located within the 18.6-mile core foraging area of five (5) active wood stork nesting colonies (see **Appendix D**, Wood Stork Rookery map). While this species was not observed during field reviews, there is potential foraging habitat for this species within SMF and FPC sites. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

The **bald eagle** has been de-listed by both FWC and USFWS. However, it is still federally protected under the Bald and Golden Eagle Protection Act in accordance with 16 United States Code 668 and the Migratory Bird Treaty Act of 1918. In addition, the FWC has implemented a bald eagle management plan. The bald eagle utilizes riparian habitats associated with coastal

areas, lake shorelines, and river banks. Their nests are typically located near water bodies that provide a dependable food source. According to FWC bald eagle nest database, there are no active bald eagles nests located within one (1) mile of any of the SMF sites (see Bald Eagle Nest Location Map, **Appendix E**).

The **Florida sandhill crane** is listed as threatened by the FWC. The sandhill crane is associated with shallow fresh water areas, pasture and open woods habitats. Within the assessment area, there is potential habitat for this species and a pair of sandhill cranes were observed foraging in the project vicinity (see **Appendix C**, Listed Species Observed Map). Despite observing this species in the field, no nests were identified during the field review and none were identified in relevant databases. The SMF and FPC sites with potential habitat to support this species are identified **Table 3-1**.

3.3 WETLANDS

Of the seven (7) potential SMF sites and three (3) potential FPC sites associated with the proposed improvements to US 92, a total of five (5) include wetlands or surface waters (SMF 3, SMF 4, SMF 6, RPA, FPC 1, and FPC 3). The wetlands found within both the SMF and FPC sites consist of forested or herbaceous systems with varying degrees of nuisance/exotic species as well as a surface water ditch. The following is a summary of the main types of wetlands within the proposed SMF and FPC sites.

Forested wetland systems included stream and lake swamps (FLUCFCS 615), mixed wetland hardwoods (FLUCFCS 617), and wetland forested mix (FLUCFCS 630). Vegetation within the stream and lake swamp communities included red maple (*Acer rubrum*), laurel oak (*Quercus laurifolia*), Carolian willow (*Salix caroliniana*), dahoon holly (*Illex cassine*), and air potato (*Dioscorea bulbifera*). Vegetation within the mixed wetland hardwood communities included red maple, laurel oak, air potato, water oak (*Quercus nigra*), and chain fern (*Woodwardia virginica*). Vegetation within the wetland forested mix system consisted primarily of red maple, water oak, slash pine (*Pinus elliottii*), lizard's tail (*Saururus cernuus*), wax myrtle (*Myrica cerifera*), swamp fern (*Blechnum serrulatum*), dahoon holly, fire flag (*Thalia geniculata*), and chain fern. For these forested wetland systems, exotic species generally comprised less than 10% of the overall vegetation.

Herbaceous wetland systems included a freshwater marsh (FLUCFCS 641). Vegetation within this wetland system consisted primarily of marsh pennywort (*Hydrocotyl umbellata*), bushy bluestem (*Andropogon glomeratus*), maidencane (*Panicum hemitomom*), sofrush (*Juncus* sp.), red maple saplings, Carolina willow, and primrose willow (*Ludwigia peruviana*). For this wetland system, exotic species generally comprised less than 25% of the overall vegetation.

Surface water ditches were classified as streams/waterways (FLUCFCS 510). Vegetation within this type of system consisted primarily of primrose willow, cattail (*Typha* sp.), Carolina willow, and water hyacinth (*Eichhornia crassipes*). For these surface water systems, exotic species

generally comprised greater than 50% of the overall vegetation, water depth was estimated to be five feet deep, and a culvert allowed the water to flow under the roadway.

3.4 SUMMARY

For comparison purposes, a None, Low, Medium or High rating scale was used to evaluate the potential for wetlands and protected species involvement at each SMF/FPC site alternative reviewed.

Table 3-1 provides the level of potential protected species involvement for each SMF/FPC site alternative. Scoring for protected species involvement was based on the types of habitat found in each SMF/FPC site and the relative condition of the habitat to support protected species, and if protected species were observed in the project vicinity. A *No* potential for involvement indicates that no suitable habitat exists within the assessment area. A *Low* potential for involvement indicates that minimal/suboptimal habitat exists within the assessment area, no sitings or element occurrences have been documented within one (1) mile of the project vicinity and the species was not observed during field reviews. A *Medium* potential for involvement indicates that suitable habitat exists and the species has been documented within one (1) mile of the project vicinity, but no observations of the species were made during the field investigations. A *High* potential for involvement indicates that suitable habitat exists and the species was observed during field reviews.

Table 3-2 provides the level of potential wetland involvement for each SMF/FPC site. Scoring for wetland involvement was based on acreage of wetlands found on-site. A *No* potential for involvement indicates that there are no wetland/surface waters found on site. A *Low* potential for involvement indicates that there is less than 0.5 acres of wetlands/surface waters on site. A *Medium* potential for involvement indicates that there is 0.5 to 1.0 acre of wetlands/surface waters on site. A *High* potential for involvement indicates that there is over 1.0 acre of wetlands/surface waters on site. The potential pond sites with upland cut stormwater systems that typically do not require mitigation were not included in the pond site comparison study. Wetlands will be assessed using the Uniform Mitigation Assessment Method (UMAM) and any impacts to wetland systems will be mitigated through purchase of wetland credits at a private mitigation bank. The project limits are within the service area of two wetland mitigation banks, Hillsborough River Mitigation Bank and North Tampa Mitigation Bank.

Detailed data sheets and photographs of each SMF and FPC site are provided in **Appendix F**.

**TABLE 3-1
LEVEL OF POTENTIAL PROTECTED SPECIES INVOLVEMENT**

Basin	Pond Site	None	Low	Medium	High	Potential Suitable Habitat	Observed
SMF Sites							
Basin 1	SMF-1		X			GT, EIS, PS	
Basin 2	SMF-2		X			GT, EIS, PS	
Basin 3	SMF-3		X			GT, EIS, WI, SE, LI, LBH, RS, TCH, WS	
Basin 4	SMF-4		X			GT, EIS, PS, WI, SE, LI, LBH, RS, TCH, WS	
Basin 5	SMF-5		X			GT, EIS, PS	
Basin 6	SMF-6		X			GT, EIS, PS, WI, SE, LI, LBH, RS, TCH, WS	
Regional	RPA		X			AA, GT, EIS, WI, SE, LI, LBH, TCH, WS	
FPC Sites							
Floodplain Compensation Ponds	FPC-1		X			AA, GT, EIS, WI, SE, LI, LBH, TCH, WS	
	FPC-2		X			EIS	
	FPC-3		X			AA, GT, EIS, WI, SE, LI, LBH, RS, TCH, WS, SHC	

Legend:

- None = No habitat for potentially occurring protected species
 Low = Minimal / suboptimal habitat for potentially occurring protected species
 Medium = Conditions favorable for protected species
 High = Protected species confirmed or highly likely

Species

- | | |
|----------------------------|------------------------------|
| AA = American alligator | SHC = Florida sandhill crane |
| EIS = Eastern indigo snake | BE = Bald eagle |
| GT = gopher tortoise | TCH = tricolored heron |
| LI = limpkin | LBH = little blue heron |
| PS = Florida pine snake | RS = roseate spoonbill |
| SE = snowy egret | WI = white ibis |
| WS = wood stork | |

**TABLE 3-2
LEVEL OF POTENTIAL WETLAND INVOLVEMENT**

Basin	Pond Site	Pond Site Area (acres)	None	Low	Medium	High	Comments
SMF Sites							
Basin 1	SMF-1	2.35	X				
Basin 2	SMF-2	3.86	X				
Basin 3	SMF-3	4.00				X	1.71 acre forested wetland
Basin 4	SMF-4	2.22		X			0.13 acre forested wetland
Basin 5	SMF-5	2.88	X				
Basin 6	SMF-6	3.96				X	2.30 acres forested wetland
Regional	RPA	13.94				X	0.16 acre surface water, 1.12 acre forested wetland
FPC Sites							
Basin 1	FPC-1	0.70		X			0.14 acre surface water
Basin 2	FPC-2	6.94	X				
Basin 3	FPC-3	2.82				X	0.79 acre forested and 0.36 acre herbaceous wetland

Legend:

None = No wetland involvement
 Low = Minimal wetland involvement (< 0.5 ac)
 Medium = Some wetland involvement (0.5 – 1.0 ac)
 High = Substantial wetland involvement (> 1 ac)

4.0 CONCLUSIONS

As part of roadway improvements proposed on US 92, seven (7) stormwater management facility and three (3) floodplain compensation area locations were evaluated for potential wetlands and protected species involvement. The land use and habitat types found within the 10 alternative SMF and FPC sites are dominated by the following land uses: cropland and pastureland, urban open land, timber nursery, upland forests, and forested/herbaceous wetlands; with cropland and pastureland being the most prevalent. The vegetation within the upland areas consist primarily of maintained bahia grass and and mixed hardwoods. Wetlands and surface waters within the proposed SMF and FPC sites consist primarily of freshwater marsh, wetland forested systems, and surface water ditches. Habitat for 13 protected species, four (4) federally listed species and nine (9) state listed species, were evaluated for each SMF and FPC site alternative.

Protected Species

Based upon in house assessments and assessment area reviews, it was determined that a total of 13 federal or state protected animal species have the potential to utilize the habitats found within the assessment area. The Florida sandhill crane was the only protected species that was observed in the assessment area.

All seven (7) SMF sites and three (3) FPC were given a low potential for protected species involvement due to minimal/suboptimal habitat present for potentially protected species. Both the Florida sandhill crane and roseate spoonbill were recorded within 1 mile of the project; however, the SMF and FPC sites within one mile of each observation did not contain suitable habitat for these species.

Wetlands

Of the seven (7) SMF and three (3) FPC sites associated with the proposed widening of US 92, a total of six (6) (SMF 3, SMF 4, SMF 6, RPA, FPC 1, and FPC 3) contain wetland or surface waters. Of these six (6) sites, two (2) were given a low potential and four (4) were given a high potential for wetland involvement.

SMF 4 and FPC 1 were given a low potential for wetland involvement. These sites contain a wetland component under 0.5 acres. These wetlands and surface waters are of moderate quality, have less than 10% exotic species, and have been fragmented and hydrologically altered by development in adjacent areas.

SMF 3, SMF 6, RPA, and FPC 3 were given a high potential for wetland involvement. These sites contain a wetland component greater than one (1) acre. Wetlands and surface waters within these sites are low to moderate quality, have few exotic species present (less than 10% in SMF 3, 6, and RPA and less than 25% in FPC 3) and have been fragmented and hydrologically altered by development in adjacent areas.

5.0 REFERENCES

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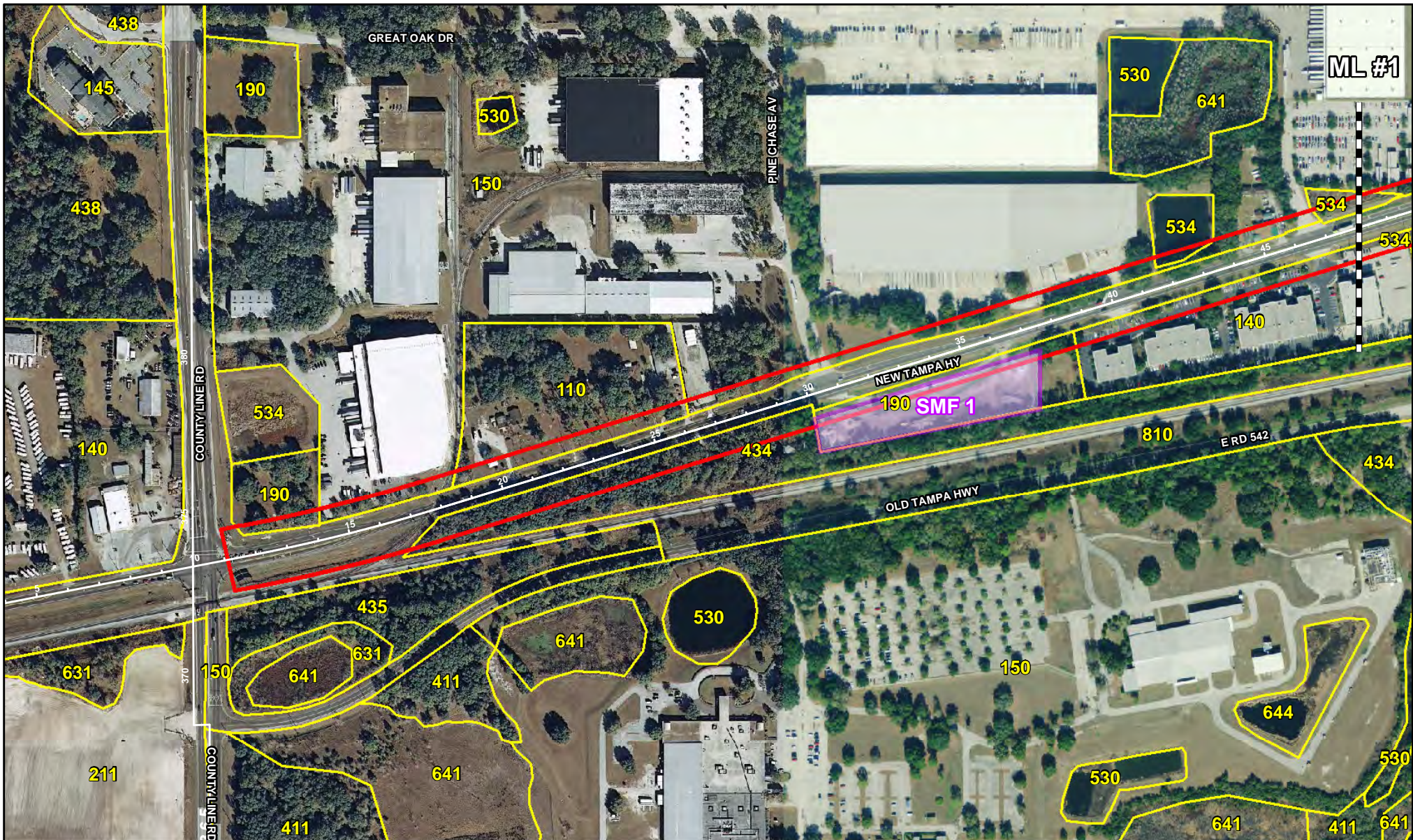
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APPENDICES

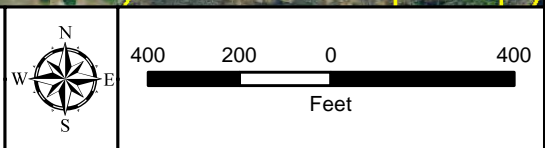
APPENDIX A
Land Use Map



ML #1

Legend	
	Pond Sites
	Project Boundary
110:	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
140:	COMMERCIAL AND SERVICES
150:	INDUSTRIAL
190:	OPEN LAND
411:	PINE FLATWOODS
434:	HARDWOOD CONIFER MIXED
530:	RESERVOIRS
641:	FRESHWATER MARSHES
644:	EMERGENT AQUATIC VEGETATION
810:	TRANSPORTATION

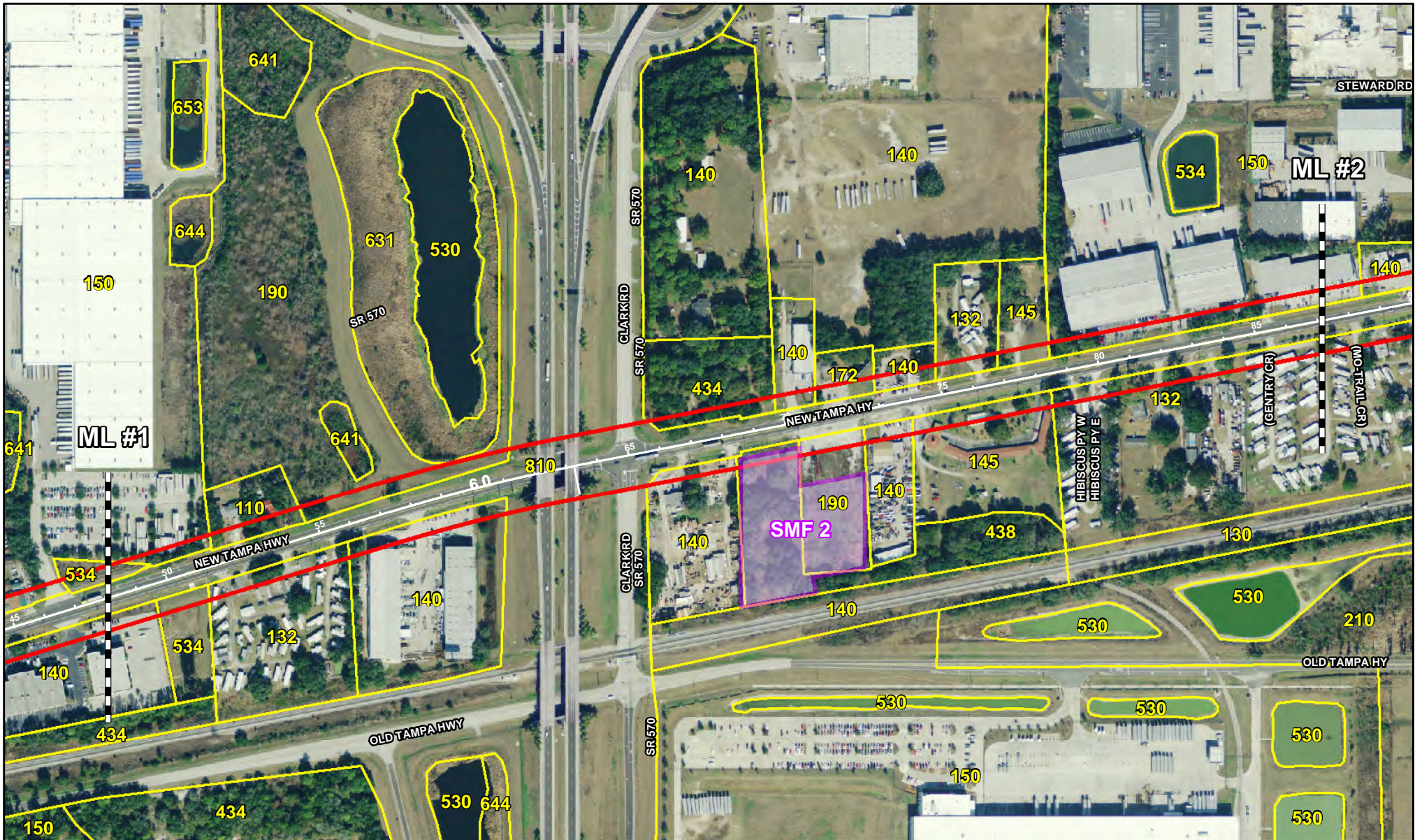
Land Use Map
 US 92 from County Line Road
 to Wabash Avenue



Polk County, Florida
 FPID Number: 433558-1-22-01

Appendix A
 Page 1 of 7

References:
 Land Use: SWFWMD, 2011
 Aerials: FDOT, 2011

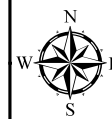


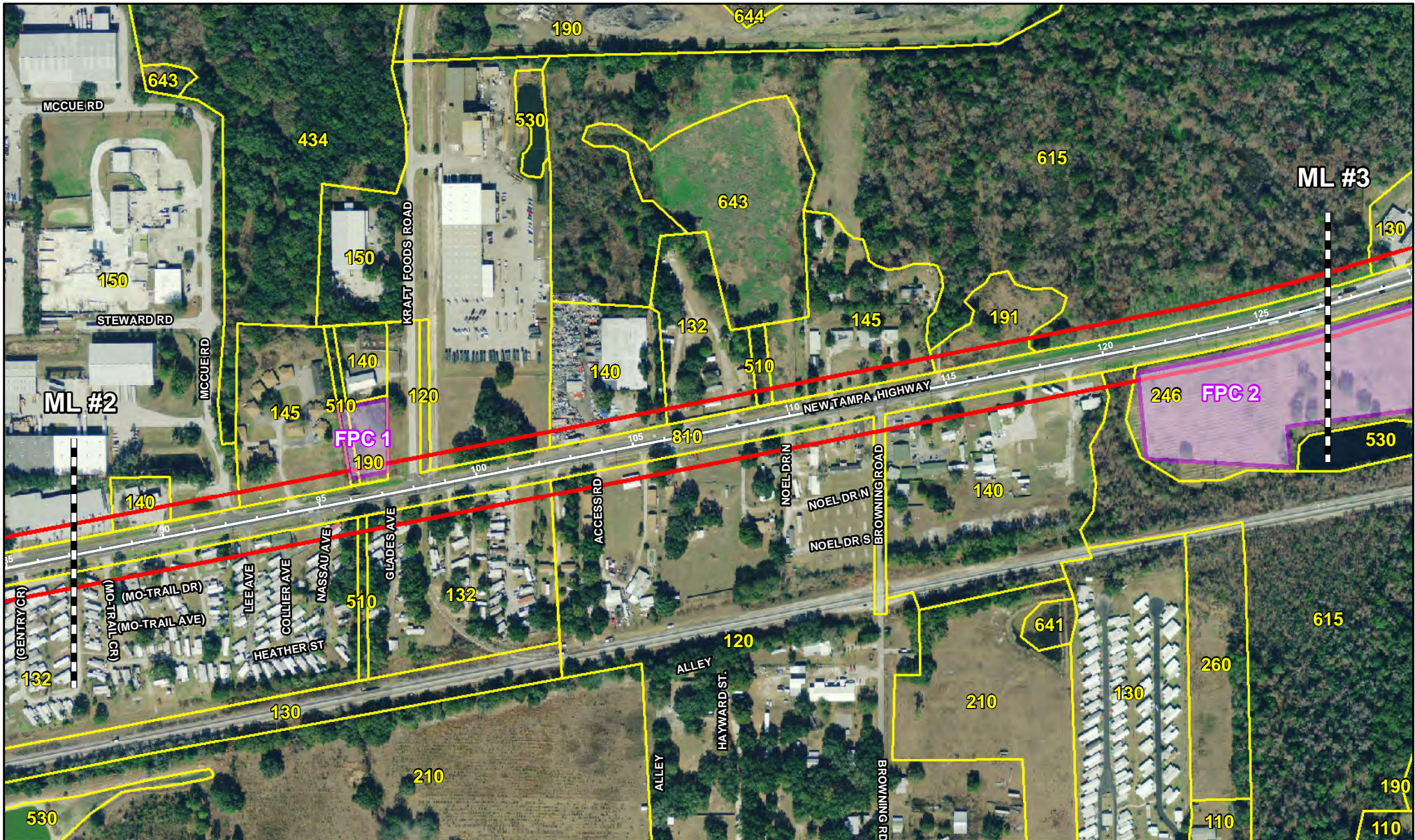
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	Pond Sites
	Project Boundary
110:	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
130:	RESIDENTIAL HIGH DENSITY
140:	COMMERCIAL AND SERVICES
150:	INDUSTRIAL
190:	OPEN LAND
210:	CROPLAND AND PASTURELAND
434:	HARDWOOD CONIFER MIXED
530:	RESERVOIRS
641:	FRESHWATER MARSHES
644:	EMERGENT AQUATIC VEGETATION
653:	INTERMITTENT PONDS
810:	TRANSPORTATION

References:
 Land Use: SWFWMD, 2011
 Aerials: FDOT, 2011

Land Use Map US 92 from County Line Road to Wabash Avenue

Polk County, Florida
 FPID Number: 433558-1-22-01





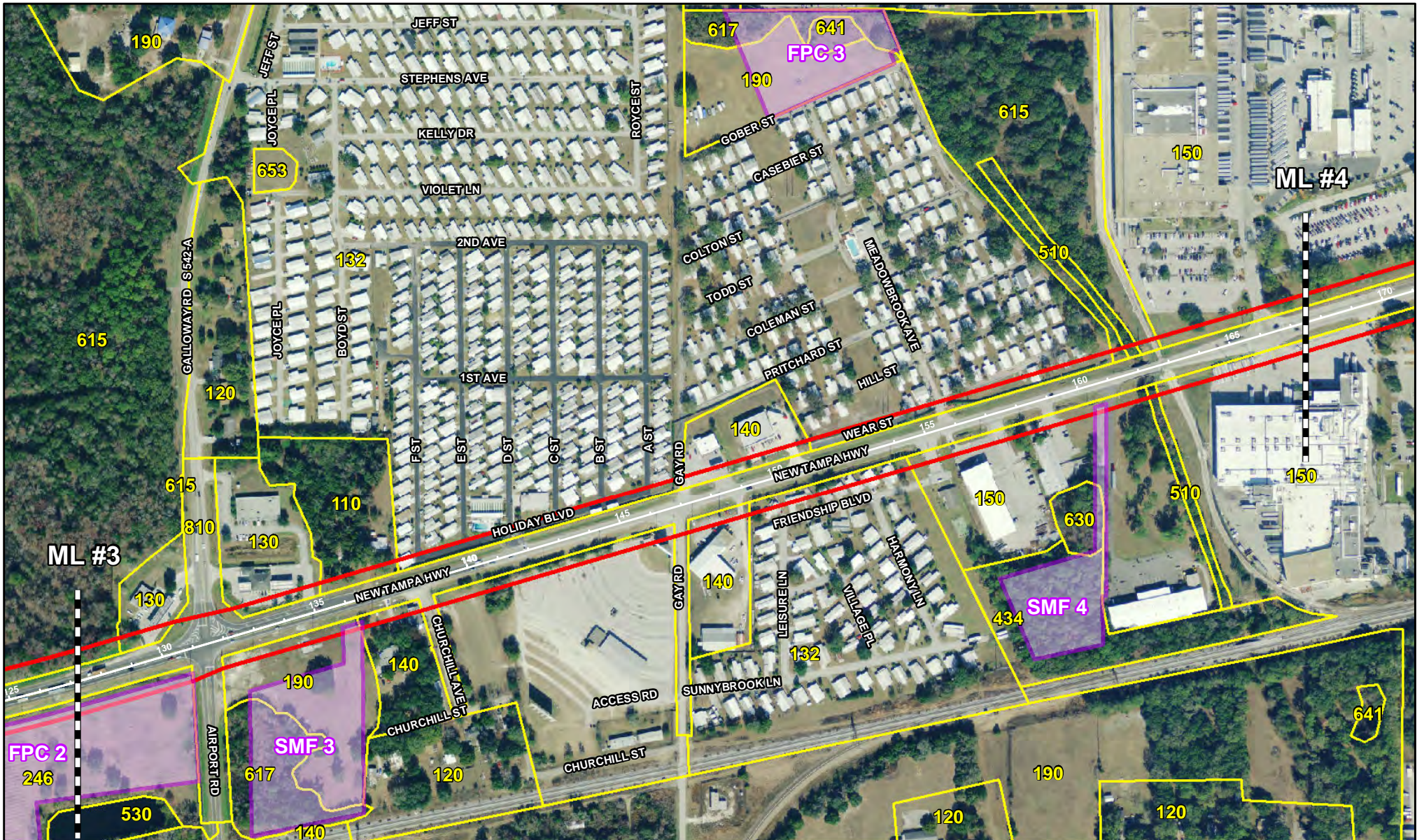
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	Pond Sites
	Project Boundary
110:	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120:	RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT
130:	RESIDENTIAL HIGH DENSITY
140:	COMMERCIAL AND SERVICES
150:	INDUSTRIAL
190:	OPEN LAND
210:	CROPLAND AND PASTURELAND
260:	OTHER OPEN LANDS <RURAL>
434:	HARDWOOD CONIFER MIXED
510:	STREAMS AND WATERWAYS
530:	RESERVOIRS
615:	STREAM AND LAKE SWAMPS (BOTTOMLAND)
641:	FRESHWATER MARSHES
643:	WET PRAIRIES
644:	EMERGENT AQUATIC VEGETATION
810:	TRANSPORTATION

Land Use Map
 US 92 from County Line Road
 to Wabash Avenue

Polk County, Florida
 FPID Number: 433558-1-22-01

400 200 0 400
Feet

Appendix A
Page 3 of 7



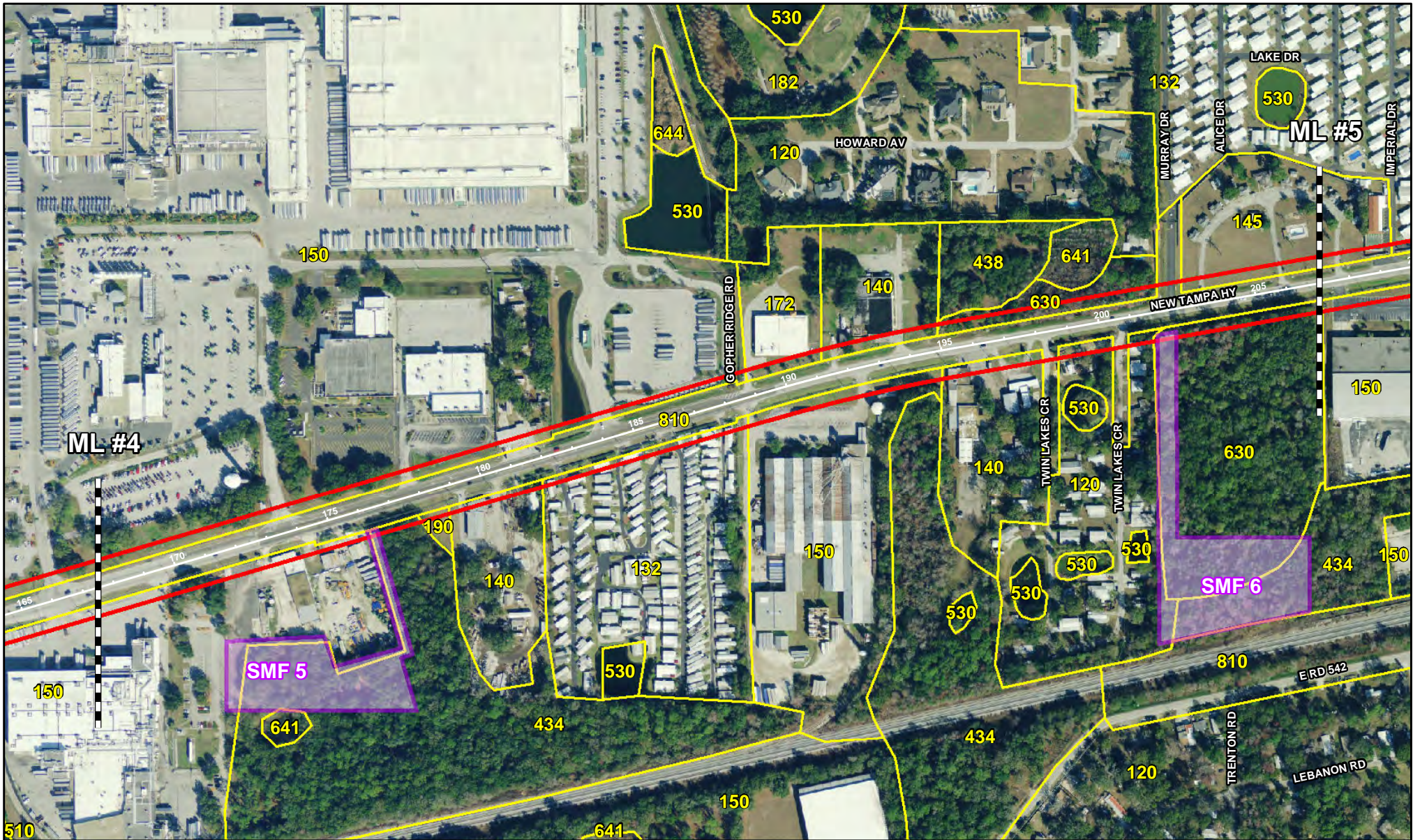
Legend	
	Pond Sites
	Project Boundary
110:	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120:	RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT
130:	RESIDENTIAL HIGH DENSITY
140:	COMMERCIAL AND SERVICES
150:	INDUSTRIAL
190:	OPEN LAND
434:	HARDWOOD CONIFER MIXED
510:	STREAMS AND WATERWAYS
530:	RESERVOIRS
615:	STREAM AND LAKE SWAMPS (BOTTOMLAND)
630:	WETLAND FORESTED MIXED
641:	FRESHWATER MARSHES
653:	INTERMITTENT PONDS
810:	TRANSPORTATION

Land Use Map
 US 92 from County Line Road
 to Wabash Avenue

Polk County, Florida
 FPID Number: 433558-1-22-01

Feet

Appendix A
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- Legend**
- Pond Sites
 - Project Boundary
 - 120: RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT
 - 140: COMMERCIAL AND SERVICES
 - 150: INDUSTRIAL
 - 190: OPEN LAND

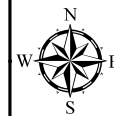
- 434: HARDWOOD CONIFER MIXED
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 630: WETLAND FORESTED MIXED
- 641: FRESHWATER MARSHES
- 644: EMERGENT AQUATIC VEGETATION
- 810: TRANSPORTATION

References:
 Land Use: SWFWMD, 2011
 Aerials: FDOT, 2011

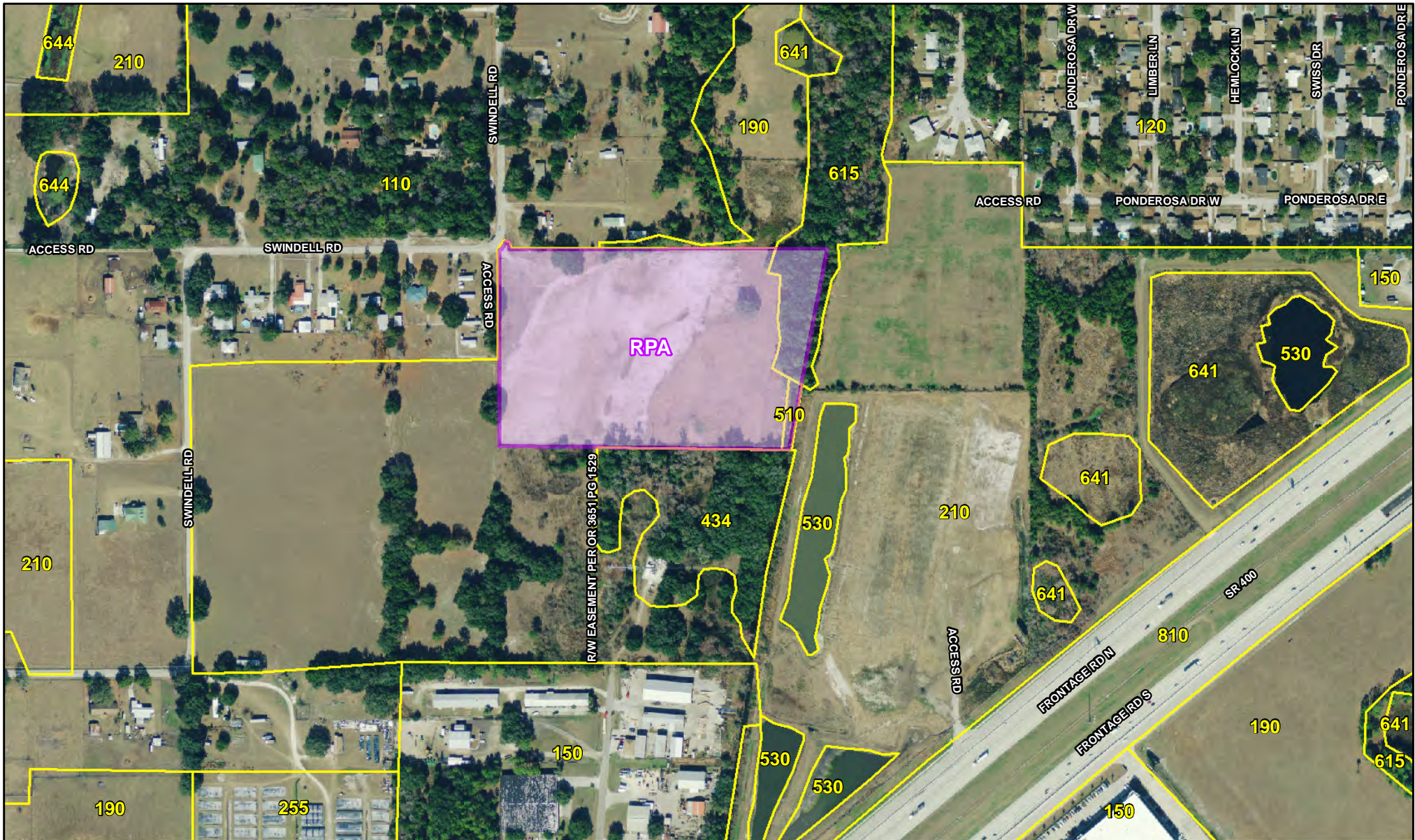
Land Use Map

US 92 from County Line Road to Wabash Avenue

Polk County, Florida
 FPID Number: 433558-1-22-01



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Legend	
	Pond Sites
	Project Boundary
110:	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120:	RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT
150:	INDUSTRIAL
190:	OPEN LAND
210:	CROPLAND AND PASTURELAND
344:	HARDWOOD CONIFER MIXED
510:	STREAMS AND WATERWAYS
530:	RESERVOIRS
615:	STREAM AND LAKE SWAMPS (BOTTOMLAND)
641:	FRESHWATER MARSHES
644:	EMERGENT AQUATIC VEGETATION
810:	TRANSPORTATION

Land Use Map
 US 92 from County Line Road
 to Wabash Avenue

Polk County, Florida
 FPID Number: 433558-1-22-01

400 200 0 400
Feet

Appendix A
Page 7 of 7

APPENDIX B

Potentially Occurring Threatened and Endangered Species

**APPENDIX B
FEDERAL AND STATE PROTECTED SPECIES WITH POTENTIAL FOR OCCURRENCE IN THE
ASSESSMENT AREA**

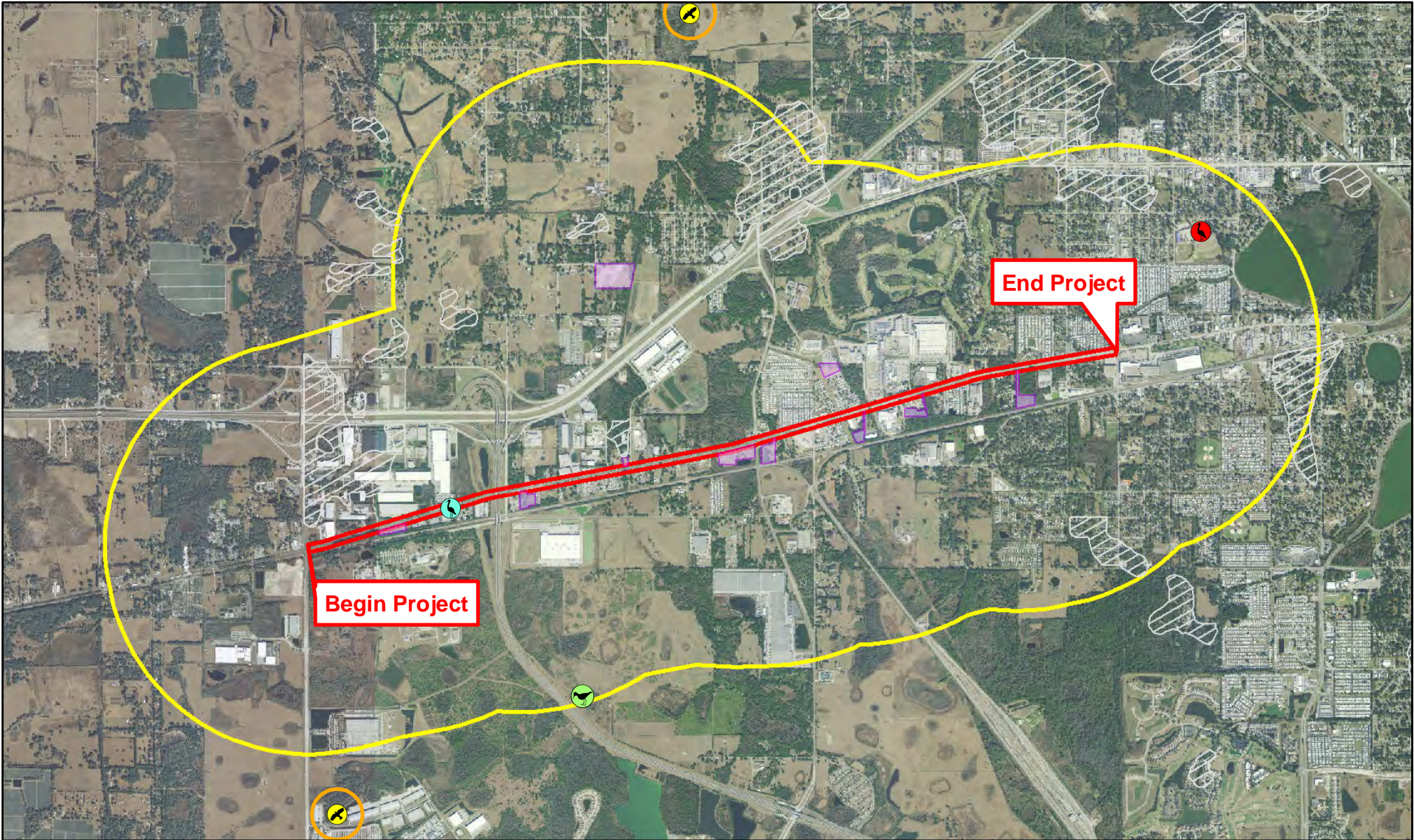
Species	Designated Status			Habitat Preference
	USFWS	FWC	FDA	
REPTILES				
American alligator <i>Alligator mississippiensis</i>	T (S/A)			wetland habitats including streams, ponds, lakes, freshwater marshes and ditches
Eastern indigo snake <i>Drymarchon corais couperi</i>	T			mangrove swamp, wet prairies, xeric pinelands, scrub
Gopher tortoise <i>Gopherus polyphemus</i>		T		xeric oak, sandhills, scrub habitats, dry pine flatwoods, as well as old fields, pastures and roadsides
Florida pine snake <i>Pituophis melanoleucus mugitus</i>		SSC		xeric habitats including oak woodlands and pine flatwoods located on well-drained sandy soils
AVIAN				
Florida sandhill crane <i>Grus canadensis pratensis</i>		T		open woodlands, pastures, low-intensity agriculture, and fields within residential areas
Roseate spoonbill <i>Platalea ajaja</i>		S		mudflats, fresh and saltwater marshes, mangroves, herbaceous wetland, ditches
Little blue heron <i>Egretta caerulea</i>		S		mudflats, coastal beaches, mangrove swamps, hardwood & cypress swamps, wet prairies
Snowy egret <i>Egretta thula</i>		S		mudflats, coastal beaches, mangrove swamps, hardwood & cypress swamps, wet prairies
Tricolored heron <i>Egretta tricolor</i>		S		mudflats, coastal beaches, mangrove swamps, hardwood & cypress swamps, wet prairies
White ibis <i>Eudocimus albus</i>		S		freshwater marshes, mangrove swamps, shallow lakes, wet prairies, and cypress and hardwood swamps
Florida sandhill crane <i>Grus canadensis pratensis</i>		T		open terrain, lake and river margins, prairies, sloughs
Bald eagle <i>Haliaeetus leucocephalus</i>	(1)	(2)		large open water bodies, saltwater marshes, dry prairies, mixed pine, hardwood forests, wet prairies, marshes, pine flatwoods, sandhills
Wood stork <i>Mycteria americana</i>	T			fresh- and saltwater marshes, tidal flats, wet prairies, cypress swamps

Legend:










- USFWS = United States Fish and Wildlife Service
 FFWCC = Florida Fish and Wildlife Conservation Commission
 FDA = Florida Department of Agriculture and Consumer Services
 E = Endangered
 T = Threatened
 S = Species of Special Concern
 (S/A) = Threatened/Similarity of Appearance
 (1) = While not listed under the ESA, the Bald Eagle is federally protected under the Bald and Golden Eagle Protection Act.
 (2) = While not listed under Chapter 68A-27 FAC, the Bald Eagle is protected under the FFWCC Bald Eagle Management Plan (2008).

APPENDIX C

Listed Species Observed Map



Legend

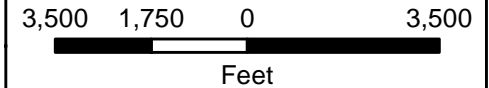
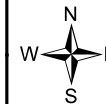
-  Roseate Spoonbill
-  Eagle Nest (Active since 2009)
-  Wading_bird_rookeries_1999
-  Sandhill Crane (Pair)
-  660ft Eagles Nest Buffer
-  1 mile Project Buffer
-  Sand Skink Suitable Habitat
-  Pond Site
-  Project Location

References:
 Species: KCA, 2013
 Aerials: FDOT, 2011

Listed Species Observed Map
 US 92 from County Line Road
 to Wabash Avenue

Polk County, Florida
 FPID Number: 433558-1-22-01

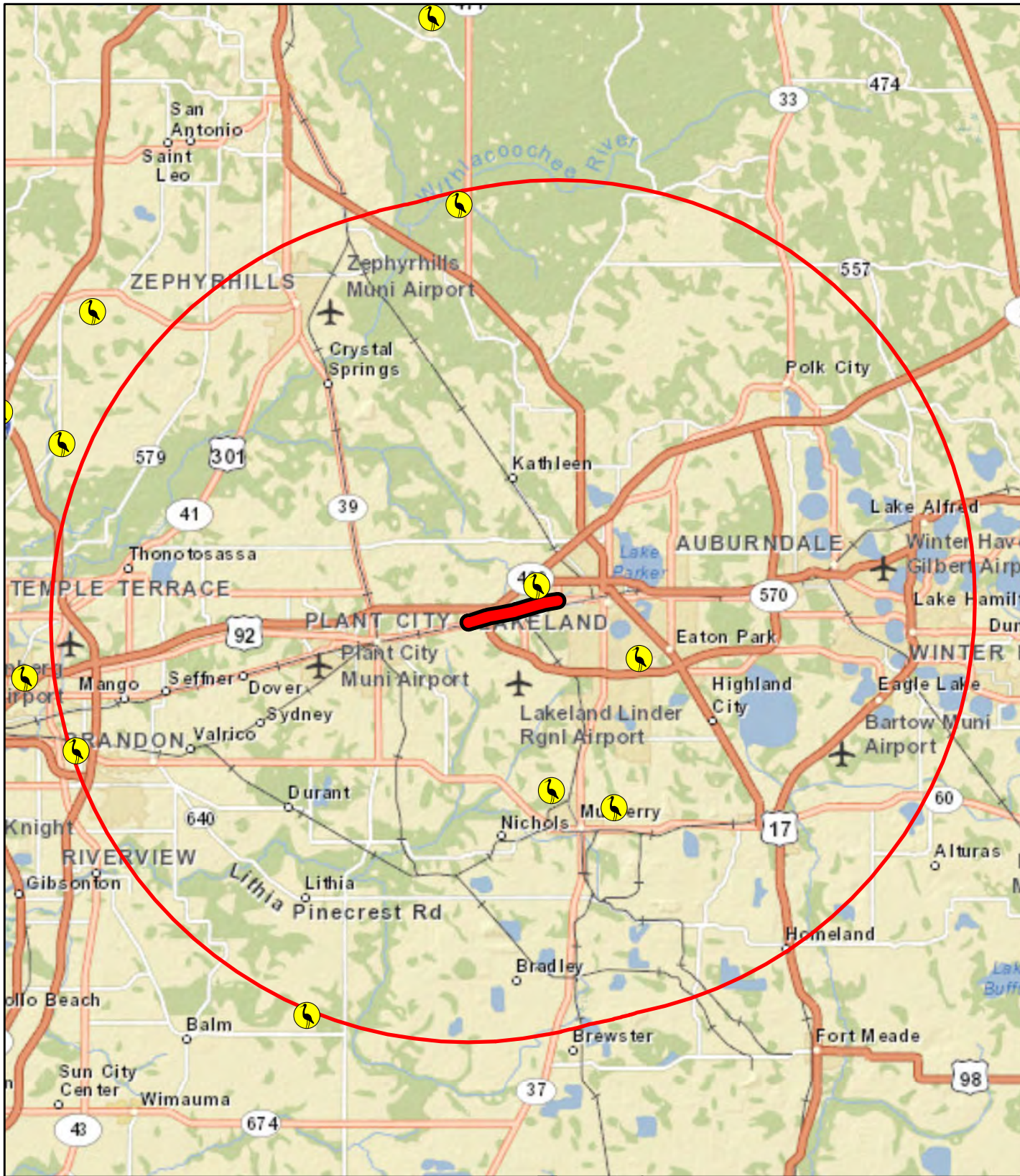
Appendix C



Kisinger Campo & Associates, Corp.
 201 N. Franklin Street, Suite 400
 Tampa, FL 33602
 Phone: 813/871-5331
 Fax: 813/871-5135

APPENDIX D

Wood Stork Nesting Colony Location Map



Legend



Wood Stork Nesting Colony



18.6 Mile Core Foraging Area Buffer

Project Location



7 3.5 0 7



Miles

Wood Stork Nesting Colonies Location Map

US 92 from County Line Road
to Wabash Avenue
Polk County, Florida

FPID Number: 433558-1-22-01

References:

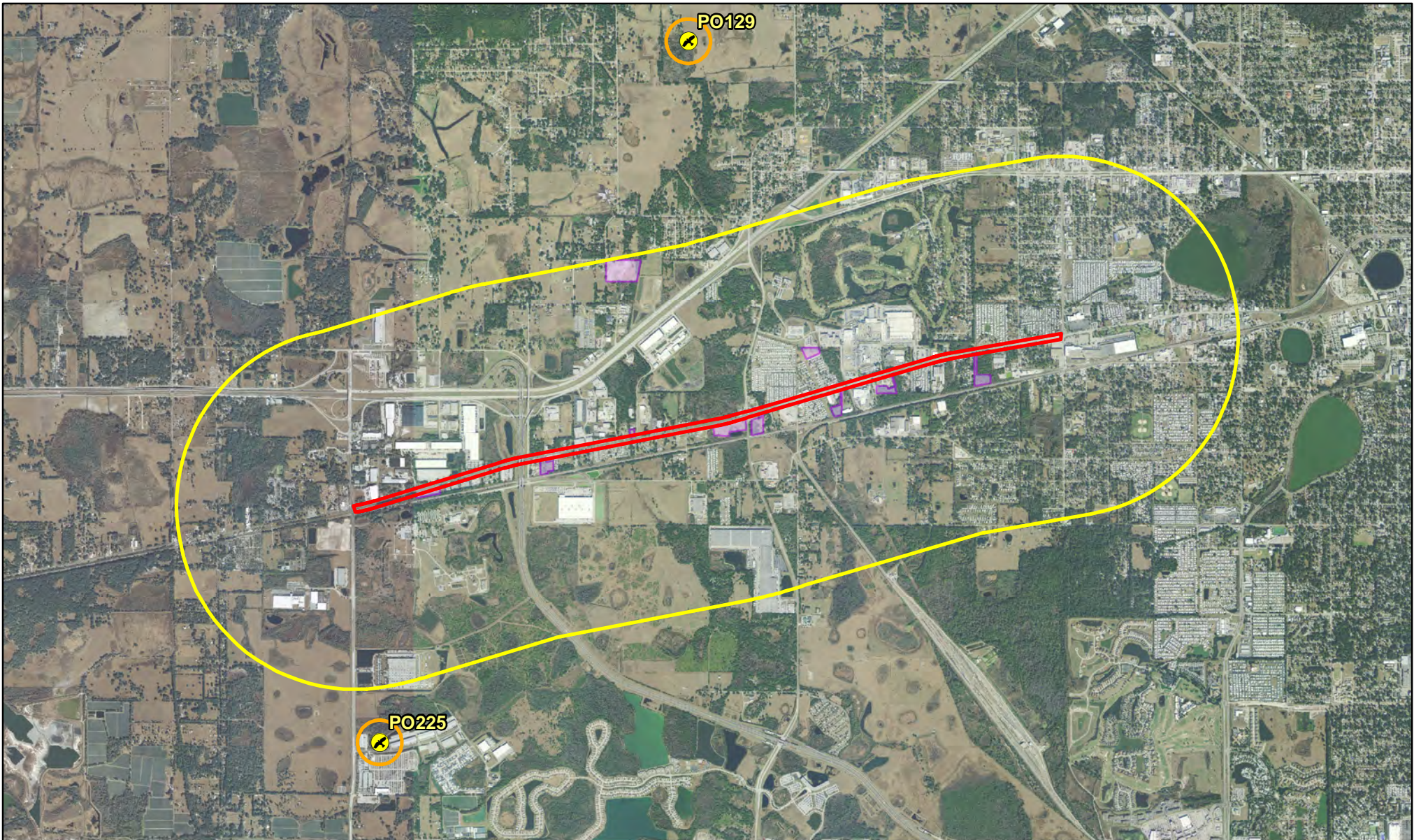
Florida Wood Stork Nesting Colonies: US FWS, 2014
Basemap: ESRI, 2014

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201 N. Franklin Street, Suite 400
Tampa, FL 33602
Phone: 813/871-5331
Fax: 813/871-5135






Appendix D

APPENDIX E

Bald Eagle Nest Location Map




Legend

-  Eagle Nest (Active since 2009)
-  660ft Eagle Nest Buffer
-  1 Mile Project Buffer
-  Project Location
-  Pond Sites

References:
 Eagles: FWC, 2012
 Aerials: FDOT, 2011


Bald Eagle Nest Location Map
 US 92 from County Line Road
 to Wabash Avenue
 Polk County, Florida
 FPID Number: 433558-1-22-01

Appendix E



W N E
S

4,000 2,000 0 4,000



Feet

Kisinger Campo & Associates, Corp.
 201 N. Franklin Street, Suite 400
 Tampa, FL 33602
 Phone: 813/871-5331
 Fax: 813/871-5135

APPENDIX F

Pond Site Data Sheets

US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: 1

Pond Site: SMF-1

Date: June 2014

Land Covers: 190 Open Land and 434 Hardwood Conifer Mixed

Wetlands:

On site: None

Potential Involvement: None

Threatened and Endangered Species:

Observed: None on site

Potential Involvement: Low

Notes: This site is located in an area of open land on the south side of US 92, east of County Line Road. The area surrounding the pond site is industrial and office suites with a small sliver of upland hardwood forest to the south and east. The perimeter of the site is fenced and there are piles of debris scattered throughout the property. Due to its geographic location in an urban area, fencing and active use of the property for dumping, this site provides limited habitat for many of the potentially occurring listed species. This site may provide sub-optimal habitat for the gopher tortoise, Florida pine snake, and eastern indigo snake.



US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: 2

Pond Site: SMF-2

Date: July 2014

Land Covers: 140 Commercial and Services, 190 Open Land and 438 Mixed Hardwoods

Wetlands:

On site: None

Potential Involvement: None

Threatened and Endangered Species:

Observed: None on site

Potential Involvement: Low

Notes: This site is located in an area of open land on the south side of US 92, east of SR 570. The site contains areas herbaceous areas of ruderal grasses and hardwood and coniferous forested uplands. The perimeter of the site is fenced and there is commercial property and a railroad track surrounding the parcel. Due to its geographic location in an urban area and, this site provides limited habitat for many of the potentially occurring listed species. This site may provide sub-optimal habitat for the gopher tortoise, Florida pine snake, and eastern indigo snake.



US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: 3

Pond Site: SMF-3

Date: July 2014

Land Covers: 190 Open Land and 617 Mixed Wetland Hardwoods

Wetlands:

On site: 1.71 acres of forested wetland

Potential Involvement: High

Threatened and Endangered Species:

Observed: None on site

Potential Involvement: Low

Notes: This site is located within an area of open land with a 1.71 acre forested wetland in the southeastern portion of the property. The parcel is surrounded by roads, a railroad track and a medium density residential community. The front portion of the property (facing US 92) has a small abandoned business with a maintained yard and the perimeter of the property is fenced. The vegetation within the forested wetland consists of red maple, Carolina willow and dense coverage of air potato vine. Due to its geographic location in an urban area and active maintenance of the upland area, this site provides limited habitat for many of the potentially occurring listed species. This site may provide habitat for the gopher tortoise, eastern indigo snake, and protected wading bird species.



US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: 4

Pond Site: SMF-4

Date: July 2014

Land Covers: 150 Industrial, 434 Hardwood Conifer Mixed, and 630 Wetland Forested Mixed

Wetlands:

On site: 0.13 acres forested wetland

Potential Involvement: Low

Threatened and Endangered Species:

Observed: None on site

Potential Involvement: Low

Notes: This site is located within an undeveloped parcel of property that is surrounded by industrial and residential land uses. Vegetation within the upland is primarily water oak, laurel oak, and slash pine with a dense groundcover of Boston fern. Vegetation within the wetland consists of red maple, slash pine, water oak, chain fern and lizard's tail. This site may provide habitat for the eastern indigo snake, Florida pine snake, and protected wading bird species.



US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: 5

Pond Site: SMF-5

Date: July 2014

Land Covers: 150 Industrial and 434 Hardwood Conifer Mixed

Wetlands:

On site: None

Potential Involvement: None

Threatened and Endangered Species:

Observed: None

Potential Involvement: Low

Notes: This site is located within an undeveloped parcel of property that is surrounded by commercial and industrial land uses. Vegetation is primarily live oak, Brazilian pepper, cabbage palm and slash pine with a dense understory of saw palmetto. This site may provide habitat for the gopher tortoise, eastern indigo snake and Florida pine snake.



US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: 6

Pond Site: SMF-6

Date: June 2014

Land Covers: 120 Medium Density Residential, 434 Hardwood Conifer Mixed, and 630 Wetland Forested Mixed

Wetlands:

On site: 2.30 acres of forested wetland

Potential Involvement: High

Threatened and Endangered Species:

Observed: None on site;

Potential Involvement: Low

Notes: This site is located within an undeveloped parcel of property that is adjacent to medium density residential area and upland and wetland forested areas. Upland vegetation is primarily live oak, Brazilian pepper, cabbage palm and slash pine with a dense understory of saw palmetto. Wetland vegetation includes laurel oak, red maple, dahoon holly, and water oak. This site may provide habitat for the gopher tortoise, eastern indigo snake, Florida pine snake, and protected wading bird species.



US 92 from County Line Road to Wabash Avenue Pond Sites

Basin: All

Pond Site: Regional (RPA)

Date: July 2014

Land Covers: 210 Cropland and Pastureland, 510 Streams and Waterways, 615 Stream and Lake Swamps

Wetlands:

On site: 1.28 acres (0.16 acres surface waters, 1.12 acres forested wetland)

Potential Involvement: High

Threatened and Endangered Species:

Observed: None on site

Potential Involvement: Low

Notes: This site is located in an agricultural field that gets periodically tilled and is currently vegetated with ruderal grasses. There is a forested wetland and ditch located on the eastern portion of the site. This site may provide habitat for the gopher tortoise, the eastern indigo snake, American alligator, and protected wading bird species.



US 92 from County Line Road to Wabash Avenue Floodplain Compensation Sites

Basin: 1

Pond Site: FPC-1

Date: July 2014

Land Covers: 190 Open Land, 510 Streams and Waterways

Wetlands:

On site: 0.14 acres surface water

Potential Involvement: Low

Threatened and Endangered Species:

Observed: None observed or documented within one (1) mile

Potential Involvement: Low

Notes: This site is located in an area of open land adjacent to US 92 and Kraft Foods Road and by residential and tourist services on the remaining sides. There is 0.14 acres of surface waters (a ditch with a culvert) on the west side of the parcel that extends off site to the north and south. Due to its geographic location in an urban area, this site provides limited habitat for many of the potentially occurring listed species. This site may provide habitat for the gopher tortoise, eastern indigo snake, American alligator and federal and/or state listed wading bird species.



US 92 from County Line Road to Wabash Avenue Floodplain Compensation Sites

Basin: 2

Pond Site: FPC-2

Date: July 2014

Land Covers: 246 Timber Nursery

Wetlands:

On site: None

Potential Involvement: None

Threatened and Endangered Species:

Observed: None observed or documented within one (1) mile

Potential Involvement: Low

Notes: This site is located in an open parcel containing planted pine. The site is not maintained and shrubby ruderal species have encroached in to the area between the planted pine saplings. The site is located on the southwest corner of US 92 and Airport Road. There are no wetlands or surface waters located within the FPC site; however, there is a forested wetland offsite to the south and west. Due to its geographic location in an urban area, dense groundcover and silvicultural practices, this site provides limited habitat for many of the potentially occurring listed species. This site may provide sub-optimal habitat for the gopher tortoise and the eastern indigo snake.



US 92 from County Line Road to Wabash Avenue Floodplain Compensation Sites

Basin: 3

Pond Site: FPC-3

Date: July 2014

Land Covers: 190 Open Land, 617 Mixed Wetland Hardwoods, 641 Freshwater Marsh

Wetlands:

On site: 1.15 acres of wetlands (0.79 acres forested and 0.36 acres of herbaceous)

Potential Involvement: High

Threatened and Endangered Species:

Observed: None observed or documented within one (1) mile

Potential Involvement: Low

Notes: This site is located in an area of open land surrounded by high density mobile home parks and the Publix distribution center. There are 1.15 acres of wetlands on site. This wetland extends off site to the east. Due to its geographic location in an urban area and active maintenance of the upland area, this site provides limited habitat for many of the potentially occurring listed species. This site may provide habitat for the gopher tortoise, eastern indigo snake, Florida sandhill crane, American alligator and protected wading bird species.



APPENDIX 7

CONTAMINATION SCREENING EVALUATION (LETTER) REPORT (LEVEL 1)

December 18, 2014, Rev. 1

AIM Engineering & Surveying, Inc.
3802 Corporex Park Drive, Suite 225
Tampa, Florida 33619

Attn: Mr. Sean Donahoo, P.E.

**RE: DRAFT Level I PSR Contamination Screening Evaluation Report
US 92 PD&E Study from County Line Road to Wabash Avenue
Polk County, Florida
FPN 433558-1-22-01
Tierra Project No.: 6511-13-185E**

Mr. Donahoo:

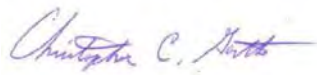
Tierra, Inc. (Tierra) has prepared this DRAFT Level I Pond Siting Report (PSR) Contamination Screening Evaluation Report (CSER) based on the pond site alternatives received via e-mail on July 22, 2014 for the above referenced project. This report was **revised** based on comments received from the client via e-mail on December 10, 2014. The information presented in this report is intended to provide an *initial* contamination risk ranking of all pond alternatives to support the Pond Siting Report design documents. The contamination screening evaluation presented herein is based on reviews of historic aerial photographs, topographic map and government regulatory database reviews and site reconnaissance. Additionally, Tierra reviewed the Florida Department of Transportation's (FDOTs) Efficient Transportation Decision Making (ETDM) database and FDEP MapDirect database. It is important to note, US 92 is also known as New Tampa Highway and George Jenkins Boulevard.

Previous documents submitted for this project include:
DRAFT Level I PSR Contamination Screening Evaluation Report dated December 3, 2014
DRAFT Level I PSR CSER – Letter Report dated August 6, 2014


Should you have any questions, please contact us at (813) 989-1354.

Respectfully Submitted,

TIERRA, INC.



Christopher C. Garth, LEP
Senior Scientist



Donald R. Polanis, PSSC, CGC
Chief Scientist

**DRAFT Level I PSR Contamination Screening Evaluation Report
US 92 PD&E Study from County Line Road to Wabash Avenue
Tierra Project No.: 6511-13-185E
FPN: 433558-1-22-01**

DRAFT Level I PSR Contamination Screening Evaluation Report

**US 92 PD&E Study from County Line Road to Wabash Avenue
Polk County, Florida
FPID: 433558-1-22-01**

Prepared for:

**AIM Engineering & Surveying, Inc.
3802 Corporex Park Drive, Suite 225
Tampa, Florida 33619**

Prepared by:

TIERRA, INC.
7351 Temple Terrace Highway
Tampa, Florida 33637
Tierra Project No.: 6511-13-185E

December 2014

Executive Summary

Tierra has prepared this Level I Pond Siting Report (PSR) Contamination Screening Evaluation Report (CSER) for the US 92 PD&E Study from County Line Road to Wabash Avenue, in Polk County, Florida. The information presented is intended to provide an initial risk ranking of all pond alternatives to support the PSR design documents. The contamination screening evaluation presented herein is based on reviews of historic aerial photographs, topographic map and government regulatory database reviews and site reconnaissance. Additionally, Tierra reviewed the Florida Department of Transportation's (FDOTs) Efficient Transportation Decision Making (ETDM) database and FDEP MapDirect database. It is important to note, US 92 is also known as New Tampa Highway and George Jenkins Boulevard. The contamination screening evaluation has resulted in the following *initial* risk rankings for the pond alternatives:

Pond Alternative	Initial Risk Ranking	Comment
SMF-1	Medium	Based on the historic use as an FDOT weigh station since at least the 1940s and use as FDOT stockpile (typically soil, gravel and/or asphalt) storage yard with heavy equipment on-site and possibly historic fuel storage tanks since the 1990s, SMF-1 is given a potential risk ranking of "Medium."
SMF-2	Medium	Based on the historic use as groves from the 1940s to the 1970s, the presence of a soil/gravel stockpile possibly from the abutting south railroad tracks (and possibly impacted by pesticides/herbicides/arsenic), abutting east auto repair facility and abutting west wood pallet facility, SMF-2 is given a potential risk ranking of "Medium."
SMF-3	Medium	Based on the historic use of the abutting east facility as Gore's Auto Sales, including auto repairs since the 1970s, SMF-3 is given a potential risk ranking of "Medium."
SMF-4	Medium	Based on the proximity of the Register Construction facility to the west with 55-gallon drums and stained asphalt and two (2) former USTs with the potential for residual petroleum contamination, SMF-4 is given a potential risk ranking of "Medium."
SMF-5	Medium	Based on the proximity of the former abutting north Edwards Grove facility with eight (8) historic fuel storage tanks and the potential for residual petroleum contamination, SMF-5 is given a potential risk ranking of "Medium."
SMF-6	Medium	Based on the presence of an abandoned railroad bed on-site since at least the 1960s with the potential for residual herbicide, pesticide and arsenic contamination, SMF-6 is given a potential risk ranking of "Medium."
Regional Pond Alternative	Medium	Based on the historic use a groves (northwest area) from the 1950s to the 2000s, the Regional Pond Alternative is given a potential risk ranking of "Medium."
FPC-1	Medium	Based on the presence of approximately two (2) portable storage containers (unknown contents) and approximately four (4) 55-gallon drums and three (3) mobile 500-gallon ASTs observed on-site during the site reconnaissance, FPC-1 is given a potential risk ranking of "Medium."
FPC-2	Low	Based on the historic use as woods, wetlands, rangeland, possibly two (2) residences and planted pine trees, FPC-2 is given a potential risk ranking of "Low."
FPC-3	Low	Based on the historic use as rangeland and pasture with earthwork/excavation/clearing in the north area, FPC-3 is given a potential risk ranking of "Low."

SMF=Stormwater Management Facility and FPC=Flood Plain Compensation

Pond Alternative locations are included in **CSER Appendix A.**

For sites ranked "No" or "Low", no additional work is recommended at this time. Should a facility's permitting or regulatory status change between now and the time acquisitions are initiated, additional screening should be conducted. For those sites with risk rankings of "High" and "Medium", Tierra recommends Level II field screening of pond alternatives selected for final design to determine if environmental impacts exist at these preferred pond alternatives. All pond sites selected for final design regardless of risk ranking will require limited field screening in accordance with the Department Contamination Impact Coordinator (DCIC) requirements outlined in the scope of work.

Debris observed on pond alternatives (SMF-2, SMF-4, SMF-5, SMF-6) should be removed and properly disposed of prior to construction. Water wells observed on pond alternatives (SMF-2) should be properly abandoned in accordance with regulatory guidelines prior to construction.

**DRAFT Level I PSR Contamination Screening Evaluation Report
US 92 PD&E Study from County Line Road to Wabash Avenue
Tierra Project No.: 6511-13-185E
FPN: 433558-1-22-01**

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Appendices

CSER Appendix A	Pond Alternatives Location Map
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CSER Appendix D	Environmental Data Management Report
CSER Appendix E	Supplemental Information

Definitions, Acronyms and Abbreviations

HAZARDOUS MATERIAL: Any material which has, or, when combined with other materials will have a deleterious effect on people or the environment. As further discussed and defined in Title 42 United States Code (USC), Section 9601, et seq.

HAZARDOUS WASTE: There are 80 pages in the Code of Federal Regulations (CFR) devoted to the definition and identification of Hazardous Waste. Briefly, the CFR defines hazardous waste as a solid waste (could be a liquid) that has not been excluded from regulation and meets the criteria as defined and discussed in Title 40, CFR, Part 261.3, et seq.

CONTAMINATION: The presence of any regulated material/chemical contained within the soil, surface water or groundwater on or adjacent to Department property, or proposed property, that may require assessment, remediation, or special handling, or that has a potential for liability. These materials would include, but not be limited to, those substances normally referred to as petroleum or petroleum products.

DE MINIMIS: Lacking significance or of minimum importance as to merit disregard

SIGNIFICANT CONTAMINATION: The presence of any contamination that would meet the definition of "hazardous materials" or "hazardous waste" and be regulated under CERCLA or RCRA. Petroleum contamination from underground storage tanks is not regulated by CERCLA or RCRA.

AST	Aboveground Storage Tank
BLS	Below Land Surface
CAR	Contamination Assessment and Remediation (CAR) Contractor
CDF	Contractor Designation Form
CDV	Cattle Dip Vat
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator of hazardous waste (less than 100 kg/month)
CR	County Road
CSER	Contamination Screening Evaluation Report
DCIC	Department Contamination Impact Coordinator
DRF	Discharge Reporting Form
EDI	Early Detection Incentive (EDI) Program
EPA	Environmental Protection Agency
EROS	Earth Resource Observation and Science Center
ETDM	Efficient Transportation Decision Making (FDOT)
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FONSI	Finding of No Significant Impact
FPC	Flood Plain Compensation
GCTL	Groundwater Cleanup Target Levels
GNE	Groundwater Not Encountered
LUST	Leaking Underground Storage Tank
NADC	Natural Attenuation Default Concentrations
NAM	Natural Attenuation Monitoring
NEPA	National Environmental Policy Act
NFA	No Further Action

Continued...

NGVD	National Geodetic Vertical Datum of 1929
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NRC	National Response Center
PARM	Post Active Remediation Monitoring
PCB	Polychlorinated Biphenyl
PD&E	Project Development and Environment
PLRIP	Petroleum Liability and Restoration Insurance Program
PSR	Pond Siting Report
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RCRACEG	Conditionally Exempt Generator of Hazardous waste
ROW	Right-of-Way
SAR	Site Assessment Report
SQG	Small Quantity Generator of hazardous waste (less than 1,000 kg/month)
SSAR	Supplemental Site Assessment Report
SCS	Soil Conservation Service
SCTL	Soil Cleanup Target Levels
SMF	Stormwater Management Facility
SR	State Road
SRCO	Site Rehabilitation Completion Order
US	United States
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank

SMF-1

The pond alternative is located at 7202 New Tampa Highway in Polk County, Florida. The specific location is depicted on **Figure A-1** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as “Scale House Pit,” an active FDOT stockpile staging yard and abandoned scale house. Stockpiles observed on-site included shell, crushed asphalt, soil, mulch and soil with concrete debris. One (1) piece of heavy equipment used for loading from stockpiles was observed on-site. The weigh scales and scale house located in the north-central area on-site appeared to be out of service. The scale house was locked and therefore was not accessed. Based on a telephone interview with an FDOT representative, the access hatch to the weigh scale has been filled with concrete and is not accessible. Tierra met with an FDOT representative on-site to access the scale house and weigh scale but was unable to access the scale house at that time (key did not work). See *Interviews* section for details. Paved entrance and exit ramps to US 92 were located northeast and northwest of the scale house. One (1) 55-gallon drum used for trash was located on the east side of the scale house. No obvious stained soil, stressed vegetation or fuel storage tanks were observed on-site.

Off-site, one (1) 210-gallon diesel fuel generator AST was observed approximately 50 feet west of this pond alternative at the Crown Castle “Winston” cell tower facility. No regulatory files were identified for the cell tower facility. No obvious stained soil or stressed vegetation was observed. Lakeland Regional Industrial Park, 7105 New Tampa Highway was observed adjacent north of this pond alternative. During the site reconnaissance no fuel storage tanks, drums, hazardous materials or monitor wells were observed within approximately 500 feet of this pond alternative at the Lakeland Regional Industrial Park facility. Woods are located abutting south and CSX railroad tracks with a buried 10-inch diameter petroleum pipeline (Kinder Morgan) are located approximately 60 feet south of this pond alternative. Based on an interview with a Kinder Morgan representative, no discharges were reported in the vicinity of this pond alternative for the petroleum pipeline (see the following *Interviews* section for SMF-2). One (1) generator with integral AST was observed approximately 360 feet west of this pond alternative at a Level 3 Communications facility located at 7053 US 92. No regulatory files were found regarding this facility.



SMF-1: Northwest area looking east



SMF-1: Northeast corner of scalehouse looking south



SMF-1: Northwest of scale house looking southeast



SMF-1: North boundary near entry gate looking south at crushed asphalt and soil stockpiles

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 1		
Year	Comment	Source
1941	Rangeland with central area cleared and possibly a weigh station with entrance/exit ramps to US 92 present. Two (2) structures on-site located near north-central boundary (scale house) and northeast corner (possibly picnic tables/pavilion). Off-site north: US 92 and woods Off-site south: railroad tracks, road and rangeland Off-site east and west: rangeland	University of Florida
1958	Partially overgrown	Earth Resources Observation Systems (EROS)
1968	Structure near northeast corner gone. One (1) structure added in east-central area	University of Florida
1971	More vegetation	FDOT Survey and Mapping
1980	Clearing in south-central area	FDOT Survey and Mapping
1993/1994	Off-site north: development added	FDOT Survey and Mapping and Google
1999	Possible soil/gravel/asphalt stockpile added Off-site west: Possible cell tower added Off-site east: Commercial development added	Google Earth
2004	Clearing and/or grading on-site and possibly four (4) soil/gravel/asphalt stockpile areas	Google Earth
2005-2010	No significant visible changes noted	Google Earth
2011	No significant visible changes noted	FDOT Survey and Mapping and Google Earth
2012-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute "Plant City East, Florida" published in 1975 and photorevised in 1987 was reviewed. SMF-1 is depicted in white shading indicating undeveloped land, pasture or row crops located south of US Highway 92 and north of CSX railroad tracks. One (1) structure, presumably the weigh station office is depicted near the north-central boundary on-site. Additionally, the "Roadside Park" symbol was depicted on-site. A copy of the map is included in **CSER Appendix D**.

Interviews

Mr. Chris Garth, Tierra conducted a telephone interview on November 6, 2014 with Mr. Mark Clark, (813) 781-1718, Kinder Morgan. Mr. Clark indicated he has been with Kinder Morgan approximately 8 years. He further indicated a buried 10-inch petroleum pipeline carries both diesel and jet fuel from Tampa to Orlando. He was not aware of leaks or discharges within 10 miles east or west of 6150 New Tampa Highway (former Red Barn restaurant, SMF-2).

Mr. Chris Garth, Tierra conducted a telephone interview on November 13, 2014 with Mr. Robert Dwyer, (863) 519-2762, responsible for FDOT property access and NPDES Coordinator. Mr. Dwyer indicated the yard is used for storing soil, crushed asphalt, mulch and similar materials used on FDOT properties in Polk County. He was not aware of petroleum storage tanks, hazardous materials or discharges at this facility.

Mr. Chris Garth, Tierra conducted a telephone interview on November 13, 2014 with Mr. Mark Barnes, (863) 519-4306, FDOT Maintenance Field Operations Manager regarding the scale house and weigh scales. Mr. Barnes indicated the access hatch to the weigh scale may have been filled with concrete and "closed out" approximately 25 to 30 years ago. He further indicated the weigh scale was operated and constructed with steel beams, not hydraulics. The weigh station "close out" was under the Florida Highway Patrol (FHP) Motor Carrier Compliance Office (MCCO) before the FDOT took ownership of the property. Mr. Barnes was not aware of petroleum products or hazardous materials stored or used at this facility.

Mr. Chris Garth met with Mr. Eddy Gassett, FDOT Highway Maintenance Supervisor (863) 519-4306 at the scale house for access on December 1, 2014. The key Mr. Gassett had would not unlock the door for access. Mr. Gassett indicated he would call if he is able to find the correct key for access. He also indicated the scales were removed approximately one (1) year ago.

Regulatory Review

An environmental database search using Environmental Data Management, Inc. (EDM) was conducted on July 31, 2014 to identify sites located on or within close proximity to the pond alternatives containing documented or suspected petroleum contamination or other hazardous materials. The search was conducted as a preliminary screening tool to identify facilities that are registered with various county, state, and federal agencies. Additionally, Tierra reviewed the Florida Department of Transportation (FDOT) Efficient Transportation Decision Making (ETDM) database and FDEP MapDirect database.

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listed facility (see Proximal Records Table in EDM report) DSM Net, Inc. (Fac. ID 9810694), 6810 New Tampa Highway is located approximately 600 feet east of the pond alternative. No discharges were reported for this facility. This facility has one (1) registered 2,000-gallon diesel powered emergency generator installed on 8/1/2006. During the site reconnaissance, two (2) emergency generators with integral ASTs were observed approximately 680 feet east of this pond alternative. No obvious stained asphalt or monitor wells were observed at or near the generators. Based on

distance, this facility is not considered a significant potential contamination source to this pond alternative. A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the historic use as an FDOT weigh station since at least the 1940s and use as FDOT stockpile (typically soil, gravel and/or asphalt) storage yard with heavy equipment on-site and possibly historic fuel storage tanks since the 1990s, SMF-1 is given a potential risk ranking of "Medium."

SMF-2

The pond alternative is generally located south of US 92 and east of Clark Road and the Polk Parkway in Polk County, Florida. The specific location is depicted on **Figure A-2** in **CSER Appendix A**. Based on information obtained from the Polk County Property Appraiser database this pond alternative is comprised of three (3) parcels with two (2) associated addresses: 6210 US Highway 92 and 6150 New Tampa Highway. During site reconnaissance, this pond alternative was observed as dense overgrowth. Signage indicating a petroleum pipeline owned by Central Florida Pipeline, LLC and operated and maintained by Kinder Morgan is located near (uncertain if on or off-site) the southern boundary of the pond alternative. See the following *Interview* section for further information regarding the pipeline. Two (2) concrete pads were observed near the north boundary. Two (2) water wells, presumably used for potable water or irrigation, were observed on-site: 2-inch diameter well located in southwest area and the other well was fenced and obscured (pressure tank barely visible) with overgrowth located near northeast corner on-site. Presumably, one (1) septic tank (broken cover) was observed near the north-central boundary. One (1) soil/gravel stockpile (approximately 30'x15'x8') was located in the south-central area. The gravel in this stockpile appeared similar to that used on the abutting south railroad tracks. Debris piles and scattered debris were located primarily along the west boundary on-site. Debris generally included soil, concrete, landscape, plastic, PVC pipe, glass, mattresses, sink, automobile seat, etc.

Off-site, Pallet Depot, 6300 New Tampa Highway is a full service pallet manufacturer and recycler located abutting west. R&L Auto repair shop, 6050 New Tampa Highway is located abutting east. A paint booth was observed abutting east and two (2) ASTs approximately 300-gallons in size were observed approximately 15 feet east off-site. Reportedly, the former Red Barn Steak House was located abutting north (burned down in 2006). Peachee Construction, Awana children's ministry, a church building and an abandoned auto sales/repair facility (6105 New Tampa Highway) were observed adjacent north. The abandoned auto sales/repair facility resembles a possible former gasoline station and is located approximately 280 feet northeast of this pond alternative. No regulatory files were found regarding the abandoned auto sales/repair facility.



SMF-2: Signage, south-central boundary



SMF-2: Soil/gravel stockpile, south-central area



SMF-2: Northwest area looking west



SMF-2: North boundary looking west



SMF-2: Northwest corner looking south



SMF-2: Concrete/soil/landscape debris pile along west boundary



SMF-2: Paint booth building located near southeast corner off-site



SMF-2: East-central area looking northeast (buildings off-site)

Interviews

Mr. Chris Garth of Tierra spoke with Mr. Mark Clark of Kinder Morgan (813) 781-1718 on November 6, 2014 regarding the petroleum pipeline signage observed near the south boundary of this pond alternative. Mr. Clark indicated the 10-inch pipeline carries both diesel fuel and jet fuel from Tampa to Orlando. He further indicated he was not aware of leaks or discharges associated with the pipeline within at least within 10 miles east and west of this pond alternative. Mr. Clark indicated he was not sure whether the pipeline was located on CSX ROW or this pond alternative property without further markings in the field. He indicated he would have additional markers installed in the area. Mr. Clark has been with Kinder Morgan approximately 8 years.

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980,

1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 2		
Year	Comment	Source
1941	Primarily cleared land. Two (2) structures and man-made ditch on eastern portion of site. Off-site north: US 92 Off-site south: railroad tracks Off-site west: cleared land Off-site east: cleared land and woods	University of Florida
1958	Groves and possibly two (2) structures added. Woods in northern area.	Earth Resources Observation Systems (EROS)
1968	Two (2) more structures added Off-site west: development added	University of Florida
1971	One (1) structure gone	FDOT Survey and Mapping
1980	Groves gone	FDOT Survey and Mapping
1993/1994	Structures appear to be gone. Off-site east: automotive repair shop added	FDOT Survey and Mapping and Google
1999	Off-site west: mostly cleared Off-site southeast: one (1) large structure added	Google Earth
2004	Off-site west: vehicles and possibly wood pallets added	Google Earth
2005-2006	No significant visible changes noted	Google Earth
2007	Off-site north: structure gone	Google Earth
2008-2010	No significant visible changes noted	Google Earth
2011	No significant visible changes noted	FDOT Survey and Mapping and Google Earth
2012-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute "Plant City East, Florida" published in 1975 and photorevised in 1987 was reviewed. SMF-2 is depicted in white shading indicating undeveloped land, pasture or row crops and green shading indicating woods located south of US Highway 92 and north of CSX railroad tracks. Two (2) structures, presumably residential and/or office trailer are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

The former Clark Boilers and Engineering Co. (Fac. ID 8629217) facility, 6405 New Tampa Highway, was located approximately 370 feet west-northwest of the pond alternative. Based on a map and address included in the May 5, 1986 Tank Registration Form found on OCULUS, Tierra noted the location was incorrectly plotted on the EDM map, the MapDirect database and the ETDM database. During the site reconnaissance this location was observed as a portion of

the Polk Parkway and/or Clark Road. Review of aerial photographs indicated this facility was replaced by the Polk Parkway and/or Clark Road between 1994 and 1999. Three (3) fuel storage tanks (3,000-gallon and 1,000-gallon unleaded gasoline UST's and one (1) 2,500-gallon heating oil AST) were removed in 1990 and 1993. Based on the 1994 aerial photograph the nearest fuel storage tank was located approximately 460 feet northwest of the pond alternative. The other two (2) tanks were located over 600 feet northwest of the pond alternative. Facility status is listed as closed and no discharges were reported. This facility was registered as a CESQG and verified as a non-transporter with no underground injection wells on 7/15/1993 by USEPA inspection. Based on distance, regulatory status and the earthwork, moving and blending of soils involved with roadway construction between 1994 and 1999, this former facility is not considered a significant potential contamination concern to this pond alternative.

The former Pine Valley Dairy, Inc. (Fac. ID 8628539) 4520 Old Tampa Highway was located approximately 480 feet south of this pond alternative. This facility had one (1) reported petroleum product (type and quantity not specified) discharge on September 13, 2004. Two (2) 1,000-gallon (unleaded gasoline and diesel) ASTs were closed in place in 1999 and one (1) 1,000-gallon unleaded gasoline UST was removed in 1990. The facility status is listed as closed since 2004. Based on the Long Term Natural Attenuation Monitoring Report for Year 8/Event 3 dated July 17, 2014 found in OCULUS, this facility is actively undergoing long term groundwater monitoring. Groundwater flow has reportedly been variable, but is reported to be towards the southwest (away from the pond alternative) in the most recent report. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative. A copy of the EDM regulatory database report is included in **CSER Appendix D**.

Other facilities identified were located over 1,100 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

Risk Ranking

Based on the historic use as groves from the 1940s to the 1970s, the presence of a soil/gravel stockpile possibly from the abutting south railroad tracks (and possibly impacted by pesticides/herbicides/arsenic), abutting east auto repair facility and abutting west wood pallet facility, SMF-2 is given a potential risk ranking of "Medium."

SMF-3

The pond alternative is located south of US 92, north of CSX railroad tracks and east of Airport Road in Polk County, Florida. The specific location is depicted on **Figure A-2** in **CSER Appendix A**. During site reconnaissance, the north and east portions were observed primarily as grassy areas and the south and west portions were observed primarily as wooded areas. Debris generally included toys, wood and approximately 10 used tires. Concrete and asphalt debris piles were located generally in the south and west wooded areas. Off-site, US 92, Chevron and Shell gas stations were located to the north; CSX railroad tracks, with a buried 10-inch diameter petroleum pipeline (Kinder Morgan) and pasture were located to the south; Gores Auto Sales and auto repair, residences and Churchill Street were located to the east; and Airport Road and planted pine trees were located west of this pond alternative. Based on an interview with a Kinder Morgan representative, no discharges were reported in the vicinity of this pond alternative for the petroleum pipeline (see interview in section SMF-2).



SMF-3: North end looking south



SMF-3: NW corner looking NW



SMF-3: Concrete debris near west boundary



SMF-3: Off-site south petroleum pipeline signage and CSX railroad tracks



SMF-3: Debris in south-central area looking NE



SMF-3: Trail in west area looking south

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 3		
Year	Comment	Source
1941	Woods on western portion, cleared land on eastern portion on-site	University of Florida
1958	Pasture and trail/haul road. Pond on western portion of pond alternative	Earth Resources Observation Systems (EROS)
1968	Two (2) structures added in east-central area	University of Florida
1971	A third structure added in southeast area	FDOT Survey and Mapping
1980	No significant visible changes noted	FDOT Survey and Mapping
1993/1994	Southwest area overgrown	FDOT Survey and Mapping and Google
1999	Off-site north: automobiles added	Google Earth
2004-2005	No significant visible changes noted	Google Earth
2006	Two (2) structures gone	Google Earth
2007-2008	No significant visible changes noted	Google Earth
2010	Off-site south: railroad structure added and railroad ties replacement in progress	Google Earth
2011-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. SMF-3 is depicted in white shading indicating undeveloped land, pasture or row crops, pasture or row crops located south of US Highway 92 and north of CSX railroad tracks. A low area is depicted on the western portion and one (1) structure is depicted on the east-central portion of the pond alternative. A copy of the map is included in **CSER Appendix D**.

Interviews

Mr. Chris Garth, Tierra conducted an interview on November 12, 2014 with Mr. Nat Gore of Gore Auto Sales, (863) 683-1456, regarding the history of this pond alternative. Mr. Gore indicated he purchased the Gore Auto Sales property in the 1970s. He further indicated the SMF-1 property had two (2) former houses (central and southwest areas) and the building toward the north end of the pond alternative (off-site) was originally a put-put golf course and snack bar, followed by three (3) different automotive sales dealerships. He added that the current owner of this pond alternative added a new septic system for the existing building (north, off-site).

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

Gores Auto Sales (EPA ID: FLD981754625), 4230 New Tampa Highway is located abutting east of this pond alternative. During the site reconnaissance, this facility was observed as an active auto sales and repair facility with 2x55-gallon drums observed on the south side of the maintenance bay and a hydraulic lift on the west side of the facility. The maintenance bay was observed approximately 60 feet east of this pond alternative. The EDM regulatory report indicated this facility was an SQG based on a USEPA inspection dated September 26, 1991. An

April 1, 2010 inspection indicated this facility was verified as not a generator of hazardous waste. No violations or underground injection wells were reported for this facility. No obvious fuel storage tanks, stained soil or stressed vegetation was observed at this facility. Based on distance, this facility is considered a significant potential contamination concern to this pond alternative.

Shell/Saishivani Inc., DBA KK Food Mart (Fac. ID 9802292), 4275 New Tampa Highway is located approximately 300 feet north of this pond alternative. During the site reconnaissance, this facility was observed as an active Shell gas station. According to the EDM report, this facility has a total of four (4) USTs. The three (3) active USTs are: 1x12,000-gallon and 1x10,000-gallon unleaded gasoline tank, and 1x10,000-gallon diesel fuel tank. One (1) 12,000-gallon UST was closed in place in 2006. Two (2) discharges were reported for this facility. The first was an unleaded gasoline discharge reported on February 9, 2004 with SRCO issued on December 28, 2005. The second was an unleaded gasoline discharge from a spill bucket reported on March 14, 2007 with an SRCO issued on March 19, 2009. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Chevron/Giant Food #128/Circle K #7491 (Fac. ID 8623640, NON-TSD), 4301 US Highway 92 is located approximately 400 feet northwest of this pond alternative. During the site reconnaissance, this facility was observed as an active Chevron gas station. A total of ten (10) unleaded gasoline and vehicular diesel USTs were registered for this facility. Four (4) USTs were removed in 2001 and six (6) USTs remain active. The USTs were installed in 1984 and 2006. Two (2) discharges were reported for this facility: The November 1, 1988 gasoline discharge was issued an SRCO on August 8, 2007. A Polk County Tank Program letter dated November 21, 1996 found on the OCULUS database indicated no further remedial action was required for the 25-gallon discharge dated October 21, 1996 (no SRCO found). Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Gulf Machinery (NON-TSD FLD984206979, FLTMP9103165), Airport Road and Old Tampa Highway is located approximately 1,100 feet south of the pond alternative. Based on distance and the generic nature of the regulatory listings, this facility is not considered a significant potential contamination concern to this pond alternative.

Other facilities identified were located over 1,100 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative. A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the historic use of the abutting east facility as Gore's Auto Sales, including auto repairs since the 1970s, SMF-3 is given a potential risk ranking of "Medium."

SMF-4

The pond alternative is located generally south of US 92, north of CSX railroad tracks and east of Gay Road in Polk County, Florida. The specific location is depicted on **Figure A-3** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as primarily woods. One (1) east/west trail was located in the south-central area. Concrete and steel debris (possibly discarded sign post bases/foundations, approximately six (6)) was observed in the northwest area on-site.

Off-site, US 92, Register Construction and Lamar Outdoor Advertising (billboards and digital signs) were located to the north; CSX railroad tracks with a buried 10-inch diameter petroleum pipeline (Kinder Morgan) are located abutting south; Hungry Howies food distribution facility to the east; and a powerline easement and residences were located west of this pond alternative. Approximately twenty (20) 55-gallon drums and debris, including tires, PVC pipes and concrete was observed approximately 70 feet west of this pond alternative at and near Register Construction off-site.



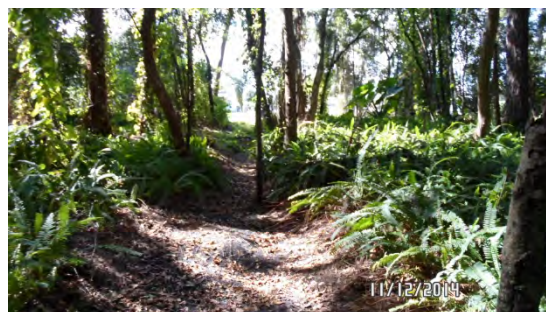
SMF-4: Northeast corner looking south



SMF-4: 55-gallon drums at Register Construction facility off-site



SMF-4: Concrete and steel debris near north-central boundary onsite



SMF-4: Trail, south-central area looking west



SMF-4: Concrete near northwest corner off-site

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 4		
Year	Comment	Source
1941	Woods Off-site north: US 92 Off-site south: railroad tracks Off-site east and west: woods	University of Florida
1958	No significant visible changes noted	Earth Resources Observation Systems (EROS)
1968	Clearing in northern area, Trail or road in southwest area. One (1) small structure added near south boundary on-site	University of Florida
1971	No significant visible changes noted	FDOT Survey and Mapping
1980	Off-site north, west and east: development added. Structure near south boundary no longer visible.	FDOT Survey and Mapping
1993/1994	No significant visible changes noted	FDOT Survey and Mapping and Google
1999	No significant visible changes noted	Google Earth
2004	No significant visible changes noted	Google Earth
2006-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. SMF-4 is depicted primarily in green shading indicating woods and in white shading indicating undeveloped land, pasture or row crops. No structures are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

Lamar Advertising Co. (Fac. ID 8623592, TANKS, NON-TSD), 3760 New Tampa Highway is located abutting northwest of this pond alternative. EDM’s regulatory database report indicated one (1) 900-gallon leaded gasoline UST was removed in 1989. A Tank Registration Form dated 1987 found in the OCULUS database included a sketch depicting the tank location on the east side of the building, approximately 140 feet north of this pond alternative. During the site reconnaissance, this facility was observed as Lamar Advertising, an active billboard sales company. During the site reconnaissance, no monitor wells were observed at this facility or on the pond alternative. Based on distance, this facility is not considered a significant potential contamination concern for this pond alternative.

Register Construction & Engineering (Fac. ID 8628333, LUST, TANKS), 3730 New Tampa Highway is located abutting north of this pond alternative. Based on a map found on the OCULUS database the two (2) USTs and pump island were located approximately 80 feet west of this pond alternative. During the site reconnaissance, no monitor wells were observed at this facility or on the pond alternative. However, approximately fourteen (14) 55-gallon drums were observed approximately 80 feet west of this pond alternative. Some visible drum labels indicate “Bond Breaker,” a form release product typically petroleum based. Petroleum stains were

observed on asphalt approximately 80 feet west of this pond alternative. According to EDM's report, two (2) 1,000-gallon unleaded gasoline USTs were installed in 1976 and removed off-site in 1994. One (1) discharge was reported on February 10, 1994 for elevated OVA readings. However, based on laboratory analytical results of soil samples and a groundwater sample, the Polk County Health Department, Petroleum Cleanup Program submitted a memorandum dated October 13, 2009 requesting a "NREQ" (No cleanup required) status for the 1994 discharge. See **CSER Appendix E** for excerpts. Based on distance and the potential for residual petroleum contamination from the former USTs and proximity of the 55-gallon drums with stained asphalt, this facility is considered a significant potential contamination concern for this pond alternative.

Hungry Howies Distribution (former Nova Sales (Fac. ID 9100591 TANKS)), 3710 New Tampa Highway is located abutting east of this pond alternative. Based on a sketch map provided by the Polk County Health Department, Petroleum Cleanup Program, the 500-gallon UST was located approximately 340 feet east of this pond alternative. EDM's regulatory database report indicated one (1) UST (size and contents not specified) was removed in 1981. During the site reconnaissance, this facility was observed as Hungry Howies distribution facility. No obvious monitor wells or evidence of fuel storage tanks were observed at or near this facility. No further significant information was found on the OCULUS database. Based on distance this facility is not considered a significant potential contamination concern for this pond alternative.

The Fleet Transportation Spill (Incident #17366) was located approximately 190 feet east of this pond alternative. Based on EDM's regulatory database report, two (2) semi-trucks collided on November 2, 1987 and discharged approximately 24,000 pounds of dry ammonium nitrate to both land and the highway surface. Diesel fuel was "diked." Ammonium nitrate is used as a high-nitrogen fertilizer and is highly soluble in water. Tierra contacted the FDEP regarding this spill. The FDEP indicated they have no information regarding this spill and recommended that we contact the National Response Center (NRC). Tierra spoke with Petty Officer Post (202) 372-3167 x-2023 of the US Coast Guard NRC who indicated the NRC has no information regarding this spill and that his database only goes back to 1990. Based on distance and significant time for natural attenuation, this discharge is not considered a significant potential contamination concern to this pond alternative. A copy of the EDM database report is included in **CSER Appendix D**.

Other facilities identified were located over 360 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

Risk Ranking

Based on the proximity of the Register Construction facility to the west with 55-gallon drums and stained asphalt and two (2) former USTs with the potential for residual petroleum contamination, SMF-4 is given a potential risk ranking of "Medium."

SMF-5

The pond alternative is located generally south of US 92, north of CSX railroad tracks and east of Gay Road in Polk County, Florida. The Polk County Property Appraiser database indicates the associated address is 3100 New Tampa Highway and the property is owned by Publix. The specific location is depicted on **Figure A-3** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as primarily woods with a man-made ditch (dry during reconnaissance) on the west-central portion of this pond alternative. Concrete debris was observed for approximately 100 feet along this ditch. One (1) concrete block structure

approximately 10'x10'x4' was observed on-site near the northeast corner of this pond alternative. The structure was either built up or surrounded by a soil berm approximately 5 feet above land surface. Tierra was unable to determine the purpose or contents of this structure, however suspects it may have been part of a septic system associated with the former abutting west Edwards Grove fruit packing facility. Concrete debris was also observed on the eastern portion of this pond alternative.

Off-site north was the Publix storage yard (semi-trailers and equipment associated with various Publix plants) and Publix Building 27 farther north. A HAZMAT Response trailer was observed approximately 250 feet north of this pond alternative. Two (2) stainless steel tanks, approximate 1,000-gallons and 500-gallons were observed approximately 100 feet west of this pond alternative. No obvious fuel storage tanks, hazardous materials, drums or monitor wells were observed at or near this facility during the site reconnaissance. Based on an interview with a security guard during the site reconnaissance this facility was used as a storage yard for Publix equipment. Woods and a ditch were located to the east of this pond alternative. The Publix Bakery Plant was located abutting west of this pond alternative. One (1) propane tank was observed at this facility. Woods and a pond were located abutting south with CSX railroad tracks and a buried 10-inch diameter petroleum pipeline (Kinder Morgan) farther south.



SMF-5: Concrete debris, west-central area



SMF-5: Overgrown concrete block structure approximately 10'x10'x4' near NE corner



SMF-5: Near northeast corner looking south



SMF-5: Concrete debris, west-central area



SMF-5: North-central boundary looking north (off-site) at former Edwards Grove UST area



SMF-5: West boundary looking southwest at abutting Publix Bakery Plant

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 5		
Year	Comment	Source
1941	Pasture and cleared land Off-site north: US 92	University of Florida
1958	No significant visible changes noted	Earth Resources Observation Systems (EROS)
1968	One (1) small structure added NW corner on-site Off-site south: pond visible Off-site north and west: development added Off-site east: man-made ditch added	University of Florida
1971	Off-site north: three (3) possible tanks added near north-central boundary Off-site west: development added	FDOT Survey and Mapping
1980	Off-site west: Long, narrow structure gone. One (1) smaller structure added	FDOT Survey and Mapping
1994	One (1) small structure at northwest corner gone	FDOT Survey and Mapping and Google
1999	No significant visible changes noted	Google Earth
2004	No significant visible changes noted	Google Earth
2006-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. SMF-5 is depicted primarily in white shading indicating undeveloped land, pasture or row crops. Two (2) structures are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Interviews

Mr. Chris Garth, Tierra conducted an interview on November 12, 2014 with an un-named security person at the abutting west Publix storage yard while conducting site reconnaissance. The security person indicated he was not aware of buildings or structures on this pond

alternative and that the property is woods owned by Publix. He further indicated the abutting west property was used by Publix as an equipment storage yard and was a fruit packing facility prior to Publix ownership.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

Edwards Grove Service (Fac. ID 8623349, LUST, TANKS), 3220 George Jenkins Boulevard is located abutting north of this pond alternative. During the site reconnaissance, this facility was observed as Publix Building 27 with semi-trailers and equipment associated with various Publix plants (bakery, deli, produce, etc.). No obvious drums, petroleum products, hazardous materials or monitor wells were observed at or near this facility during the site reconnaissance. Two (2) stainless steel tanks, approximate 1,000-gallons and 500-gallons were observed approximately 100 feet west of this pond alternative. Stainless steel tanks are presumably used for food processing. According to a Template Site Assessment Report dated January 19, 2003 found in the OCULUS database, three (3) ASTs were located abutting north, and five (5) USTs were located approximately 50 feet north of the pond alternative. Groundwater flow was indicated to the south, toward this pond alternative. According to EDM's regulatory database report, five (5) USTs and three (3) ASTs were removed from this facility. Contents included diesel, leaded gasoline, unleaded gasoline and "other non-regulated" contents. The facility is listed as "closed." Based on information found on the OCULUS database, an SRCO was issued on November 25, 2003 for one (1) discharge reported on January 23, 2001. A Phase II Environmental Assessment dated December 8, 1999 was included with the TSAR and indicated no exceedences for soil and groundwater CTLs. See **CSER Appendix E** for excerpts. Based on distance and the potential for residual petroleum contamination, this facility is considered a significant potential contamination concern for this pond alternative.

Publix Bakery Plant (FLD982156945), 3260 New Tampa Highway is located abutting west of this pond alternative. Publix Bakery Plant is identified on the NON-TSD database. This facility was initially registered in 1988. Based on the generic nature of the database listing, this facility is not considered a significant potential contamination concern for this pond alternative.

Publix (Fac. ID 8628573), 3045 New Tampa Highway is located north of US 92 is located approximately 230 feet northwest of this pond alternative. Regulatory database listings for this facility included: eight (8) ERNS (Emergency Response Notification System), two (2) Voluntary Cleanup, four (4) LUST, seven (7) NON-TSD and forty-nine (49) TANKS registered for this facility. Twenty-seven (27) of the tanks were reportedly removed and twenty-two (22) remain in-service. The nearest fuel storage tanks (both current and former) are located approximately 820 feet northwest of this pond alternative.

The EDM regulatory database report identified four (4) LUST database listings:

- EDMs regulatory database report indicated an unspecified quantity of vehicular diesel was discharged on October 29, 1987 and SRCO was issued on September 16, 2010. Based on a map included with the SRCO found on OCULUS, this discharge was located approximately 830 feet northwest of this pond alternative near the southwest corner of the Publix truck garage.

- EDMs regulatory database report indicated an unspecified quantity of new lube/oil was discharged on June 20, 1993. A Remedial Action Interim Report dated May 23, 2014 found on OCULUS included figures which depicted the contamination plume location approximately 830 feet northwest of this pond alternative near the southwest corner of the Publix truck garage. The report also indicated groundwater flow was indicated toward the west and active groundwater remediation in progress.
- Approximately 25-gallons of vehicular diesel fuel was discharged on April 10, 1995 and NFA issued on July 2, 2003. Based on a Template Site Assessment Report dated April 8, 2003 found on OCULUS this discharge is located approximately 1,100 feet northwest of this pond alternative near the southeast corner of the Publix Deli Plant.
- An unspecified quantity of vehicular diesel fuel was discharged on September 3, 1997 and NFA issued on December 30, 1998. Based on a Source Removal Report dated October 19, 1998 found on the OCULUS database indicated this discharge was located at the AST farm located approximately 1,100 feet northwest of this pond alternative.

The seven (7) ERNS listings were for anhydrous ammonia discharges (0-500 pounds) between 1998 and 2009. Anhydrous ammonia is likely used as a refrigerant at this facility. The Material Safety Data Sheet (MSDS) indicates anhydrous ammonia is an inhalation, corrosive and flammable hazard but "no ecological effects are anticipated." One (1) ERNS listing was approximately 20-gallons of ultra (Klenzade) alkaline cleaner at the Dairy Processing Plant. Tierra obtained the National Response Center Incident Report #701111 which indicated the discharge occurred on September 29, 2003. According to the report the caller stated that employees were unloading a truck and dropped a drum onto the ground releasing ultra (Klenzade) alkaline cleaner onto the ground and into a storm drain which led to a nearby retention pond.

Two (2) Voluntary Cleanup listings:

Publix Lakeland Industrial Center Garage COM 151358

Based on an FDEP Memorandum dated September 1, 2000 found on the OCULUS database which included the Fourth Semi-Annual Sampling Event (dated August 29, 2000), this facility is located 830 feet northwest of this pond alternative and groundwater flow is generally towards the west. This site/discharge appears to be associated with the discharge dated June 20, 1993 and was previously discussed in the LUST database listings.

Publix Supermarkets Inc. Industrial Center Deli Plant COM 231925

A Natural Attenuation Monitoring Plan (NAMP) Quarterly Report 3 dated August 22, 2005 found on the OCULUS database indicated a solvent impacted area is located between the Publix Deli and Publix Produce buildings located approximately 1,100 feet northwest of this pond alternative. An SRCO was issued on February 14, 2014.

Based on distance, listings for the Publix facility are not considered significant potential contamination concerns for this pond alternative.

Other facilities identified were located over 1,000 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the proximity of the former abutting north Edwards Grove facility with eight (8) historic fuel storage tanks and the potential for residual petroleum contamination, SMF-5 is given a potential risk ranking of “Medium.”

SMF-6

The pond alternative is located generally south of US 92, north of CSX railroad tracks and west of Edwards Avenue in Polk County, Florida. The Polk County Property Appraiser database indicates the associated address is 301 Edwards Avenue. The specific location is depicted on **Figure A-3** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed generally as a low, wet wooded area. Debris was observed primarily near the western boundary on-site and was comprised generally of plastic, glass, wood, landscape and household debris. A built-up railroad bed (no rails or wood) and concrete drain pipe were located near the southeast corner of the pond alternative both on and off-site. Approximately five (5) railroad ties were scattered near the south boundary.

Off-site north is US 92 and woods; CSX railroad tracks are located abutting south with a buried 10-inch diameter petroleum pipeline (Kinder Morgan) located approximately 80 feet south of this pond alternative, along the south side of the railroad track easement.



SMF-6: Low, wet southwest area



Railroad ties and drain pipe, south area



SMF-6: Debris near south boundary



CSX railroad tracks along south boundary looking east



SMF-6: Abandoned railroad bed,
 southeast corner looking southwest

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 6		
Year	Comment	Source
1941	Woodlands and rangeland	University of Florida
1958	No significant visible changes noted	Earth Resources Observation Systems (EROS)
1968	Railroad track added near southeast corner on-site	University of Florida
1971	Development added in surrounding areas	FDOT Survey and Mapping
1980	No significant visible changes noted	FDOT Survey and Mapping
1994	No significant visible changes noted	FDOT Survey and Mapping and Google
1999	Railroad track no longer visible	Google Earth
2004-2010	No significant visible changes noted	Google Earth
2011	No significant visible changes noted	FDOT Survey and Mapping
2012-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. SMF-6 is depicted in green shading indicating woodlands. A railroad spur is depicted at the southeast corner on-site. No other structures are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

Douglas Screen Printers (TANKS Fac. ID 8624136, COM_30993), 2710 New Tampa Highway located approximately 360 feet west of this pond alternative. This facility is identified on six (6) regulatory databases: CERCLIS, NFRAP, STCERC, VOLCLNUP, TANKS and NON-TSD. According to EDM's report this facility had one (1) 3,000-gallon unleaded gasoline UST was installed in 1974. The tank was reportedly removed according to a Douglas Screen Printers letter dated June 29, 1988 found on OCULUS. A Hazardous Waste Inspection dated September 17, 1985 by the FDEP was prompted by two (2) previous complaints regarding this facility. The inspection indicated generally poor house-keeping practices regarding solvents, ink, cleaners and contamination to the environment, no spill control and discharges (unspecified) to the soil. The Sixth Monitoring Only Plan (MOP) Report dated March 22, 2001 found in the OCULUS database indicated groundwater flow was to the west, away from this pond alternative. A Supplemental Site Assessment Report dated May 20, 2003 indicated petroleum and solvent-based contaminants were identified in groundwater monitor wells and surface water located on the west side of the Douglas facility. A Limited Scope Remedial Action Plan dated October 2003 indicated groundwater flow was to the southwest, away from this pond alternative. According to information provided by the FDEP Southwest District, Waste Cleanup Section, an SRCO was issued for this facility on November 20, 2008. Based on distance, regulatory status and groundwater flow direction, this facility is not considered a significant potential contamination concern to this pond alternative.

Wise Co. (TANKS, LUST Fac. ID 9102890), 2420 New Tampa Highway located approximately 150 feet east of this pond alternative. A Contamination Assessment Report dated July 12, 1993 found in the OCULUS database indicated the two (2) USTs were located approximately 750 feet east of the pond alternative. According to EDM's regulatory database report, this facility had two (2) 1,000-gallon diesel fuel USTs removed in 1991. One (1) diesel fuel discharge was reported on August 19, 1991 and an SRCO was issued on October 1, 2003. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

The following facility was identified on the FDEP's MapDirect and the FDOT ETDM databases:

Ritchey LF (Fac. ID 8944772), 5605 Murphy Road, Bartow is located approximately 23 miles southeast of the project corridor. However, the FDEP MapDirect database plots the location either on-site or abutting the north boundary of this pond alternative. OCULUS indicates this is a closed agricultural facility with two (2) 1,000-gallon ASTs (unleaded gasoline, diesel) installed in 1989 and one (1) 1,000-gallon AST installed in 1992. No coordinates, maps or sketches were found on the FDEP OCULUS database. Based on review of historic aerial photographs, it appears likely the actual location of this facility was approximately 23 miles southeast of the project corridor. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Other facilities identified were located over 700 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the presence of an abandoned railroad bed on-site since at least the 1960s with the potential for residual herbicide, pesticide and arsenic contamination, SMF-6 is given a potential risk ranking of "Medium."

Regional Pond Alternative

The pond alternative is located generally north of Interstate 4 and south and east of Swindell Road in Polk County, Florida. The specific location is depicted on **Figure A-5** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as pastureland. Pieces of a temporary cattle pen were located near the northwest boundary on-site. A steep slope (approximately 5 to 6 foot drop) was observed on the western portion of this pond alternative on-site. It appears this pond alternative may have been used as a borrow pit, possibly for the abutting east property. No mining or environmental resource permits were found regarding this pond alternative.



Regional Pond Alternative: North-central area looking west



Regional Pond Alternative: North-central area looking northeast



Regional Pond Alternative: East-central area looking east



Regional Pond Alternative: SW corner looking west

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 7		
Year	Comment	Source
1941	Woods, wetlands and cleared land Off-site east: man-made ditch	University of Florida
1958	Groves added in northwest area on-site	Earth Resources Observation Systems (EROS)
1968	Clearing and trails in eastern area on-site	University of Florida
1971	One (1) structure added near northwest corner on-site	FDOT Survey and Mapping
1980	A second structure added near northwest corner on-site	FDOT Survey and Mapping
1994	One (1) structure gone	FDOT Survey and Mapping and Google
1999	No significant visible changes noted	Google Earth
2004	No significant visible changes noted	Google Earth
2007	Structure gone, trees cleared on eastern portion and grove gone on western portion	Google Earth
2008	Hay rolls along northern boundary on-site	Google Earth
2009	Fencing and one (1) small structure added	Google Earth
2010	Clearing/earthwork	Google Earth
2013	Possibly burned vegetation in central and east portions	Google Earth
2014	Pasture	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. The Regional Pond Alternative is depicted in green shading indicating woods and in white shading indicating undeveloped land, pasture or row crops. Two (2) structures are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

Dunn Investment Co. (Fac. ID 00051480), 4011 N. Frontage Road is located adjacent east of this pond alternative. Based on review of historic aerial photographs this facility was present since at least 1980 and appeared abandoned by 1994. This facility is identified on the Solid Waste database. The MapDirect database indicates this facility is “closed” with no groundwater monitoring. Tierra contacted the FDEP Southwest District office and obtained one (1) document (Department of Environmental Regulation, Groundwater Management System dated February 2, 1996) which indicated a complaint of illegal dumping was reported on August 4, 1983. The FDEP sent a Warning Letter for unauthorized disposal on October 3, 1983 and received a response to the warning letter on October 27, 1983. No details regarding the response to the warning letter, cleanup details (if any) or case closure status was identified in the document provided by the FDEP. During the site reconnaissance, this location was observed as a pasture and man-made pond. No debris or unusual odors were noted on or off-site, or along the ditch near the east boundary. Based on the presence of a hydrologic barrier (ditch) and observations

during site reconnaissance, this facility is not considered a significant potential contamination concern for this pond alternative.

Former Pines WWTF (Fac. ID FLA040347, NPDES FLR10L366) located adjacent east of this pond alternative. Based on review of historic aerial photographs this facility was added by 1980 and closed (possibly filled) by 2005. During the site reconnaissance, this location was observed as a pasture and man-made pond. Tierra obtained information regarding this former facility from the FDEP Southwest District including a permit dated May 22, 2002 which indicated this was a domestic, chlorine gas secondary treatment WWTF with two (2) dispersion sprayfields located south of the treatment facility. A Compliance Evaluation Inspection dated June 9, 2004 indicated the treatment facility was removed and associated ponds were graded. A Case Closure Letter dated June 10, 2004 indicated Consent Order obligations had been met. An NPDES generic permit (FLR10L366) was issued in 2003 associated with the facility's closure. Based on the presence of a hydrologic barrier, regulatory closure status and observations during site reconnaissance, this facility is not considered a significant potential contamination concern for this pond alternative.

A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the historic use a groves (northwest area) from the 1950s to the 2000s, the Regional Pond Alternative is given a potential risk ranking of "Medium."

FPC-1

The pond alternative is located at 831 Kraft Road, the northwest corner of US 92 and Kraft Road in Polk County, Florida. The specific location is depicted on **Figure A-2** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as grassy, overgrown lot with one (1) portable storage container and approximately three (3) 55-gallon drums located at the southwest corner and three (3) mobile 500-gallon ASTs, one (1) 55-gallon drum and one (1) mobile storage container located on the northern portion of the pond alternative. Information obtained from the Polk County Property Appraiser database indicates this pond alternative has been owned by Briken Construction, LLC since 2012. This property was viewed from abutting south and east ROWs since the access gate was locked and calls regarding property access were not returned.



FPC-1: 3 ASTs and storage unit near N-central boundary on-site



FPC-1: 3x55-gallon drums and storage unit near SW corner on-site



FPC-1: Storage unit and fork lift near west-central boundary on-site



FPC-1: SE corner looking west

Interviews

Mr. Chris Garth, Tierra called and left voice messages on November 14, 2014 and November 19, 2004 to (813) 927-2381 to make inquiries regarding site access and history. This phone number was observed on a “For Rent” sign on the pond alternative fencing. The calls were not returned as of this writing.

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 8		
Year	Comment	Source
1941	Woods and pasture	University of Florida
1958	Two (2) roads added Off-site east: Kraft Road added	Earth Resources Observation Systems (EROS)
1968	Cleared with two (2) roads	University of Florida
1971	No significant visible changes noted	FDOT Survey and Mapping
1980	Overgrown	FDOT Survey and Mapping
1993/1994	One (1) structure added	FDOT Survey and Mapping and Google
1999	No significant visible changes noted	Google Earth
2004-2008	No significant visible changes noted	Google Earth
2009	Structure gone	Google Earth
2011	No significant visible changes noted	Google Earth
2012	One (1) structure added SW area, soil stockpiles added in central area	Google Earth
2013	Earthwork in south and west areas, possible heavy equipment on-site	Google Earth
2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute "Plant City East, Florida" published in 1975 and photorevised in 1987 was reviewed. FPC-1 is depicted in white shading indicating undeveloped land, pasture or row crops located north of US Highway 92, east of a stream and west of Kraft Road and CSX railroad tracks. No structures are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

The Fleet Transportation (ERNS NRC-17366) spill was for 24,000 pounds of dry ammonium nitrate (fertilizer) which was discharged in a truck wreck/spill reported on November 2, 1987 onto US 92 at the railroad tracks. Tierra requested information from the FDEP (e-mail dated August 4, 2014) and received a response indicating the FDEP "found nothing for this site." Tierra also contacted the National Response Center (NRC) and has not received a response as of this writing. MSDS sheets indicate excess ammonium nitrate can kill vegetation and cause eutrophication in surface waters. For cleanup, dry ammonium nitrate can be scooped up and reused and residues washed down with water. Based on the significant time lapse since the spill occurred, the discharge is not considered a significant potential contamination concern to this pond alternative.

Harrells Inc. (Fac. ID 8629259), 720 Kraft Road is located approximately 900 feet northeast of this pond alternative. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Composite Materials, Flow Serve US and Clark-Schewebel Distribution Corp., 733 Kraft Road is located approximately 340 feet north of the pond alternative. These three (3) facilities are registered as NON-TSD CESQGs. Based on distance and the generic nature of the regulatory database listings, these facilities are not considered a significant potential contamination concern to this pond alternative.

M&J Jaber Petroleum, LLC (Fac. ID 8943480) 5565 New Tampa Highway is located approximately 600 feet west of the pond alternative. During the site reconnaissance, this facility was observed as an active Sunoco Food Mart gasoline station. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Other facilities identified were located over 900 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

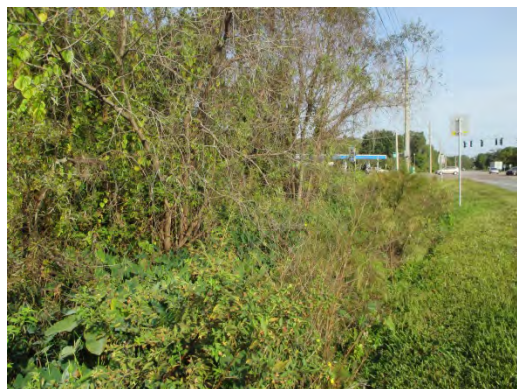
A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the presence of approximately two (2) portable storage containers (unknown contents) and approximately four (4) 55-gallon drums and three (3) mobile 500-gallon ASTs observed on-site during the site reconnaissance, FPC-1 is given a potential risk ranking of "Medium."

FPC-2

The pond alternative is located at 4400 New Tampa Highway, the southwest corner of US 92 and Airport Road in Polk County, Florida. The specific location is depicted on **Figure A-2** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as primarily planted pine trees and overgrown wooded areas. One (1) light pole was observed in the south-central area.



FPC-2: Southeast corner looking north



FPC-2: North boundary looking south



FPC-2: South-central area looking NE



FPC-2: North-central boundary looking west

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 9		
Year	Comment	Source
1941	Woods and wetlands	University of Florida
1958	No significant visible changes noted	Earth Resources Observation Systems (EROS)
1968	Ditches or trails added	University of Florida

Table 9		
Year	Comment	Source
1971	Clearing, haul road and possibly soil stockpiles and three (3) structures added. Off-site south: pond added.	FDOT Survey and Mapping
1980	More clearing, pasture added	FDOT Survey and Mapping
1994	More clearing/earthwork	Google Earth
1999	More clearing/earthwork in southwest area	Google Earth
2004-2005	No significant visible changes noted	Google Earth
2006	Partially overgrown	Google Earth
2009	Two (2) structures gone, possibly planted pine trees added	Google Earth
2011-2012	Overgrown	Google Earth
2013-2014	Planted pine trees visible	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. FPC-2 is depicted in white shading indicating undeveloped land, pasture or row crops located south of US Highway 92, west of Airport Road and north of a pond and CSX railroad tracks. Two (2) structures are depicted on-site. A copy of the map is included in **CSER Appendix D**.

Interviews

Mr. Chris Garth, Tierra conducted an interview on November 12, 2014 with Mr. Nat Gore of Gore Auto Sales, (863) 683-1456, regarding the history of this pond alternative. Mr. Gore indicated there were two (2) houses located just north of the existing pond.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/registrations were:

Jacks Mobile Homes, Inc. (Fac. ID 8628374), 4710 New Tampa Highway was located approximately 350 feet west of this pond alternative. The EDM regulatory database report indicated one (1) diesel fuel UST (unknown size) was removed in 1989. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Chevron/Giant Food #128/Circle K #7491 (Fac. ID 8623640, NON-TSD), 4301 US Highway 92 is located approximately 150 feet northwest of this pond alternative. The EDM report indicated one (1) gasoline discharge was reported on November 1, 1988 and SRCO issued on August 8, 2007. This facility has a total of ten (10) registered fuel storage tanks. Giant Food has six (6) registered USTs: two (2) in-service 15,000-gallon USTs and four (4) USTs removed in 2001. Circle K #7491 has four (4) in-service 10,152-gallon USTs installed in 1984. A Post Remediation Monitoring Report dated May 31, 2006 found on the OCULUS database indicated groundwater flow was generally toward the west-northwest which is cross to down-gradient from this pond alternative. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Gulf Machinery (NON-TSD FLD984206979, FLTMP9103165), Airport Road and Old Tampa Highway is located approximately 1,100 feet southeast of the pond alternative. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Shell/Saishivani Inc., DBA KK Food Mart (Fac. ID 9802292), 4275 New Tampa Highway is located approximately 270 feet north of this pond alternative. The EDM report indicated one (1) unleaded gasoline discharge was reported on February 9, 2004 and NFA issued on December 28, 2005. This facility has four (4) registered USTs (2x12,000-gallons, 2x10,000-gallons). One (1) UST was closed in place in 2006 and one 10,000-gallon UST was listed as temporarily out of service since 2008. Based on distance, this facility is not considered a significant potential contamination concern to this pond alternative.

Other facilities identified were located over 500 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the historic use as woods, wetlands, rangeland, possibly two (2) residences and planted pine trees, FPC-2 is given a potential risk ranking of "Low."

FPC-3

The pond alternative is located approximately 1,000 feet north of US 92 and east of N. Galloway Road in Polk County, Florida. Based on information obtained from the Polk County Property Appraiser database the associated address is 3801 New Tampa Highway (mobile home park, abutting south). The specific location is depicted on **Figure A-3** in **CSER Appendix A**. During site reconnaissance, this pond alternative was observed as a grassy area with an overgrown stormwater pond on northern portion and woods on the northwest corner of this pond alternative.



FPC-3: South-central boundary looking east



FPC-3: Central area looking north, stored concrete drainage structures

Historic Land Use Summary

Historic aerial photographs were reviewed. A summary of our review, including the years and sources, is depicted in the following table. Copies of the 1941, 1958, 1968, 1971, 1980, 1993/1994 and 2006 aerial photographs are included in **CSER Appendix B** and the 2011 aerial photograph is included in **CSER Appendix A**.

Table 10		
Year	Comment	Source
1941	Rangeland Off-site east: man-made canal	University of Florida
1958	Pasture and a trail	Earth Resources Observation Systems (EROS)
1968	Pasture	University of Florida
1971	Off-site south: mobile home park added	FDOT Survey and Mapping
1980	No significant visible changes noted	FDOT Survey and Mapping
1993/1994	Off-site north: parking lot added	FDOT Survey and Mapping and Google
1999	Excavation/earthwork in north area	Google Earth
2004-2009	No significant visible changes noted	Google Earth
2010	Off-site west: RV and boat storage area added	Google Earth
2011-2014	No significant visible changes noted	Google Earth

The U.S.G.S. 7.5-Minute “Lakeland, Florida” published in 1975 and photorevised in 1987 was reviewed. FPC-3 is depicted in white shading indicating undeveloped land, pasture or row crops. No structures are depicted on-site. Off-site, a trailer park is depicted to the south and west, and a stream and development is depicted to the east. A utility easement is also depicted west of the pond alternative. A copy of the map is included in **CSER Appendix D**.

Regulatory Review

Based on the information obtained from the EDM regulatory database report, no listings/registrations were identified on-site. The nearest off-site listings/facilities were:

Publix (Fac. ID 8628573), 3045 New Tampa Highway is located north of US 92 is located abutting north and adjacent east of this pond alternative. Regulatory database listings for this facility included: eight (8) ERNS (Emergency Response Notification System), two (2) Voluntary Cleanup, four (4) LUST, seven (7) NON-TSD and forty-nine (49) TANKS registered for this facility. Twenty-seven (27) of the tanks were reportedly removed and twenty-two (22) remain in-service. The nearest fuel storage tanks (both current and former) are located approximately 820 feet northwest of this pond alternative.

The EDM regulatory database report identified four (4) LUST database listings:

- EDMs regulatory database report indicated an unspecified quantity of vehicular diesel was discharged on October 29, 1987 and SRCO was issued on September 16, 2010. Based on a map included with the SRCO found on OCULUS, this discharge was located approximately 1,200 feet east-southeast of this pond alternative near the southwest corner of the Publix truck garage.
- EDMs regulatory database report indicated an unspecified quantity of new lube/oil was discharged on June 20, 1993. A Remedial Action Interim Report dated May 23, 2014 found on OCULUS included figures which depicted the contamination plume location approximately 1,200 feet east-southeast of this pond alternative near the southwest corner of the Publix truck garage. The report also indicated groundwater flow was indicated toward the west and active groundwater remediation in progress.
- Approximately 25-gallons of vehicular diesel fuel was discharged on April 10, 1995 and NFA issued on July 2, 2003. Based on a Template Site Assessment Report dated April 8, 2003 found on OCULUS this discharge is located approximately 550 feet east of this pond alternative near the southeast corner of the Publix Deli Plant.
- An unspecified quantity of vehicular diesel fuel was discharged on September 3, 1997 and NFA issued on December 30, 1998. Based on a Source Removal Report dated October 19, 1998 found on the OCULUS database indicated this discharge was located at the AST farm located approximately 1,200 feet east of this pond alternative.

The seven (7) ERNS listings were for anhydrous ammonia discharges (0-500 pounds) between 1998 and 2009. Anhydrous ammonia is likely used as a refrigerant at this facility. The Material Safety Data Sheet (MSDS) indicates anhydrous ammonia is an inhalation, corrosive and flammable hazard but “no ecological effects are anticipated.” One (1) ERNS listing was approximately 20-gallons of ultra (Klenzade) alkaline cleaner at the Dairy Processing Plant. Tierra obtained the National Response Center Incident Report #701111 which indicated the discharge occurred on September 29, 2003. According to the report the caller stated that employees were unloading a truck and dropped a drum onto the ground releasing ultra (Klenzade) alkaline cleaner onto the ground and into a storm drain which led to a nearby retention pond.

Two (2) Voluntary Cleanup listings:

Publix Lakeland Industrial Center Garage COM 151358

Based on an FDEP Memorandum dated September 1, 2000 found on the OCULUS database which included the Fourth Semi-Annual Sampling Event (dated August 29, 2000), this facility is located 1,300 feet southeast of this pond alternative. This site/discharge appears to be associated with the discharge dated June 20, 1993 and was previously discussed in the LUST database listings.

Publix Supermarkets Inc. Industrial Center Deli Plant COM 231925

A Natural Attenuation Monitoring Plan (NAMP) Quarterly Report 3 dated August 22, 2005 found on the OCULUS database indicated a solvent impacted area is located between the Publix Deli and Publix Produce buildings located approximately 550 feet east of this pond alternative. An SRCO was issued on February 14, 2014.

Based on distance, listings for the Publix facility are not considered significant potential contamination concerns for this pond alternative.

Other facilities identified were located over 900 feet from this pond alternative. Therefore those facilities were not considered significant potential contamination concerns to this pond alternative.

A copy of the EDM database report is included in **CSER Appendix D**.

Risk Ranking

Based on the historic use as rangeland and pasture with earthwork/excavation/clearing in the north area, FPC-3 is given a potential risk ranking of "Low."

Risk Ranking Summary

Pond Alternative	Initial Risk Ranking	Comment
SMF-1	Medium	Based on the historic use as an FDOT weigh station since at least the 1940s and use as FDOT stockpile (typically soil, gravel and/or asphalt) storage yard with heavy equipment on-site and possibly historic fuel storage tanks since the 1990s, SMF-1 is given a potential risk ranking of "Medium."
SMF-2	Medium	Based on the historic use as groves from the 1940s to the 1970s, the presence of a soil/gravel stockpile possibly from the abutting south railroad tracks (and possibly impacted by pesticides/herbicides/arsenic), abutting east auto repair facility and abutting west wood pallet facility, SMF-2 is given a potential risk ranking of "Medium."
SMF-3	Medium	Based on the historic use of the abutting east facility as Gore's Auto Sales, including auto repairs since the 1970s, SMF-3 is given a potential risk ranking of "Medium."
SMF-4	Medium	Based on the proximity of the Register Construction facility to the west with 55-gallon drums and stained asphalt and two (2) former USTs with the potential for residual petroleum contamination, SMF-4 is given a potential risk ranking of "Medium."
SMF-5	Medium	Based on the proximity of the former abutting north Edwards Grove facility with eight (8) historic fuel storage tanks and the potential for residual petroleum contamination, SMF-5 is given a potential risk ranking of "Medium."
SMF-6	Medium	Based on the presence of an abandoned railroad bed on-site since at least the 1960s with the potential for residual herbicide, pesticide and arsenic contamination, SMF-6 is given a potential risk ranking of "Medium."
Regional Pond Alternative	Medium	Based on the historic use a groves (northwest area) from the 1950s to the 2000s, the Regional Pond Alternative is given a potential risk ranking of "Medium."
FPC-1	Medium	Based on the presence of approximately two (2) portable storage containers (unknown contents) and approximately four (4) 55-gallon drums and three (3) mobile 500-gallon ASTs observed on-site during the site reconnaissance, FPC-1 is given a potential risk ranking of "Medium."
FPC-2	Low	Based on the historic use as woods, wetlands, rangeland, possibly two (2) residences and planted pine trees, FPC-2 is given a potential risk ranking of "Low."
FPC-3	Low	Based on the historic use as rangeland and pasture with earthwork/excavation/clearing in the north area, FPC-3 is given a potential risk ranking of "Low."

SMF=Stormwater Management Facility and FPC=Flood Plain Compensation

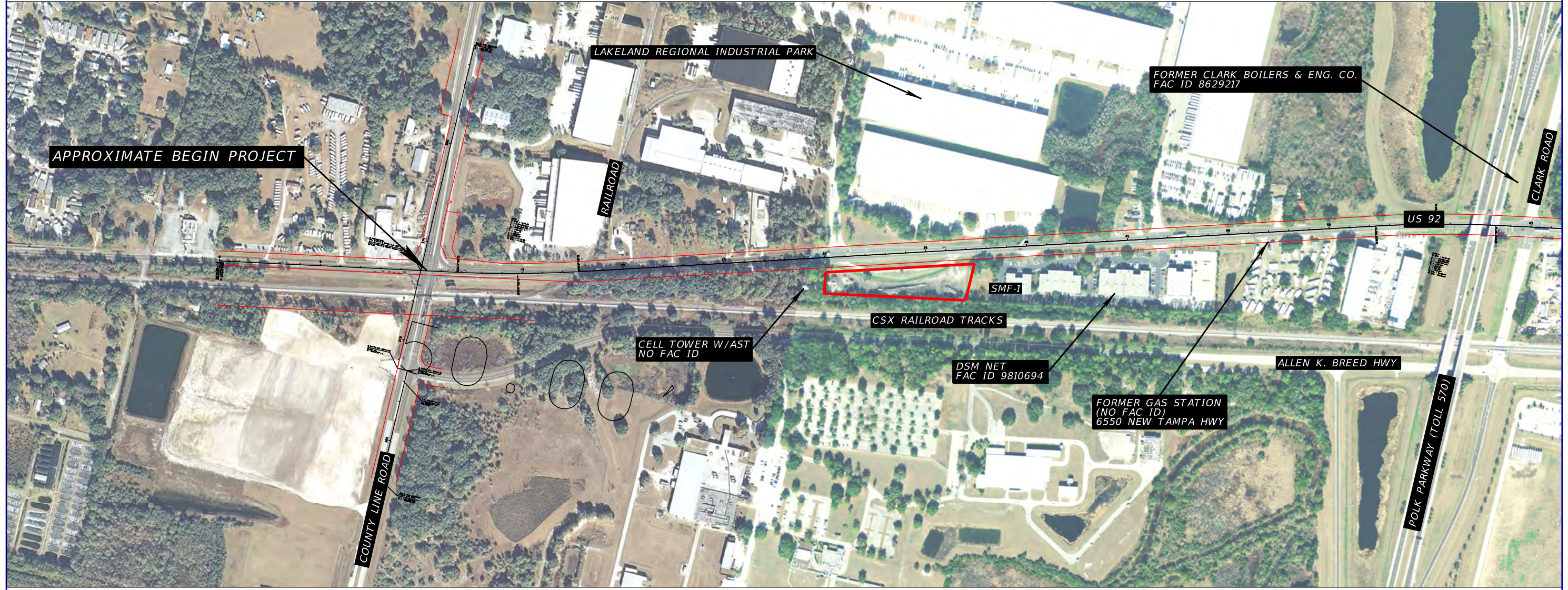
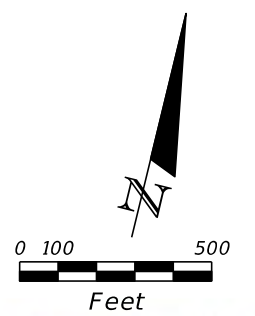
Pond Alternative locations are included in **CSER Appendix A**.

For sites ranked "No" or "Low", no additional work is recommended at this time. Should a facility's permitting or regulatory status change between now and the time acquisitions are initiated, additional screening should be conducted. For those sites with risk rankings of "High" and "Medium", Tierra recommends Level II field screening of pond alternatives selected for final design to determine if environmental impacts exist at the preferred pond alternatives. All pond sites selected for final design regardless of risk ranking will require limited field screening in accordance with the Department Contamination Impact Coordinator (DCIC) requirements outlined in the scope of work.

Debris observed on pond alternatives (SMF-2, SMF-4, SMF-5, SMF-6) should be removed and properly disposed of prior to construction. Water wells observed on pond alternatives (SMF-2) should be properly abandoned in accordance with regulatory guidelines prior to construction.

CSER Appendix A

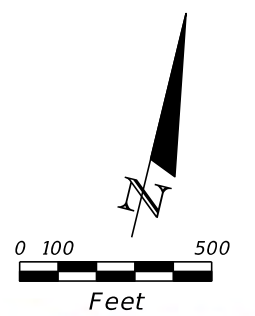
Pond Alternatives Location Map



SOURCE: FDOT SURVEY AND MAPPING DATED 2011

POND ALTERNATIVES LOCATION MAP

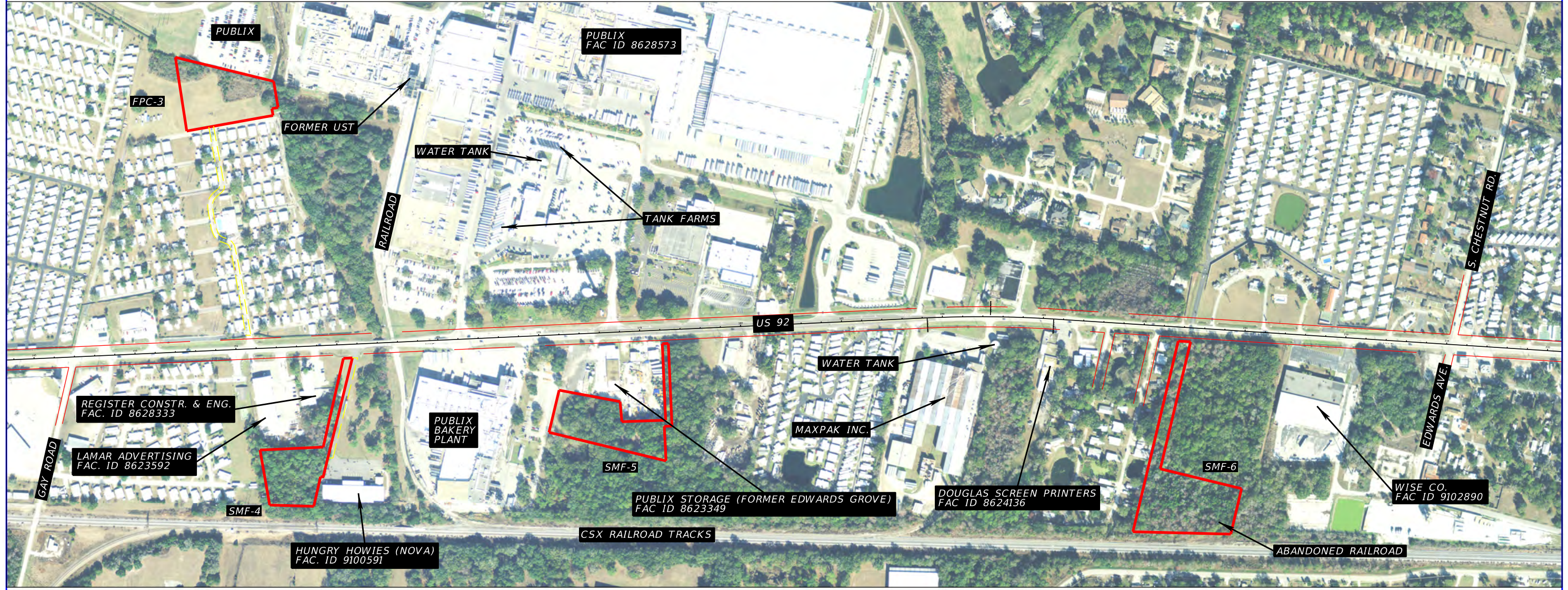
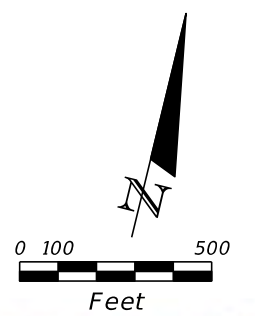
REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. A-1
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING DATED 2011

POND ALTERNATIVES LOCATION MAP

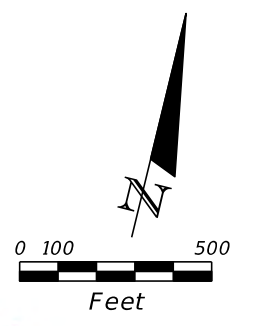
REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. A-2
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING DATED 2011

POND ALTERNATIVES LOCATION MAP

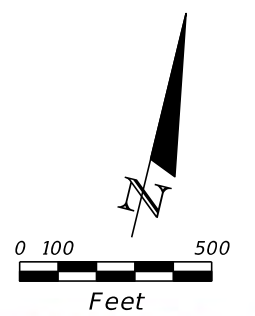
REVISIONS		REVISIONS		TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. A-3
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					POLK	433558-1-22-01			



SOURCE: FDOT SURVEY AND MAPPING DATED 2011

POND ALTERNATIVES LOCATION MAP

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. A-4
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING DATED 2011

POND ALTERNATIVES LOCATION MAP

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. A-5
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				

CSER Appendix B

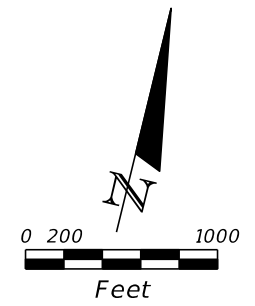
Historic Aerial Photographs



SOURCE: UNIVERSITY OF FLORIDA

1941 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-1
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: UNIVERSITY OF FLORIDA

1941 HISTORICAL AERIAL PHOTOGRAPH

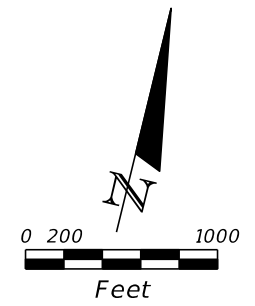
REVISIONS		REVISIONS		TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		B-2
					POLK	433558-1-22-01			



SOURCE: EARTH RESOURCE OBSERVATION AND SCIENCE (EROS) CENTER

1958 HISTORICAL AERIAL PHOTOGRAPH

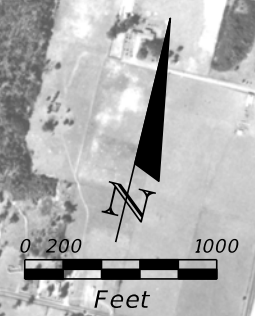
REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-3
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			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: EARTH RESOURCE OBSERVATION AND SCIENCE (EROS) CENTER

1958 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-4
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



REGIONAL POND ALTERNATIVE

APPROXIMATE BEGIN PROJECT

SMF-1

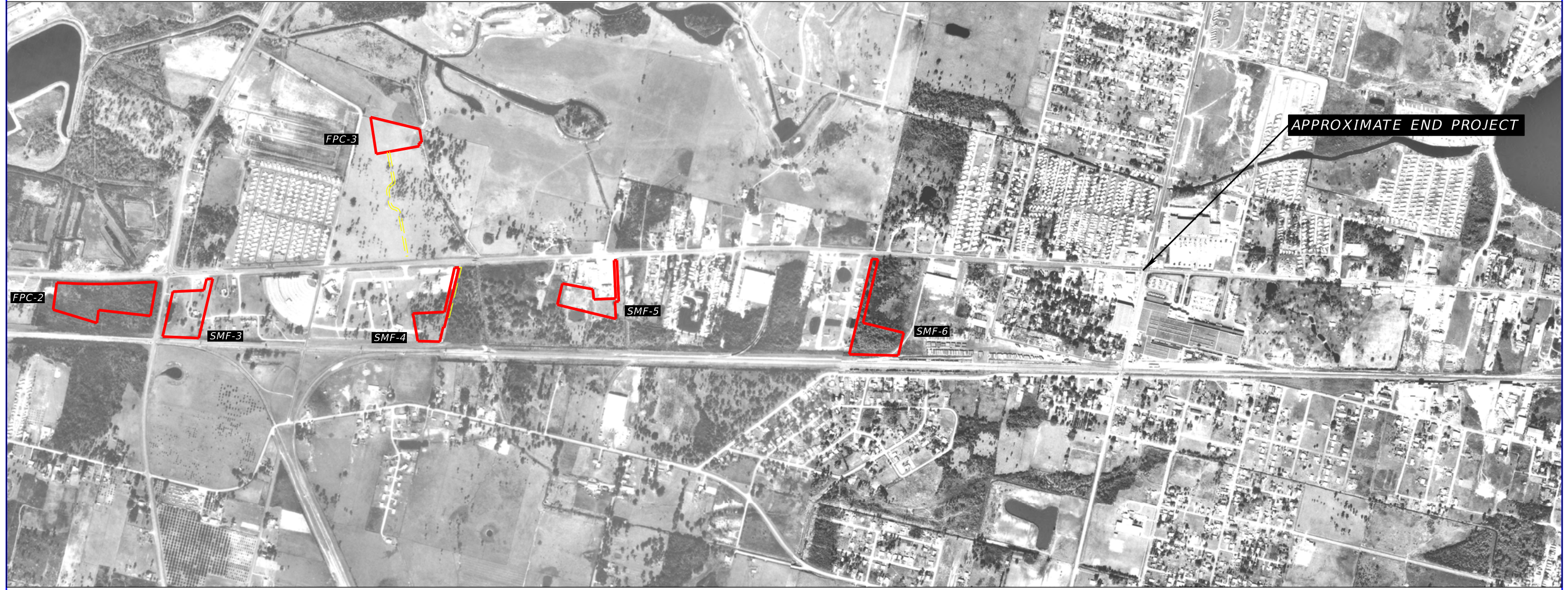
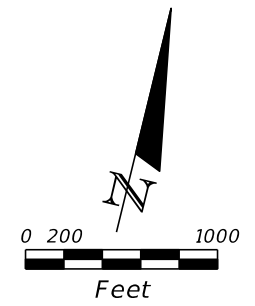
SMF-2

FPC-1

SOURCE: UNIVERSITY OF FLORIDA

1968 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS		REVISIONS		TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-5
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01			



SOURCE: UNIVERSITY OF FLORIDA

1968 HISTORICAL AERIAL PHOTOGRAPH

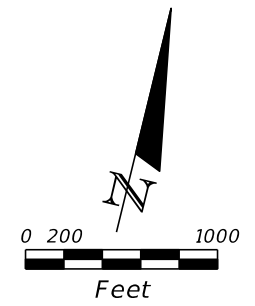
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

1971 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-7
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E	7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	POLK	433558-1-22-01		
				TIERRA, INC.				
				CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

1971 HISTORICAL AERIAL PHOTOGRAPH

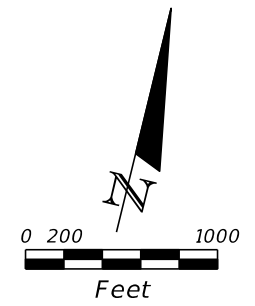
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

1980 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-9
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

1980 HISTORICAL AERIAL PHOTOGRAPH

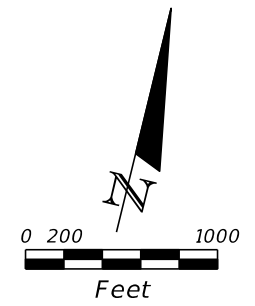
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

1993-1994 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-11
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

1993-1994 HISTORICAL AERIAL PHOTOGRAPH

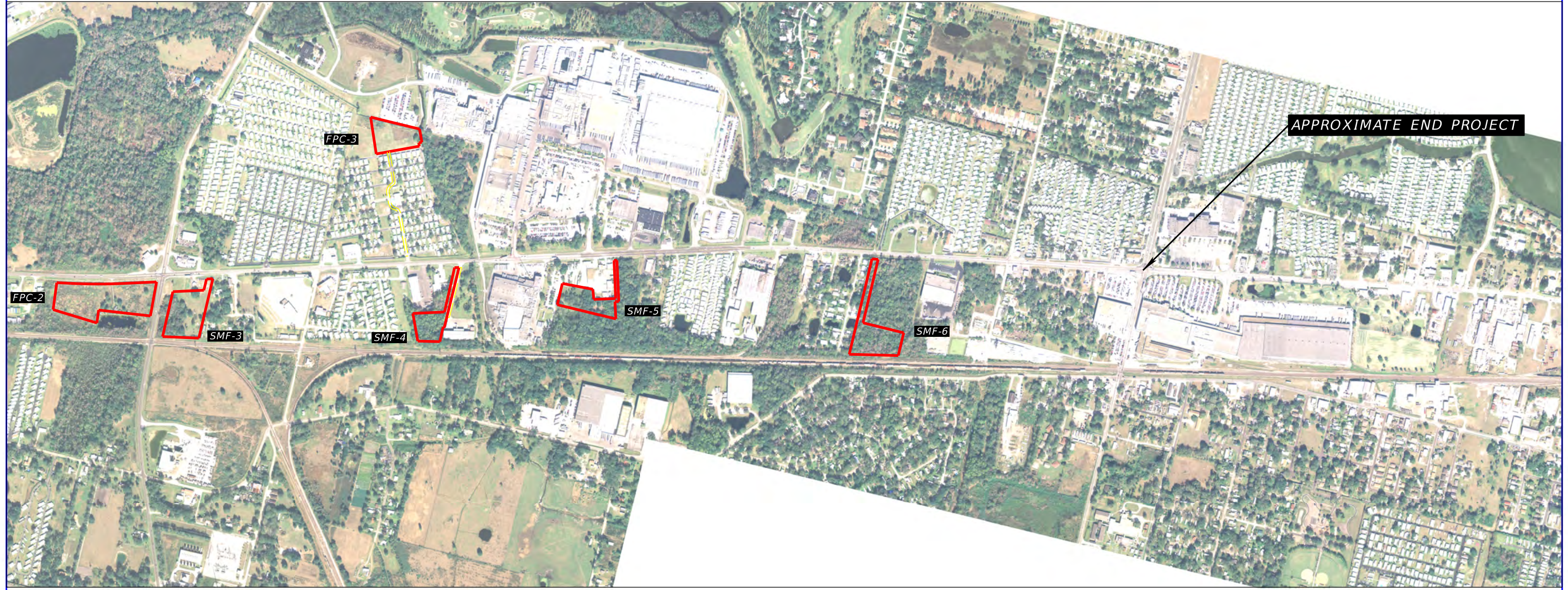
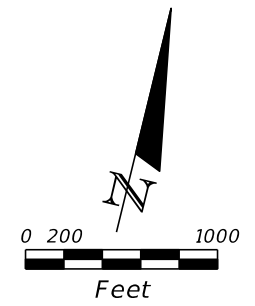
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DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01		
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				



SOURCE: FDOT SURVEY AND MAPPING

2006 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS		REVISIONS		TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-13
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E		POLK	433558-1-22-01			



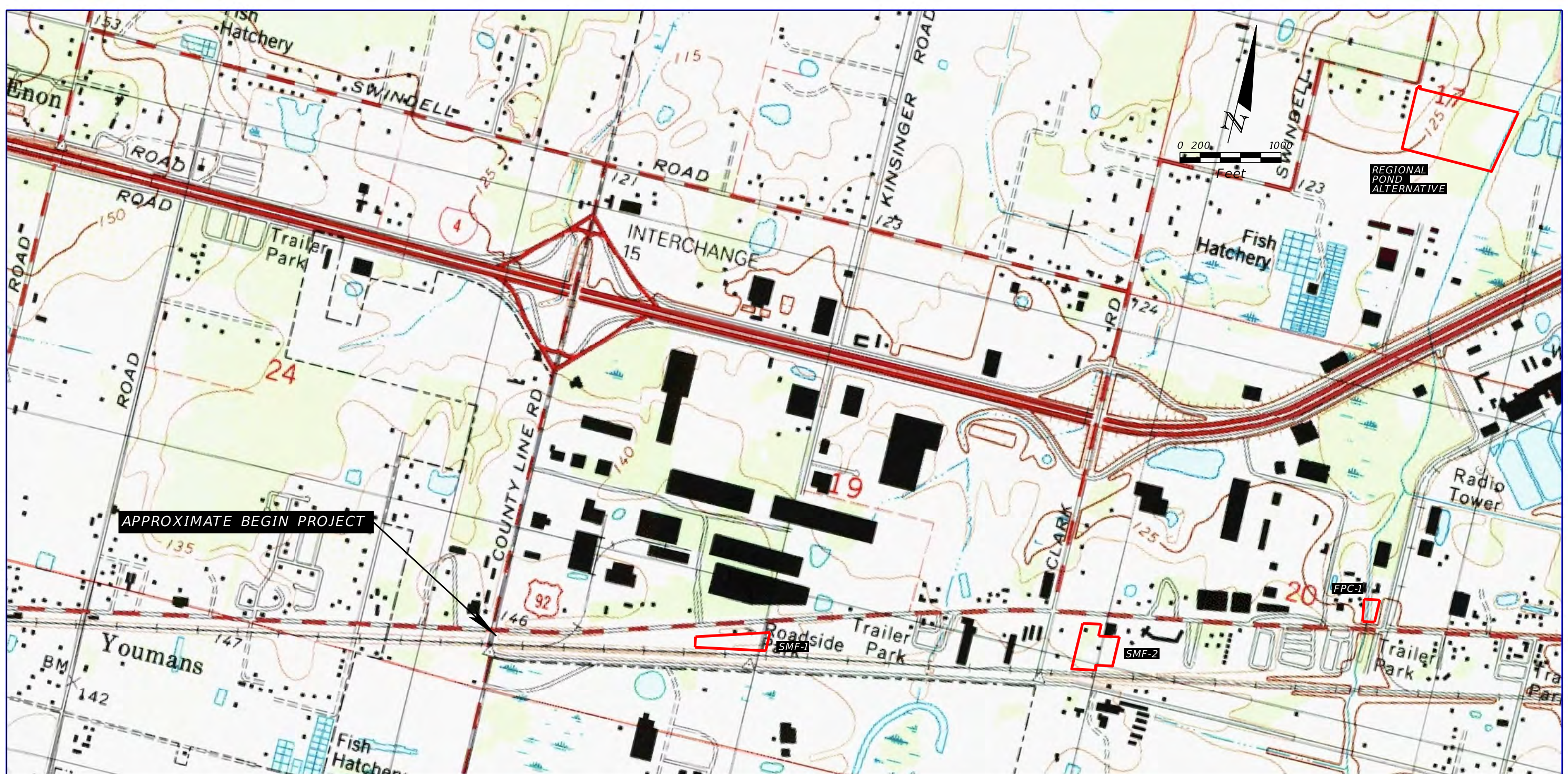
SOURCE: FDOT SURVEY AND MAPPING

2006 HISTORICAL AERIAL PHOTOGRAPH

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. B-14
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486				

CSER Appendix C

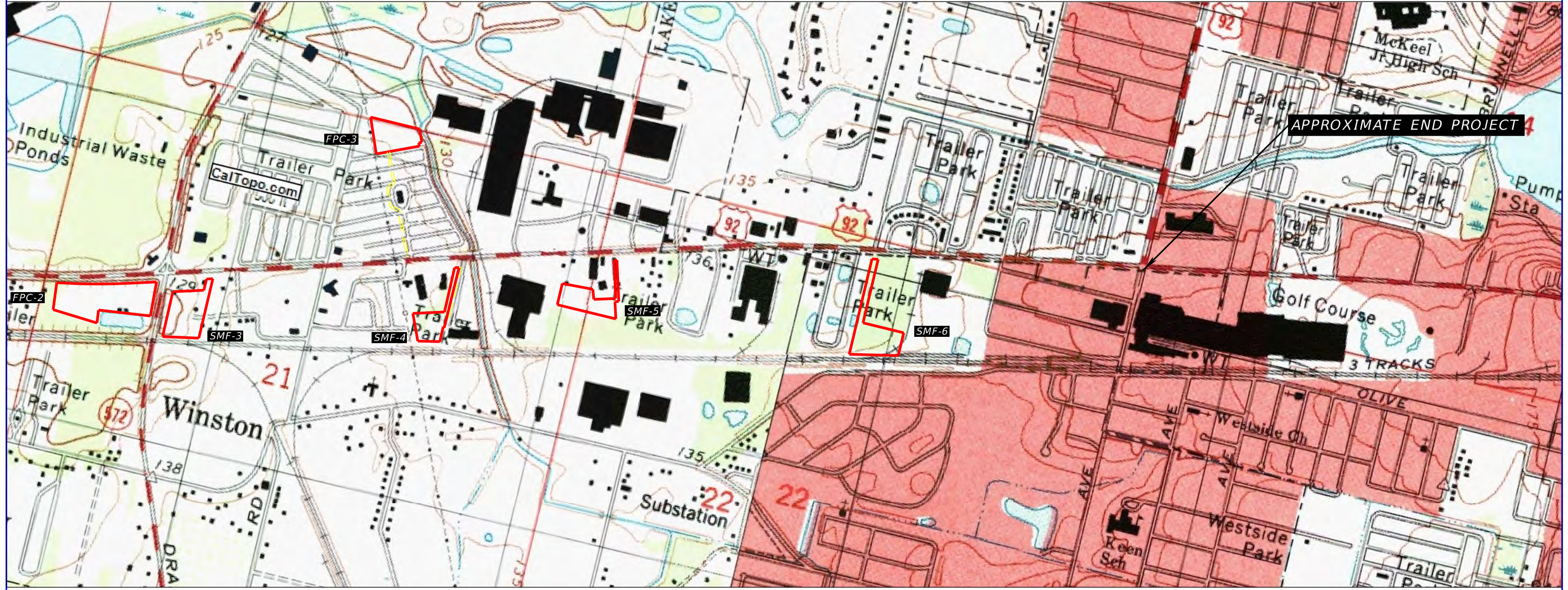
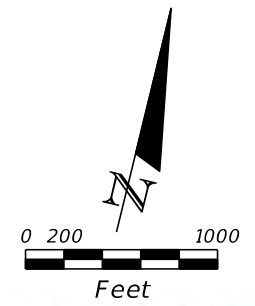
USGS Topographic Map



SOURCE: USGS 7.5-MINUTE "PLANT CITY EAST, FLORIDA" DATED 1975, (PHOTOREVISED 1987)

USGS TOPOGRAPHIC MAP

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE		SHEET NO. C-1
DATE	DESCRIPTION	DATE	DESCRIPTION						
				TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486			POLK	433558-1-22-01	
TIERRA PROJECT NO.: 6511-13-185E				mfebre 8/12/2014 10:05:34 AM J:\6511\2013 Files\6511-13-185 US 92 PDE\Microstation\rdgeoEnvTopo01.dgn					



SOURCE: USGS 7.5-MINUTE "LAKELAND, FLORIDA" DATED 1975, (PHOTOREVISED 1987)

USGS TOPOGRAPHIC MAP

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			US 92 PD&E STUDY FROM COUNTY LINE ROAD TO WABASH AVENUE	SHEET NO. C-2
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			TIERRA PROJECT NO.: 6511-13-185E	7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486	92	POLK	433558-1-22-01	

CSER Appendix D

EDM Environmental Report

Environmental Data Report

Standard 1/8 Mile Research

US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

Prepared For:

Tierra Inc
7351 Temple Terrace Hwy
Tampa, FL 33637

Prepared By:



Environmental Data Management, Inc.
2840 West Bay Drive, Suite 208
Largo, Florida 33770

July 31, 2014



July 31, 2014

Chris Garth
Tierra Inc
7351 Temple Terrace Hwy
Tampa, FL 33637

Subject: **Standard 1/8 Mile Research - EDM Project #22426**

Dear Mr. Garth

Thank you for choosing Environmental Data Management, Inc. The following report provides the results of our environmental data research that you requested for the following location:

**US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida**

The following is a summary of the components contained within this report:

- **Executive Summary** –lists the databases that were searched for this report, the search distance criteria and the number of sites identified for each database.
- **Map of Study Area**– street map showing the location of the Subject Property and any regulatory listed sites identified within the search criteria.
- **Site Summary Table** –displays the Map ID number, Permit or Registration number, Name/Address and the Government Database(s) for the identified regulatory listed sites.
- **Detail Reports** – data detail for each database record identified.
- **Proximal Records Table** – a listing of potentially relevant sites identified just beyond the search criteria.
- **Non-Mapped Records Table** - lists those government records that do not contain sufficient address information to plot within our GIS system, but may still exist within your study area.
- **Addl Maps (where applicable)** – includes Recent Aerial Photo, USGS Topographic maps, FEMA Floodplain & NWI Wetland Map, map of statewide American Indian Lands and our Environmental Impact Areas map, showing the location of suspect sites such as NPL/STNPL, Brownfields, FUDS, etc.... Our Florida well data report is also include with the Standard and Comprehensive formats.
- **Agency List Descriptions** – defines the regulatory databases included in this report along with the dates that each database was last updated by the respective agency and EDM.

At EDM we take great pride in our work, and continually strive to provide you with the most accurate and thorough research service available. This report is only intended as a means to assist in identifying locations that may pose an environmental concern relative to the property under evaluation. Its use is not intended to replace the need for a complete environmental assessment or regulatory file review, but rather as a supplement to the overall evaluation.

Thank you again for selecting EDM as your data research provider. Should you have any questions regarding this report or our service, please feel free to contact us. We appreciate the opportunity to be of service to you and look forward to working with you in the future.

ENVIRONMENTAL DATA MANAGEMENT, INC.

Executive Summary

Client Information	Project Information
Tierra Inc 7351 Temple Terrace Hwy Tampa FL 33637 Client Job No: 6511-13-185E Client P.O. No:	Standard 1/8 Mile Research US Highway 92 Off Site Ponds from County Line Rd to Wabash Ave Polk County, Florida EDM Job No# 22426

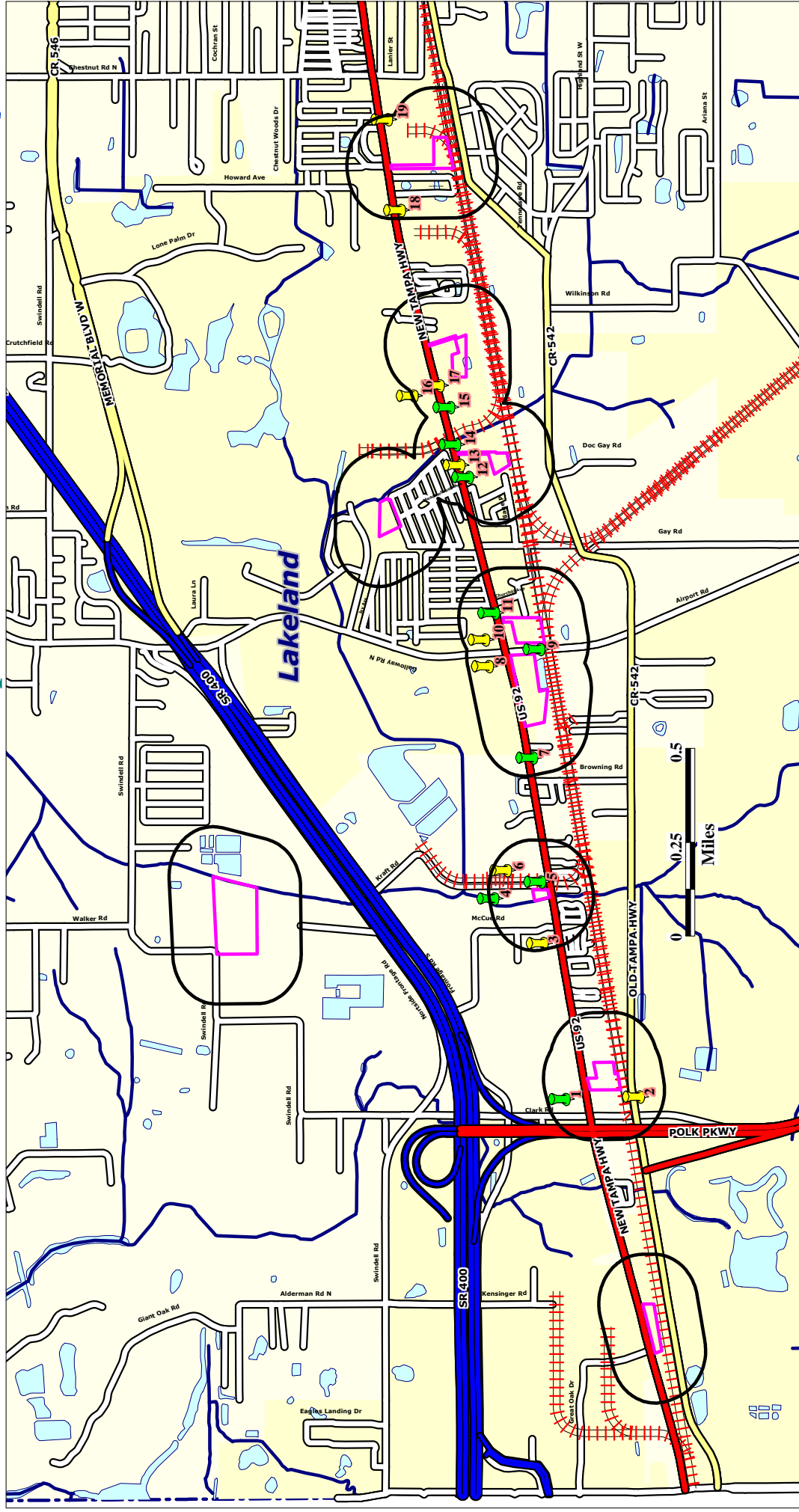
The following table displays the databases that were included in the research provided, the respective search distance for each database and the number of records identified for each database. The distance values indicated are measured from the centroid of the Subject Property. The absence of records in this table and the Site Summary Tables indicates that our research found no data for other sites located within the specified search distances.

	# Found
EPA DATABASES	
National Priorities List(NPL)	0
Comprehensive Env Response, Compensation & Liability Information System List(CERCLIS)	1
Archived Cerclis Sites(NFRAP)	1
Emergency Response Notification System List(ERNS)	9
RCRIS Handlers with Corrective Action(CORRACTS)	0
RCRA-Treatment, Storage and/or Disposal Sites(TSD)	0
RCRA-LQG,SQG,CESQG and Transporters(NONTSD)	12
Tribal Tanks List(TRIBLTANKS)	0
Tribal Lust List(TRIBLLUST)	0
Brownfields Management System(USBRWNFLDS)	0
US Institutional and/or Engineering Controls(USINSTENG)	0
FDEP DATABASES	
State NPL Equivalent(STNPL)	0
State CERCLIS Equivalent(STCERC)	1
Solid Waste Facilities List(SLDWST)	0
Leaking Underground Storage Tanks List(LUST)	10
Underground/Aboveground Storage Tanks(TANKS)	15
State Designated Brownfields(BRWNFLDS)	0
State Voluntary Cleanup List(VOLCLNUP)	3
State Institutional and/or Engineering Controls(INSTENG)	0
State Dry Cleaners List(DRY)	0

***** Disclaimer *****

Please understand that the regulatory databases we utilize were not originally intended for our use, but rather for the source agency's internal tracking of sites for which they have jurisdiction or other interest. As a result of this difference in intended use, their data is frequently found to be incomplete or inaccurate, and is less than ideal for our use. Additionally, limitations exist in mapping data detail and accuracy. Our report is not to be relied upon for any purpose other than to "point" at approximate locations where further evaluation may be warranted. No conclusion can be based solely upon our report. Rather, our report should be used in conjunction with other relevant information to direct your attention at potential problem areas; which should be followed up by site inspections, interviews with relevant personnel and regulatory file review. Readers proceed at their own risk in relying upon this data, in whole or in part, for use within any evaluation. The EDM Service Request Form contains more detailed language with regard to such limitations, the terms of which the reader must accept in their entirety before utilizing this report. If the signed contract is not available to the reader, EDM will gladly furnish a copy upon request. Requests via email authorization are construed to be in accordance with these terms.





Map Scale and Site Locations are Approximate

Source: US Census Bureau TIGER Files

Approximate Site Boundary

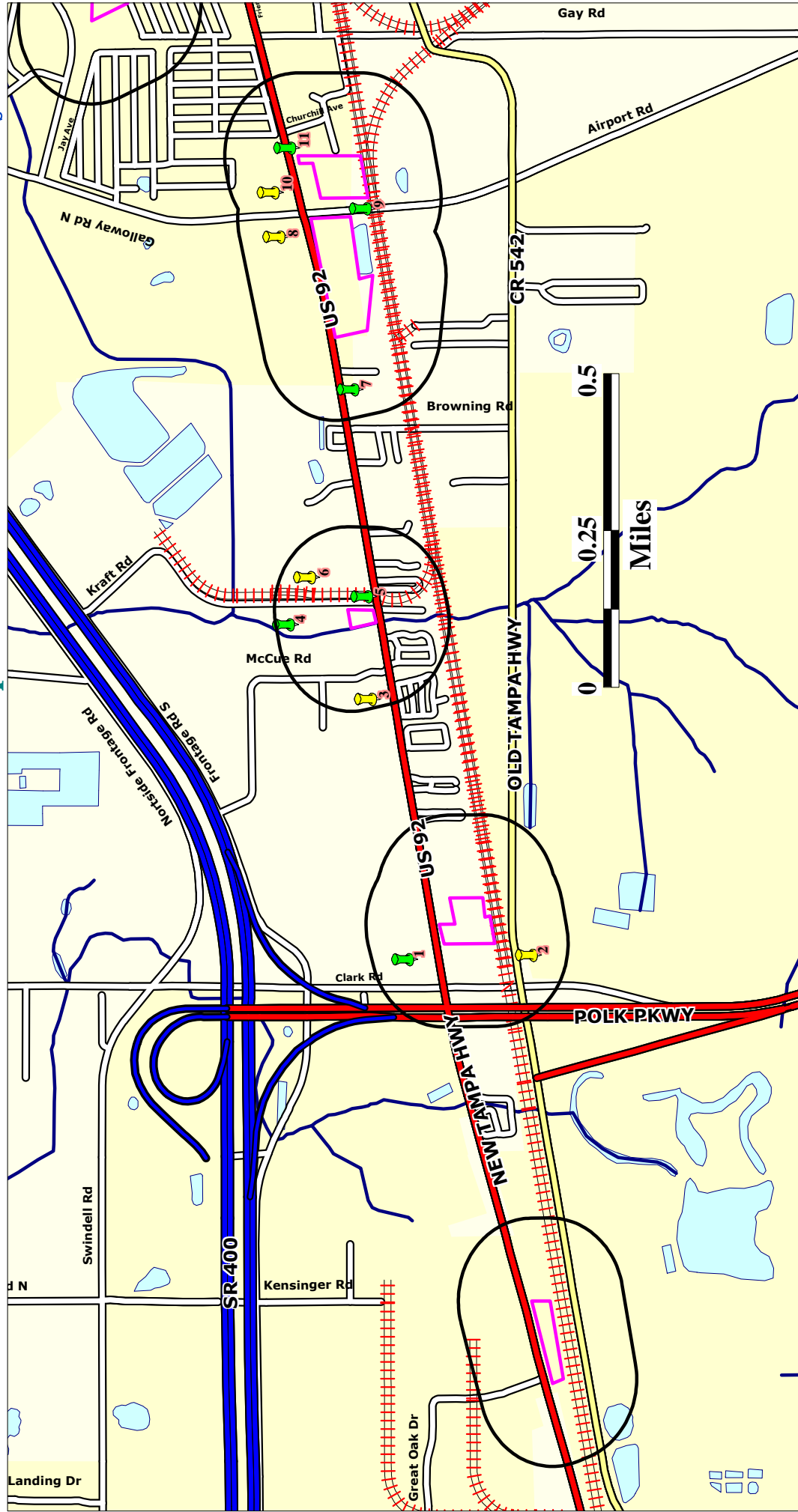
- NPL, CORRACTS, TSD & STNPL sites
- CERCLIS, STCERC, NFRAP, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites
- ERNS, NONTSD, TANKS & INSTENG sites

Subject Property

US Highway 92 Off Site Ponds from County Line Rd to Wabash Ave Polk County, Florida

EDM Job No: 22426
July 31, 2014

Standard 1/8 Mile Research Street Map



Source: US Census Bureau TIGER Files





Map Scale and Site Locations are Approximate

Subject Property

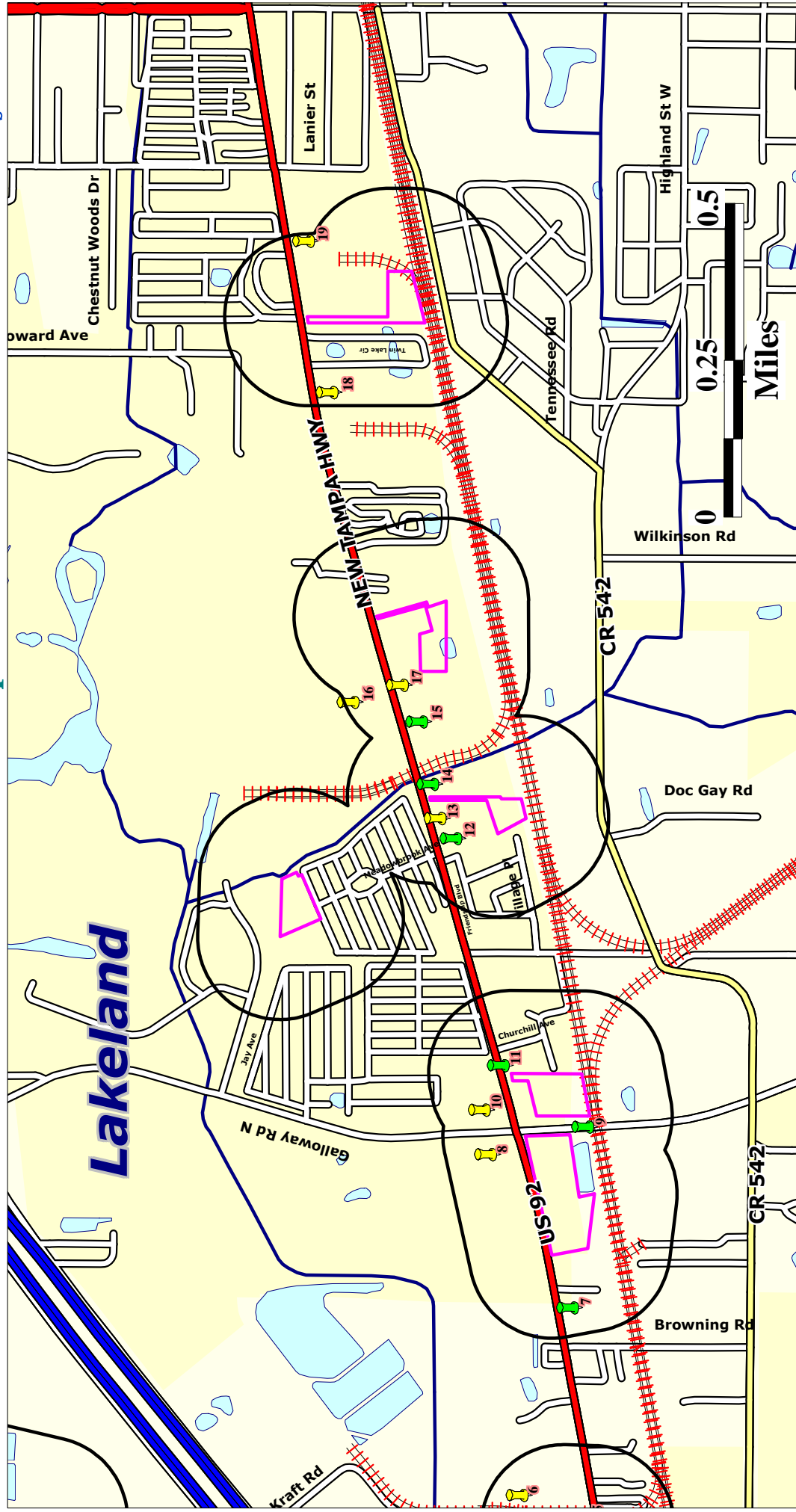
US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

EDM Job No: 22426
July 31, 2014

Approximate Site Boundary

-  Approximate Site Boundary
-  NPL, CORRACTS, TSD & STNPL sites
-  CERCLIS, STCERC, NFRAP, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites
-  ERNS, NONTSD, TANKS & INSTENG sites

Standard 1/8 Mile Research Street Map



Map Scale and Site Locations are Approximate

Source: US Census Bureau TIGER Files

Subject Property

US Highway 92 Off Site Ponds from County Line Rd to Wabash Ave Polk County, Florida

EDM Job No: 22426
July 31, 2014

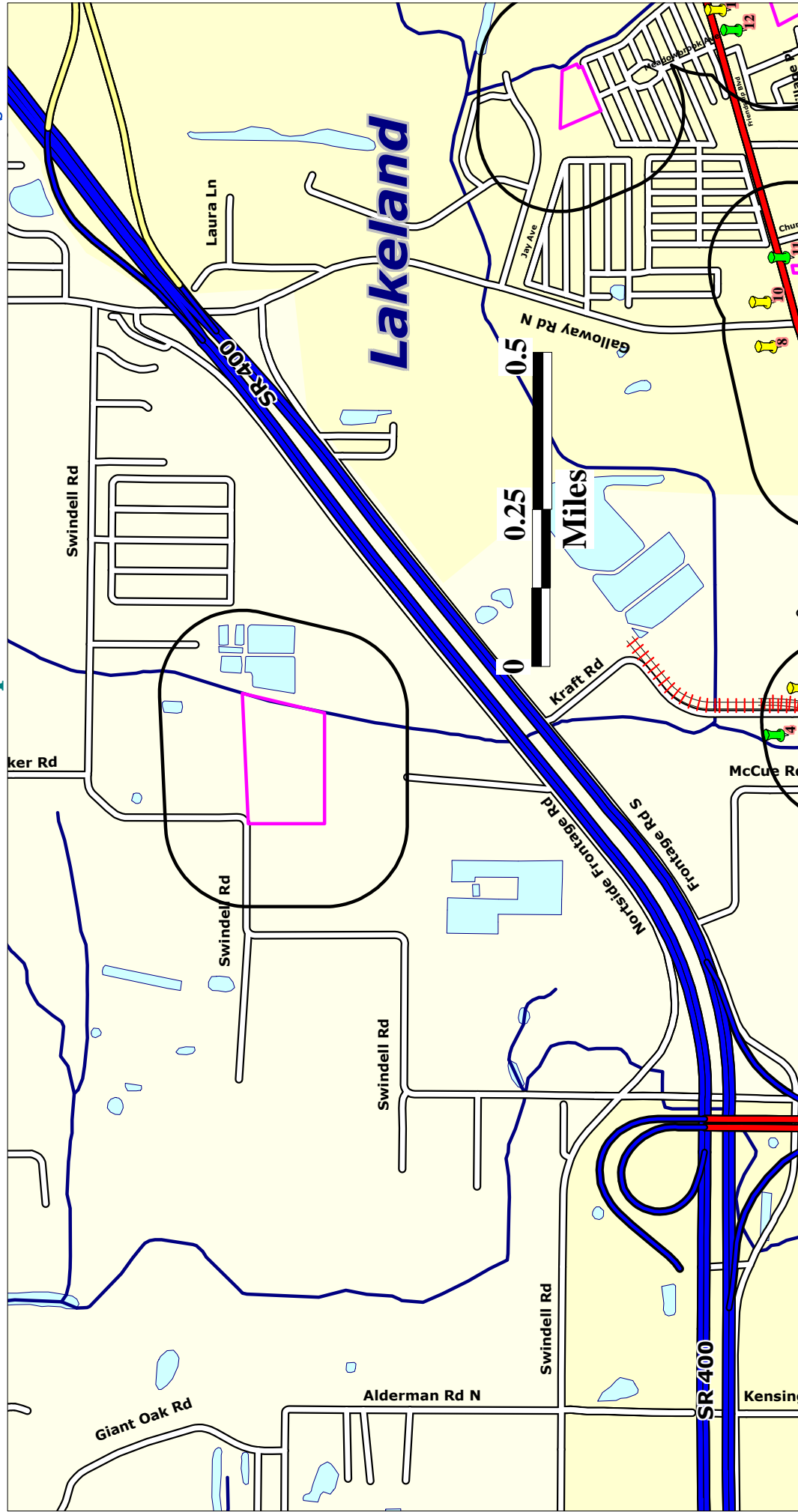
Approximate Site Boundary



NPL, CORRACTS, TSD & STNPL sites

CERCLIS, STCERC, NFRAP, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites

ERNS, NONTSD, TANKS & INSTENG sites



Source: US Census Bureau TIGER Files

Map Scale and Site Locations are Approximate

Subject Property

US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

EDM Job No: 22426
July 31, 2014

Approximate Site Boundary



NPL, CORRACTS, TSD
& STNPL sites

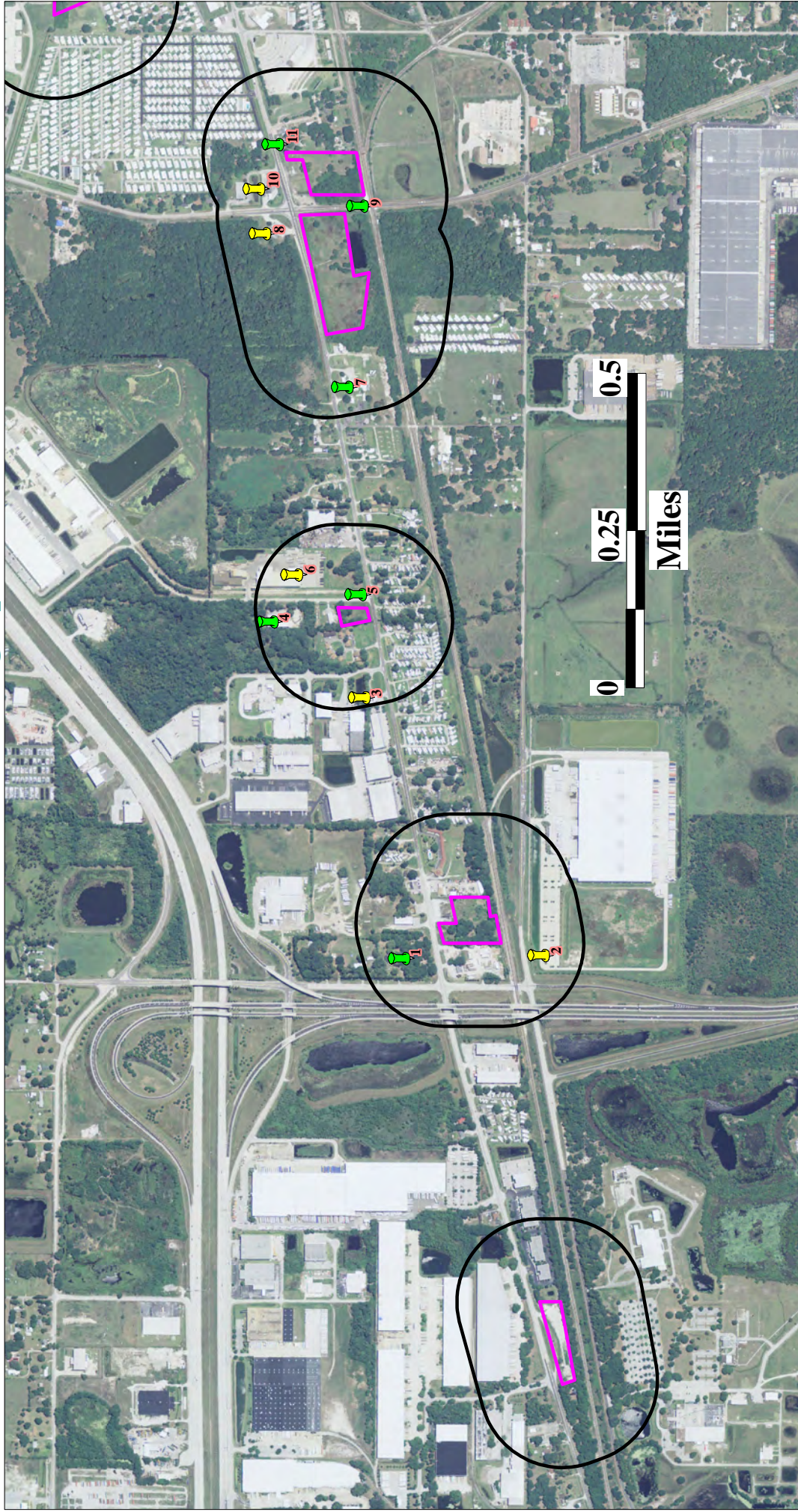


CERCLIS, STCERC, NFRAP, SLDWST,
LUST, BRWNFLDS, VOLCLNUP
& DRY sites



ERNS, NONTSD, TANKS
& INSTENG sites

Standard 1/8 Mile Research 2010 Aerial Photograph



Source: *Natl Aerial Imagery Program (NAIP)*

Map Scale and Site Locations are Approximate

Subject Property

US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

EDM Job No: 22426
July 31, 2014

Approximate Site Boundary



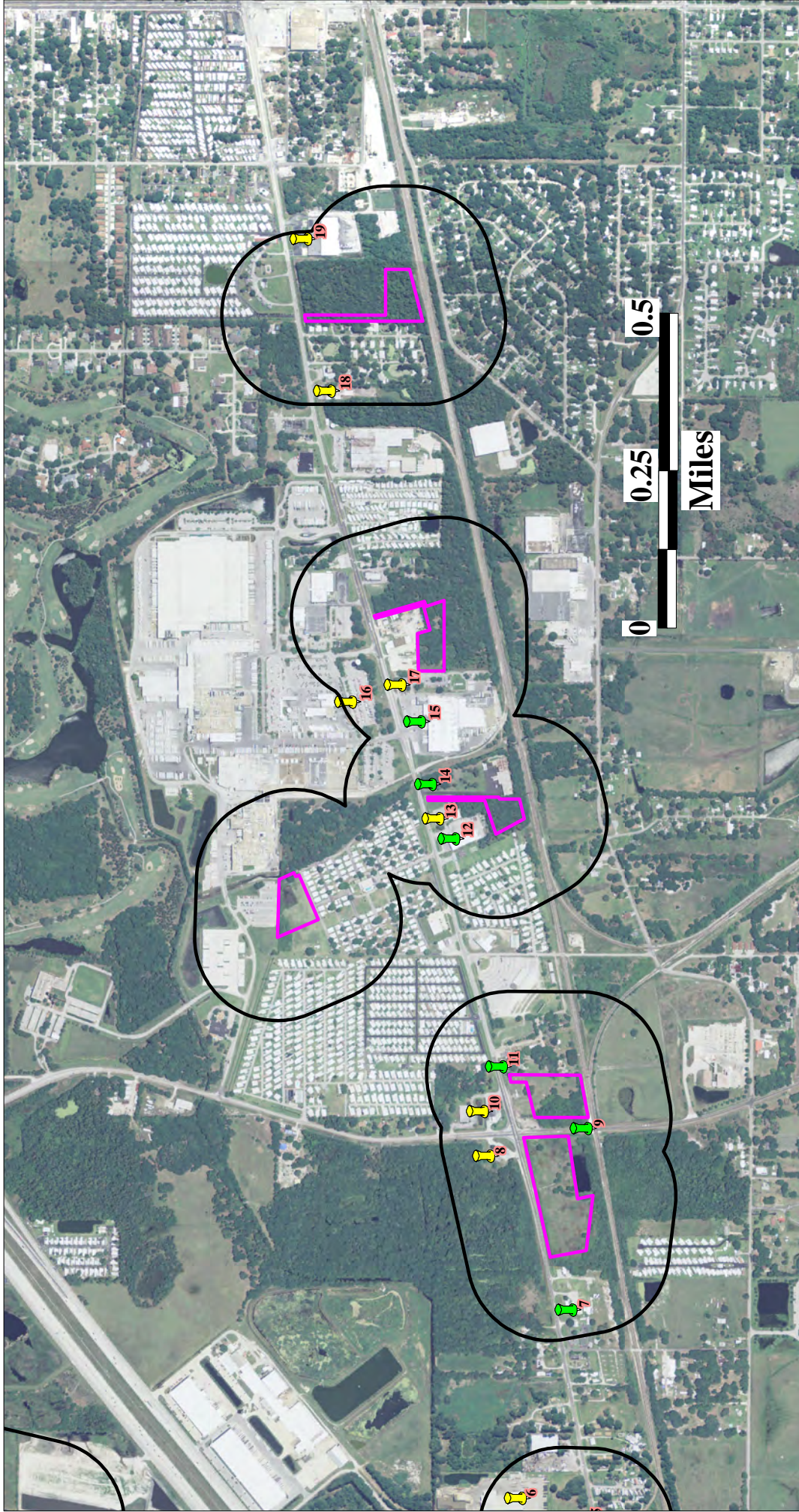
NPL, CORRACTS, TSD
& STNPL sites



CERCLIS, STCERC, NFRAP, SLDWST,
LUST, BRWNFLDS, VOLCLNUP
& DRY sites



ERNS, NONTSD, TANKS
& INSTENG sites



Source: *Natl Aerial Imagery Program (NAIP)*




Map Scale and Site Locations are Approximate

Subject Property

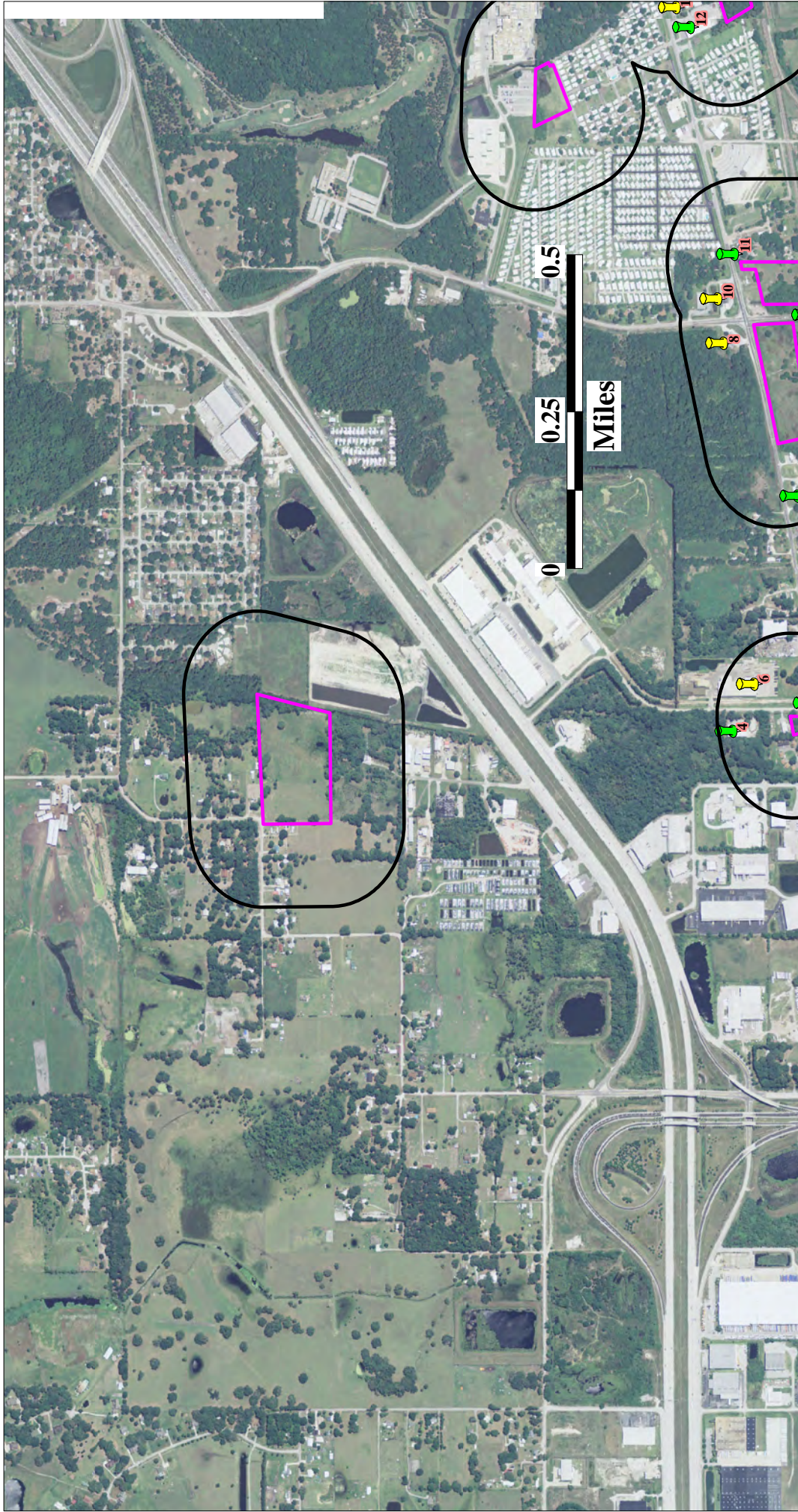
US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

EDM Job No: 22426
July 31, 2014

Approximate Site Boundary

-  NPL, CORRACTS, TSD & STNPL sites
-  CERCLIS, STCERC, NFRAP, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites
-  ERNS, NONTSD, TANKS & INSTENG sites

Standard 1/8 Mile Research 2010 Aerial Photograph



Source: Naif Aerial Imagery Program (NAIP)

Map Scale and Site Locations are Approximate

Subject Property

US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

EDM Job No: 22426
July 31, 2014

Approximate Site Boundary



NPL, CORRACTS, TSD
& STNPL sites



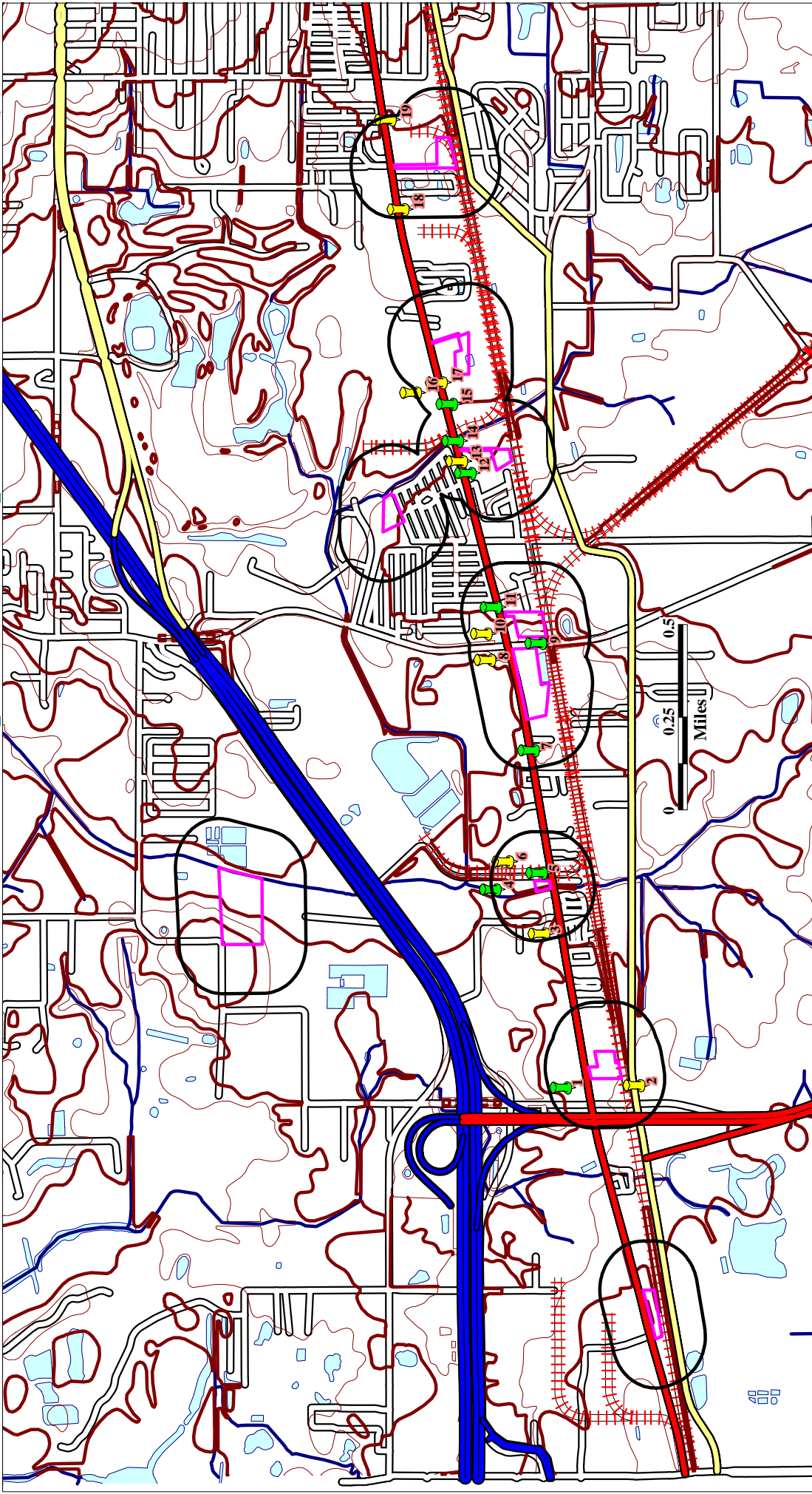
CERCLIS, STCERC, NFRAP, SLDWST,
LUST, BRWNFLDS, VOLCLNUP
& DRY sites



ERNS, NONTSD, TANKS
& INSTENG sites

Appendix 7 - page 74

Standard 1/8 Mile Research Environmental Impact Areas Map



Source: USGS/Water Mgr. District Elevation Contours, FDEP and USEPA Geodata

Map Scale and Site Locations are Approximate

Subject Property

US Highway 92 Off Site Ponds
from County Line Rd to Wabash Ave
Polk County, Florida

EDM Job No: 22426
July 31, 2014

	State Brownfield Areas		Formerly Used Defense Sites		Approximate Site Boundary
	State Brownfield Sites		Munitions Response Sites		NPL, STNPL, CORRACTS & TSD sites
	NPL & STNPL Sites		Cattle Dipping Vat		CERCLIS, STCERC, NFRAP, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites
	FDEP Delineated GW Contamination				ERNS, NONTSD, TANKS & INSTENG sites

ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

Report Date: 7/31/2014

SUMMARY TABLE

Page 1 of 3

MAPID# FAC ID, NAME AND LOCATION		N P L	C E R C L I S	N F R A P	E R N S	C O R R A C T S	T O N T S D	N O N T S D	T R I B U T I O N S	U S B L L U N F L D S	U S I N S T E N G	S T C P E R C	S L D W E S T	L U S T	T A N K S	B R O W N F L D S	V O L C A N O	I N S T E N G	D R Y
8629217																			
1)	CLARK BOILER & ENGINEERING CO 6405 NEW TAMPA HWY LAKELAND, FL. 33802														X				
FLTMP9304328							X												
1)	CLARK BOILER & ENGINEERING CO 6405 NEW TAMPA HWY LAKELAND, FL. 338153145						X												
8628539														X	X				
2)	PINE VALLEY DAIRY INC 4520 OLD TAMPA HWY LAKELAND, FL. 33811													X	X				
8943480														X	X				
3)	M & J JABER PETROLEUM LLC 5565 NEW TAMPA HWY LAKELAND, FL. 33815													X	X				
FLR000038836							X												
4)	COMPOSITE MATERIALS INC 733 KRAFT RD LAKELAND, FL. 338153245						X												
FLT040073520							X												
4)	FLOW SERVE US INC 733 KRAFT RD LAKELAND, FL. 338153245						X												
FLTMP9404810							X												
4)	CLARK - SCHWEBEL DISTRIBUTION CORP 733 KRAFT RD LAKELAND, FL. 338153245						X												
17366				X															
5)	FLEET TRANSPORTATION ON HIGHWAY 92 W, WEST OF LAKELAND AT THE RR CROSSING LAKELAND, FL.			X															
8629259														X	X				
6)	HARRELLS INC 720 KRAFT RD LAKELAND, FL. 33815													X	X				
8628374															X				
7)	JACK'S MOBILE HOMES INC 4710 NEW TAMPA HWY LAKELAND, FL. 33801														X				
8623640														X	X				
8)	GIANT FOOD #128 4301 US HWY 92 W LAKELAND, FL. 33815													X	X				
8623640.														X	X				
8)	CIRCLE K #7491 491 HWY 92 & GALLOWAY RD LAKELAND, FL. 33802													X	X				
FLD984251793							X												
8)	CIRCLE K #7491 4301 US HIGHWAY 92 E LAKELAND, FL. 338019686						X												
FLD984206979							X												
9)	GULF MACHINERY AIRPORT RD & OLD TAMPA HWY LAKELAND, FL. 33801						X												
FLTMP9103165							X												
9)	GULF MACHINERY P.O. DRAWER 37 LAKELAND, FL. 33830						X												



ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

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SUMMARY TABLE

Page 2 of 3

MAPID# FAC ID, NAME AND LOCATION		REGULATORY LISTS																			
		N P L	C P R C L I S	N F R A P	E R N S	C O R R A C T S	T O N T S D	N O R I T A N K S	T R I B U T E S	U S B L W N F L D S	U S I N S T E N G	S T N P L	S T C E W R C	S L D W S T	L U S T	T A N K S	B R W N F L D S	V O L C A N O	I N S T E N G	D R Y	
9802292	SAISHIVANI INC DBA KK FOOD MART 4275 NEW TAMPA HWY LAKELAND, FL. 33815														X	X					
11)	FLD981754625 GORES AUTO SALES 4230 NEW TAMPA HWY LAKELAND, FL. 338153342					X															
12)	8623592 LAMAR ADVERTISING CO 3760 NEW TAMPA HWY LAKELAND, FL. 33815																X				
12)	FLD982137978 LAMAR ADVERTISING 3760 NEW TAMPA HWY LAKELAND, FL. 338153332					X															
13)	8628333 REGISTER CONSTRUCTION & ENGINEERING 3730 NEW TAMPA HWY LAKELAND, FL. 33801														X	X					
14)	9100591 NOVA SALES 3710 NEW TAMPA HWY LAKELAND, FL. 33815															X					
15)	FLD982156945 PUBLIX BAKERY PLANT 3260 NEW TAMPA HWY LAKELAND, FL. 338153357					X															
16)	151358 PUBLIX LAKELAND INDUSTRIAL CENTER GAR 3045 NEW TAMPA HWY LAKELAND, FL.																			X	
16)	231925 PUBLIX SUPERMARKETS INC INDUSTRIAL CE 3045 NEW TAMPA HWY LAKELAND, FL. 33802																			X	
16)	529882 PUBLIX SUPERMARKETS DAIRY WAREHOUSE GEORGE JENKINS BOULEVARD LAKELAND, FL.			X																	
16)	537294 Unknown 3045 NEW TAMPA HWY BUILDING #18 LAKELAND, FL.			X																	
16)	541003 Unknown 3045 NEW TAMPA HWY BLDG 18 LAKELAND, FL. 33815			X																	
16)	576910 PUBLIX SUPER MARKETS INC 3045 NEW TAMPA HWY LAKELAND, FL.			X																	
16)	599631 3045 NEW TAMPA HWY BUILDING 25 LAKELAND, FL.			X																	
16)	615598 BUILDING 25 3045 NEW TAMPA HWY LAKELAND, FL. 33802			X																	



ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

Report Date: 7/31/2014

SUMMARY TABLE

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MAPID# FAC ID, NAME AND LOCATION		REGULATORY LISTS																				
		N P L	C E R C L I S	N F R A P	E R N S	C O R R A C T S	T S D	N O N T S D	T R I B U T E S	T R I B U T E S	U S B L E S	U S I N G S	S T N P L	S T C E W S T	S L D W S T	L U S T	T A N K S	B R W N F L D S	V O L C A N O	I N S T E L L I G E N C E	D R Y	
701111	UNLOADING DOCK BY DIARY PROCESSING PL 3045 NEW TAMPA HWY LAKELAND, FL. 33802			X																		
8628573	PUBLIX SUPER MARKET INDUSTRIAL CENTER 3045 NEW TAMPA HWY LAKELAND, FL. 338153468														X	X						
911472	PUBLIX SUPERMARKETS 3045 NEW TAMPA HWY LAKELAND, FL. 33802			X																		
FLD099707663	PUBLIX SUPERMARKETS LAKELAND INDUSTRIAL CENTER 3045 NEW TAMPA HWY LAKELAND, FL. 338153468					X																
8623349	EDWARDS GROVE SERVICE 3220 GEORGE JENKINS BLVD LAKELAND, FL. 33802														X	X						
30993	DOUGLASS SCREEN PRINTERS INC 2710 NEW TAMPA HWY. LAKELAND, FL. 33801																			X		
8624136	DOUGLASS SCREEN PRINTERS 2710 NEW TAMPA HWY LAKELAND, FL. 33815																X					
FLD004110920	DOUGLASS SCREEN PRINTERS INC 2710 NEW TAMPA HWY LAKELAND, FL.						X						X									
FLD984168096	DOUGLAS SCREEN PRINTERS 2710 NEW TAMPA HIGHWAY LAKELAND, FL. 33801		X	X																		
9102890	WISE CO 2420 NEW TAMPA HWY LAKELAND, FL. 33801														X	X						



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLTMP9304328
CLARK BOILER & ENGINEERING CO
6405 NEW TAMPA HWY
LAKELAND, FL 338153145

CONTACT INFORMATION:

Contact
Contact Telephone
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

1

N
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RCRIS INFORMATION

NOTIFICATION DATE: 7/15/1993 SOURCE: EPA INSPECTION

TSD?: NOT A TSD, VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER, VERIFIED
XFER FAC?: N
SHRT TRM GEN?: Y
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8629217
 CLARK BOILER & ENGINEERING CO
 6405 NEW TAMPA HWY
 LAKELAND, FL 33802

OWNERSHIP INFORMATION

CLARK BOILER & ENGINEERING
 PO BOX 3566
 LAKELAND, FL 33802
CONTACT TEL # (813) 688-7083
CONTACT: BUDDY THOMAS
FACILITY TEL # (800) 680-2940

MAP ID NUMBER:

1

Dist (Miles):
Direction:

T
A
N
K
S

COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
1	3000	01-Jul-1974	Unleaded Gas	UNDERGROUND	REMOVED 30-Jun-1993
** <u>CONSTR TYPE:</u> AC <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> 8					
2	1000	01-Jul-1980	Unleaded Gas	UNDERGROUND	REMOVED 30-Jun-1993
** <u>CONSTR TYPE:</u> AC <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> 8					
3	2500		Fuel Oil - Onsite Heat	ABOVEGROUND	REMOVED 31-May-1990
** <u>CONSTR TYPE:</u> D <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> I					

See "Agency List Descriptions" Section for Code Definitions



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8628539
PINE VALLEY DAIRY INC
4520 OLD TAMPA HWY
LAKELAND, FL 33811-1123

OWNERSHIP INFORMATION

ACCOUNT OWNER
PINE VALLEY DAIRY INC
4520 OLD TAMPA HWY
LAKELAND, FL 33811-1123
(813)686-3458
JOSEPH BUCKLER

MAP ID NUMBER:

Dist (Miles):
Direction:

2

L
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S
T

COUNTY CODE: 53
FACILITY STATUS: CLOSED
FACILITY TYPE: M - Agricultural

FAC OPERATOR: PINE VALLEY DAIRY INC
FAC TEL #: (813)686-3458

SCORE 29 SCORE EFF DT: 6/6/2005 RANK: SCORE WHEN RANKED:

DISCHARGE INFORMATION

DISCHARGE DATE: 9/13/2004

Mapid: 2

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: ACTIVE
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 1/30/2014 RA - RA ONGOING
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: Y MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT: Y - UNKNOWN/NOT REPORTED GALLONS OTHER ANALYTICAL RESULTS - NO OTHER INFO SOURCE
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 2

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: -
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS: -
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8628539
 PINE VALLEY DAIRY INC
 4520 OLD TAMPA HWY
 LAKELAND, FL 33811

OWNERSHIP INFORMATION

PINE VALLEY DAIRY INC
 4520 OLD TAMPA HWY
 LAKELAND, FL 33811
CONTACT TEL # (813) 686-3458
CONTACT: JOSEPH BUCKLER
FACILITY TEL # (813) 686-3458

MAP ID NUMBER:

2

Dist (Miles):
Direction:

T
A
N
K
S

COUNTY ID: 53 **FAC TYPE:** Agricultural **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	1000		Unleaded Gas	UNDERGROUND	REMOVED 31-May-1990
** CONSTR TYPE: D PIPING TYPE: LEAK MONIT TYPE: Y					
2	1000	01-May-1990	Unleaded Gas	ABOVEGROUND	CLOSED IN PLACE 01-Oct-1999
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: I					
3	1000	01-May-1990	Generator/Pump Diesel	ABOVEGROUND	CLOSED IN PLACE 01-Oct-1999
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: I					

See "Agency List Descriptions" Section for Code Definitions



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 3

FACILITY ID NUMBER, NAME AND LOCATION

8943480
M & J JABER PETROLEUM LLC
5565 NEW TAMPA HWY
LAKELAND, FL 33815-

OWNERSHIP INFORMATION

ACCOUNT OWNER
M & A JABER PETRO LLC
5565 NEW TAMPA HWY ATTN: MUNTASER JABER
LAKELAND, FL 33815-
(863)687-9298
MUNTASER (MIKE) JABER

MAP ID NUMBER:

Dist (Miles):
Direction:

3

L
U
S
T

COUNTY CODE: 53
FACILITY STATUS: OPEN
FACILITY TYPE: A - Retail Station

FAC OPERATOR: MUNTASER (MIKE) JABER
FAC TEL #: (863)687-9298

SCORE 50 SCORE EFF DT: 12/13/2012 RANK: SCORE WHEN RANKED:

DISCHARGE INFORMATION

DISCHARGE DATE: 6/20/1991

Mapid: 3

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: I - PLIRP (INSURANCE)
DISCH CLNUP STATUS: 9/2/2004 SRCR - SRCR COMPLETE
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: N MON WELL: Y # DW WELLS CONTAMINATED: 0
POLLUTANT: D - VEHICULAR DIESEL GALLONS OTHER
CLNUP ELLIG STAT: E - ELIGIBLE

CLEANUP INFORMATION

Mapid: 3

SITE ASSESSMENT

CLNP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ACTUAL COMPLETION DATE: 03-14-1996
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 3

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: SRCR - SITE REHABILITATION COMPLETION REPORT
SUBMIT DATE: 07-28-2004
REVIEW DATE: 08-03-2004
ISSUE DATE: 09-02-2004
COMPL STATUS: A - APPROVED
COMPL STATUS DT 09-02-2004
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL? (Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 2 of 3

DISCHARGE INFORMATION

Mapid: 3

DISCHARGE DATE: 9/6/2006

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: ACTIVE
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 11/29/2013 RA - RA ONGOING
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: N MON WELL: N # DW WELLS CONTAMINATED:
POLLUTANT: D - VEHICULAR DIESEL GALLONS OTHER
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 3

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: -
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS: -
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL? (Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 3 of 3

DISCHARGE INFORMATION

Mapid: 3

DISCHARGE DATE: 10/12/2007

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: ACTIVE
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: C - CLOSURE REPORT
DISCH CLNUP STATUS: 11/29/2013 RA - RA ONGOING
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: N MON WELL: N # DW WELLS CONTAMINATED:
POLLUTANT: B - UNLEADED GAS GALLONS OTHER
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 3

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: -
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS: -
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL? (Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8943480
 M & J JABER PETROLEUM LLC
 5565 NEW TAMPA HWY
 LAKELAND, FL 33815

OWNERSHIP INFORMATION

M & A JABER PETRO LLC
 5565 NEW TAMPA HWY ATTN: MUNTA
 LAKELAND, FL 33815
CONTACT TEL # (863) 687-9298
CONTACT: MUNTASER (MIKE) JABER
FACILITY TEL # (863) 687-9298

MAP ID NUMBER:

3

Dist (Miles):
Direction:

T
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COUNTY ID: 53 **FAC TYPE:** Retail Station **FAC STATUS:** OPEN

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	10000	01-Mar-1989	Unleaded Gas	UNDERGROUND	REMOVED 01-May-2009
** CONSTR TYPE: AFMO PIPING TYPE: CJK LEAK MONIT TYPE: 24HS					
2	10000	01-Mar-1989	Unleaded Gas	UNDERGROUND	REMOVED 01-May-2009
** CONSTR TYPE: AFMO PIPING TYPE: CJK LEAK MONIT TYPE: 24HS					
3	10000	01-Mar-1989	Unleaded Gas	UNDERGROUND	REMOVED 01-May-2009
** CONSTR TYPE: AFMO PIPING TYPE: CJK LEAK MONIT TYPE: 24HS					
4	10000	01-Mar-1989	Vehicular Diesel	UNDERGROUND	REMOVED 01-May-2009
** CONSTR TYPE: AFMO PIPING TYPE: CJK LEAK MONIT TYPE: 24HS					
5	20000	01-May-2009	Unleaded Gas	UNDERGROUND	IN SERVICE 01-May-2009
** CONSTR TYPE: AFLMR PIPING TYPE: FJKN LEAK MONIT TYPE: 24FHKM					

See "Agency List Descriptions" Ssection for Code Definitions



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 2

FACILITY ID NUMBER, NAME AND LOCATION

FLR000038836
COMPOSITE MATERIALS INC
733 KRAFT RD
LAKELAND, FL 338153245

CONTACT INFORMATION:

733 KRAFT RD
LAKELAND FL 33815-3245
Contact WAYNE TEASLEY
Contact Telephone 9416878430
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

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RCRIS INFORMATION

NOTIFICATION DATE 1/9/1998 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 1/9/1998 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO

FACILITY ID NUMBER, NAME AND LOCATION

FLT040073520
FLOW SERVE US INC
733 KRAFT RD
LAKELAND, FL 338153245

CONTACT INFORMATION:

Contact
Contact Telephone
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

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RCRIS INFORMATION

NOTIFICATION DATE 1/27/2004 SOURCE: EPA INSPECTION

TSD?: NOT A TSD,VERIFIED

UNIV WST DEST?: N



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 2 of 2

GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: Y
RECYCLER?: N
NON-NOTIFIER?:

ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO

FACILITY ID NUMBER, NAME AND LOCATION

FLTMP9404810
CLARK - SCHWEBEL DISTRIBUTION CORP
733 KRAFT RD
LAKELAND, FL 338153245

CONTACT INFORMATION:

Contact
Contact Telephone
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

4

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RCRIS INFORMATION

NOTIFICATION DATE 7/28/1994 **SOURCE:** EPA INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: Y
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO



USEPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM LIST

(ERNS)

Report Date: 7/31/2014

ERNS Page 1 of 1

INCIDENT ID NUMBER AND LOCATION

17366
FLEET TRANSPORTATION
ON HIGHWAY 92 W, WEST OF LAKELAND AT THE RR
LAKELAND, FL

RESPONSIBLE PART

TAMPA, FL

MAP ID NUMBER:

Dist (Miles):

Direction:

5

ERNS

COUNTY: POLK

US EPA ID #:

STATE AGENCY RPT NO:

AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER

FED AGENCY NOTIFIED:

STATE AGENCY NOTIFIED:

STATE AGENCY ON SCENE:

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

11/2/1987

DRY AMMONIUM NITRATE 24000 LBS

TYPE OF INCIDENT: HIGHWAY RELATED

INCIDENT CAUSE:

MEDIA AFFECTED: LAND

HIGHWAY SURFACE

DESCRIPTION: TWO SEMI TRUCKS/ACCIDENT BETWEEN THE VEHICLES

RESPONSE: DIKED THE DIESEL, AWAITED DER ASSISTANCE.

MISC INFO: DEITRICK TRUCK LINE HOMOSASSA SPRINGS, FL.



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FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8629259
 HARRELLS INC
 720 KRAFT RD
 LAKELAND, FL 33815

OWNERSHIP INFORMATION

HARRELLS INC
 720 KRAFT RD ATTN: SCOTT DRISKE
 LAKELAND, FL 33815
CONTACT TEL # (863) 687-2774
CONTACT: JIM MOON
FACILITY TEL # (863) 687-2774

MAP ID NUMBER:

6

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Dist (Miles):
Direction:

COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** OPEN

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	1000	01-Dec-1984	Unleaded Gas	UNDERGROUND	REMOVED 30-Jun-1990
** CONSTR TYPE: AE PIPING TYPE: LEAK MONIT TYPE: 8					
2	3000	01-Dec-1984	Vehicular Diesel	UNDERGROUND	REMOVED 30-Jun-1990
** CONSTR TYPE: AE PIPING TYPE: LEAK MONIT TYPE: 8					
3	2000	01-Oct-1992	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Oct-1992
** CONSTR TYPE: ACKLMOPR PIPING TYPE: A LEAK MONIT TYPE: FQ					

See "Agency List Descriptions" Ssection for Code Definitions



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8628374
JACK'S MOBILE HOMES INC
4710 NEW TAMPA HWY
LAKELAND, FL 33801

OWNERSHIP INFORMATION

JACKS MOBILE HOMES INC
4701 NEW TAMPA HWY
LAKELAND, FL 33801
CONTACT TEL # (813) 688-6454
CONTACT: B. L. ROBERTS
FACILITY TEL # (813) 688-6454

MAP ID NUMBER:

7

Dist (Miles):
Direction:

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COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	888		Leaded Gas	UNDERGROUND	REMOVED 31-Jul-1989

** **CONSTR TYPE:** D **PIPING TYPE:** **LEAK MONIT TYPE:** Y

See "Agency List Descriptions" Section for Code Definitions



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLD984251793
CIRCLE K #7491
4301 US HIGHWAY 92 E
LAKELAND, FL 338019686

CONTACT INFORMATION:

500 FAULKENBURG RD
TAMPA FL 33619
Contact STEVE BELIN
Contact Telephone 8136898161
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

8

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RCRIS INFORMATION

NOTIFICATION DATE 3/2/1993 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 3/2/1993 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 4

FACILITY ID NUMBER, NAME AND LOCATION

8623640
GIANT FOOD #128
4301 US HWY 92 W
LAKELAND, FL 33815-

OWNERSHIP INFORMATION

ACCOUNT OWNER
GIANT OIL INC
1806 N FRANKLIN ST ATTN: BARBARA WHITTAKER
TAMPA, FL 33602-
(813)740-0422
BARBARA WHITTAKER

MAP ID NUMBER:

Dist (Miles):

Direction:

8

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COUNTY CODE: 53
FACILITY STATUS: OPEN
FACILITY TYPE: A - Retail Station

FAC OPERATOR: AMANDA SMITH
FAC TEL #: (813)740-0422

SCORE 60 SCORE EFF DT: 1/6/1998 RANK: 2956 SCORE WHEN RANKED: 52

DISCHARGE INFORMATION

DISCHARGE DATE: 11/1/1988

Mapid: 8

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: E - EDI
DISCH CLNUP STATUS: 5/1/2007 SRCR - SRCR COMPLETE
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: Y MON WELL: Y # DW WELLS CONTAMINATED: 0
POLLUTANT: A - LEADED GAS GALLONS OTHER
CLNUP ELLIG STAT: E - ELIGIBLE

CLEANUP INFORMATION

Mapid: 8

SITE ASSESSMENT

CLNP RESP: ST - STATE
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ORDER APPRV DATE: 6/20/1996
ACTUAL COMPL DATE: 06-20-1996
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: SRCR - SITE REHABILITATION COMPLETION REPORT
SUBMIT DATE: 06-01-2006
REVIEW DATE: 07-10-2006
ISSUE DATE: 08-08-2007
COMPL STATUS: A - APPROVED
COMPL STATUS DT 05-01-2007
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: ST - STATE
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 2 of 4

DISCHARGE INFORMATION

Mapid: 8

DISCHARGE DATE: 10/21/1996

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED N - NO CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 5/29/2001 NREQ - CLEANUP NOT REQUIRED
CONTAMINATED MEDIA?: SOIL: SUR WATER: GR WATER: MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT : D - VEHICULAR DIESEL GALLONS 25 OTHER
CLNUP ELLIG STAT: 1 - INELIGIBLE

CLEANUP INFORMATION

Mapid: 8

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: -
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS: -
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL? (Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 4 of 4

DISCHARGE INFORMATION

Mapid: 8

DISCHARGE DATE: 10/21/1996

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS:
CLEANUP REQUIRED NO CLEANUP REQUIRED
INFO SOURCE: DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: CLEANUP NOT REQUIRED BY CHAPTER 17-770 RULES
CONTAMINATED MEDIA?: SOIL: SUR WATER: GR WATER: MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT : VEHICULAR DIESEL GALLONS 25 OTHER
CLNUP ELLIG STAT:

CLEANUP INFORMATION

Mapid: 8

SITE ASSESSMENT

CLNP RESP:
FUND ELLIG:
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP:
FUND ELLIG:
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP:
FUND ELLIG:
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE:
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS:
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP:
FUND ELLIG:
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL? (Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 2

FACILITY ID NUMBER, NAME AND LOCATION

8623640
GIANT FOOD #128
4301 US HWY 92 W
LAKELAND, FL 33815

OWNERSHIP INFORMATION

GIANT OIL INC
1806 N FRANKLIN ST ATTN: BARBAR
TAMPA, FL 33602
CONTACT TEL # (813) 740-0422
CONTACT: BARBARA WHITTAKER
FACILITY TEL # (813) 740-0422

MAP ID NUMBER:

Dist (Miles):
Direction:

8

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COUNTY ID: 53 **FAC TYPE:** Retail Station **FAC STATUS:** OPEN

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
1	10152	01-Jul-1984	Unleaded Gas	UNDERGROUND	REMOVED 01-Apr-2001
** <u>CONSTR TYPE:</u> GMOCA <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> HS					
2	10152	01-Jul-1984	Unleaded Gas	UNDERGROUND	REMOVED 01-Apr-2001
** <u>CONSTR TYPE:</u> GMOCA <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> HS					
3	10152	01-Jul-1984	Unleaded Gas	UNDERGROUND	REMOVED 01-Apr-2001
** <u>CONSTR TYPE:</u> GMOCA <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> HS					
4	10152	01-Jul-1984	Vehicular Diesel	UNDERGROUND	REMOVED 01-Apr-2001
** <u>CONSTR TYPE:</u> GMOCA <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> HS					
5	15000	01-Dec-2006	Unleaded Gas	UNDERGROUND	IN SERVICE 01-Mar-2007
** <u>CONSTR TYPE:</u> AFMPR <u>PIPING TYPE:</u> CFJK <u>LEAK MONIT TYPE:</u> 124FHK					
6	15000	01-Dec-2006	Vehicular Diesel	UNDERGROUND	IN SERVICE 01-Dec-2006
** <u>CONSTR TYPE:</u> AFLMPR <u>PIPING TYPE:</u> CFJK <u>LEAK MONIT TYPE:</u> 124FHK					

See "Agency List Descriptions" Section for Code Definitions



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 2 of 2

FACILITY ID NUMBER, NAME AND LOCATION

8623640. --HISTORICAL ENTRY--
 CIRCLE K #7491
 491 HWY 92 & GALLOWAY RD
 LAKELAND, FL 33802-

OWNERSHIP INFORMATION

CIRCLE K STORES INC
 5650 BRECKENRIDGE PARK DR #300
 TAMPA, FL 33610
CONTACT TEL # 8137445266
CONTACT: STEVE BELIN
FACILITY TEL #

MAP ID NUMBER:

8

Dist (Miles):
Direction:

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COUNTY ID: 53 **FAC TYPE:** RETAIL STATION **FAC STATUS:** OPEN

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
1	10152	01-Jul-1984	UNLEADED GAS	UNDERGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> GMOC <u>PIPING TYPE:</u> CFK <u>LEAK MONIT TYPE:</u> HS					
2	10152	01-Jul-1984	UNLEADED GAS	UNDERGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> GMOC <u>PIPING TYPE:</u> CFK <u>LEAK MONIT TYPE:</u> HS					
3	10152	01-Jul-1984	UNLEADED GAS	UNDERGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> GMOC <u>PIPING TYPE:</u> FCK <u>LEAK MONIT TYPE:</u> HS					
4	10152	01-Jul-1984	VEHICULAR DIESEL	UNDERGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> GMOC <u>PIPING TYPE:</u> CFK <u>LEAK MONIT TYPE:</u> HS					

See "Agency List Descriptions" Section for Code Definitions



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 2

FACILITY ID NUMBER, NAME AND LOCATION

FLD984206979
GULF MACHINERY
AIRPORT RD & OLD TAMPA HWY
LAKELAND, FL 33801

CONTACT INFORMATION:

AIRPORT RD & OLD TAMPA HWY
LAKELAND FL 33801
Contact NON NOTIFIER
Contact Telephone
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

9

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RCRIS INFORMATION

NOTIFICATION DATE 4/1/2010 SOURCE: INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): NOT A GENERATOR-VERIFIED
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 4/1/2010 SOURCE: INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): NOT A GENERATOR-VERIFIED
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 7/15/1991 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 7/15/1991 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 2 of 2

VIOLATION INFO

FACILITY ID NUMBER, NAME AND LOCATION

FLTMP9103165
GULF MACHINERY
P.O. DRAWER 37
LAKELAND, FL 33830

CONTACT INFORMATION:

Contact
Contact Telephone
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

9

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RCRIS INFORMATION

NOTIFICATION DATE: 9/26/1991 SOURCE: EPA INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: Y
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 2

FACILITY ID NUMBER, NAME AND LOCATION

9802292
SAISHIVANI INC DBA KK FOOD MART
4275 NEW TAMPA HWY
LAKELAND, FL 33815-

OWNERSHIP INFORMATION

ACCOUNT OWNER
SAISHIVANI INC DBA KK FOOD MART
4275 NEW TAMPA HWY
LAKELAND, FL 33815-
(863)682-7585
PANKAJ PATEL

MAP ID NUMBER:

Dist (Miles):
Direction:

10

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COUNTY CODE: 53
FACILITY STATUS: OPEN
FACILITY TYPE: A - Retail Station

FAC OPERATOR: PANKAJ PATEL
FAC TEL #: (863)682-7585

SCORE 30 SCORE EFF DT: 12/18/2008 RANK: 4871 SCORE WHEN RANKED: 30

DISCHARGE INFORMATION

DISCHARGE DATE: 2/9/2004

Mapid: 10

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED: R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 11/21/2005 NFA - NFA COMPLETE
CONTAMINATED MEDIA?: SOIL: SUR WATER: GR WATER: Y MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT: B - UNLEADED GAS GALLONS OTHER
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 10

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: NFA - NO FURTHER ACTION
SUBMIT DATE: 10-07-2005
REVIEW DATE: 11-03-2005
ISSUE DATE: 12-28-2005
COMPL STATUS: A - APPROVED
COMPL STATUS DT 11-21-2005
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 2 of 2

DISCHARGE INFORMATION

Mapid: 10

DISCHARGE DATE: 3/14/2007

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: C - CLOSURE REPORT
DISCH CLNUP STATUS: 2/13/2009 NFA - NFA COMPLETE
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: N MON WELL: N # DW WELLS CONTAMINATED:
POLLUTANT: B - UNLEADED GAS GALLONS OTHER
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 10

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: NFA - NO FURTHER ACTION
SUBMIT DATE: 08-12-2008
REVIEW DATE: 08-28-2008
ISSUE DATE: 03-19-2009
COMPL STATUS: A - APPROVED
COMPL STATUS DT 02-13-2009
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

9802292
 SAISHIVANI INC DBA KK FOOD MART
 4275 NEW TAMPA HWY
 LAKELAND, FL 33815

OWNERSHIP INFORMATION

SAISHIVANI INC DBA KK FOOD
 4275 NEW TAMPA HWY
 LAKELAND, FL 33815
CONTACT TEL # (863) 682-7585
CONTACT: PANKAJ PATEL
FACILITY TEL # (863) 682-7585

MAP ID NUMBER:

10

Dist (Miles):
Direction:

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COUNTY ID: 53 **FAC TYPE:** Retail Station **FAC STATUS:** OPEN

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	12000	01-Oct-1999	Unleaded Gas	UNDERGROUND	CLOSED IN PLACE 01-May-2006
** CONSTR TYPE: AFMOR		PIPING TYPE:	LEAK MONIT TYPE: 124FGK		
2	12000	01-Oct-1999	Unleaded Gas	UNDERGROUND	IN SERVICE 01-Oct-1999
** CONSTR TYPE: AFMNOR		PIPING TYPE: CFJK	LEAK MONIT TYPE: 24FHK		
3	10000	01-Oct-1999	Unleaded Gas	UNDERGROUND	IN SERVICE 01-Mar-2006
** CONSTR TYPE: AFMNOR		PIPING TYPE: CFJK	LEAK MONIT TYPE: 24FHK		
4	10000	01-May-2006	Vehicular Diesel	UNDERGROUND	TEMP OUT OF SERVICE 01-Oct-2008
** CONSTR TYPE: AFMOR		PIPING TYPE: CFJK	LEAK MONIT TYPE: 24FHK		

See "Agency List Descriptions" Section for Code Definitions



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLD981754625
GORES AUTO SALES
4230 NEW TAMPA HWY
LAKELAND, FL 338153342

CONTACT INFORMATION:

4230 NEW TAMPA HWY
LAKELAND FL 33815-3342
Contact BOB GORE
Contact Telephone 9416831456
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

11

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RCRIS INFORMATION

NOTIFICATION DATE 8/6/1987 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): NOT A GENERATOR-VERIFIED
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 8/6/1987 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): NOT A GENERATOR-VERIFIED
GEN STATUS(State): NOT A GENERATOR-VERIFIED
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLD982137978
LAMAR ADVERTISING
3760 NEW TAMPA HWY
LAKELAND, FL 338153332

CONTACT INFORMATION:

3760 NEW TAMPA HWY
LAKELAND FL 33815-3332
Contact TIM LLOYD
Contact Telephone 9416863159
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

12

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RCRIS INFORMATION

NOTIFICATION DATE 5/3/2013 SOURCE: INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 12/6/1989 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 12/6/1989 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8623592
LAMAR ADVERTISING CO
3760 NEW TAMPA HWY
LAKELAND, FL 33815

OWNERSHIP INFORMATION

LAMAR ADVERTISING CO
PO BOX 66338
BATON ROUGE, LA 70896
CONTACT TEL # (000) 000-0000
CONTACT: PEGGY WILKES
FACILITY TEL # (813) 686-3159

MAP ID NUMBER:

12

Dist (Miles):
Direction:

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COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	900		Leaded Gas	UNDERGROUND	REMOVED 31-Jul-1989

** **CONSTR TYPE:** D **PIPING TYPE:** **LEAK MONIT TYPE:** Y

See "Agency List Descriptions" Ssection for Code Definitions



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8628333
REGISTER CONSTRUCTION & ENGINEERING
3730 NEW TAMPA HWY
LAKELAND, FL 33801-3332

OWNERSHIP INFORMATION

ACCOUNT OWNER
REGISTER CONSTRUCTION & ENGINEER
3730 NEW TAMPA HWY
LAKELAND, FL 33801-3332
(813)688-7775
MIKE BUTTLER

MAP ID NUMBER:

Dist (Miles):
Direction:

13

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COUNTY CODE: 53
FACILITY STATUS: CLOSED
FACILITY TYPE: C - Fuel user/Non-retail

FAC OPERATOR: REGISTER CONSTRUCTION & ENGINEER
FAC TEL #: (813)688-7775

SCORE SCORE EFF DT: 1/23/2009 RANK: 8533 SCORE WHEN RANKED: 10

DISCHARGE INFORMATION

DISCHARGE DATE: 2/10/1994

Mapid: 13

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED: N - NO CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 11/9/2009 NREQ - CLEANUP NOT REQUIRED
CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: N MON WELL: N # DW WELLS CONTAMINATED: 0
POLLUTANT: B - UNLEADED GAS GALLONS OTHER
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 13

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: -
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS: -
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8628333
 REGISTER CONSTRUCTION & ENGINEERING
 3730 NEW TAMPA HWY
 LAKELAND, FL 33801

OWNERSHIP INFORMATION

REGISTER CONSTRUCTION & EN
 3730 NEW TAMPA HWY
 LAKELAND, FL 33801
CONTACT TEL # (813) 688-7775
CONTACT: MIKE BUTTLER
FACILITY TEL # (813) 688-7775

MAP ID NUMBER:

13

Dist (Miles):
Direction:

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COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	1000	01-Oct-1976	Unleaded Gas	UNDERGROUND	REMOVED 28-Feb-1994
** CONSTR TYPE: AC		PIPING TYPE:	LEAK MONIT TYPE: 8		

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
2	1000	01-Oct-1976	Unleaded Gas	UNDERGROUND	REMOVED 28-Feb-1994
** CONSTR TYPE: AC		PIPING TYPE:	LEAK MONIT TYPE: 8		

See "Agency List Descriptions" Section for Code Definitions



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

9100591
NOVA SALES
3710 NEW TAMPA HWY
LAKELAND, FL 33815

OWNERSHIP INFORMATION

NOVA SALES
PO BOX 24627
LAKELAND, FL 33802
CONTACT TEL # (813) 683-5764
CONTACT: ALEX BRYANT
FACILITY TEL # (813) 683-6465

MAP ID NUMBER:

14

Dist (Miles):
Direction:

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COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
1	888		Unknown/Not Reported	UNDERGROUND	REMOVED 31-Dec-1981

** **CONSTR TYPE:** D **PIPING TYPE:** **LEAK MONIT TYPE:** Y

See "Agency List Descriptions" Section for Code Definitions



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLD982156945
PUBLIX BAKERY PLANT
3260 NEW TAMPA HWY
LAKELAND, FL 338153357

CONTACT INFORMATION:

3300 PUBLIX CORPORATE PKWY
LAKELAND FL 33811-3311
Contact BRENDA WILLIAMS
Contact Telephone 8636887407
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

15

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RCRIS INFORMATION

NOTIFICATION DATE 5/6/2009 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 5/6/2009 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 6/14/1996 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: NO
IMPORTER?: NO
OFFSITE RECPT?:
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?:
SHRT TRM GEN?:
RECYCLER?: NO
NON-NOTIFIER?:

UNIV WST DEST?: NO
ON SITE BURNER?: NO
FURNACE?: NO
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: NO
UO PROC?: NO
UO RECY?: NO
UO TRANS?: NO
UO XFER?: NO
UO MRKT BRN?: NO
UO SPEC MRKT?: NO

VIOLATION INFO



USEPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM LIST

(ERNS)

Report Date: 7/31/2014

ERNS Page 1 of 4

INCIDENT ID NUMBER AND LOCATION

529882
PUBLIX SUPERMARKETS
DAIRY WAREHOUSE GEORGE JENKINS BOULEVARD
LAKELAND, FL

RESPONSIBLE PART

PUBLIX SUPERMARKETS
DAIRY WAREHOUSE GEORGE JENKINS BOULEV
LAKELAND, FL

MAP ID NUMBER:

Dist (Miles):
Direction:

16

ERNS

COUNTY: POLK

US EPA ID #:

STATE AGENCY RPT NO:

AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER

FED AGENCY NOTIFIED:

STATE AGENCY NOTIFIED:

STATE AGENCY ON SCENE:

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

5/12/2000 11:00:00 PM

AMMONIA, ANHYDROUS 500 POUND(

TYPE OF INCIDENT: FIXED

INCIDENT CAUSE: EQUIPMENT FAILURE

MEDIA AFFECTED:

DESCRIPTION: WAREHOUSE BASED COOLING SYSTEM RELEASED MATERIAL DUE TO EQUIPMENT FAILURE.

RESPONSE:

MISC INFO:

INCIDENT ID NUMBER AND LOCATION

537294
3045 NEW TAMPA HWY BUILDING #18
LAKELAND, FL

RESPONSIBLE PART

PUBLIC SUPER MARKETS
3045 NEW TAMPA HWY BUILDING #18
LAKELAND, FL 33802

MAP ID NUMBER:

Dist (Miles):
Direction:

16

ERNS

COUNTY: POLK

US EPA ID #:

STATE AGENCY RPT NO:

AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER

FED AGENCY NOTIFIED:

STATE AGENCY NOTIFIED:

STATE AGENCY ON SCENE:

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

8/1/2000 4:00:00 PM

AMMONIA, ANHYDROUS 15 POUND(

TYPE OF INCIDENT: FIXED

INCIDENT CAUSE: EQUIPMENT FAILURE

MEDIA AFFECTED:

DESCRIPTION: DUE TO THE MALFUNCTION OF A PACKING GLAND VALVE, THE MATERIAL RELEASED FROM THE VALVE INTO THE BUILDING.

RESPONSE:

MISC INFO:

INCIDENT ID NUMBER AND LOCATION

541003
3045 NEW TAMPA HWY BLDG 18
LAKELAND, FL 33815

RESPONSIBLE PART

PUBLICS DAIRY PLANT
3045 NEW TAMPA HWY BLDG 18
LAKELAND, FL 33815

MAP ID NUMBER:

Dist (Miles):
Direction:

16

ERNS

COUNTY: HILLSBOROUGH

US EPA ID #:

STATE AGENCY RPT NO:

AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER

FED AGENCY NOTIFIED:

STATE AGENCY NOTIFIED:

STATE AGENCY ON SCENE:

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

9/4/2000 11:30:00 PM

AMMONIA, ANHYDROUS 40 POUND(



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USEPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM LIST

(ERNS)

Report Date: 7/31/2014

ERNS Page 2 of 4

TYPE OF INCIDENT: FIXED **INCIDENT CAUSE:** EQUIPMENT FAILURE
MEDIA AFFECTED:
DESCRIPTION: RELIEF VALVE LIFTED ON OIL POT CAUSING RELEASE
RESPONSE:
MISC INFO:

INCIDENT ID NUMBER AND LOCATION

576910
PUBLIX SUPER MARKETS INC
3045 NEW TAMPA HWY
LAKELAND, FL

RESPONSIBLE PART

POB 407
LAKELAND, FL 33802

MAP ID NUMBER:

16

Dist (Miles):

Direction:

ERNS

COUNTY: POLK **US EPA ID #:** 98-2296 **STATE AGENCY RPT NO:**
AGENCY RECEIVING REPORT: ENVIRONMENTAL PROTECTION AGENCY **FED AGENCY NOTIFIED:**
STATE AGENCY NOTIFIED: **STATE AGENCY ON SCENE:**

SPILL DATE: MATERIAL AND QUANTITY SPILLED:

4/8/1998 AMMONIA, ANHYDROUS 479 LBS

TYPE OF INCIDENT: FIXED FACILITY **INCIDENT CAUSE:** EQUIP FAILURE
MEDIA AFFECTED: AIR
DESCRIPTION: HIGH PRESSURE VESSEL / WRONG RELIEF VALVE INSTALLED ON SYSTEM
RESPONSE: SYSTEM SHUT DOWN / VALVE RESEATED / VALVE REPLACED WITH PROPER VALVE / DURATION OF RELEASE: 8 MINUTES
MISC INFO: WX: CLEAR WITH NORTHERLY 15 MPH WIND

INCIDENT ID NUMBER AND LOCATION

599631
3045 NEW TAMPA HWY
BUILDING 25
LAKELAND, FL

RESPONSIBLE PART

PUBLIX SUPERMARKETS
POB 407
LAKELAND, FL 33802

MAP ID NUMBER:

16

Dist (Miles):

Direction:

ERNS

COUNTY: POLK **US EPA ID #:** **STATE AGENCY RPT NO:**
AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER **FED AGENCY NOTIFIED:**
STATE AGENCY NOTIFIED: **STATE AGENCY ON SCENE:**

SPILL DATE: MATERIAL AND QUANTITY SPILLED:

4/14/2002 7:30:00 AM AMMONIA, ANHYDROUS 0 UNKNOW

TYPE OF INCIDENT: FIXED **INCIDENT CAUSE:** EQUIPMENT FAILURE
MEDIA AFFECTED:
DESCRIPTION: THE MATERIAL RELEASED OUT OF THE HEAT EXCHANGER EVAPORATOR COIL DUE TO PRESSURE BUILD UP CAUSED BY A POWER OUTAGE.
RESPONSE:
MISC INFO:



USEPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM LIST

(ERNS)

Report Date: 7/31/2014

ERNS Page 3 of 4

INCIDENT ID NUMBER AND LOCATION

615598
BUILDING 25
3045 NEW TAMPA HWY
LAKELAND, FL 33802

RESPONSIBLE PART

PUBLIX SUPERMARKETS
3045 NEW TAMPA HWY BUILDING 25
LAKELAND, FL 33802

MAP ID NUMBER:

Dist (Miles):
Direction:

16

ERNS

COUNTY: POLK

US EPA ID #:

STATE AGENCY RPT NO:

AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER

FED AGENCY NOTIFIED:

STATE AGENCY NOTIFIED:

STATE AGENCY ON SCENE:

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

7/3/2002 11:45:00 PM

AMMONIA, ANHYDROUS 20 POUND(

TYPE OF INCIDENT: FIXED

INCIDENT CAUSE: EQUIPMENT FAILURE

MEDIA AFFECTED:

DESCRIPTION: CALLER REPORTING THE RELEASE OF ANHYDROUS AMMONIA FROM AN AMMONIA PUMP DUE TO FAULTY SEAL.

RESPONSE:

MISC INFO:

INCIDENT ID NUMBER AND LOCATION

701111
UNLOADING DOCK BY DIARY PROCESSING PL
3045 NEW TAMPA HWY
LAKELAND, FL 33802

RESPONSIBLE PART

PUBLIX SUPERMARKETS
3045 NEW TAMPA HWY
LAKELAND, FL 33802

MAP ID NUMBER:

Dist (Miles):
Direction:

16

ERNS

COUNTY: POLK

US EPA ID #:

STATE AGENCY RPT NO:

AGENCY RECEIVING REPORT: NATIONAL RESPONSE CENTER

FED AGENCY NOTIFIED:

STATE AGENCY NOTIFIED:

STATE AGENCY ON SCENE:

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

9/29/2003 4:15:00 PM

ULTRA (KLENZADE) ALKALINE CLEANER 20 GALLON

TYPE OF INCIDENT: STORAGE TANK

INCIDENT CAUSE: OPERATOR ERROR

MEDIA AFFECTED:

DESCRIPTION: CALLER STATED THAT EMPLOYEES WERE UNLOADING A TRUCK. THE EMPLOYEES DROPPED A DRUM ONTO THE GROUND, RELEASING MATERIALS ONTO THE GROUND AND INTO A STORM DRAIN WHICH LEADS INTO A NEARBY RETENTION POND.

RESPONSE:

MISC INFO:

INCIDENT ID NUMBER AND LOCATION

911472
PUBLIX SUPERMARKETS
3045 NEW TAMPA HWY
LAKELAND, FL 33802

RESPONSIBLE PART

PUBLIX SUPERMARKETS
LAKELAND, FL 33802

MAP ID NUMBER:

Dist (Miles):
Direction:

16

ERNS

COUNTY: POLK

US EPA ID #:

STATE AGENCY RPT NO: NONE

AGENCY RECEIVING REPORT:

FED AGENCY NOTIFIED: NONE

STATE AGENCY NOTIFIED: NONE

STATE AGENCY ON SCENE: NONE

SPILL DATE:

MATERIAL AND QUANTITY SPILLED:

7/13/2009 7:50:00 PM

AMMONIA, ANHYDROUS 99 POUND(S)



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USEPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM LIST

(ERNS)

Report Date: 7/31/2014

ERNS Page 4 of 4

TYPE OF INCIDENT: FIXED **INCIDENT CAUSE:** EQUIPMENT FAILURE
MEDIA AFFECTED: OTHER PLANT ROOF TOP
DESCRIPTION: CALLER IS REPORTING A SPILL OF ANHYDROUS AMMONIA FROM THEIR UNIT NUMBER R-18'S LARGE SUCTION LINE DUE TO THE SUCTION LINE SPLITTING.
RESPONSE: CALLER HAD NO ADDITIONAL INFORMATION.
MISC INFO: CALLER STATED THE MATERIAL IS CONTAINED ON THE ROOF TOP AND IT WILL BOIL OFF.



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USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 2

FACILITY ID NUMBER, NAME AND LOCATION

FLD099707663
PUBLIX SUPERMARKETS LAKELAND INDUSTRI
3045 NEW TAMPA HWY
LAKELAND, FL 338153468

CONTACT INFORMATION:

3300 PUBLIX CORPORATE PKWY
LAKELAND FL 33811-3311
Contact BRENDA WILLIAMS
Contact Telephone 8636887407
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

16

N
O
N
T
S
D

RCRIS INFORMATION

NOTIFICATION DATE 3/8/2010 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 3/8/2010 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 2/18/1998 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?:
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?:
SHRT TRM GEN?:
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 2/26/1996 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: NO
IMPORTER?: NO
OFFSITE RECPT?:
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?:
SHRT TRM GEN?:
RECYCLER?: NO
NON-NOTIFIER?:

UNIV WST DEST?: NO
ON SITE BURNER?: NO
FURNACE?: NO
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: NO
UO PROC?: NO
UO RECY?: NO
UO TRANS?: NO
UO XFER?: NO
UO MRKT BRN?: NO
UO SPEC MRKT?: NO



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 2 of 2

NOTIFICATION DATE 2/26/1996 **SOURCE:** ANNUAL/BIENNIAL REPORT

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): LARGE QUANTITY GENERATOR(>1000 KG PER MONTH)
GEN STATUS(State):
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 2/24/1994 **SOURCE:** ANNUAL/BIENNIAL REPORT

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): LARGE QUANTITY GENERATOR(>1000 KG PER MONTH)
GEN STATUS(State):
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 2/28/1992 **SOURCE:** ANNUAL/BIENNIAL REPORT

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): LARGE QUANTITY GENERATOR(>1000 KG PER MONTH)
GEN STATUS(State):
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

VIOLATION INFO

Eval Date: 05/21/1987
Viol Date: 05/21/1987
Enf Date: 03/23/1988

Eval Agcy: STATE
Viol Agcy: S
Enf Agcy: STATE

Eval Type Descr: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enf Type Descr: DEP CONSENT ORDER
Lead Agcy:

Viol Type: 262.A Generators -
General

Citation:

Compl Date: 03/30/1988



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 2 of 4

DISCHARGE INFORMATION

Mapid: 16

DISCHARGE DATE: 6/20/1993

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: ACTIVE
CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 5/23/2014 RA - RA ONGOING
CONTAMINATED MEDIA?: SOIL: SUR WATER: GR WATER: MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT : O - NEW/LUBE OIL GALLONS OTHER
CLNUP ELLIG STAT: E - ELIGIBLE

CLEANUP INFORMATION

Mapid: 16

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL:

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: -
SUBMIT DATE:
REVIEW DATE:
ISSUE DATE:
COMPL STATUS: -
COMPL STATUS DT
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL? (Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 3 of 4

DISCHARGE INFORMATION

Mapid: 16

DISCHARGE DATE: 4/10/1995

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED: R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 6/9/2003 NFA - NFA COMPLETE
CONTAMINATED MEDIA?: SOIL: SUR WATER: GR WATER: MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT: D - VEHICULAR DIESEL GALLONS 25 OTHER
CLNUP ELLIG STAT: 1 - INELIGIBLE

CLEANUP INFORMATION

Mapid: 16

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: NFA - NO FURTHER ACTION
SUBMIT DATE: 05-27-2003
REVIEW DATE: 06-09-2003
ISSUE DATE: 07-02-2003
COMPL STATUS: A - APPROVED
COMPL STATUS DT: 06-09-2003
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N):
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT:
ALT PROC COMMENT:



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 4 of 4

DISCHARGE INFORMATION

Mapid: 16

DISCHARGE DATE: 9/23/1997

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED
CLEANUP REQUIRED: R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 12/29/1998 NFA - NFA COMPLETE
CONTAMINATED MEDIA?: SOIL: SUR WATER: GR WATER: MON WELL: # DW WELLS CONTAMINATED:
POLLUTANT: D - VEHICULAR DIESEL GALLONS OTHER
CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 16

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: NFA - NO FURTHER ACTION
SUBMIT DATE: 10-20-1998
REVIEW DATE: 11-30-1998
ISSUE DATE: 12-30-1998
COMPL STATUS: A - APPROVED
COMPL STATUS DT: 12-29-1998
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N):
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT:
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 4

FACILITY ID NUMBER, NAME AND LOCATION

8628573
 PUBLIX SUPER MARKET INDUSTRIAL CENTER
 3045 NEW TAMPA HWY
 LAKELAND, FL 33815

OWNERSHIP INFORMATION

PUBLIX SUPER MARKETS INC -
 PO BOX 407 ATTN: MICHAEL HEWETT
 LAKELAND, FL 33802
CONTACT TEL # (863) 499-5418
CONTACT: MICHAEL HEWETT | EMAIL: A
FACILITY TEL # (863) 688-1188

MAP ID NUMBER:

Dist (Miles):
Direction:

16

TANKS

COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** OPEN

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	12000	01-Jul-1972	Vehicular Diesel	UNDERGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: AC PIPING TYPE: LEAK MONIT TYPE: Y					
10	10000	01-Jul-1972	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
11	10000	01-Jul-1972	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
12	10000	01-Jul-1972	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
13	8000	01-Jul-1955	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
14	8000	01-Jul-1955	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
15	6000	01-Jul-1955	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
16	6000	01-Jul-1955	Vehicular Diesel	ABOVEGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: B PIPING TYPE: LEAK MONIT TYPE: I					
17	1000		New/Lube Oil	UNDERGROUND	REMOVED 31-Jan-1988
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: I					
18	1000	01-Nov-1987	New/Lube Oil	ABOVEGROUND	IN SERVICE
** CONSTR TYPE: CKP PIPING TYPE: A LEAK MONIT TYPE: 6Q					
19	10000	01-Nov-1987	Unleaded Gas	ABOVEGROUND	IN SERVICE
** CONSTR TYPE: ACKOP PIPING TYPE: ABI LEAK MONIT TYPE: 6Q					



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 2 of 4

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
2	12000	01-Jul-1972	Vehicular Diesel	UNDERGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> AC <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> Y					
20	10000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 24-Dec-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
21	10000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 24-Dec-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
22	10000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 24-Dec-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
23	10000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 01-Sep-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
24	10000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 01-Sep-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
25	8000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 01-Sep-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
26	8000	01-Nov-1987	Vehicular Diesel	ABOVEGROUND	REMOVED 24-Dec-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
27	275	01-Nov-1987	New/Lube Oil	ABOVEGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> C <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> I					
28	275	01-Nov-1987	Waste Oil	ABOVEGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> C <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> I					
29	275	01-Nov-1987	Other Non Regulated	ABOVEGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> C <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> I					
3	8000	01-Jul-1972	Unleaded Gas	UNDERGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> AC <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> Y					
30	275	01-Nov-1987	Other Non Regulated	ABOVEGROUND	IN SERVICE
** <u>CONSTR TYPE:</u> C <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> I					



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 3 of 4

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
31	18000	01-Mar-1991	Vehicular Diesel	ABOVEGROUND	REMOVED 24-Dec-2009
** <u>CONSTR TYPE:</u>	ACKNOP	<u>PIPING TYPE:</u>	ABI	<u>LEAK MONIT TYPE:</u>	6Q
32	560	01-Apr-1983	Emerg Generator Diesel	UNDERGROUND	REMOVED 01-Apr-1995
** <u>CONSTR TYPE:</u>	C	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	I
33	5000	01-Jun-1985	Hazardous Substance	ABOVEGROUND	IN SERVICE 01-Jun-1985
** <u>CONSTR TYPE:</u>	CBK	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	D
34	1500	01-Apr-1996	Hazardous Substance	ABOVEGROUND	IN SERVICE 01-Apr-1996
** <u>CONSTR TYPE:</u>	EK	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	D
35	2000	01-Jan-1980	Hazardous Substance	ABOVEGROUND	IN SERVICE 01-Jan-1980
** <u>CONSTR TYPE:</u>	BA	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	X
36	2300	01-Jul-1981	Hazardous Substance	ABOVEGROUND	IN SERVICE 01-Jul-1981
** <u>CONSTR TYPE:</u>	YP	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	X
37	4000	01-Jun-1982	Hazardous Substance	ABOVEGROUND	IN SERVICE 01-Jun-1982
** <u>CONSTR TYPE:</u>	CP	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	X
38	1000	01-Jul-1985	Emerg Generator Diesel	ABOVEGROUND	REMOVED 01-Jun-2008
** <u>CONSTR TYPE:</u>	CIP	<u>PIPING TYPE:</u>	A	<u>LEAK MONIT TYPE:</u>	6DQ
39	1000	01-Jun-2008	Emerg Generator Diesel	ABOVEGROUND	IN SERVICE 01-Jun-2008
** <u>CONSTR TYPE:</u>	CIP	<u>PIPING TYPE:</u>	A	<u>LEAK MONIT TYPE:</u>	6DQ
4	12000	01-Jul-1972	Unleaded Gas	UNDERGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u>	AC	<u>PIPING TYPE:</u>		<u>LEAK MONIT TYPE:</u>	Y
40	8000	01-Jun-2008	Emerg Generator Diesel	ABOVEGROUND	IN SERVICE 01-Aug-2008
** <u>CONSTR TYPE:</u>	CIMNOP	<u>PIPING TYPE:</u>	ABIJM	<u>LEAK MONIT TYPE:</u>	3FQR
41	25000	01-Dec-2009	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Dec-2009
** <u>CONSTR TYPE:</u>	ACKOP	<u>PIPING TYPE:</u>	ABI	<u>LEAK MONIT TYPE:</u>	6Q
42	25000	01-Dec-2009	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Dec-2009
** <u>CONSTR TYPE:</u>	ACKOP	<u>PIPING TYPE:</u>	ABI	<u>LEAK MONIT TYPE:</u>	6Q



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 4 of 4

<u>TANK #:</u>	<u>TANK VOL(GALS)</u>	<u>INST.DATE:</u>	<u>TANK CONTENTS</u>	<u>TANK POSITION:</u>	<u>TANK STATUS (as of...)</u>
43	25000	01-Dec-2009	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Dec-2009
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
44	25000	01-Feb-2010	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Feb-2010
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
45	25000	01-Feb-2010	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Feb-2010
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
46	25000	01-Feb-2010	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Feb-2010
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
47	25000	01-Feb-2010	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Feb-2010
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
48	25000	01-Feb-2010	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Feb-2010
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
49	25000	01-Feb-2010	Vehicular Diesel	ABOVEGROUND	IN SERVICE 01-Feb-2010
** <u>CONSTR TYPE:</u> ACKOP <u>PIPING TYPE:</u> ABI <u>LEAK MONIT TYPE:</u> 6Q					
5	1000	01-Jul-1972	Waste Oil	UNDERGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> C <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> I					
6	12000	01-Jul-1972	Vehicular Diesel	UNDERGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> AC <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> Y					
7	12000	01-Jul-1972	Vehicular Diesel	UNDERGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> AC <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> Y					
8	550	01-Jul-1981	Kerosene	ABOVEGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> D <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> Y					
9	550	01-Jul-1981	Other Non Regulated	ABOVEGROUND	REMOVED 31-Jan-1988
** <u>CONSTR TYPE:</u> D <u>PIPING TYPE:</u> <u>LEAK MONIT TYPE:</u> Y					

See "Agency List Descriptions" Section for Code Definitions



FDEP VOLUNTARY CLEANUP SITES

(VOLCLNUP)

Report Date: 7/31/2014

VOLCLNUP Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION:

151358
PUBLIX LAKELAND INDUSTRIAL CENTER GARAGE
3045 NEW TAMPA HWY
LAKELAND, FL 0

MAP ID NUMBER:

16

Dist (Miles):
Direction:

BSRA DATA

AREA ID: AREA NAME:
ACREAGE: REMEDIATION: BSRA DATE: SRCO DATE:
COMMENTS:

WASTE CLEANUP DATA

PROJ ID: 93715 OGC NO: STATUS: CLOSED PRIORITY SCORE: INIT DATA RCVD: 7/23/1996
CONTAMINANTS:
OFFSITE CONTAMINATION

V
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FACILITY ID NUMBER, NAME AND LOCATION:

231925
PUBLIX SUPERMARKETS INC INDUSTRIAL CENTER DELI PLANT
3045 NEW TAMPA HWY
LAKELAND, FL 33802

MAP ID NUMBER:

16

Dist (Miles):
Direction:

BSRA DATA

AREA ID: AREA NAME:
ACREAGE: REMEDIATION: BSRA DATE: SRCO DATE:
COMMENTS:

WASTE CLEANUP DATA

PROJ ID: 265639 OGC NO: STATUS: OPEN PRIORITY SCORE: 18 INIT DATA RCVD: 1/31/2003
CONTAMINANTS: GW: TCE and 1,2-DCE
OFFSITE CONTAMINATION N

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FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8623349
EDWARDS GROVE SERVICE
3220 GEORGE JENKINS BLVD
LAKELAND, FL 33802-

OWNERSHIP INFORMATION

ACCOUNT OWNER
EDWARDS GROVE SERVICE
3220 GEORGE JENKINS BLVD
LAKELAND, FL 33802-
(813)682-8196
DAVID EDWARDS

MAP ID NUMBER:

Dist (Miles):
Direction:

17

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COUNTY CODE: 53
FACILITY STATUS: CLOSED
FACILITY TYPE: C - Fuel user/Non-retail

FAC OPERATOR: EDWARD'S GROVE SERVICE
FAC TEL #: (813)682-8196

SCORE 49 SCORE EFF DT: 2/19/2003 RANK: SCORE WHEN RANKED:

DISCHARGE INFORMATION

DISCHARGE DATE: 1/23/2001

Mapid: 17

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED

CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: D - DISCHARGE NOTIFICATION
DISCH CLNUP STATUS: 11/25/2003 NFA - NFA COMPLETE

CONTAMINATED MEDIA?: SOIL: Y SUR WATER: GR WATER Y MON WELL: # DW WELLS CONTAMINATED:

POLLUTANT: Y - UNKNOWN/NOT REPORTED GALLONS OTHER TANKS REMOVED PRIOR TO 1990 PER FILE

CLNUP ELLIG STAT: I - INELIGIBLE

CLEANUP INFORMATION

Mapid: 17

SITE ASSESSMENT

CLNP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: -
FUND ELLIG: -
ORDER APPRV DATE:
ACTUAL COMPL DATE
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: NFA - NO FURTHER ACTION
SUBMIT DATE: 11-24-2003
REVIEW DATE: 11-25-2003
ISSUE DATE: 12-10-2003
COMPL STATUS: A - APPROVED
COMPL STATUS DT 11-25-2003
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8623349
 EDWARDS GROVE SERVICE
 3220 GEORGE JENKINS BLVD
 LAKELAND, FL 33802

OWNERSHIP INFORMATION

EDWARDS GROVE SERVICE
 3220 GEORGE JENKINS BLVD
 LAKELAND, FL 33802
CONTACT TEL # (813) 682-8196
CONTACT: DAVID EDWARDS
FACILITY TEL # (813) 682-8196

MAP ID NUMBER:

17

Dist (Miles):
Direction:

T
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COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	1000	01-Mar-1961	Other Non Regulated	UNDERGROUND	REMOVED
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: Y					
2	1000	01-Mar-1961	Other Non Regulated	UNDERGROUND	REMOVED
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: Y					
3	1000	01-Mar-1961	Other Non Regulated	UNDERGROUND	REMOVED
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: Y					
4	1000	01-Mar-1961	Other Non Regulated	UNDERGROUND	REMOVED
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: Y					
5	1000	01-Mar-1961	Unleaded Gas	UNDERGROUND	REMOVED
** CONSTR TYPE: C PIPING TYPE: LEAK MONIT TYPE: Y					
6	3000	01-Mar-1961	Leaded Gas	ABOVEGROUND	REMOVED
** CONSTR TYPE: D PIPING TYPE: LEAK MONIT TYPE: Y					
7	6500	01-Mar-1961	Vehicular Diesel	ABOVEGROUND	REMOVED
** CONSTR TYPE: D PIPING TYPE: LEAK MONIT TYPE: Y					
8	12000	01-Mar-1961	Vehicular Diesel	ABOVEGROUND	REMOVED
** CONSTR TYPE: D PIPING TYPE: LEAK MONIT TYPE: Y					

See "Agency List Descriptions" Section for Code Definitions



USEPA COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY INFORMATION SYSTEM LIST (CERCLIS)

Report Date:7/31/2014

CERCLIS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

MAP ID NUMBER:

18

Dist (Miles):

Direction:

FLD984168096
DOUGLAS SCREEN PRINTERS
2710 NEW TAMPA HIGHWAY
LAKELAND, FL 33801

CERCLIS

NPL DESCRIPTION: NOT ON THE NPL

OWNERSHIP TYPE:

FEDERAL FACILITY STATUS: NOT A FEDERAL FACILITY

NON NPL STATUS: Other Cleanup Activity: State-Lead Cleanup

SITE INCIDENT CATEGORY:

CERCLIS EVENT DETAIL FOR EACH OPERABLE UNIT

OPERABLE UNIT ID #: 00

OPERABLE UNIT NAME: SITEWIDE

EVENT NAME: DISCOVERY

START DATE

COMPLETION DATE: 11/10/1988

EVENT LEAD: EPA Fund-Financed

EVENT QUALIFIER:

EVENT NAME: PRELIMINARY ASSESSMENT

START DATE: 6/30/1989

COMPLETION DATE: 9/18/1989

EVENT LEAD: State, Fund Financed

EVENT QUALIFIER: Low priority for further assessment

EVENT NAME: SITE INSPECTION

START DATE

COMPLETION DATE: 12/22/1995

EVENT LEAD: State, Fund Financed

EVENT QUALIFIER: Low priority for further assessment

EVENT NAME: OTHER CLEANUP ACTIVITY

START DATE: 1/8/2001

COMPLETION DATE: 12/28/2009

EVENT LEAD: State, Fund Financed

EVENT QUALIFIER: NFRAP-Site does not qualify for the NPL based on existing information

ADDITIONAL EPA COMMENTS FOR THIS FACILITY:

HEAVY METALS DETECTED IN ON-SITE SIOLS AND GROUNDWATER;PHTHALATES IN SURFACE WATERSHEAVY METALS DETECTED IN ON-SITE SIOLS AND GROUNDWATER;PHTHALATES IN SURFACE WATERS



USEPA NO FURTHER REMEDIAL ACTION PLANNED LIST

(NFRAP)

Report Date: 7/31/2014

NFRAP Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLD984168096 --HISTORICAL ENTRY--
DOUGLAS SCREEN PRINTERS
2710 NEW TAMPA HIGHWAY
LAKELAND, FL 33801

MAP ID NUMBER:

18

Dist (Miles):

Direction:

N
F
R
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NPL DESCRIPTION: NOT ON THE NPL

NON NPL STATUS: Other Cleanup Activity: State-Lead Cleanup

CERCLIS EVENT DETAIL FOR EACH OPERABLE UNIT

OPERABLE UNIT ID #: 00

OPERABLE UNIT NAME:

EVENT NAME: DISCOVERY

START DATE

COMPLETION DATE: 11/10/1988

EVENT LEAD: EPA Fund

EVENT QUALIFIER:

EVENT NAME: PRELIMINARY ASSESSMENT

START DATE 6/30/1989

COMPLETION DATE: 9/18/1989

EVENT LEAD: State (Fund)

EVENT QUALIFIER: Low priority

EVENT NAME: SITE INSPECTION

START DATE

COMPLETION DATE: 12/22/1995

EVENT LEAD: State (Fund)

EVENT QUALIFIER: Low priority

EVENT NAME: OTHER CLEANUP ACTIVITY

START DATE 1/8/2001

COMPLETION DATE: 12/28/2009

EVENT LEAD: State (Fund)

EVENT QUALIFIER: NFRAP

ADDITIONAL EPA COMMENTS FOR THIS FACILITY:

HEAVY METALS DETECTED IN ON-SITE SIOLS AND GROUNDWATER;PHTHALATES IN SURFACE WATERSHEAVY METALS DETECTED IN ON-SITE SIOLS AND GROUNDWATER;PHTHALATES IN SURFACE WATERS



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 1 of 3

FACILITY ID NUMBER, NAME AND LOCATION

FLD004110920
DOUGLASS SCREEN PRINTERS INC
2710 NEW TAMPA HWY
LAKELAND, FL 338153463

CONTACT INFORMATION:

2710 NEW TAMPA HWY
LAKELAND FL 33815-3463
Contact LISA HICKEY
Contact Telephone 8636878545
Contact Email:

MAP ID NUMBER:

Dist (Miles):
Direction:

18

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RCRIS INFORMATION

NOTIFICATION DATE 4/13/2009 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 4/13/2009 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
GEN STATUS(State): CONDITIONALLY EXEMPT SQG(<100 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 6/26/1996 SOURCE: NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: NO
IMPORTER?: NO
OFFSITE RECPT?:
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?:
SHRT TRM GEN?:
RECYCLER?: NO
NON-NOTIFIER?:

UNIV WST DEST?: NO
ON SITE BURNER?: NO
FURNACE?: NO
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: NO
UO PROC?: NO
UO RECY?: NO
UO TRANS?: NO
UO XFER?: NO
UO MRKT BRN?: NO
UO SPEC MRKT?: NO

NOTIFICATION DATE 6/26/1996 SOURCE: INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 2 of 3

NOTIFICATION DATE 6/26/1996 **SOURCE:** INSPECTION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: N
IMPORTER?: N
OFFSITE RECPT?: N
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?: N
SHRT TRM GEN?: N
RECYCLER?: N
NON-NOTIFIER?:

UNIV WST DEST?: N
ON SITE BURNER?: N
FURNACE?: N
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: N
UO PROC?: N
UO RECY?: N
UO TRANS?: N
UO XFER?: N
UO MRKT BRN?: N
UO SPEC MRKT?: N

NOTIFICATION DATE 3/20/1992 **SOURCE:** NOTIFICATION

TSD?: NOT A TSD,VERIFIED
GEN STATUS(Fed): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
GEN STATUS(State): SMALL QUANTITY GENERATOR(<1000 KG PER MONTH)
MIXED WSTE GEN?: NO
IMPORTER?: NO
OFFSITE RECPT?:
TRANSPORTER?: NOT A TRANSPORTER,VERIFIED
XFER FAC?:
SHRT TRM GEN?:
RECYCLER?: NO
NON-NOTIFIER?:

UNIV WST DEST?: NO
ON SITE BURNER?: NO
FURNACE?: NO
UNDGRND INJ?: NO UNDERGROUND INJECT
UO BURNER?: NO
UO PROC?: NO
UO RECY?: NO
UO TRANS?: NO
UO XFER?: NO
UO MRKT BRN?: NO
UO SPEC MRKT?: NO

VIOLATION INFO

Eval Date: 09/17/1985	Eval Agcy: STATE	Eval Type Descr: COMPLIANCE EVALUATION INSPECTION ON-SITE
Viol Date: 09/17/1985	Viol Agcy: S	Enf Type Descr: DEP NOTICE OF VIOLATION (NOV)
Enf Date: 05/14/1986	Enf Agcy: STATE	Lead Agcy:

Viol Type: 262.A	Generators - General	Citation:	Compl Date: 02/05/1992
Viol Type: 262.A	Generators - General	Citation:	Compl Date: 02/05/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/18/1992
Viol Type: 261.A	Listing - General	Citation:	Compl Date: 03/26/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992
Viol Type: 262.A	Generators - General	Citation:	Compl Date: 03/26/1992
Viol Type: 262.A	Generators - General	Citation:	Compl Date: 11/01/1985
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992



USEPA RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION (RCRAInfo)

(NONTSD)

Report Date: 7/31/2014

NONTSD Page 3 of 3

Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 02/05/1992
Viol Type: 262.C	Generators - Pre-transport	Citation:	Compl Date: 03/26/1992

Eval Date: 06/26/1996	Eval Agcy: STATE	Eval Type Descr: COMPLIANCE EVALUATION INSPECTION ON-SITE
Viol Date: 06/26/1996	Viol Agcy: S	Enf Type Descr: DEP WARNING LETTER
Enf Date: 07/18/1996	Enf Agcy: STATE	Lead Agcy:

Viol Type: 262.A	Generators - General	Citation:	Compl Date: 08/19/1996
Viol Type: 265.I	TSD IS-Container Use and Management	Citation:	Compl Date: 08/19/1996



FDEP SITE INVESTIGATION LIST

(STCERC)

Report Date: 7/31/2014

STCERC Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

FLD004110920 **-HISTORICAL ENTRY-**
DOUGLASS SCREEN PRINTERS INC
2710 NEW TAMPA HWY
LAKELAND, FL

MAP ID NUMBER:

18

Dist (Miles):

Direction:

SOURCE: FDER Sites List

SITE NUMBER: 000450

PROJECT MGR:

STATUS: ACTIVE

DISTRICT: SOUTHWEST

ATTORNEY: THULMAN

STATUS DATE: 9/19/1986

LEAD UNIT: DIST

SUPPORT UNIT: BWC

**S
T
C
E
R
C**



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

8624136
DOUGLASS SCREEN PRINTERS
2710 NEW TAMPA HWY
LAKELAND, FL 33815

OWNERSHIP INFORMATION

DOUGLASS SCREEN PRINTERS
2710 NEW TAMPA HWY
LAKELAND, FL 33801
CONTACT TEL # (813) 687-8545
CONTACT: THOMAS D. KAISER
FACILITY TEL # (813) 687-8545

MAP ID NUMBER:

18

Dist (Miles):
Direction:

T
A
N
K
S

COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	3000	01-Jul-1974	Unleaded Gas	UNDERGROUND	REMOVED

** **CONSTR TYPE:** ABCI **PIPING TYPE:** **LEAK MONIT TYPE:** 8

See "Agency List Descriptions" Section for Code Definitions



FDEP VOLUNTARY CLEANUP SITES

(VOLCLNUP)

Report Date: 7/31/2014

VOLCLNUP Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION:

30993
DOUGLASS SCREEN PRINTERS INC
2710 NEW TAMPA HWY.
LAKELAND, FL 33801

MAP ID NUMBER:

18

Dist (Miles):

Direction:

V
O
L
C
L
N
U
P

BSRA DATA

AREA ID:	AREA NAME:		
ACREAGE:	REMEDATION:	BSRA DATE:	SRCO DATE:
COMMENTS:			

WASTE CLEANUP DATA

PROJ ID: 30993 OGC NO: 86-0456 STATUS: CLOSED PRIORITY SCORE: INIT DATA RCVD: 9/17/1989
CONTAMINANTS: xylene/gw
OFFSITE CONTAMINATION n



FDEP LEAKING UNDERGROUND STORAGE TANKS REPORT

(LUST)

Report Date: 7/31/2014

LUST Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

9102890
WISE CO
2420 NEW TAMPA HWY
LAKELAND, FL 33801-

OWNERSHIP INFORMATION

ACCOUNT OWNER
WISE CO
5535 PLEASANT VIEW RD
MEMPHIS, TN 38134-6566

MAP ID NUMBER:

Dist (Miles):
Direction:

19

L
U
S
T

COUNTY CODE: 53
FACILITY STATUS: CLOSED
FACILITY TYPE: C - Fuel user/Non-retail

JOHN COOPER
FAC OPERATOR: COOPER, JOHN
FAC TEL #: (813)688-8183

SCORE 30 SCORE EFF DT: 1/6/1998 RANK: SCORE WHEN RANKED:

DISCHARGE INFORMATION

DISCHARGE DATE: 8/19/1991

Mapid: 19

INSPECTION DATE: LEAD AGENCY: CLEANUP WORK STATUS: COMPLETED

CLEANUP REQUIRED R - CLEANUP REQUIRED
INFO SOURCE: A - ABANDONED TANK RESTORATION
DISCH CLNUP STATUS: 9/16/2003 NFA - NFA COMPLETE

CONTAMINATED MEDIA?: SOIL: Y SUR WATER: N GR WATER: Y MON WELL: N # DW WELLS CONTAMINATED: 0

POLLUTANT: D - VEHICULAR DIESEL GALLONS OTHER
CLNUP ELLIG STAT: E - ELIGIBLE

CLEANUP INFORMATION

Mapid: 19

SITE ASSESSMENT

CLNP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ACTUAL COMPLETION DATE: 09-24-1993
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION PLAN

CLEANUP RESP: RP - RESPONSIBLE PARTY
FUND ELLIG: -
ORDER APPRV DATE: 9/24/1993
ACTUAL COMPL DATE: 09-24-1993
PAYMENT DATE:
ACTUAL COST

REMEDIAL ACTION

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COST
YEARS TO COMPL: 0

SITE REHABILITATION COMPLETION REPORT

ACTION TYPE: NFA - NO FURTHER ACTION
SUBMIT DATE: 09-09-2003
REVIEW DATE: 09-16-2003
ISSUE DATE: 10-01-2003
COMPL STATUS: A - APPROVED
COMPL STATUS DT: 09-16-2003
COMMENTS:

SOURCE REMOVAL

CLEANUP RESP: -
FUND ELLIG: -
ACTUAL COMPLETION DATE:
FREE PRODUCT REMOVAL?(Y/N):
SOIL REMOVAL?(Y/N):
SOIL TONNAGE REMOVED:
SOIL TREATMENT?(Y/N)
OTHER TREATMENT?:
ALT PROC STATUS:
ALT PROC STATUS DT
ALT PROC COMMENT:



FDEP STORAGE TANKS REPORT

(TANKS)

Report Date: 7/31/2014

TANKS Page 1 of 1

FACILITY ID NUMBER, NAME AND LOCATION

9102890
 WISE CO
 2420 NEW TAMPA HWY
 LAKELAND, FL 33801

OWNERSHIP INFORMATION

WISE CO
 5535 PLEASANT VIEW RD
 MEMPHIS, TN 38134
CONTACT TEL #
CONTACT: JOHN COOPER
FACILITY TEL # (813) 688-8183

MAP ID NUMBER:

19

Dist (Miles):
Direction:

TANKS

COUNTY ID: 53 **FAC TYPE:** Fuel user/Non-retail **FAC STATUS:** CLOSED

TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
1	2000		Vehicular Diesel	UNDERGROUND	REMOVED 31-Aug-1991
** CONSTR TYPE: D PIPING TYPE: LEAK MONIT TYPE: Y					
TANK #:	TANK VOL(GALS)	INST.DATE:	TANK CONTENTS	TANK POSITION:	TANK STATUS (as of...)
2	2000		Vehicular Diesel	UNDERGROUND	REMOVED 31-Aug-1991
** CONSTR TYPE: D PIPING TYPE: LEAK MONIT TYPE: Y					

See "Agency List Descriptions" Section for Code Definitions



PROXIMAL RECORDS TABLE

Report Date: 7/31/2014

The Proximal Records Table includes mapped facilities that appear outside of the study area, but in the proximity of the research boundary. They are provided in a summary fashion to allow one to determine potential interest.

Generally, these sites may be of potential interest for three reasons:

- 1.) The location occurs so close to the research boundary that it merits inclusion in the evaluation.
- 2.) The site may be expansive with regard to the property boundary. The physical address of a landfill for example may occur outside of the research boundary, but the landfill boundary may extend into the research area. Large industrial complexes may also fall into this category.
- 3.) The U.S. Census Bureau data, from which our maps are created, is not always precise with regard to address information. A facility may therefore appear on the map outside of the research area, but actually fall within the research area. These inaccuracies are typically less than 500 feet. If you observe any such inaccuracies, we ask that you please notify us of the more precise location and we will use this information to improve our product.

If more specific information relative to one or more locations included in the Proximal Records Table is desired, please feel free to contact us and we will send you this information as an addendum to this report.

ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

PROXIMAL RECORDS TABLE

Report Date: 7/31/2014

Page 1 of 3

REGULATORY LISTS

		N P L	C E R C L I S	N F R A P	E R N S	C O R R A C T S	T O N T S D	T R I B U T I O N S	T L L U S T R Y	U S B L W N F L D S	U S I N S T E N G	S T N P L	S T C P R C	S L D W S T	L U S T	T A N K S	B R O W N F L D S	V O L C A N O	I N S T E N G	D R Y	
1A)	633346 TRACKS AT FREEZING FLORIDA FACILITY W 1110 COUNTY LINE ROAD LAKELAND, FL.				X																
1A)	9805589 CSX TRANSPORTATION 1110 COUNTY LINE ROAD LAKELAND, FL.														X	X					
2A)	645740 BARED CORE CORP. 1070 COUNTY LINE ROAD LAKELAND, FL.				X																
2A)	645744 BARDCOR CORP. 1070 COUNTY LINE RD. LAKELAND, FL. 33815				X																
2A)	FLD984188334 BARDCOR CORP 1070 COUNTY LINE RD LAKELAND, FL. 338153177						X														
2A)	FLTMP9002572 MPI CARPET CUSHION INC 1070 COUNTY LINE RD LAKELAND, FL. 338153177						X														
3A)	65276 SOONER DEFENSE COUNTY LINE ROAD & SR 542 LAKELAND, FL.																			X	
3A)	FLD063288245 KEY AUTOMOTIVE OF FLORIDA, INC 5300 ALLEN K BREED HIGHWAY LAKELAND, FL. 33811						X														
4A)	9810694 DSM NET INC 6810 NEW TAMPA HWY #600 LAKELAND, FL. 33815															X					
5A)	320088 MCLANAHAN CORPORATION PROPERTY 6550 NEW TAMPA HIGHWAY LAKELAND, FL.																			X	
5A)	FLT990063703 ALL STAR BLEACHERS 6550 NEW TAMPA HWY LAKELAND, FL. 338153148						X														
6A)	8837697 INSULFOAM LLC 4500 FRONTAGE RD S LAKELAND, FL. 33815															X					
6A)	FLR000118109 INSULFOAM LLC 4500 FRONTAGE RD S LAKELAND, FL. 338150909						X														
6A)	FLTMP9002254 DYPLAST FOAM INSULATION INDUSTRIES 4500 FRONTAGE RD S LAKELAND, FL. 338150909						X														
7A)	9807847 SOUTHERN WINE & SPIRITS 4440 OLD TAMPA HWY LAKELAND, FL. 33811															X					



ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

PROXIMAL RECORDS TABLE

Report Date: 7/31/2014

Page 2 of 3

MAPID# FAC ID, NAME AND LOCATION		REGULATORY LISTS																	
		N P L	C E R C L I P	N F R A S	E R R A C T S	C O R D	T O N T S D	N O R I T A N K S	T R I B U T L U N F L D S	U S I N S T E N G	U S I N S T E N G	S T C E W R C	S L D W S T	L U S T	T A N K S	B R O W N F L D S	V O L C N G	I N S T E N G	D R Y
7A)	9808051 SOUTHERN WINE & SPIRITS 4400 OLD TAMPA HWY LAKELAND, FL. 33811														X				
8A)	FLTMP9404750 GOLD COAST FREIGHTWAYS 645 MCCUE RD LAKELAND, FL. 338153281					X													
9A)	549250 INT'L CONSTRUCTION EQUIP. 310 WINSTON CREEK PKWY LAKELAND, FL.			X															
9A)	FLR000007807 INTERNATIONAL CONST EQUIP INC 310 WINSTON CREEK PKWY LAKELAND, FL. 338102866					X													
10A)	8628314 DAVIS EXPRESS 801 MCCUE RD LAKELAND, FL. 33815												X	X					
11A)	9813622 KNIGHT TRANSPORTATION-LAKELAND TERMIN 4045 OLD TAMPA HWY LAKELAND, FL. 33811														X				
12A)	FLD050701556 TELTRONICS INC 5105 NEW TAMPA HWY LAKELAND, FL. 338153262					X													
13A)	00051480 DUNN INVESTMENT CO. 4011 N. FRONTAGE RD. 17 /28S /23E LAKELAND, FL. 33810												X						
13A)	NONE 532 DUNN INVESTMENT CO 4011 FRONTAGE RD N 17-28S-23E LAKELAND, FL.												X						
14A)	FLT100081538 FORECLOSED PROPERTY 3845 OLD TAMPA HWY LAKELAND, FL. 338111109					X													
15A)	8624037 ROMA FOOD STORE (OLD) 3975 NEW TAMPA HWY LAKELAND, FL. 33801													X	X				
15A)	9401997 SAMPURNA INC 3975 NEW TAMPA HWY LAKELAND, FL. 33815														X				
15A)	FLD984186296 FARM STORE #555 3975 NEW TAMPA HWY LAKELAND, FL. 338153335					X													
16A)	31102 WHITE SWAN INC 2923 OLD TAMPA HIGHWAY LAKELAND, FL.																	X	
16A)	322723 INTEGRATED METAL PRODUCTS, INC 2923 OLD TAMPA HIGHWAY LAKELAND, FL.																	X	



NONMAPPED RECORDS TABLE

Report Date: 7/31/2014

The Non-Mapped Records Table is a listing of database records that lack sufficient address information to be placed within our mapping system, but may exist within your study area. These records have been manually screened to determine whether they could likely fall within the study area or can be conclusively identified as existing outside of the study area. Those records that could be located within the study area, but cannot be plotted within our GIS, are displayed in the Non-Mapped Records Table within this report.

If more specific information relative to one or more locations included in the Non-Mapped Records Table is desired, please feel free to contact us and we will send you this information as an addendum to this report.

NONMAPPED RECORDS



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For further information please contact us at 800-368-7376

Use of this information is strictly limited by EDM's authorization agreement, acknowledged by our clients for each report.

ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

NON-MAPPED RECORDS TABLE

Report Date: 7/31/2014

Page 1 of 2

MAPID# FAC ID, NAME AND LOCATION	REGULATORY LISTS																			
	N P L	C E R C L I P	N F R A P	E R N S	C O R R A C T S	T S D	N O N T S D	T R I B U T A N K S	T R I B U T L U N S T	U S B R W N F L D S	U S I N S T E N G	S T N P L	S T C E W R C	S L D W S T	L U S T	T A N K S	B R O S W N F L D S	V O L C A N O	I N S T E N G	D R Y
1064769 MILEPOST A848.0 LAKELAND, FL.				X																
752548 MP: A848.7 LAKELAND, FL.				X																
868075 ON A MAIN LINE BETWEEN MILE POST A844 LAKELAND, FL.				X																
1043160 MILEPOST: A849.3 LAKELAND, FL.				X																
641068 CSX RAIL ROAD MILE POST A847.88 LAKELAND, FL.				X																
648632 MILEPOST:A851.2 LAKELAND, FL.				X																
839551 MILEPOST: A85781 LAKELAND, FL.				X																
874428 BETWEEN THE AMTRAK STATION AND THE PO LAKELAND, FL.				X																
885434 MILEPOST: A847.0 LAKELAND, FL.				X																
889979 MILEPOST: AR856, AT THE INTERSECTION LAKELAND, FL.				X																
896088 MILE POST - AR850.46 VIPIS SUBD LAKELAND, FL.				X																
801858 MILE POST A 850.5 /- LAKELAND, FL.				X																
389207 J & B'S RV CENTER HWY 92 LAKELAND, FL.				X																
881778 Unknown MILE POST 868.33 LAKELAND, FL.				X																
918899 Unknown MILEPOST 852.96 LAKELAND, FL.				X																



ENVIRONMENTAL DATA MANAGEMENT

Standard 1/8 Mile Research

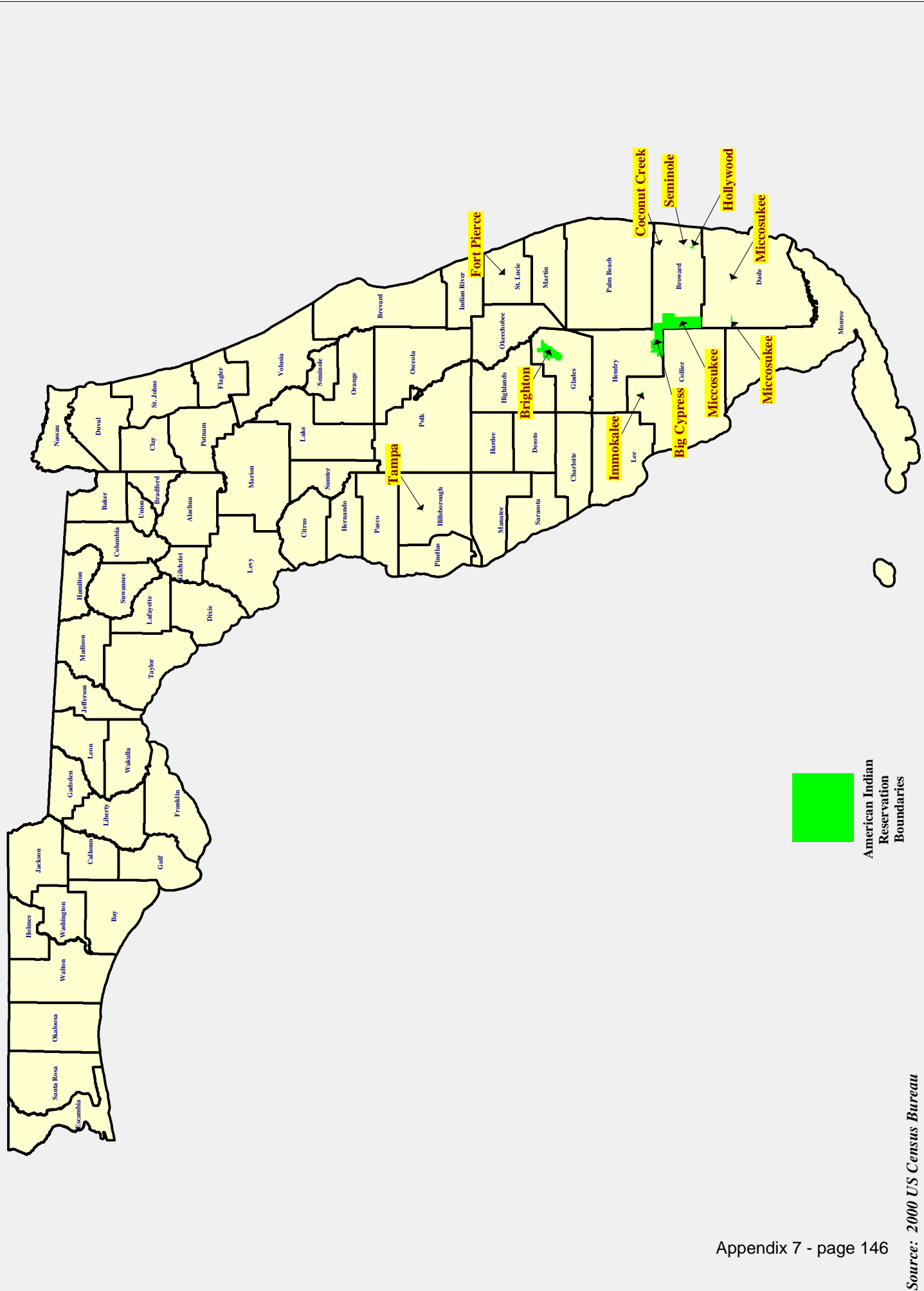
NON-MAPPED RECORDS TABLE

Report Date: 7/31/2014

Page 2 of 2

MAPID# FAC ID, NAME AND LOCATION	REGULATORY LISTS																		
	N P L	C E R C L I S	N F R A P	E R N S	C O R R A C T S	T S D	N O N T S D	T R I B U T A N K S	T L L U S T	U B R W N F L D S	U S I N S T E N G	S T N P L	S T C E W R C	S L D W E S T	L U S T	T A N K S	B R W N F L D S	V O L C E N G	I N S T R Y
623571 Unknown MP A850 LAKELAND, FL.				X															
914602 Unknown MP: AR854.7 VITIS SUBDIVISION LAKELAND, FL.				X															
838508 AIRPORT ROAD CROSSING MP:A854.75 LAKELAND, FL.				X															
FLT130084676 FLORIDA DOT BRIDGE NO 160240 SR 570/POLK PARKWAY LAKELAND, FL. 33811							X												
1035121 MP: AR856.2 SUBDIVISION: VITIS LAKELAND, FL.				X															
1004252 Unknown M/P: 857.0 S/D: LAKELAND WINSTON, FL.				X															





American Indian Lands in Florida

Name	Entity	County	General Location Information	Approx. Area (Acres)
Tampa Reservation	Seminole Tribe of Florida	Hillsborough	I-4 & Hillsborough Avenue	42
Fort Pierce Reservation	Seminole Tribe of Florida	Saint Lucie	Okeechobee Rd & Eleven Mile Rd	54
Brighton Reservation	Seminole Tribe of Florida	Glades	N of CR 721 & SR 78	36,630
Immokalee Reservation	Seminole Tribe of Florida	Collier	N of CR 846 & Stockade Rd	660
Big Cypress Reservation	Seminole Tribe of Florida	Hendry/Broward	CR 833 & BIA Hwy 182	52,750
Miccosukee Reservation	Miccosukee Tribe of Florida	Broward	I-75 & Government Rd	81,440
Miccosukee Reservation	Miccosukee Tribe of Florida	Dade	SW 8 th St & Loop Rd	750
Miccosukee Reservation	Miccosukee Tribe of Florida	Dade	SW 177 th Ave & SW 8 th St	56
Holly (Dania) Reservation	Seminole Tribe of Florida	Broward	Stirling Rd & Florida's turnpike	560
Coconut Creek Reservation	Seminole Tribe of Florida	Broward	US 441 & NW 40 th St	6
Seminole Trust Land	Seminole Tribe of Florida	Broward	US 441 & Davie Blvd	1

Florida Tribal Contacts

Entity	Contact	Tel/Fac	Source
Miccosukee Tribe of Florida	Billy Cypress Tribal Chairman Miccosukee Tribe of Indians of Florida iPost Office Box 440021 Miami, Florida 33144 County: Dade	Phone: (305) 223-8380 Facsimile: (305) 223-1011	EPA Reg IV Tribal Contacts
Miccosukee Tribe of Florida	Steve Terry Land Resources Manager Miccosukee Tribe of Indians of Florida Post Office Box 440021 Miami, Florida 33144 E-Mail: esoterry@shadow.net	Phone:(305) 223-8380 Facsimile: (305) 223-1011	EPA Reg IV Tribal Contacts
Miccosukee Tribe of Florida	Billy Cypress Chairman Miccosukee Indian Tribe Tamiami Station PO Box 440021 Miami, Florida 33144	Phone: (305) 223-8380 Facsimile: (305) 223-1011	US DOI - BIA Tribal Leaders Directory
Seminole Tribe of Florida	Mitchell Cypress Tribal Chairman Seminole Tribe of Florida 6300 Stirling Road Hollywood, Florida 33024 County: Broward	Phone: (954) 967-3900 Facsimile: (954) 967-3486	EPA Reg IV Tribal Contacts
Seminole Tribe of Florida	Craig T. Tepper , Director Water Resource Management Department Seminole Tribe of Florida 6300 Stirling Road Hollywood, Florida 33024 County: Broward E-Mail: water@gate.net	Phone: (954) 966-6300, extension 1120 Facsimile: (954) 967-3489	EPA Reg IV Tribal Contacts
Seminole Tribe of Florida	Susie Kippenberger , Director Utilities Department Seminole Tribe of Florida 6300 Stirling Road Hollywood, Florida 33024 County: Broward E- Mail: susiek@semtribe.com	Phone: (954) 966-3475 Facsimile: (954) 967-3475	EPA Reg IV Tribal Contacts
Seminole Tribe of Florida	Mitchell Cypress Chairman Seminole Indian Tribe 6300 Stirling Road Hollywood, Florida 33024 http://www.seminoletribe.com/	Phone: (954) 966-6300 Facsimile: (954) 967-3463	US DOI - BIA Tribal Leaders Directory
Seminole Tribe of Florida	Joe Frank, Acting Superintendent Seminole Agency Bureau of Indian Affairs 6100 Hollywood Blvd, Suite 206 Hollywood, FL 33024	Phone: (954) 983-1537 Facsimile: (954) 983-5018	US DOI - BIA Tribal Leaders Directory

Florida Cattle Dipping Vats

In the early 1900s, cattle tick fever seriously impacted the cattle industry in southern states. In response, the Federal government required that cattle shipped out of southern states be dipped in an arsenical solution and declared tick-free. In Florida, this program was in place from about 1906 to 1961 during which Federal, State, and local governments funded and oversaw the construction of more than 3,200 dipping vats in Florida. In addition to arsenical solutions, other pesticides such as DDT and chlordane were reportedly used.

In the early 1990s, the State of Florida's environmental agency became aware of the existence of cattle dipping vats and the problems they posed to public health and the environment. A database identifying more than 3,200 state-funded cattle dip vats was maintained by the Department of Agriculture and Consumer Services (DACCS). The database identified vats either by the property owner's name, or by some familiar landmark-- along with the county in which the vat was located. The following report exhibits the information that is available from this database with the entries sorted by County.

According to the FDEP, this database has not been updated since EDM, Inc. first obtained the data in 1995.

Fac ID	10001	Fac Type	Tick Dip
Fac Name	Walker Ranch	FDER Distr	Central
Fac City			
Fac County	Polk		

ID 1

Site Name	Cattle Dip Vat	Site Descr	
Site Status		Sample Type	Groundwater
Lat		Contaminant	Arsenic
Long		Units	ug/L
		Reported Max Level	220

Fac ID	10013	Fac Type	Tick Dip
Fac Name	Lake Hancock	FDER Distr	Southwest
Fac City			
Fac County	Polk		

ID 1

Site Name	Cattle Dip Vat	Site Descr	S11, T29S, R25E, off SR 17 near Lake Hancock
Site Status		Sample Type	
Lat		Contaminant	
Long		Units	
		Reported Max Level	

Fac ID 12387 *Fac Type* Tick Dip
Fac Name Adam's Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12388 *Fac Type* Tick Dip
Fac Name Akin, Dan *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12389 *Fac Type* Tick Dip
Fac Name Albritton *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12390 *Fac Type* Tick Dip
Fac Name Allen *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12391 *Fac Type* Tick Dip
Fac Name Altman *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12392 *Fac Type* Tick Dip
Fac Name Alturas *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12393 *Fac Type* Tick Dip
Fac Name Anderson *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12394 *Fac Type* Tick Dip
Fac Name Arbuckle *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12395 *Fac Type* Tick Dip
Fac Name Armory *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12396 *Fac Type* Tick Dip
Fac Name Ashley *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12397 *Fac Type* Tick Dip
Fac Name Baker's Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12398 *Fac Type* Tick Dip
Fac Name Bannion *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12399 *Fac Type* Tick Dip
Fac Name Bareah *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12400 *Fac Type* Tick Dip
Fac Name Baynard *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12401 *Fac Type* Tick Dip
Fac Name Bear Branch *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12402 *Fac Type* Tick Dip
Fac Name Blich *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12403 *Fac Type* Tick Dip
Fac Name Bowin, Silas *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12404 *Fac Type* Tick Dip
Fac Name Bowling Green *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12405 *Fac Type* Tick Dip
Fac Name Branchboro *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12406 *Fac Type* Tick Dip
Fac Name Brewster *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12407 *Fac Type* Tick Dip
Fac Name Bridges *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12408 *Fac Type* Tick Dip
Fac Name Bronson, J.J. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12409 *Fac Type* Tick Dip
Fac Name Bryant *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12410 *Fac Type* Tick Dip
Fac Name Bryant (2) *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12411 *Fac Type* Tick Dip
Fac Name Buffalo Ford *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12412 *Fac Type* Tick Dip
Fac Name Callahan *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12413 *Fac Type* Tick Dip
Fac Name Carver *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12414 *Fac Type* Tick Dip
Fac Name Catfish *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12415 *Fac Type* Tick Dip
Fac Name Circle A *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12416 *Fac Type* Tick Dip
Fac Name Clark *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12417 *Fac Type* Tick Dip
Fac Name Clay Hammock *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12418 *Fac Type* Tick Dip
Fac Name Combee Camp *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12419 *Fac Type* Tick Dip
Fac Name Combee, Morgan *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12420 *Fac Type* Tick Dip
Fac Name Combee, Morgan *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12421 *Fac Type* Tick Dip
Fac Name Costine, C.P. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12422 *Fac Type* Tick Dip
Fac Name Costine, J.L. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12423 *Fac Type* Tick Dip
Fac Name Costine, W.H. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12424 *Fac Type* Tick Dip
Fac Name Costine, William *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12425 *Fac Type* Tick Dip
Fac Name County Farm *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12426 *Fac Type* Tick Dip
Fac Name Cozart *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12427 *Fac Type* Tick Dip
Fac Name Cravy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12428 *Fac Type* Tick Dip
Fac Name Crews *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12429 *Fac Type* Tick Dip
Fac Name Crooked Lake *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12430 *Fac Type* Tick Dip
Fac Name Crum Pasture *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12431 *Fac Type* Tick Dip
Fac Name Crum, Cliff *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12432 *Fac Type* Tick Dip
Fac Name Crump *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12433 *Fac Type* Tick Dip
Fac Name Curtis *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12434 *Fac Type* Tick Dip
Fac Name Davis Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12435 *Fac Type* Tick Dip
Fac Name Dickson *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12436 *Fac Type* Tick Dip
Fac Name Double A (or W?) *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12437 *Fac Type* Tick Dip
Fac Name Dundee *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12438 *Fac Type* Tick Dip
Fac Name Durden *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12439 *Fac Type* Tick Dip
Fac Name Durrence Brothers *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12440 *Fac Type* Tick Dip
Fac Name Eight Mile *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12441 *Fac Type* Tick Dip
Fac Name Feagin *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12442 *Fac Type* Tick Dip
Fac Name Flood *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1946
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12443 *Fac Type* Tick Dip
Fac Name Florence Villa *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12444 *Fac Type* Tick Dip
Fac Name Fort Meade *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12445 *Fac Type* Tick Dip
Fac Name Frostproof *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12446 *Fac Type* Tick Dip
Fac Name Fuller *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12447 *Fac Type* Tick Dip
Fac Name Fussell *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12448 *Fac Type* Tick Dip
Fac Name Gavins *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12449 *Fac Type* Tick Dip
Fac Name Gill *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12450 *Fac Type* Tick Dip
Fac Name Glassen *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12451 *Fac Type* Tick Dip
Fac Name Godwin, Dallas *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12452 *Fac Type* Tick Dip
Fac Name Graddy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12453 *Fac Type* Tick Dip
Fac Name Griffen, J.M. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12454 *Fac Type* Tick Dip
Fac Name Grimes, Henry *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12455 *Fac Type* Tick Dip
Fac Name Hall *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12456 *Fac Type* Tick Dip
Fac Name Hancock, Martin *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12457 *Fac Type* Tick Dip
Fac Name Hancock, Shade *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12458 *Fac Type* Tick Dip
Fac Name Haretic *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12459 *Fac Type* Tick Dip
Fac Name Harold *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12460 *Fac Type* Tick Dip
Fac Name Hart *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12461 *Fac Type* Tick Dip
Fac Name Henderson *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12462 *Fac Type* Tick Dip
Fac Name Hendricks *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12463 *Fac Type* Tick Dip
Fac Name Homestead *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12464 *Fac Type* Tick Dip
Fac Name Horseshoe *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12465 *Fac Type* Tick Dip
Fac Name Horton *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12466 *Fac Type* Tick Dip
Fac Name Howze *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12467 **Fac Type** Tick Dip
Fac Name Hutchinson **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1932
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12468 **Fac Type** Tick Dip
Fac Name Jenson **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1934
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12469 **Fac Type** Tick Dip
Fac Name Johnson **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1932
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12470 **Fac Type** Tick Dip
Fac Name Jones **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1934
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12471 *Fac Type* Tick Dip
Fac Name Jordan *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12472 *Fac Type* Tick Dip
Fac Name Judy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12473 *Fac Type* Tick Dip
Fac Name Keen *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12474 *Fac Type* Tick Dip
Fac Name Keen, Neal *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12475 *Fac Type* Tick Dip
Fac Name Kibler *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12476 *Fac Type* Tick Dip
Fac Name Kilpatrick *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12477 *Fac Type* Tick Dip
Fac Name Kincaid *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12478 *Fac Type* Tick Dip
Fac Name Kincaid Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12479 *Fac Type* Tick Dip
Fac Name King *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12480 *Fac Type* Tick Dip
Fac Name Lake Hancock *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12481 *Fac Type* Tick Dip
Fac Name Lake Henry *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12482 *Fac Type* Tick Dip
Fac Name Lake Mabel *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12483 *Fac Type* Tick Dip
Fac Name Lake Pierce *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12484 *Fac Type* Tick Dip
Fac Name Lake Wales *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12485 *Fac Type* Tick Dip
Fac Name Lake Gordon (or Lakle, G) *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12486 *Fac Type* Tick Dip
Fac Name Lassiter *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12487 *Fac Type* Tick Dip
Fac Name Levy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12488 *Fac Type* Tick Dip
Fac Name Lewis Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12489 *Fac Type* Tick Dip
Fac Name Long Hammock *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12490 *Fac Type* Tick Dip
Fac Name Luther Taylor *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12491 *Fac Type* Tick Dip
Fac Name Manley *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12492 *Fac Type* Tick Dip
Fac Name McLain *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12493 *Fac Type* Tick Dip
Fac Name McMillin *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12494 *Fac Type* Tick Dip
Fac Name Melvin *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12495 *Fac Type* Tick Dip
Fac Name Miller *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12496 *Fac Type* Tick Dip
Fac Name Moore *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12497 *Fac Type* Tick Dip
Fac Name Morgan, Joe *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12498 *Fac Type* Tick Dip
Fac Name Nalaca *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1946
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12499 *Fac Type* Tick Dip
Fac Name Newton *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12500 *Fac Type* Tick Dip
Fac Name North Florida Ave. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12501 *Fac Type* Tick Dip
Fac Name Number Nine *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12502 *Fac Type* Tick Dip
Fac Name Orange Dale *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12503 *Fac Type* Tick Dip
Fac Name Parker *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12504 *Fac Type* Tick Dip
Fac Name Penn's Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12505 *Fac Type* Tick Dip
Fac Name Pipkin's Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12506 *Fac Type* Tick Dip
Fac Name Pipkins, D.M. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12507 **Fac Type** Tick Dip
Fac Name Pony Creek **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1933
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12508 **Fac Type** Tick Dip
Fac Name Prine **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1934
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12509 **Fac Type** Tick Dip
Fac Name Raulerson, Fate **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1933
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12510 **Fac Type** Tick Dip
Fac Name Raulerson, Sam **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1933
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12511 *Fac Type* Tick Dip
Fac Name Reynolds *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12512 *Fac Type* Tick Dip
Fac Name Ridgill *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12513 *Fac Type* Tick Dip
Fac Name Rivers *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12514 *Fac Type* Tick Dip
Fac Name Robinson *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12515 *Fac Type* Tick Dip
Fac Name Rosalie *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12516 *Fac Type* Tick Dip
Fac Name Royster *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12517 *Fac Type* Tick Dip
Fac Name Sargent *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12518 *Fac Type* Tick Dip
Fac Name Saw Grass *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12519 *Fac Type* Tick Dip
Fac Name School *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12520 *Fac Type* Tick Dip
Fac Name Scrub Pen *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12521 *Fac Type* Tick Dip
Fac Name Sheppard *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12522 *Fac Type* Tick Dip
Fac Name Shertz *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12523 *Fac Type* Tick Dip
Fac Name Snell *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12524 *Fac Type* Tick Dip
Fac Name Standard Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12525 *Fac Type* Tick Dip
Fac Name Stevens Spur *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12526 *Fac Type* Tick Dip
Fac Name Stewart *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12527 *Fac Type* Tick Dip
Fac Name Sullivan *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12528 *Fac Type* Tick Dip
Fac Name Summerlin *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12529 *Fac Type* Tick Dip
Fac Name Sunnyside Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12530 *Fac Type* Tick Dip
Fac Name Surrency *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12531 *Fac Type* Tick Dip
Fac Name Taylor. Tom *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12532 *Fac Type* Tick Dip
Fac Name Templetown *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12533 *Fac Type* Tick Dip
Fac Name Tiger Lake *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12534 *Fac Type* Tick Dip
Fac Name Tindall *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12535 *Fac Type* Tick Dip
Fac Name Twin Oak Dairy *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12536 *Fac Type* Tick Dip
Fac Name Ute Pen *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12537 *Fac Type* Tick Dip
Fac Name Varn *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12538 *Fac Type* Tick Dip
Fac Name Voyles *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12539 *Fac Type* Tick Dip
Fac Name Waring Pasture *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12540 *Fac Type* Tick Dip
Fac Name Waterhole Bay *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12541 *Fac Type* Tick Dip
Fac Name Waters *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12542 *Fac Type* Tick Dip
Fac Name Waston, J.S. *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12543 **Fac Type** Tick Dip
Fac Name Watson, J.W. **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1934
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12544 **Fac Type** Tick Dip
Fac Name Webber **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1932
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12545 **Fac Type** Tick Dip
Fac Name Weeks Dairy **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1934
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12546 **Fac Type** Tick Dip
Fac Name Weeks, Tom **FDER Distr** Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat **Site Descr** 1934
Site Status **Sample Type**
Lat **Contaminant**
Long **Units** **Reported Max Level**

Fac ID 12547 *Fac Type* Tick Dip
Fac Name Whidden *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12548 *Fac Type* Tick Dip
Fac Name Williams *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12549 *Fac Type* Tick Dip
Fac Name Wilson *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1934
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12550 *Fac Type* Tick Dip
Fac Name Withlacoochee *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1933
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12551 *Fac Type* Tick Dip
Fac Name Yates Camp *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Fac ID 12552 *Fac Type* Tick Dip
Fac Name Zipperer *FDER Distr* Southwest
Fac City
Fac County Polk

ID 1

Site Name Cattle Dip Vat *Site Descr* 1932
Site Status *Sample Type*
Lat *Contaminant*
Long *Units* *Reported Max Level*

Agency List Descriptions

USEPA and State Databases are updated on a quarterly basis. Supplemental Databases are updated on an annual basis.

United States Environmental Protection Agency (EPA)

Comprehensive Env Response, Compensation & Liability Information System List(CERCLIS)

The US EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database tracks potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

Agency File Date: 10/25/2013 **Received by EDM:** 5/20/2014 **EDM Database Updated:** 5/20/2014

RCRIS Handlers with Corrective Action(CORRACTS)

The US EPA Corrective Action Sites (CORRACTS) database is a listing of hazardous waste handlers that have undergone RCRA corrective action activity.

Agency File Date: 7/10/2014 **Received by EDM:** 7/16/2014 **EDM Database Updated:** 7/17/2014

Emergency Response Notification System List(ERNS)

The Emergency Response Notification System (ERNS) database stores information on oil discharges and hazardous substance releases. The ERNS program is a cooperative data sharing effort among the EPA, DOT and the National Response Center (NRC), which currently provides access to this data.

Agency File Date: 1/16/2013 **Received by EDM:** 1/10/2013 **EDM Database Updated:** 1/10/2014

Archived Cerclis Sites(NFRAP)

The US EPA NFRAP list contains archived data of CERCLIS records where the EPA has completed assessment activities and determined that no further steps to list the site on the NPL will be taken. NFRAP sites may be reviewed in the future to determine if they should be returned to CERCLIS based upon newly identified contamination problems at the site.

Agency File Date: 10/25/2013 **Received by EDM:** 4/30/2014 **EDM Database Updated:** 4/30/2014

RCRA-LQG,SQG,CESQG and Transporters(NONTSD)

The EDM NONTSD list is a subset of the US EPA RCRAInfo System and identifies facilities that generate and transport hazardous wastes. These facilities may be Large Quantity Generators (LQG), Small Quantity Generators (SQG), Conditionally Exempt SQG's (CESQG) as well as "Non-Notifiers" and "Non-Handlers".

Agency File Date: 7/10/2014 **Received by EDM:** 7/18/2014 **EDM Database Updated:** 7/18/2014

National Priorities List(NPL)

The US EPA National Priorities List (NPL) contains facilities and/or locations where environmental contamination has been confirmed and prioritized for cleanup activities. In addition to sites that are currently on the EPA NPL, the EDM database contains sites that have been Proposed, Withdrawn and Deleted from the list.

Agency File Date: 5/20/2014 **Received by EDM:** 5/20/2014 **EDM Database Updated:** 5/20/2014

Tribal LUST List(TRIBLLUST)

EDM's Tribal LUST list is derived from the USEPA Region IV Tribal Tanks database by extracting those sites with indicators of past and/or current releases.

Agency File Date: 2/24/2010 **Received by EDM:** 3/9/2010 **EDM Database Updated:** 3/9/2010

Tribal Tanks List(TRIBLTANKS)

The USEPA Region IV Tribal Tanks database lists Active and Closed storage tank facilities on Native American lands.

Agency File Date: 2/24/2010 **Received by EDM:** 3/9/2010 **EDM Database Updated:** 3/9/2010

RCRA-Treatment, Storage and/or Disposal Sites(TSD)

The EDM TSD list is a subset of the US EPA RCRAInfo system and identifies facilities that Treat, Store and/or Dispose of hazardous waste.

Agency File Date: 7/10/2014 **Received by EDM:** 7/18/2014 **EDM Database Updated:** 7/18/2014

Brownfields Management System(USBRWNFLDS)

The US EPA Brownfields program provides information on environmentally distressed properties that have received Grants or Targeted funding for cleanup and redevelopment. Tribal Brownfield sites are included in the USBRWNFLDS database.

Agency File Date: 7/23/2014 **Received by EDM:** 7/23/2014 **EDM Database Updated:** 7/23/2014

US Institutional and/or Engineering Controls(USINSTENG)

The USINSTENG list is compiled from data elements contained in the NPL, CORRACTS and USBRWNFLDS lists.

Agency File Date: 7/23/2014 **Received by EDM:** 7/23/2014 **EDM Database Updated:** 7/23/2014

Florida Department of Environmental Protection (FDEP)

State Designated Brownfields(BRWNFLDS)

The FDEP Brownfields database contains a listing of State Designated Brownfield Areas and Brownfield Sites with signed rehabilitation agreements. Brownfields are typically defined as abandoned, idled or underused industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination.

Agency File Date: 7/21/2014

Received by EDM: 7/22/2014

EDM Database Updated: 7/22/2014

State Dry Cleaners List(DRY)

The FDEP Dry Cleaning Facilities List is comprised of data from the FDEP Storage Tank and Contamination Monitoring (STCM) database and the Drycleaning Solvent Cleanup Program- Priority Ranking List. It contains a listing of those Dry Cleaning sites (and suspected historical Dry Cleaning sites) who have registered with the FDEP and/or have applied for the Dry Cleaning Solvent Cleanup Program.

Agency File Date: 7/17/2014

Received by EDM: 7/17/2014

EDM Database Updated: 7/17/2014

State Institutional and/or Engineering Controls(INSTENG)

The FDEP Institutional Controls Registry Database (INSTENG) contains sites that have had Institutional and/or Engineering Controls implemented to regulate exposure to environmental hazards

Agency File Date: 4/1/2014

Received by EDM: 4/24/2014

EDM Database Updated: 4/24/2014

Leaking Underground Storage Tanks List(LUST)

The FDEP LUST list identifies facilities and/or locations that have notified the FDEP of a possible release of contaminants from petroleum storage systems. This Report is generated from the FDEP Storage Tank and Contamination Monitoring Database (STCM).

Agency File Date: 1/16/2014

Received by EDM: 5/20/2014

EDM Database Updated: 5/20/2014

Solid Waste Facilities List(SLDWST)

The FDEP SLDWST list identifies locations that have been permitted to conduct solid waste handling activities including Landfills, Transfer Stations and sites handling Bio-Hazardous wastes. Sites listed with "##" after the Facility ID Number are historical locations, obtained from documents on record at local agencies.

Agency File Date: 5/20/2014

Received by EDM: 5/20/2014

EDM Database Updated: 5/20/2014

State CERCLIS Equivalent(STCERC)

The STCERC list is compiled from the FDEP Site Investigation Section list and the Florida SITES list. The SITES list is a historical database that the FDEP once used to track suspected contamination from accidental or uncontrolled releases of hazardous substances.

Agency File Date: 4/21/2014

Received by EDM: 4/23/2014

EDM Database Updated: 4/23/2014

State NPL Equivalent(STNPL)

The FDEP SFAS list contains facilities and/or locations that have been identified by the FDEP as having known environmental contamination and are currently being addressed through State funded cleanup action.

Agency File Date: 7/14/2014

Received by EDM: 7/22/2014

EDM Database Updated: 7/22/2014

Underground/Aboveground Storage Tanks(TANKS)

The FDEP TANKS list contains sites with registered aboveground and/or underground storage tanks containing regulated petroleum products. Please refer to the "Explanation of Florida Tank Codes" insert to interpret tank construction, monitoring and piping codes.

Agency File Date: 1/16/2014

Received by EDM: 7/8/2014

EDM Database Updated: 7/14/2014

State Voluntary Cleanup List(VOLCLNUP)

The VOLCLNUP List is derived from the FDEP Brownfields Site Rehabilitation Agreement (BSRA) database and the FDEP Office of Waste Cleanup Responsible Party Sites database. This list identifies those sites that have signed an agreement to Voluntarily cleanup a site and/or sites where legal responsibility for site rehabilitation exists pursuant to Florida Statutes and is being conducted either voluntarily or pursuant to enforcement activity.

Agency File Date: 4/21/2014

Received by EDM: 4/23/2014

EDM Database Updated: 4/23/2014

EXPLANATION OF FLORIDA TANK CODES

CONSTRUCTION TYPE CODES

A = BALL CHECK VALVE
B = INTERNAL LINING
C = STEEL
D = UNKNOWN
E = FIBERGLASS
F = FIBERGLASS-CLAD STEEL
G = CATHODIC PROTECTION-SACRIFICIAL ANODE
H = CATHODIC PROTECTION -IMPRESSED CURRENT
I = DBL WALL/SINGLE MATERIAL
J = SYNTHETIC LINER IN TANK EXCAVATION
K = AST CONTAINMENT: CONCRETE /SYNTHETIC MATERIAL AREA
L = COMPARTMENTED
M = SPILL CONTAINMENT BUCKET
N = FLOW SHUT OFF
O = TIGHT FILL
P = LEVEL GAUGES, HI LEVEL ALARMS
Q = OTHER DER APPROVED PROTECTION METHOD
R = DBL WALL/DUAL MATERIAL/ (TANK "JACKET")
S = OTHER DEP APPROVED SECONDARY CONTAINMENT SYSTEM
T = SMALL USE TANK
U = FIELD ERECTED TANK
V = PIPELESS UST W/SECONDARY CONTAINMENT
W = BUILT ON SUPPORTS
X = CONCRETE
Y = POLYETHYLENE
Z = OTHER DEP APPROVED TANK MATERIAL

PIPING TYPE CODES

A = ABOVE GROUND-NO CONTACT W/SOIL
B = STEEL OR GALVANIZED METAL
C = FIBERGLASS
D = EXTERNAL PROTECTIVE COATING
E = CATHODIC PROTECTION (SACRIFICIAL ANODE/IMPRESSED CURRENT)
F = DBLWALL/SINGLE MATERIAL
G = SYNTHETIC OR BOX/TRENCH LINER
H = AIRPORT/SEAPORT HYDRANT SYSTEM
I = SUCTION PIPING SYSTEM
J = PRESSURIZED PIPING SYSTEM
K = DISPENSER LINERS
L = BULK PRODUCT SYSTEM
M = DOUBLE WALL / DUAL MATERIAL (PIPE "JACKET")
N = APPROVED SYNTHETIC MATERIAL
O = SEVERE VIOLATION
P = INTERNAL PIPING WITHIN INTERNAL SUMP RISER
V = VIOLATION
X = NO PIPING ASSOCIATED WITH TANK
Y = UNKNOWN
Z = OTHER DEP APPROVED PIPING MATERIAL

LEAK MONITORING CODES

1 = CONTINUOUS ELECTRONIC SENSING EQUIPMENT
2 = VISUAL INSPECTIONS OF PIPING SUMPS
3 = ELECTRONIC MONITORING OF PIPING SUMPS
4 = VISUAL INSPECTIONS OF DISPENSING LINERS
5 = ELECTRONIC MONITORING OF DISPENSER LINERS
6 = EXTERNAL PIPING MONITORING
7 = AUTOMATICALLY SAMPLED WELLS
8 = MANUALLY SAMPLED WELLS
A = SITE SUITABILITY PLAN
B = SITE SUITABILITY PLAN EXEMPTION
C = GROUNDWATER MONITOR PLAN
D = SPCC PLAN
E = INTERSTITIAL MONITORING UST LINERS
F = INTERSTITIAL SPACE-DOUBLE WALL TANK
G = ELECTRONIC LINE LEAK DETECTOR W/FLOW SHUTOFF
H = MECHANICAL LINE LEAK DETECTOR
I = NOT REQUIRED-SEE RULE FOR EXEMPTIONS
J = INTERSTITIAL MONITORING-PIPING LINER
K = INTERSTITIAL MONITORING- DOUBLE WALL PIPING
L = AUTOMATIC TANK GAUGING SYSTEM (USTS)
M = MANUAL TANK GAUGING SYSTEM (USTS)
N = GROUNDWATER MONITORING SYSTEM
O = VAPOR MONITORING SYSTEM
P = VAPOR MONITORING W/DILUTION PROCEDURES
Q = VISUAL INSPECTION OF AST SYSTEMS
R = INTERSTITIAL MONITORING OF TANK BOTTOM
S = STATISTICAL INVENTORY RECONCILIATION (SIR/USTS)
T = ANNUAL TIGHTNESS TEST WITH INVENTORY (UST)
U = BULK PIPING PRESSURE TEST
V = SUCTION PUMP CHECK VALVE
W = FIBER-OPTIC TECHNOLOGIES
X = NONE
Y = UNKNOWN
Z = OTHER DEP APPROVED MONITORING METHOD

CSER Appendix E

Supplemental Information

Register Construction & Engineering (Fac. ID 8628333)

Memorandum

**Florida Department of
Environmental Protection**

TO: Lewis Cornman, Environmental Manager (Eligibility Coordinator) *MC*

THROUGH: Grace Rivera, Environmental Manager *GR*

FROM: Sharonda Perkins, Environmental Specialist II *SP*

RMC **QA'ed**
Initials _____ Date _____

DATE: November 5, 2009

SUBJECT: No Cleanup Required Requested

Facility Id Number: 538628333

Facility Name: Register Construction & Engineering

Facility Address: 3730 New Tampa Highway
Lakeland, Polk County

Discharge Date: February 10, 1994

Please review the attached Memorandum dated October 13, 2009 (received October 14, 2009) and backup data for a request that No Cleanup Required be applied to the Cleanup Status for the February 10, 1994 discharge in PCT.

Per the May 9, 1994, Polk County Public Health Unit letter to the responsible party and after review of the information enclosed, I concur that No Cleanup Required be applied.

NREQ
11/9/09 11:47 AM
MC

"More Protection, Less Process"

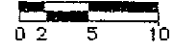
Printed on recycled paper.

Register Construction and Engineering, Inc.
3730 New Tampa Highway
Lakeland, Florida

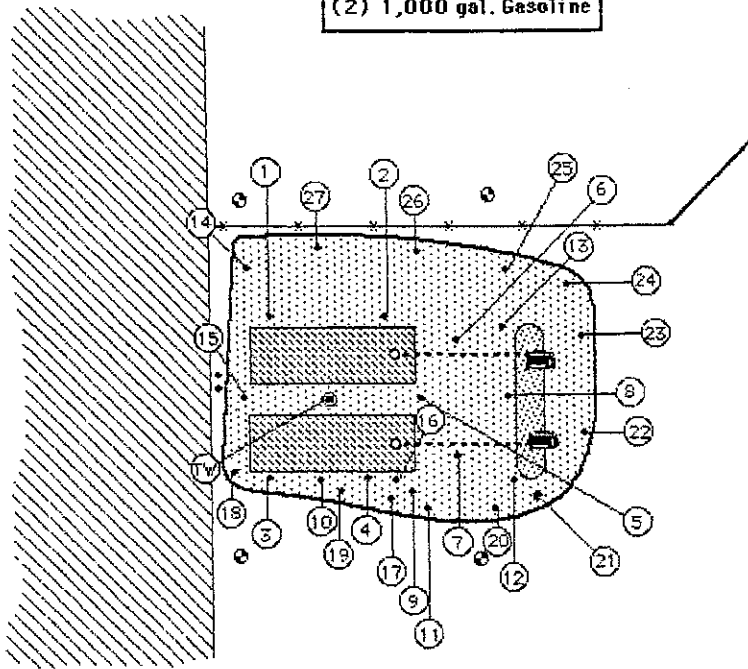
Excavation Detail

Legend

- Fill
 - + Vent
 - ☒ Dispenser
 - ⊙ Monitor Well
 - OVA sample point
 - ⊕ Temporary well
- Scale in Feet

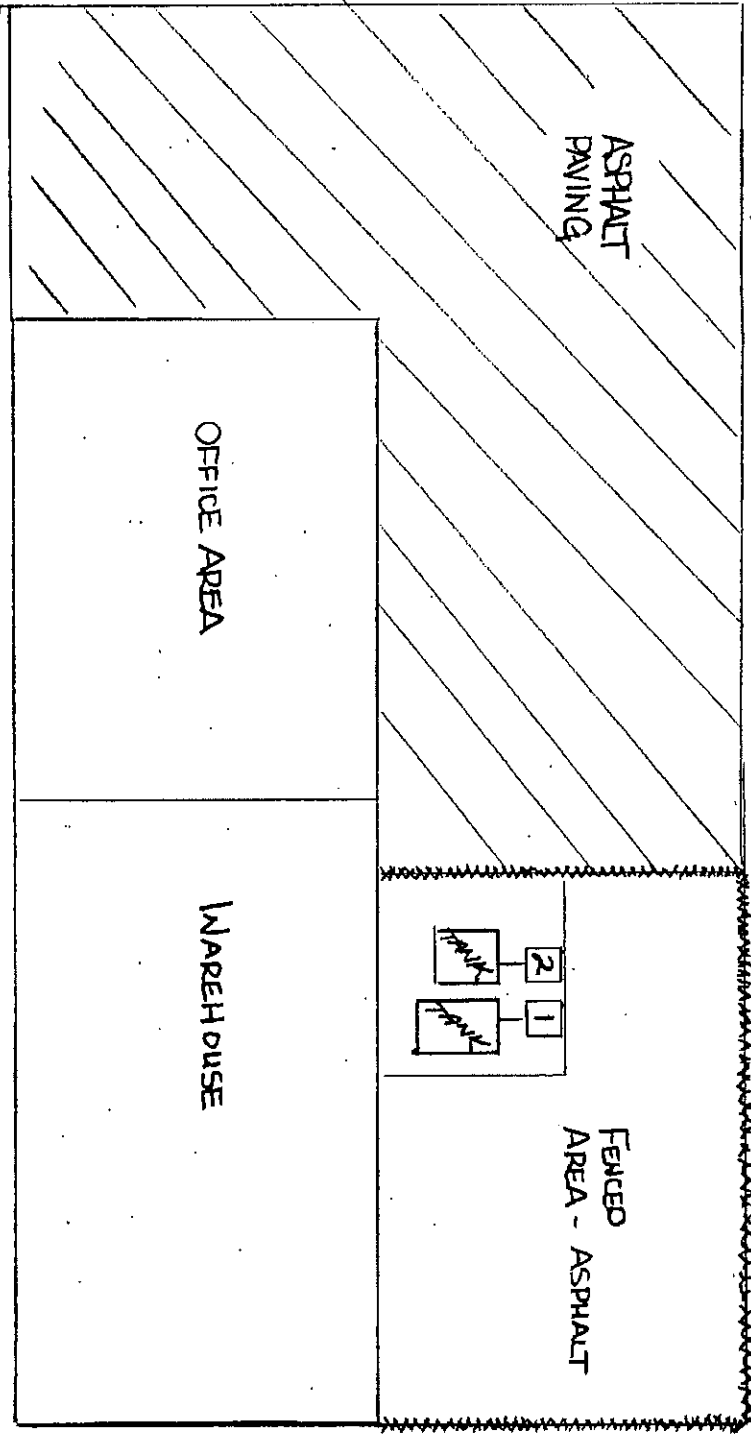


Tanks:
(2) 1,000 gal. Gasoline



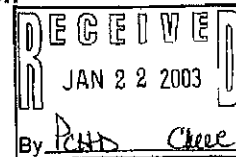
REGISTER CONSTRUCTION
3730 NEW TAMPA HWY
LAKELAND, FLORIDA 33801

N ←←



Edwards Grove Service (Fac. ID 8623349)

**Florida Department of Environmental Protection
Division of Waste Management
Bureau of Petroleum Storage Systems
Petroleum Cleanup**



TEMPLATE SITE ASSESSMENT REPORT

DATE: January 19, 2003

Site FDEP Facility ID #: 538623349 Score: NA
 Site Name: The Former Edward's Grove Service
 Address: 3220 New Tampa Highway
 City: Lakeland
 County: Polk
 Consultant Company: Chastain-Skillman, Inc
 Address: 4705 Old Hwy 37
 City, Zip: Lakeland, FL 33813
 Consultant Rep.: Charles Browning
 Phone #: (863) 646 - 1402

Program	
<input type="checkbox"/> Preapproval	WO#: _____
<input type="checkbox"/> State Cleanup	TA#: _____
<input type="checkbox"/> Bid Project	Contract #: _____
	Site #: _____
<input checked="" type="checkbox"/> Non-Program / Voluntary Cleanup	

Responsible Party Name: Publix Supermarkets Inc
 Address: P.O. Box 407
 City, Zip: Lakeland, Florida, 33802
 Responsible Party Rep.: Ms. Jan McCabe, REM
 Phone #: (863) 688 - 7407 xt 2422

Cluster Site?	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>
If yes, indicate facility ID #'s & Site Names		
Facility ID #	Site Name	
1) _____	_____	
2) _____	_____	
3) _____	_____	
4) _____	_____	
5) _____	_____	

CERTIFICATION:

A Qualified Registered Professional Engineer or Registered Professional Geologist Certification
 I hereby certify that I have supervised the field work (as summarized in the "Recent Site Assessment Activities" section) and preparation of this report, in accordance with Florida Rules and Regulations. As a registered professional geologist and/or professional engineer, as authorized by Chapters 492 or 471, Florida Statutes, I certify that I am a qualified groundwater professional, with knowledge and experience in groundwater contamination assessment and cleanup. To the best of my knowledge, the information and laboratory data summarized in the "Recent Site Assessment Activities" section (including the applicable attachments) are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Consultant Name: Charles B. Browning, Jr.

PE or PG License #: _____ P.G. # 1377

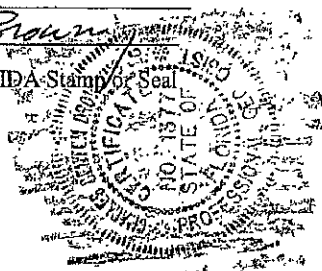
Signature: Charles Browning

Date: 1-19-03 FLORIDA Stamp or Seal

COPY

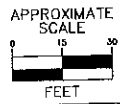
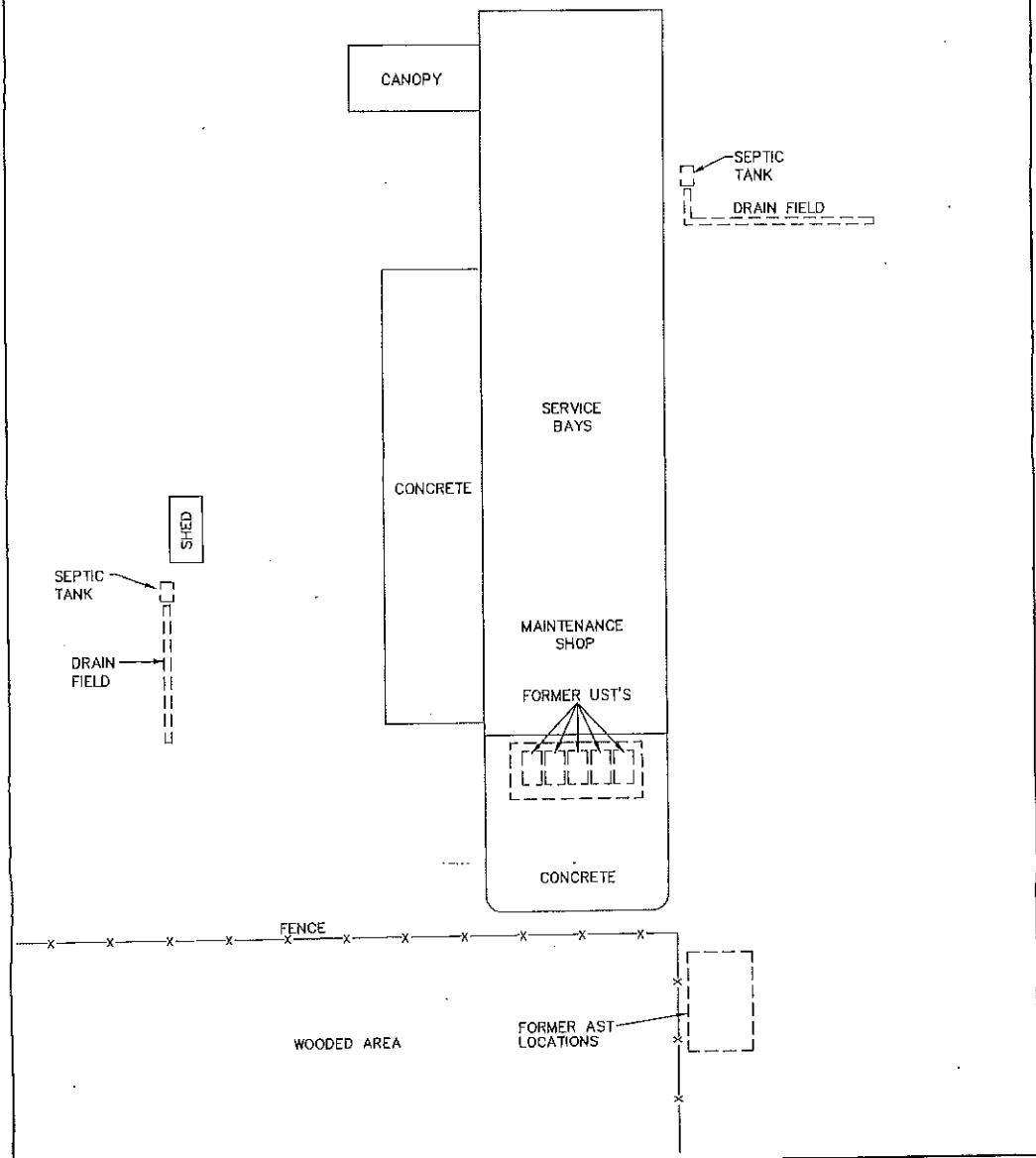
APPROVED


KJM 01/29/03
SA-SAR

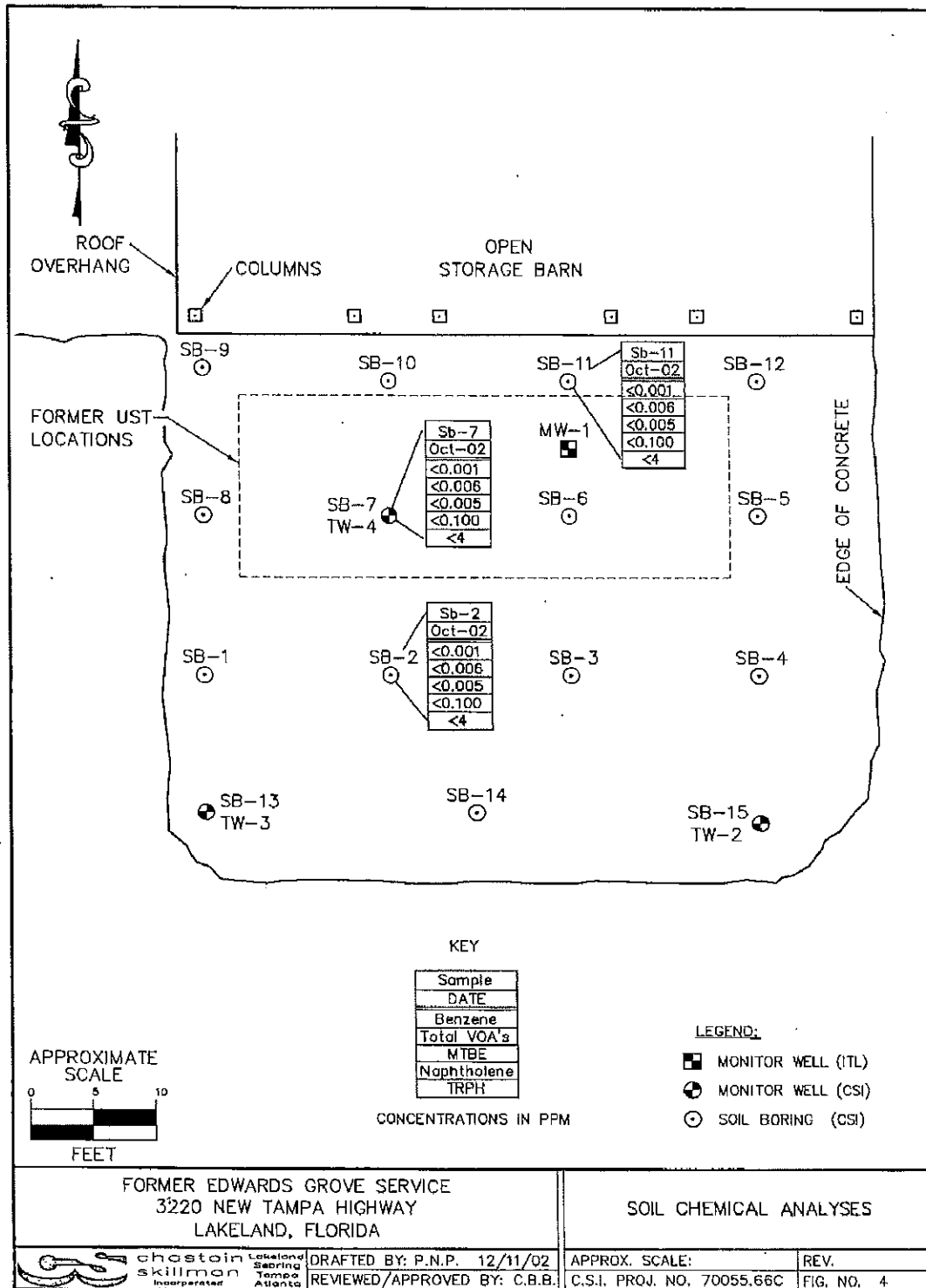




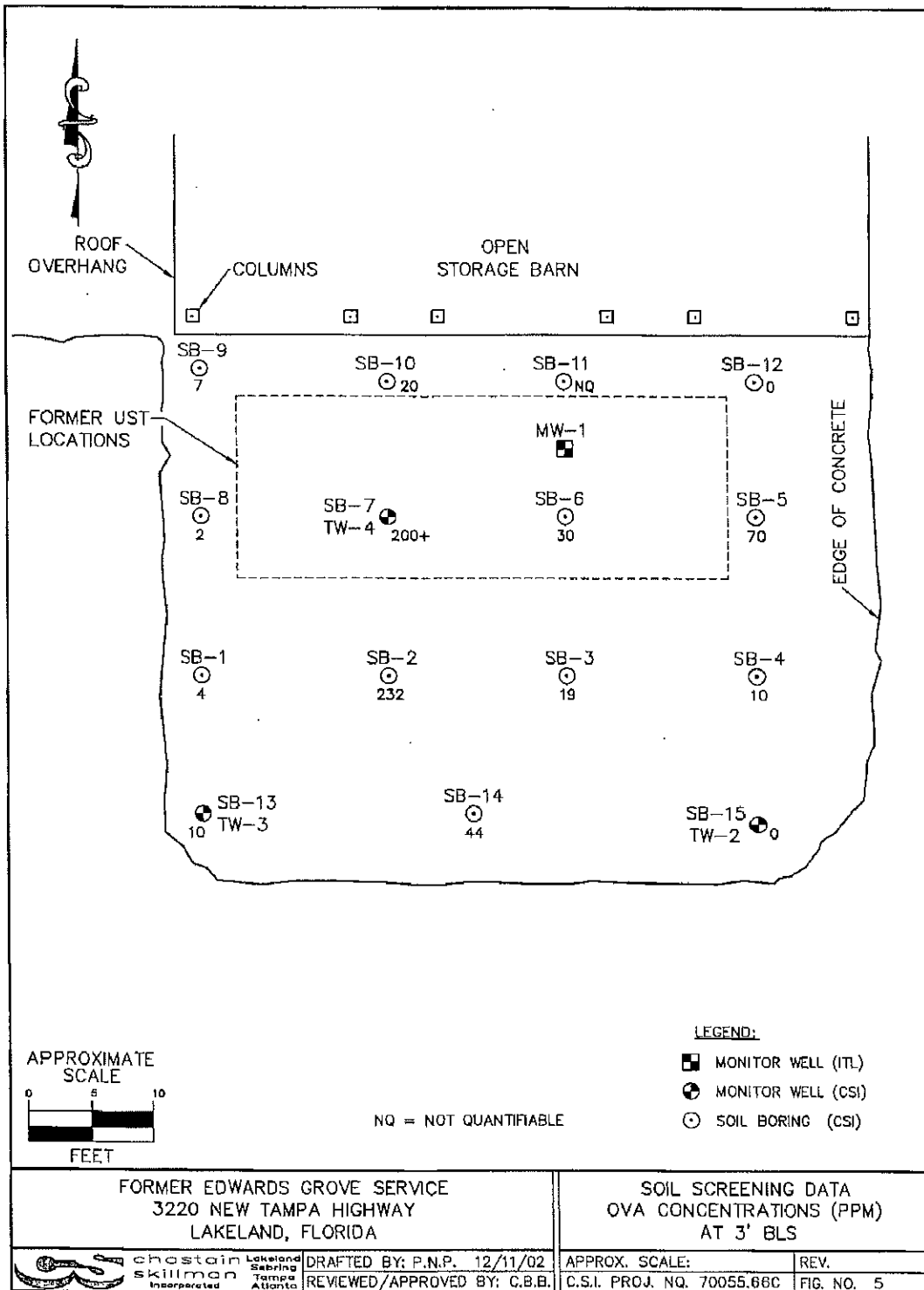
U.S. 92 (NEW TAMPA HIGHWAY)



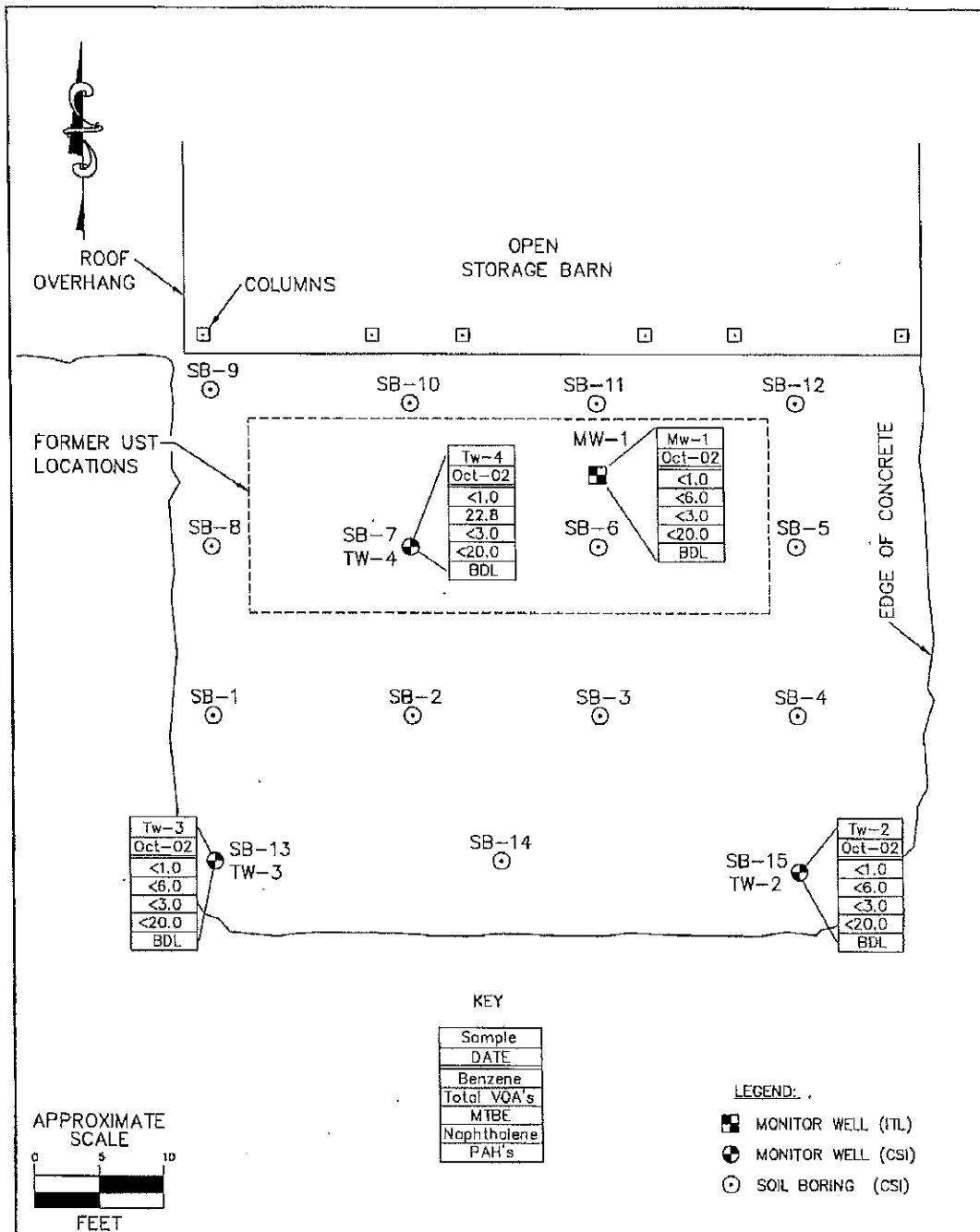
FORMER EDWARDS GROVE SERVICE 3220 NEW TAMPA HWY. FACILITY No. 538623349 LAKELAND, FLORIDA		SITE PLAN	
 Chestain skilling & Associates, Inc. Lakeland Tampa Atlanta	DRAFTED BY: P.N.P. 12/23/02	SCALE: 1"=30'	REV.
	REVIEWED/APPROVED BY: C.B.B.	C.S.J. PROJ. NO. 7005.68C	FIG. NO. 1



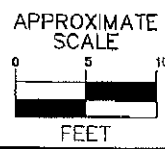
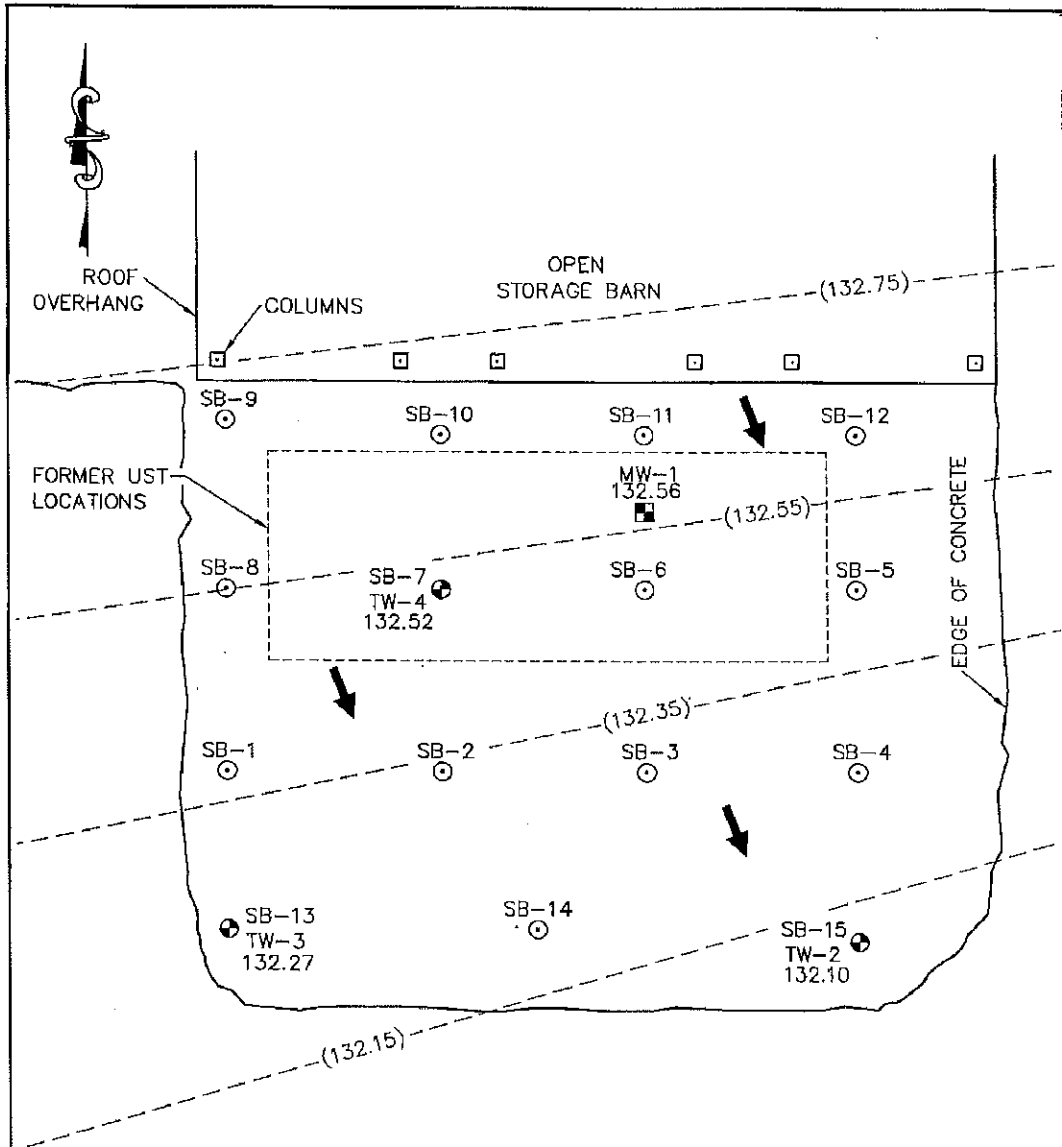
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4:\p\66C\...desk\70055.66c-fig.dwg, 2/23/2003 1:56:26 PM, Peldy



FORMER EDWARDS GROVE SERVICE 3220 NEW TAMPA HIGHWAY LAKELAND, FLORIDA		GROUNDWATER CONTAMINANT CONCENTRATIONS	
 Chastain Skillman Lakeland Spring Tampa Atlanta	DRAFTED BY: P.N.P. 12/11/02	APPROX. SCALE:	REV.
	REVIEWED/APPROVED BY: C.B.B.	C.S.I. PROJ. NO. 70055.66C	FIG. NO. 6



- LEGEND:**
- MONITOR WELL (ITL)
 - ⊕ MONITOR WELL (CSI)
 - ⊙ SOIL BORING (CSI)
 - ➔ GROUND WATER FLOW

FORMER EDWARDS GROVE SERVICE 3220 NEW TAMPA HIGHWAY LAKELAND, FLORIDA		GROUNDWATER ELEVATIONS 12-19-02	
	DRAFTED BY: P.N.P., 12/11/02 REVIEWED/APPROVED BY: C.B.B.	APPROX. SCALE: C.S.I. PROJ. NO. 70055.66C	REV. FIG. NO. 7

V:\7005566C\env\Risk\7005566C-fig\dwg\12/2/02/7005566C-fig.dwg, 9:19:12 AM, Poley



Imperial Testing Laboratories

December 8, 1999

3905 KIDRON ROAD • LAKELAND, FLORIDA 33811 • TELEPHONE: (941) 647-2877
FAX: (941) 647-1770

Mr. David Edwards
Edwards Fruit Company
3220 New Tampa Highway
Lakeland, FL 33801

Re: Phase II Environmental Assessment - 3220 New Tampa Highway, Lakeland, FL

Dear Mr. Edwards:

The purpose of this letter is to report the results of environmental investigative activities conducted at the above referenced site. The goal of a Phase II assessment is to investigate whether activities known to have potential environmental impacts which have been conducted at the site have caused any significant impact. Based on our discussions of activities at the site, two areas of concern were identified for investigation:

1. Petroleum fuel was stored in both USTs and ASTs in the past. Based on our discussions, this practice was terminated and the tanks removed in the mid-1980s but no closure assessment was performed since the tank removal predated such regulatory requirements. Both gasoline and kerosene class fuels were stored and the location of the former USTs, ASTs and associated dispensers were indicated by you and records and were apparent from remaining structures. Fuel was dispensed from the USTs by suction pump type dispensers located immediately adjacent and from the ASTs by valves at the tank end.

To investigate this concern we conducted an investigation to meet the current Florida Department of Environmental Protection (FDEP) tank closure requirements. The investigation was conducted during the spring and summer of 1999 as directed in order to not interfere with EFC operations. We conducted soil borings at 32 locations (28 soil borings and 2 monitor wells) around and in/under the former tank and dispenser locations. Figure 1 shows the configuration of the former petroleum storage system and the location of the soil borings. From each of the soil borings, soil samples for OVA measurement utilizing the FDEP approved head-space method were taken until the water table was reached. The boring/OVA logs are attached and did not show any detection of organic vapors.

Because of the lack of soil contamination evidenced by the OVA measurements, in accord with FDEP guidelines, monitor wells were installed in the approximate center of each former tank area. Groundwater samples were taken from each well in accord with our FDEP approved Comprehensive Quality Assurance Plan and analyzed at a local FDEP approved chemical laboratory for VOCs and PAHs as required by FDEP closure guidelines. Copies of the COC, lab reports and other quality assurance documents are

Environmental Consultants, Soil, Concrete and Materials Quality Control Testing

attached. The sample from MW-2 indicated evidence of petroleum related VOC contamination, but the levels were so low that they meet the FDEP Groundwater Cleanup Target Levels and therefore would not require any cleanup and would qualify for FDEP No Further Action status.


2. On-site generated sewage is disposed of by a conventional septic tank/drainfield system which at one time in the past was connected to receive wastewater from floor drains in the repair shop area. The primary concern was that solvents and other chemicals typically associated with auto repair activities could have entered the septic system via the floor drains and contaminated the septic tank sludge and/or groundwater via drainfield discharge.

A second septic tank/drainfield system received wastewater from the scale house in which citrus fruit maturity chemical testing was performed. Based on our discussions, the only chemical used was hydrochloric acid. The primary concern was that, due to the mobilizing potential of acids, metals could have contaminated the septic tank sludge and/or groundwater via drainfield discharge.

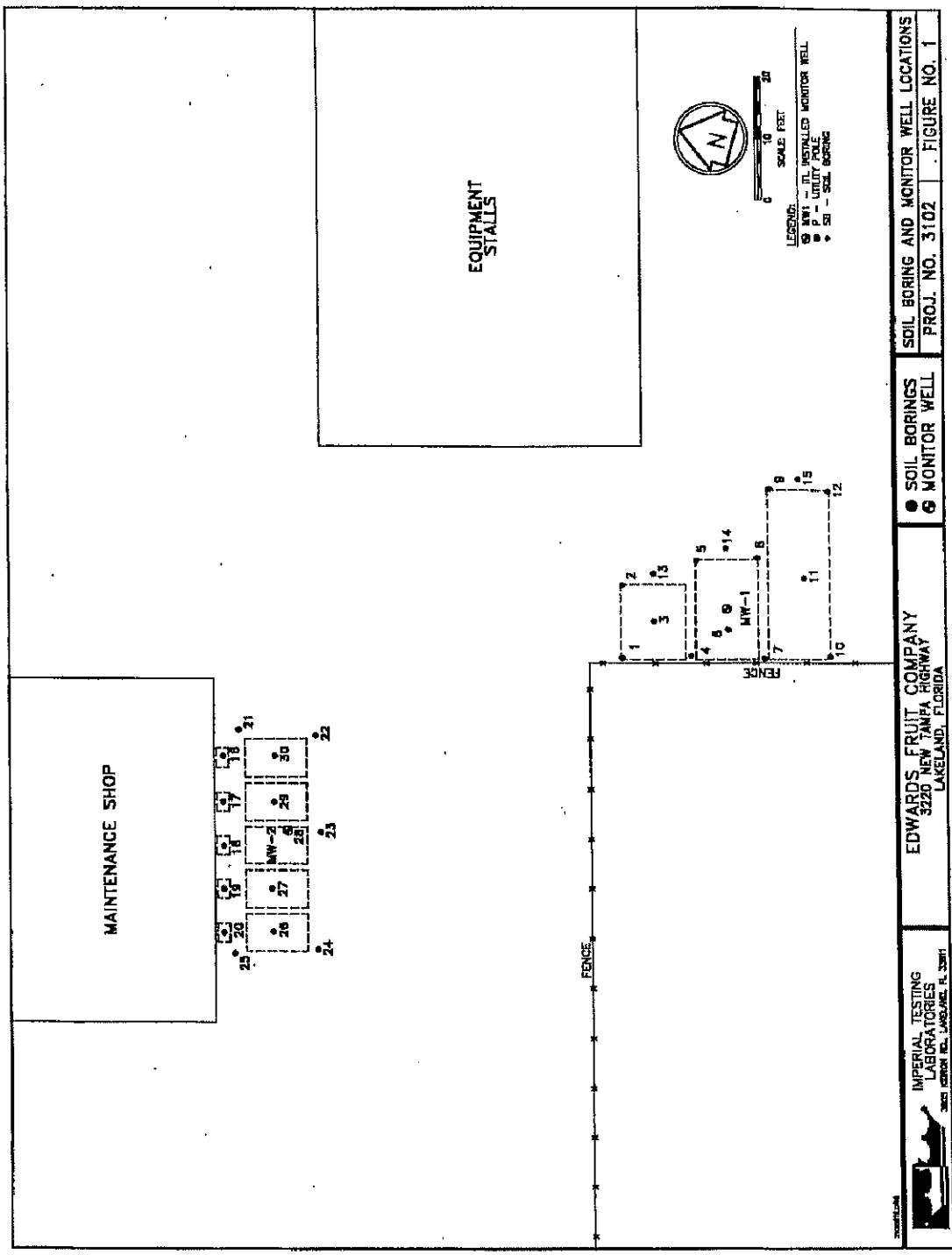
EFC personnel reported that the septic tanks had been pumped out recently, so it was not surprising to find there was no sludge present in the septic tanks. Accordingly, planned sludge sampling/analysis was not carried out. Temporary monitor wells were installed at the approximate midpoint of the drainfields to enable sampling/analysis of potentially affected groundwater. The locations of these wells and the septic systems are shown on Figure 2. Groundwater samples were taken from each well in accord with our FDEP approved Comprehensive Quality Assurance Plan and analyzed at a local FDEP approved chemical laboratory for total metals, EPA method 624/625 parameters, and TRPH by FLPRO. These analyses include purgeable organics, extractable pesticides, acid extractables and base neutral extractables. The only parameter detected was lead at levels below drinking water standards and GCTLs. The detection of lead in groundwater, even in areas far from any industrial/commercial activities, is not uncommon. Copies of the COC, lab reports and other quality assurance documents are attached.

In conclusion, none of the investigated areas of concern showed evidence of contamination requiring remediation or violating regulatory standards. Please contact us if you have any questions.

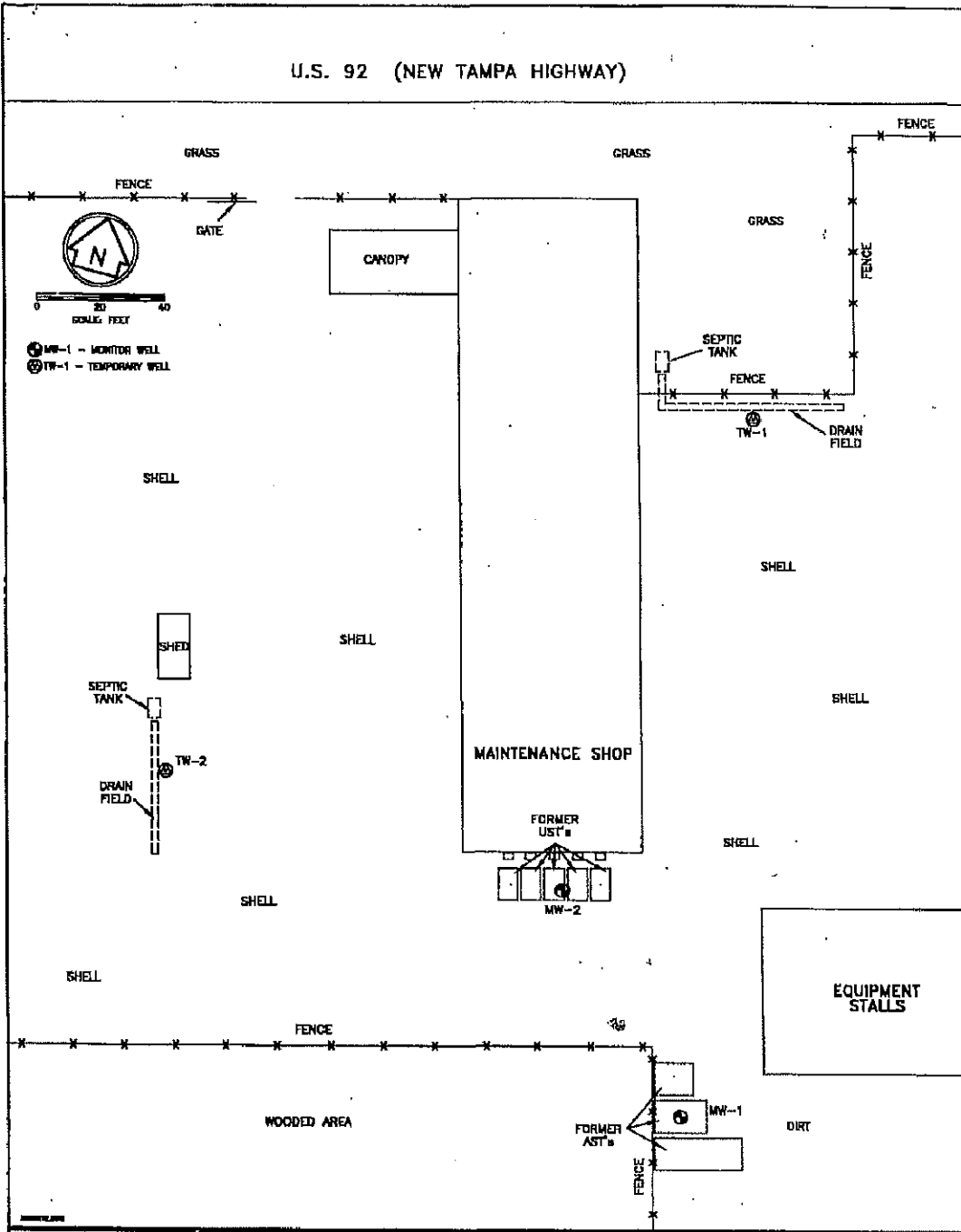
Sincerely,

 12.10.99
Michael H. Stillinger, PE
Imperial Testing Laboratories

c: 3102



U.S. 92 (NEW TAMPA HIGHWAY)



IMPERIAL TESTING LABORATORIES
3805 BOONEN RD., LAKELAND, FL. 33811

EDWARDS FRUIT COMPANY
3220 NEW TAMPA HIGHWAY
LAKELAND, FLORIDA

SITE MAP
PROJ. NO. 3102 | FIGURE NO. 2

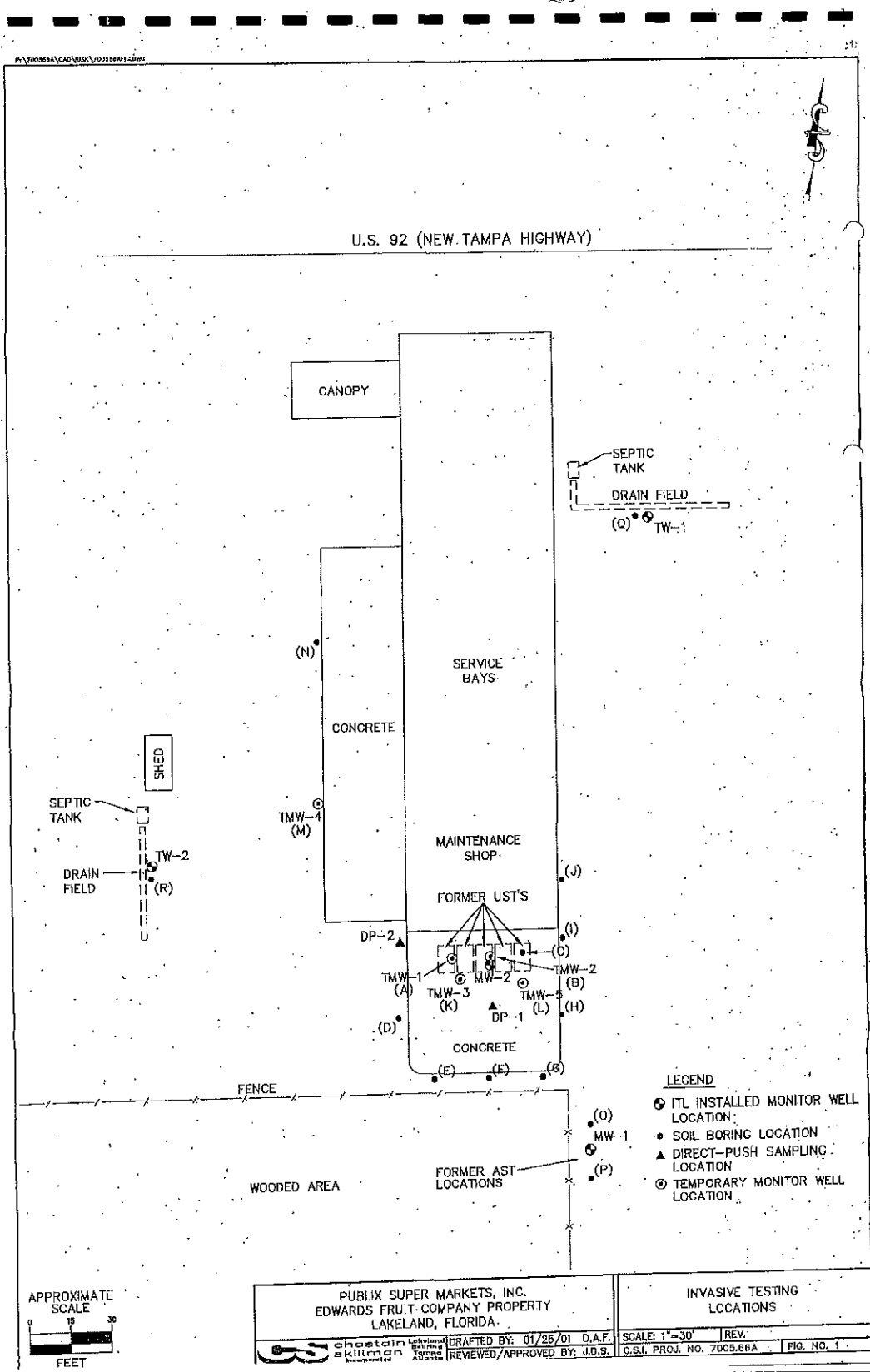


Table 1. Field Soil Test Results
Edwards Fruit Company Property
CSI Project No. 7005.66A

Soil Boring	Sample Depth ¹	Total OVA Concentration (ppm) ²	Methane Concentration (ppm)	Net OVA ³ Concentration (ppm)	Comments
A	2.0	20	20	0	no odor strong petroleum odor
	4.0	1000+	1000+	---	
	6.0	420	280	140	
B	2.0	240	240	0	no odor petroleum odor
	4.0	1000+	1000+	---	
	6.0	880	510	370	
C	2.0	6	BDL ⁴	6	slight petroleum odor
	4.0	BDL	NT ⁵	BDL	
	6.0	20	20	0	
D	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	35	35	0	
E	2.0	BDL	NT	BDL	very slight petroleum odor
	4.0	BDL	NT	BDL	
	6.0	6	BDL	6	
F	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	BDL	NT	BDL	
G	2.0	BDL	NT	BDL	no odor
	4.0	BDL	NT	BDL	
	6.0	80	40	40	
H	2.0	BDL	NT	BDL	
	4.0	3	3	0	
	6.0	30	30	0	
I	2.0	3	3	0	no odor
	4.0	BDL	NT	BDL	
	6.0	60	50	10	
J	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	BDL	NT	BDL	
K	2.0	20	20	0	very slight petroleum odor petroleum odor
	4.0	42	32	10	
	6.0	1000+	1000+	---	
L	2.0	BDL	NT	BDL	very strong petroleum odor very strong petroleum odor
	4.0	120	26	94	
	6.0	480	320	160	
M	2.0	180	180	0	
	4.0	140	140	0	
	6.0	120	120	0	
N	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	20	20	0	

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	6.0	20	20	0	
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	6.0	35	35	0	
E	2.0	BDL	NT	BDL	very slight petroleum odor
	4.0	BDL	NT	BDL	
	6.0	6	BDL	6	
F	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	BDL	NT	BDL	
G	2.0	BDL	NT	BDL	no odor
	4.0	BDL	NT	BDL	
	6.0	80	40	40	
H	2.0	BDL	NT	BDL	
	4.0	3	3	0	
	6.0	30	30	0	
I	2.0	3	3	0	no odor
	4.0	BDL	NT	BDL	
	6.0	60	50	10	
J	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	BDL	NT	BDL	
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	4.0	120	26	94	
	6.0	480	320	160	
M	2.0	180	180	0	
	4.0	140	140	0	
	6.0	120	120	0	
N	2.0	BDL	NT	BDL	
	4.0	BDL	NT	BDL	
	6.0	20	20	0	

APPENDIX 8

SOIL SURVEY – POLK & HILLSBOROUGH COUNTIES



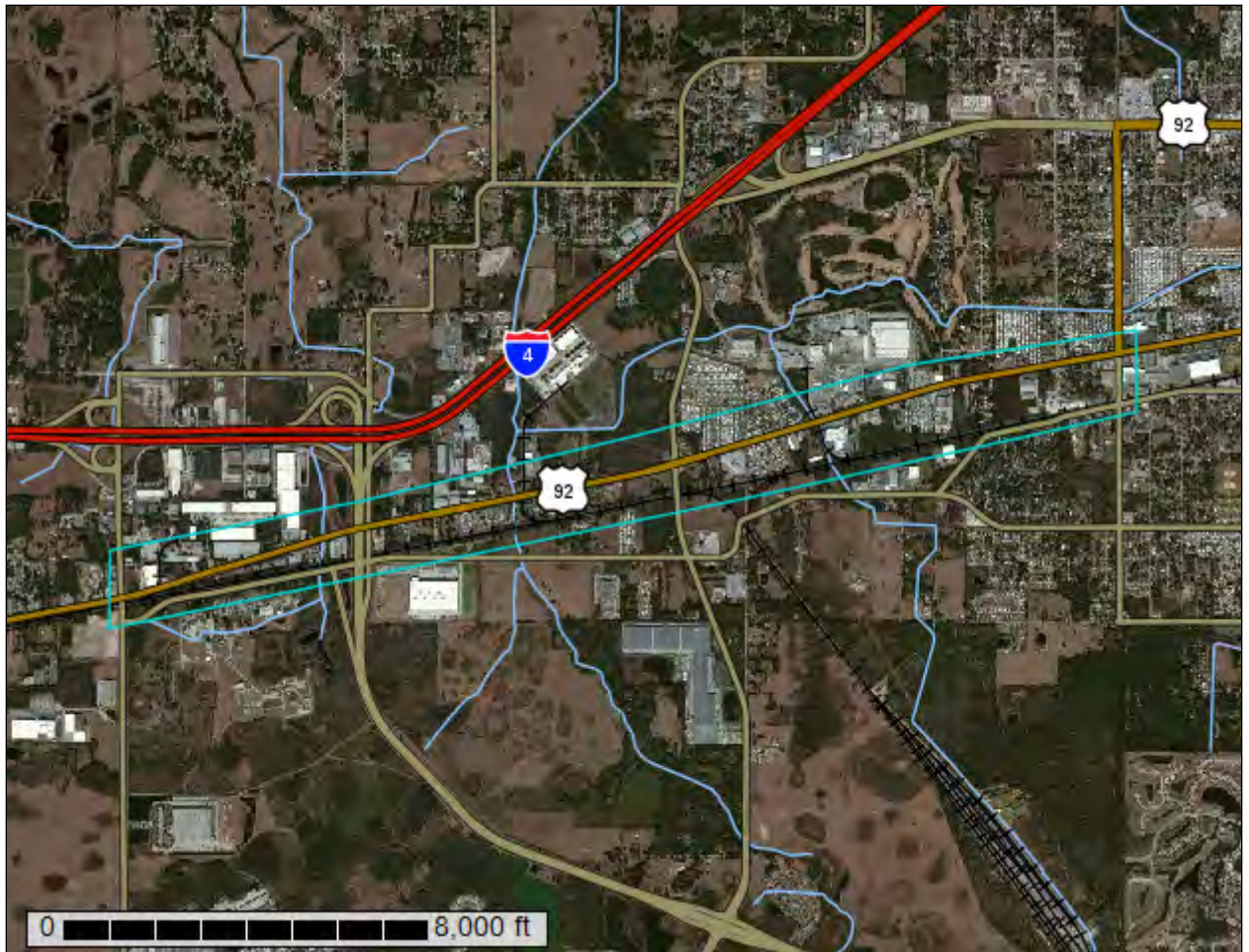
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Hillsborough County, Florida, and Polk County, Florida



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hillsborough County, Florida
 Survey Area Data: Version 11, Dec 17, 2013

Soil Survey Area: Polk County, Florida
 Survey Area Data: Version 9, Dec 19, 2013






























Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 10, 2010—Mar 13, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soil Map Unit Polygons	 Stony Spot
 Soil Map Unit Lines	 Very Stony Spot
 Soil Map Unit Points	 Wet Spot
 Special Point Features	 Other
 Blowout	 Special Line Features
 Borrow Pit	Water Features
 Clay Spot	 Streams and Canals
 Closed Depression	Transportation
 Gravel Pit	 Rails
 Gravelly Spot	 Interstate Highways
 Landfill	 US Routes
 Lava Flow	 Major Roads
 Marsh or swamp	 Local Roads
 Mine or Quarry	Background
 Miscellaneous Water	 Aerial Photography
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

Map Unit Legend

Hillsborough County, Florida (FL057)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5	Basinger, Holopaw, and Samsula soils, depressional	1.8	0.2%
33	Ona fine sand	0.0	0.0%
35	Orlando fine sand, 0 to 5 percent slopes	0.1	0.0%
46	St. Johns fine sand	0.0	0.0%
47	Seffner fine sand	1.5	0.2%
52	Smyrna fine sand	5.1	0.6%
Subtotals for Soil Survey Area		8.5	0.9%
Totals for Area of Interest		897.8	100.0%

Polk County, Florida (FL105)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7	Pomona fine sand	417.8	46.5%
13	Samsula muck	1.8	0.2%
15	Tavares fine sand, 0 to 5 percent slopes	6.7	0.8%
16	Urban land	83.6	9.3%
17	Smyrna and Myakka fine sands	70.1	7.8%
21	Immokalee sand	22.5	2.5%
25	Placid and Myakka fine sands, depressional	2.0	0.2%
31	Adamsville fine sand, 0 to 2 percent slopes	1.1	0.1%
32	Kaliga muck	12.1	1.4%
33	Holopaw fine sand, depressional	12.2	1.4%
36	Basinger mucky fine sand, depressional	9.7	1.1%
49	Adamsville-Urban land complex	16.8	1.9%
51	Pomona-Urban land complex	115.6	12.9%
53	Myakka-Immokolee-Urban land complex	71.5	8.0%
59	Arents-Urban land complex, 0 to 5 percent slopes	0.9	0.1%
60	Arents, sandy	40.1	4.5%
99	Water	4.4	0.5%
Subtotals for Soil Survey Area		889.3	99.1%
Totals for Area of Interest		897.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly

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indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Hillsborough County, Florida

5—Basinger, Holopaw, and Samsula soils, depressional

Map Unit Setting

National map unit symbol: 1j731
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 324 to 354 days
Farmland classification: Not prime farmland

Map Unit Composition

Basinger and similar soils: 35 percent
Holopaw and similar soils: 31 percent
Samsula and similar soils: 18 percent
Minor components: 16 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Basinger

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand
E - 7 to 28 inches: fine sand
B/E - 28 to 42 inches: fine sand
C - 42 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: Freshwater marshes and ponds (R155XY010FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Unnamed (G155XU800FL)

Description of Holopaw

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 52 inches: fine sand
Btg - 52 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: Freshwater marshes and ponds (R155XY010FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Unnamed (G155XU800FL)

Description of Samsula

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over sandy marine deposits

Typical profile

Oa - 0 to 34 inches: muck
C - 34 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 inches

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Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: Freshwater marshes and ponds (R155XY010FL)
Other vegetative classification: Organic soils in depressions and on flood plains (G155XB645FL), Unnamed (G155XU850FL)

Minor Components

Eaton, depressional

Percent of map unit: 6 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Interfluve, talf, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Other vegetative classification: Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL), Unnamed (G155XU800FL)

Ona

Percent of map unit: 5 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R155XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU002FL)

Felda

Percent of map unit: 5 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Slough (R155XY011FL)
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Unnamed (G155XU003FL)

33—Ona fine sand

Map Unit Setting

National map unit symbol: 1j72k
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 324 to 354 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Ona and similar soils: 91 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ona

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
Bh - 4 to 22 inches: fine sand
Cg - 22 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: South florida flatwoods (R155XY003FL)

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Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU002FL)

Minor Components

Basinger

Percent of map unit: 5 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R155XY010FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Unnamed (G155XU800FL)

Immokalee

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: South florida flatwoods (R155XY003FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU013FL)

35—Orlando fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1j72m

Elevation: 50 to 150 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 324 to 354 days

Farmland classification: Not prime farmland

Map Unit Composition

Orlando and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Orlando

Setting

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Sandy marine deposits over fluviomarine deposits

Typical profile

A - 0 to 20 inches: fine sand

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C - 20 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Ecological site: Longleaf pine-turkey oak hills (R155XY002FL)

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G155XB111FL), Unnamed (G155XU141FL)

Minor Components

Candler

Percent of map unit: 3 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: Longleaf pine-turkey oak hills (R155XY002FL)

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G155XB111FL), Unnamed (G155XU195FL)

Seffner

Percent of map unit: 2 percent

Landform: Rises on marine terraces, flats on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: Upland hardwood hammocks (R155XY008FL)

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G155XB131FL), Unnamed (G155XU076FL)

46—St. Johns fine sand

Map Unit Setting

National map unit symbol: 1j72z

Elevation: 10 to 150 feet

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Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 324 to 354 days
Farmland classification: Farmland of unique importance

Map Unit Composition

St. Johns and similar soils: 87 percent
Minor components: 13 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of St. Johns

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 12 inches: fine sand
E - 12 to 29 inches: fine sand
Bh - 29 to 46 inches: fine sand
C - 46 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: South florida flatwoods (R155XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands
(G155XB141FL), Unnamed (G155XU003FL)

Minor Components

Basinger

Percent of map unit: 7 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Freshwater marshes and ponds (R155XY010FL)

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Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Unnamed (G155XU800FL)

Floridana

Percent of map unit: 6 percent

Landform: Drainageways on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Linear

Across-slope shape: Concave

Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Unnamed (G155XU002FL)

47—Seffner fine sand

Map Unit Setting

National map unit symbol: 1j730

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 324 to 354 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Seffner and similar soils: 92 percent

Minor components: 8 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Seffner

Setting

Landform: Flats on marine terraces, rises on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 13 inches: fine sand

AC - 13 to 21 inches: fine sand

C - 21 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat poorly drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 18 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

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Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Ecological site: Upland hardwood hammocks (R155XY008FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G155XB131FL), Unnamed (G155XU076FL)

Minor Components

Smyrna

Percent of map unit: 4 percent
Landform: Rises on marine terraces, flats on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R155XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU013FL)

Ona

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R155XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU002FL)

52—Smyrna fine sand

Map Unit Setting

National map unit symbol: 1j734
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 324 to 354 days
Farmland classification: Not prime farmland

Map Unit Composition

Smyrna and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Smyrna

Setting

Landform: Flats on marine terraces, rises on marine terraces

Custom Soil Resource Report

Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
E - 4 to 12 inches: fine sand
Bh - 12 to 20 inches: fine sand
C - 20 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R155XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands
(G155XB141FL), Unnamed (G155XU013FL)

Minor Components

Pomello

Percent of map unit: 3 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Sand pine scrub (R155XY001FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands
(G155XB131FL), Unnamed (G155XU130FL)

Wabasso

Percent of map unit: 2 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R155XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands
(G155XB141FL), Unnamed (G155XU003FL)

Polk County, Florida

7—Pomona fine sand

Map Unit Setting

National map unit symbol: 1jttq
Elevation: 20 to 120 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Pomona, non-hydric, and similar soils: 70 percent
Pomona, hydric, and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pomona, Non-hydric

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 21 inches: sand
Bh - 21 to 26 inches: fine sand
E' - 26 to 48 inches: fine sand
Btg - 48 to 73 inches: fine sandy loam
Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R154XY003FL)

Custom Soil Resource Report

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

Description of Pomona, Hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 21 inches: sand
Bh - 21 to 26 inches: fine sand
E' - 26 to 48 inches: fine sand
Btg - 48 to 73 inches: fine sandy loam
Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

Minor Components

Myakka

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

Smyrna, non-hydric

Percent of map unit: 3 percent
Landform: Flats on marine terraces

Custom Soil Resource Report

Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Wauchula, non-hydric

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G154XB241FL), Unnamed (G155XU003FL)

13—Samsula muck

Map Unit Setting

National map unit symbol: 1jttx
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Samsula and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Samsula

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over sandy marine deposits

Typical profile

Oa - 0 to 31 inches: muck
Cg - 31 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: A/D

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Organic soils in depressions and on flood plains (G154XB645FL), Unnamed (G155XU850FL)

Minor Components

Hontoon

Percent of map unit: 10 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Organic soils in depressions and on flood plains (G154XB645FL), Unnamed (G154XU850FL)

Placid, depressional

Percent of map unit: 10 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

15—Tavares fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1jtz

Elevation: 10 to 150 feet

Mean annual precipitation: 46 to 54 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Tavares and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tavares

Setting

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 8 inches: fine sand

C - 8 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 50.02 in/hr)

Depth to water table: About 42 to 72 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Ecological site: Longleaf pine-turkey oak hills (R154XY002FL)

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL), Unnamed (G154XU142FL)

Minor Components

Millhopper

Percent of map unit: 3 percent

Landform: Ridges on marine terraces, knolls on marine terraces

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: Upland hardwood hammocks (R154XY008FL)

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL), Unnamed (G154XU142FL)

Candler

Percent of map unit: 3 percent

Landform: Ridges on marine terraces, knolls on marine terraces

Landform position (three-dimensional): Interfluve

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Longleaf pine-turkey oak hills (R154XY002FL)
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL), Unnamed (G154XU192FL)

Narcoossee

Percent of map unit: 3 percent
Landform: Rises on marine terraces
Landform position (three-dimensional): Interfluve, rise
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Upland hardwood hammocks (R154XY008FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL)

Zolfo

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), Unnamed (G155XU077FL)

Adamsville

Percent of map unit: 3 percent
Landform: Rises on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), Unnamed (G154XU077FL)

16—Urban land

Map Unit Setting

National map unit symbol: 1jtv0
Elevation: 10 to 150 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G154XU900FL)

Minor Components

Adamsville

Percent of map unit: 5 percent
Landform: Rises on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G154XU077FL)

Millhopper

Percent of map unit: 5 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Upland hardwood hammocks (R154XY008FL)
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G154XU142FL)

Apopka

Percent of map unit: 5 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Longleaf pine-turkey oak hills (R154XY002FL)
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G154XU142FL)

17—Smyrna and Myakka fine sands

Map Unit Setting

National map unit symbol: 1jtv1

Custom Soil Resource Report

Elevation: 20 to 120 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Myakka and similar soils: 40 percent
Smyrna, non-hydric, and similar soils: 40 percent
Smyrna, hydric, and similar soils: 15 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Smyrna, Non-hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
E - 4 to 12 inches: fine sand
Bh - 12 to 25 inches: fine sand
E' - 25 to 42 inches: fine sand
B'h - 42 to 48 inches: fine sand
C - 48 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Description of Myakka

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand
E - 7 to 25 inches: fine sand
Bh - 25 to 36 inches: fine sand
C - 36 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands
(G154XB141FL), Unnamed (G155XU003FL)

Description of Smyrna, Hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
E - 4 to 12 inches: fine sand
Bh - 12 to 25 inches: fine sand
E' - 25 to 42 inches: fine sand
B'h - 42 to 48 inches: fine sand
C - 48 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)
Depth to water table: About 0 to 12 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Minor Components

Basinger

Percent of map unit: 2 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Slough (R154XY011FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

Immokalee, non-hydric

Percent of map unit: 1 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Pomona, non-hydric

Percent of map unit: 1 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

Ona, non-hydric

Percent of map unit: 1 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU002FL)

21—Immokalee sand

Map Unit Setting

National map unit symbol: 1jtv4
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Immokalee, non-hydric, and similar soils: 75 percent
Immokalee, hydric, and similar soils: 10 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Immokalee, Non-hydric

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: sand
E - 7 to 39 inches: sand
Bh - 39 to 58 inches: sand
E' - 58 to 66 inches: sand
B'h - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Description of Immokalee, Hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: sand
E - 7 to 39 inches: sand
Bh - 39 to 58 inches: sand
E' - 58 to 66 inches: sand
B'h - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Minor Components

Smyrna, non-hydric

Percent of map unit: 5 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU013FL)

Myakka

Percent of map unit: 5 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

Basinger

Percent of map unit: 5 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Slough (R154XY011FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

25—Placid and Myakka fine sands, depressional

Map Unit Setting

National map unit symbol: 1jtv8
Elevation: 20 to 150 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Placid, depressional, and similar soils: 60 percent
Myakka, depressional, and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Placid, Depressional

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 18 inches: fine sand
Cg - 18 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Description of Myakka, Depressional

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 3 inches: fine sand
E - 3 to 25 inches: fine sand
Bh - 25 to 35 inches: fine sand
Cg - 35 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: Freshwater marshes and ponds (R154XY010FL)

Custom Soil Resource Report

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Minor Components

Ona, hydric

Percent of map unit: 3 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: South florida flatwoods (R154XY003FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU002FL)

Basinger, depressional

Percent of map unit: 3 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Pomona, hydric

Percent of map unit: 2 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: South florida flatwoods (R154XY003FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

St. johns, hydric

Percent of map unit: 2 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: Cutthroat seeps (R154XY007FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

31—Adamsville fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2r8h8

Elevation: 10 to 100 feet

Custom Soil Resource Report

Mean annual precipitation: 47 to 56 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 290 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Adamsville and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Adamsville

Setting

Landform: Rises on marine terraces, flats on marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

Ap - 0 to 7 inches: fine sand
C1 - 7 to 20 inches: fine sand
C2 - 20 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 18 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), Unnamed (G154XB131FL)

Minor Components

Myakka

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R155XY003FL)

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Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU003FL)

Basinger

Percent of map unit: 2 percent

Landform: Drainageways

Landform position (three-dimensional): Dip, talf

Down-slope shape: Concave, linear

Across-slope shape: Concave, convex

Ecological site: Slough (R155XY011FL)

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), Unnamed (G155XU003FL)

32—Kaliga muck

Map Unit Setting

National map unit symbol: 1jtvj

Mean annual precipitation: 46 to 54 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Kaliga and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kaliga

Setting

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Herbaceous organic material over stratified loamy marine deposits

Typical profile

Oa - 0 to 30 inches: muck

Cg1 - 30 to 75 inches: loam

Cg2 - 75 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Custom Soil Resource Report

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very high (about 15.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Organic soils in depressions and on flood plains (G154XB645FL), Unnamed (G155XU850FL)

Minor Components

Samsula

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Organic soils in depressions and on flood plains (G154XB645FL), Unnamed (G155XU850FL)

Placid, depressional

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Hontoon

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Organic soils in depressions and on flood plains (G154XB645FL), Unnamed (G154XU850FL)

33—Holopaw fine sand, depressional

Map Unit Setting

National map unit symbol: 1jtvh
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days

Custom Soil Resource Report

Farmland classification: Not prime farmland

Map Unit Composition

Holopaw, depressional, and similar soils: 70 percent

Minor components: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holopaw, Depressional

Setting

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand

Eg - 6 to 41 inches: fine sand

Btg - 41 to 65 inches: sandy clay loam

Cg - 65 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: A/D

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Minor Components

Felda, depressional

Percent of map unit: 10 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G154XB245FL), Unnamed (G155XU800FL)

Floridana, depressional

Percent of map unit: 10 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G154XB245FL), Unnamed (G155XU800FL)

Basinger, depressional

Percent of map unit: 10 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: Freshwater marshes and ponds (R154XY010FL)

Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

36—Basinger mucky fine sand, depressional

Map Unit Setting

National map unit symbol: 1jtvI

Elevation: 10 to 150 feet

Mean annual precipitation: 46 to 54 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 350 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Basinger, depressional, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Basinger, Depressional

Setting

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: mucky fine sand

E - 7 to 35 inches: fine sand

E/Bh - 35 to 45 inches: fine sand

C - 45 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Minor Components

Pompano

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Slough (R154XY011FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU800FL)

Placid, depressional

Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL), Unnamed (G155XU800FL)

Samsula

Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Freshwater marshes and ponds (R154XY010FL)
Other vegetative classification: Organic soils in depressions and on flood plains (G154XB645FL), Unnamed (G155XU850FL)

St. Johns, hydric

Percent of map unit: 3 percent

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Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Cutthroat seeps (R154XY007FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL), Unnamed (G155XU003FL)

49—Adamsville-Urban land complex

Map Unit Setting

National map unit symbol: 1jtvz
Elevation: 10 to 120 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Adamsville and similar soils: 60 percent
Urban land: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Adamsville

Setting

Landform: Rises on marine terraces, flats on marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
C - 6 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU077FL)

Description of Urban Land

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU900FL)

Minor Components

Tavares

Percent of map unit: 5 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Longleaf pine-turkey oak hills (R154XY002FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G154XU142FL)

Satellite

Percent of map unit: 5 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Sand pine scrub (R154XY001FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU077FL)

51—Pomona-Urban land complex

Map Unit Setting

National map unit symbol: 1jtw1
Elevation: 20 to 120 feet
Mean annual precipitation: 46 to 54 inches

Custom Soil Resource Report

Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Pomona, non-hydric, and similar soils: 45 percent
Urban land: 30 percent
Pomona, hydric, and similar soils: 10 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pomona, Non-hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 21 inches: sand
Bh - 21 to 26 inches: loamy fine sand
E' - 26 to 48 inches: fine sand
Btg - 48 to 73 inches: fine sandy loam
Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU003FL)

Description of Urban Land

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU900FL)

Description of Pomona, Hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 21 inches: sand
Bh - 21 to 26 inches: loamy fine sand
E' - 26 to 48 inches: fine sand
Btg - 48 to 73 inches: fine sandy loam
Cg - 73 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU003FL)

Minor Components

Wauchula, non-hydric

Percent of map unit: 5 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU003FL)

Immokalee

Percent of map unit: 5 percent

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Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU013FL)

Myakka

Percent of map unit: 5 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU003FL)

53—Myakka-Immokolee-Urban land complex

Map Unit Setting

National map unit symbol: 1jtw2
Elevation: 20 to 120 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Myakka, non-hydric, and similar soils: 30 percent
Immokalee and similar soils: 25 percent
Urban land: 25 percent
Myakka, hydric, and similar soils: 10 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myakka, Non-hydric

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand
E - 7 to 25 inches: fine sand
Bh - 25 to 36 inches: fine sand

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C - 36 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU003FL)

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU900FL)

Description of Immokalee

Setting

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: sand

E - 7 to 39 inches: sand

Bh - 39 to 58 inches: sand

E' - 58 to 66 inches: sand

B'h - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: High

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU013FL)

Description of Myakka, Hydric

Setting

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy marine deposits

Typical profile

A - 0 to 7 inches: fine sand

E - 7 to 25 inches: fine sand

Bh - 25 to 36 inches: fine sand

C - 36 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL), Unnamed (G155XU003FL)

Minor Components

Basinger

Percent of map unit: 3 percent

Landform: Drainageways on marine terraces

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Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Slough (R154XY011FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU003FL)

Ona, non-hydric

Percent of map unit: 3 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU002FL)

Pomona, non-hydric

Percent of map unit: 2 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: South florida flatwoods (R154XY003FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU003FL)

Pomello

Percent of map unit: 2 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve, rise
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Sand pine scrub (R154XY001FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL), Unnamed (G155XU127FL)

59—Arents-Urban land complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1jtw7
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Arents and similar soils: 55 percent

Urban land: 45 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arents

Setting

Landform: Rises on marine terraces

Landform position (three-dimensional): Rise

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Altered marine deposits

Typical profile

C - 0 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU900FL)

Description of Urban Land

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluve, talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: No parent material

Interpretive groups

Land capability classification (irrigated): None specified

Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU900FL)

60—Arents, sandy

Map Unit Setting

National map unit symbol: 1jtw8
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Arents, sandy, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arents, Sandy

Setting

Landform: Rises on marine terraces
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Altered marine deposits

Typical profile

AC - 0 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to 50.02 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Other vegetative classification: Forage suitability group not assigned (G154XB999FL), Unnamed (G155XU900FL)

99—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Interpretive groups

Land capability classification (irrigated): None specified

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)

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Custom Soil Resource Report

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APPENDIX 9

COMMENTS

Submittal Report

Financial Project: 433558-1-22-01
 Submittal Phase: PD&E
 Received Date: 9/18/2014
 Grace Period: 0
 Status: OPEN
 Create User Id: PD101AS
 Submittal Type: POND SITING REPORT
 Submittal Staff Type: CONSULTANT
 Response Due Date: 11/18/2014
 District: FIRST
 Create Date: 9/18/2014
 Last Update: 9/18/2014
 Last Update User Id: PD101AS

Description:

This email serves as a transmittal letter to review the DRAFT Pond Siting Report and the DRAFT Location Hydraulic Report. Please provide any comments you have on these reports. The documents can be found in the ERC under the documents tab.

Assignments:

Name	Assignment	Due Date	Status	Comments
Antone Sherrard	IN-HOUSE PROJECT MANAGER	10/18/2014	ACTIVE	
BRADLEY BAYNE	REVIEWER	10/18/2014	ACTIVE	
Christopher Forestt	REVIEWER	10/18/2014	ACTIVE	
No	Status	Current Holder	Reference	Categories
1	RESPONSE ACCEPTED		DRAFT PSR Review	CONTAMINATION
Created By	Created On	Version	Delegate For	
Christopher Forestt	9/24/2014	1		
Please see comments provided by Jeff James, the DCIC.				
SEAN DONAHOO	11/14/2014	1		Erik Fleming
See response for #23.				
Christopher Forestt	11/17/2014	1		
I cannot see the response.				
Cynthia Sykes	LEAD REVIEWER	10/18/2014	ACTIVE	

No	Status	Current Holder	Reference	Categories
9	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
The only dimensions provided in the typical sections in Figure 3 are the existing and proposed ROW. Please provide additional dimensions for the roadway features in this figure				
SEAN DONAHO		11/14/2014	1	Erik Fleming
Additional dimensions have been added to the typical sections shown in Figure 3.				
JUAN HINCAPIE		11/26/2014	1	
Response Accepted & Comment Closed				
No	Status	Current Holder	Reference	Categories
10	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
The meeting minutes from the Drainage Kickoff Meeting and the SWFVMD Coordination Meeting list the incorrect WBIDs for Itchepakesassa Creek (WBID 1495B) and Lake Hunter Outfall (1543A).				
SEAN DONAHO		11/14/2014	1	Erik Fleming
The meeting notes have been revised to reflect the correct WBID numbers.				
JUAN HINCAPIE		11/26/2014	1	
Response Accepted & Comment Closed				
No	Status	Current Holder	Reference	Categories
11	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
Section 4.4 states that "offsite runoff was assumed by-passed using off-site right-of-way ditches or piping." Was any consideration given to comingling these flows within the FDOT ROW and ponds utilizing the flexibility provided by HB 599?				
SEAN DONAHO		11/14/2014	1	Erik Fleming
Offsite flows could be allowed to pass through the pond located in basins 1, 4 and 5. For basins 2, 3 and 6, basins limits are being increased from the pre-developed condition and over-attenuation is being provided for this additional basin area. Throughout the extended limits of these basins, offsite runoff would need to be kept separate to avoid having to over-attenuate the offsite flows being directed to a different outfall location than in the pre-developed condition. The Pond Siting Report text has been revised to discuss this option.				
JUAN HINCAPIE		11/26/2014	1	
Response Accepted & Comment Closed				
No	Status	Current Holder	Reference	Categories
12	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
Section 5.1.1 mentions that a 7-foot deep depression located adjacent to Pond 1 is dry, but the SHW estimate for the proposed pond is estimated to be only 2 foot below the ground surface (5 feet above the bottom of the adjacent depression). The 2-foot depth for the SHW estimate seems overly conservative at this location. Could dry retention be considered at this location?				
SEAN DONAHO		11/14/2014	1	Erik Fleming
Without geotechnical analysis being performed, SHW estimates were based on information provided in the Soil Survey of Polk County. For the Pomona fine sand (# 7) found in this pond site, the Soil Survey states the average SHW is 1 foot below existing ground. The adjacent depressional area that appears dry was used to justify lowering the SHW for this pond site to be an assumed 2 feet below existing ground. After a geotechnical analysis is performed to determine actual SHW elevations, dry retention could be considered at this location depending on the final low edge of pavement elevations.				
JUAN HINCAPIE		11/26/2014	1	
Response Accepted & Comment Closed				

No	Status	Current Holder	Reference	Categories
13	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
<p>The pond site for SMF1 is located within a stockpile yard for Bartow Operations maintenance staff. Has any coordination taken place with FDOT to verify the proposed pond site is acceptable considering its current use?</p> <p>SEAN DONAHOO 11/14/2014 1 Erik Fleming</p> <p>Dennis Murray at the FDOT Bartow Operations office was contacted and stated the maintenance department currently uses the SMF 1 parcel when working on that side of the District. Mr. Murray stated that the site was important to the Maintenance Department and it would be his preference that they not lose the site. I mentioned to Mr. Murray that this FDOT owned parcel was the only undeveloped parcel large enough to use for stormwater management within this basin. I also mentioned that since the project would require right of way for the road widening and stormwater management, another remnant of a parcel could potentially become available during the construction phase of the project which could be used by the Maintenance Department in exchange for the SMF 1 parcel. A telephone conversation record was added in the correspondence appendix of the Pond Siting Report and also to the SMF 1 drainage narrative text.</p> <p>JUAN HINCAPIE 11/26/2014 1</p> <p>Response Accepted & Comment Closed</p>				
No	Status	Current Holder	Reference	Categories
14	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
<p>Appendix B (B-11) includes information on flooding within the project limits, however this information is not discussed in the body of the PSR.</p> <p>SEAN DONAHOO 11/14/2014 1 Erik Fleming</p> <p>The flooding areas are discussed in Section 3.2 of the Draft Location Hydraulic Report.</p> <p>JUAN HINCAPIE 11/26/2014 1</p> <p>Response Accepted & Comment Closed</p>				
No	Status	Current Holder	Reference	Categories
15	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
<p>Basin 1 shows a large reduction in project area for the post condition compared to the pre condition. Please explain the benefit of this shift and consider including the explanation in the PSR.</p> <p>SEAN DONAHOO 11/14/2014 1 Erik Fleming</p> <p>The shift in basin boundaries between basins 1 and 2 is due to the lack of an available pond site west of the Polk Parkway. There is an existing pond site on the west side of the Polk Parkway and I-4 interchange, north of US 92; however, this site was designed by the FDOT Turnpike to handle the ultimate build-out for the Polk Parkway. This pond was also designed with a slurry wall on the west side to act as a groundwater barrier between the existing wetland to the west and the pond site. This subject was discussed with Carl Spirio at the Drainage Methodology Kickoff Meeting. The existing US 92 profile was favorable for sending water that could not be drained to SMF 1 to the east into basin 2 and providing over-attenuation in SMF 2. Additional text has been added to the Pond Siting Report discussing this.</p> <p>JUAN HINCAPIE 11/26/2014 1</p> <p>Response Accepted & Comment Closed</p>				
No	Status	Current Holder	Reference	Categories
16	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
<p>The report does not seem to document SHW elevations from adjacent ponds and permits along the project. Consider adding this information to your analysis to help establish the proposed SHW for each pond</p> <p>SEAN DONAHOO 11/14/2014 1 Erik Fleming</p> <p>Seasonal high water elevations for permitted ponds within close proximity to the proposed ponds have been added to the pond calculation notes for SMF 1, 2 & 6. Refer to the revised report.</p> <p>JUAN HINCAPIE 11/26/2014 1</p> <p>Response Accepted & Comment Closed</p>				

No	Status	Current Holder	Reference	Categories
17	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By	Created On	Version	Delegate For	
JUAN HINCAPIE	10/17/2014	1		

Pond Calculations pg C-6: The SHW elevation (133.5 ft) within SMF 2 is shown to be 5.5 feet higher than the low edge of pavement elevation (128 ft) within basin 2. Please explain the differences in these elevations. Also verify the dimensions of this pond provide sufficient area for tying to existing ground from the proposed pond berm elevation SEAN DONAHOO 11/14/2014 1 Erik Fleming

The SMF 2 SHW estimate of 133.5' is based on the Soil Survey of Polk County estimation for Pomona fine sand (# 7) of the SHW being encountered 1 foot below existing ground. SMF 2 is located between stations 68+00 and 72+00. The low edge of pavement within Basin 2 was determined to be elevation 128' near the Hamilton Branch Bridge at station 95+50. The only undeveloped parcel along this segment is located approximately 2400' from the low point in the basin. This pond site will require a liner to lower the water table to meet stormwater criteria. Sufficient right of way is provided to tie to existing ground at a slope of 1:3 or flatter.

JUAN HINCAPIE 11/26/2014 1

Response Accepted & Comment Closed

No	Status	Current Holder	Reference	Categories
18	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By	Created On	Version	Delegate For	
JUAN HINCAPIE	10/17/2014	1		

Pond Calculations pg C-9: The Water Quality Calculations for SMF 3 do not appear to provide adequate volumetric attenuation for the design storm event. Please verify SEAN DONAHOO 11/14/2014 1 Erik Fleming

Sufficient attenuation volume is provided in SMF 3. The required treatment volume is 0.78 ac-ft and the required attenuation volume is 4.29 ac-ft. A total volume of 5.51 ac-ft is provided for SMF 3 between the control elevation and the DHW. The weir was lowered to elevation 122.5 to make the provided treatment volume closer to the required treatment volume. Additional text has been added to the Pond Calculations to show the required versus provided volumes.

JUAN HINCAPIE 11/26/2014 1

Agree that lowering the weir elevation will accommodate the required attenuation volume.

No	Status	Current Holder	Reference	Categories
19	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By	Created On	Version	Delegate For	
JUAN HINCAPIE	10/17/2014	1		

Pond Calculations pg C-21: No pollutant loading analysis was provided for the SMF 3 through 6. Please provide the calculations for these ponds SEAN DONAHOO 11/14/2014 1 Erik Fleming

The impaired waterbody calculations were revised to show the ponds broken out into their individual basins.

JUAN HINCAPIE 11/26/2014 1

Response Accepted & Comment Closed

No	Status	Current Holder	Reference	Categories
20	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By	Created On	Version	Delegate For	
JUAN HINCAPIE	10/17/2014	1		

Pond Calculations pg C-21: No stormwater quality or quantity calculations were provided for the regional pond alternative. Only pollutant loading calculations were provided. Is the regional pond proposed to supplement the six SMF sites and provide nutrient reductions for the entire project or is the pond meant to provide water quality, water quantity and nutrient loading reduction requirements as a separate alternative from the six individual pond sites? SEAN DONAHOO 11/14/2014 1 Erik Fleming

Water quality calculations have been added to the Pond Calculations which address both presumptive criteria and impaired waterbody nutrient loading criteria for the regional pond. The regional pond is a separate alternative to the six separate stormwater management facilities. Basins 2 through 6 drain through Hamilton Branch at the regional pond site before its confluence with Itchepackassassa Creek. The regional pond can provide water quality treatment for the proposed improvements for the majority of the project site as well as for existing untreated runoff contributing from residential, commercial and industrial pollution sources upstream. Basin 1 discharges through another tributary before it merges with Itchepackassassa Creek; however, the additional treatment provided to existing untreated runoff can offset the Basin 1 project area not directed through the regional pond. Water quantity attenuation could be provided in the regional pond, however this does not address the flow rates between the project site and the regional pond. Additional runoff due to the proposed improvements will need to be attenuated to pre-developed rates before leaving the project right of way through a combination of providing attenuation in the floodplain compensation sites as well as an additional 10' of right of way that will be needed on both the north and south sides of the roadway where runoff can be attenuated in roadside ditches. The Pond Sting Report text has been revised to include additional discussion of the regional pond site.

JUAN HINCAPIE 11/26/2014 1

Response Accepted & Comment Closed

No	Status	Current Holder	Reference	Categories
21	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
Pond Calculations pg C-21: Please provide an exhibit and additional information to illustrate what areas drain to the proposed regional pond for treatment				
SEAN DONAHOO		11/14/2014	1	Erik Fleming
A Regional Pond Exhibit has been added to the Pond Calculations showing the area draining to the proposed regional pond.				
JUAN HINCAPIE		11/26/2014	1	
Response Accepted & Comment Closed				
No	Status	Current Holder	Reference	Categories
22	RESPONSE ACCEPTED		PSR	DRAINAGE
Created By				
JUAN HINCAPIE		Created On	Version	Delegate For
		10/17/2014	1	
The basin exhibits in Appendix C do not appear to depict the floodplain boundaries although the exhibit legend shows that floodplains should be shown. Please include floodplain information for these exhibits				
SEAN DONAHOO		11/14/2014	1	Erik Fleming
Floodplain shapes have been added to the pond site exhibits.				
JUAN HINCAPIE		11/26/2014	1	
Response Accepted & Comment Closed				
Karina Della Sera		LEAD REVIEWER	10/18/2014	ACTIVE

Martin Horwitz REVIEWER 10/18/2014 ACTIVE

No	Status	Current Holder	Reference	Categories
2	RESPONSE ACCEPTED			ENVIRONMENTAL MANAGEMENT OFF.

Created By	Created On	Version	Delegate For
Martin Horwitz	10/13/2014	1	

Two minor edits.
 #1. In Section 1.1 pg. 3, 1st sentence. "(FDOT) has performed". Delete; has insert: is
 #2. In Section 6.1.1 on pg. 18, Low=Little Wetland Involvement. recommend making Wetland lower case to be consistent with others.
 SEAN DONAHOO 11/14/2014 Erik Fleming

Section 1.1 page 3 and Section 6.1.1 page 18 have been revised accordingly.

Martin Horwitz	11/17/2014	1	
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Response Accepted & Comment Closed

No	Status	Current Holder	Reference	Categories
3	RESPONSE ACCEPTED			CULTURAL RESOURCES

Created By	Created On	Version	Delegate For
Martin Horwitz	10/13/2014	1	

Section 6.1.4, 2nd paragraph, 2nd sentence. Please revise the second sentence because it is confusing the way it is worded. Maybe start by stating: Sites with a "Low"
 SEAN DONAHOO 11/14/2014 Erik Fleming

Section 6.1.4 has been revised as noted.

Martin Horwitz	11/17/2014	1	
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Response Accepted & Comment Closed

No	Status	Current Holder	Reference	Categories
5	RESPONSE ACCEPTED			ENVIRONMENTAL MANAGEMENT OFF.

Created By	Created On	Version	Delegate For
Martin Horwitz	10/13/2014	1	

Recommend adding dividers to the appendices or renaming because there are multiple Appendix A within your main appendices.

SEAN DONAHOO	11/14/2014	1	
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The main Pond Siting Report appendices have been revised to use a numerical naming convention.

Martin Horwitz	11/17/2014	1	
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Response Accepted & Comment Closed

No	Status	Current Holder	Reference	Categories
6	RESPONSE ACCEPTED			WETLANDS

Created By	Created On	Version	Delegate For
Martin Horwitz	10/13/2014	1	

Appendix F Wetlands & Protected Species: I assume wetland U/MAM, or WRAP depending on Mit. Bank, will be done and included with the WER. However there is no mention of potential mitigation banks and that a potential Functional Loss will be calculated.

SEAN DONAHOO	11/14/2014	1	
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Wetlands will be assessed using the Uniform Mitigation Assessment Method (UMAM) and any impacts to wetland systems will be mitigated through purchase of wetland credits at a private mitigation bank. The project limits are within the service area of two wetland mitigation banks, Hillsborough River Mitigation Bank and North Tampa Mitigation Bank. We have revised the Final Pond Siting Report - Wetlands and Protected species Evaluation to include this information.

Martin Horwitz	11/17/2014	1	
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Response Accepted & Comment Closed

SEAN DONAHOO CONSULTANT PROJECT MANAGER 11/18/2014 ACTIVE