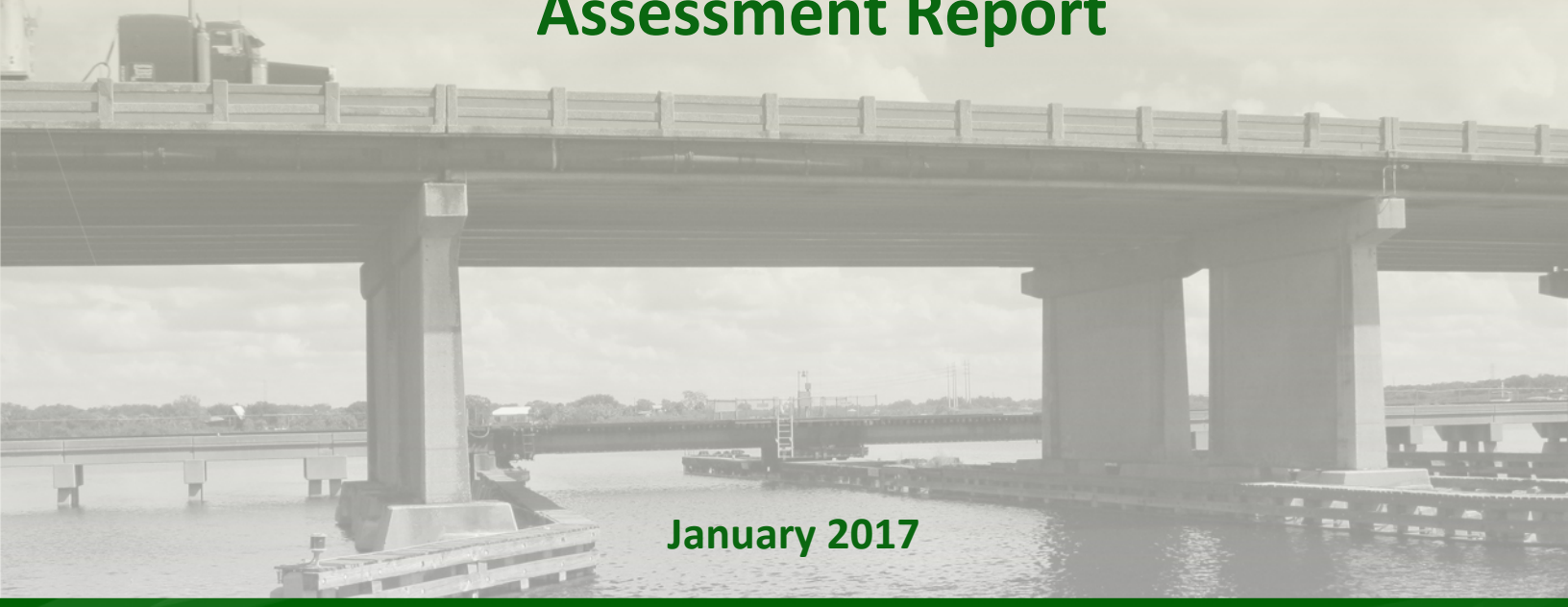
FDOT DISTRICT 7

US 41 (SR 45)

From Kracker Avenue to South of SR 676 (Causeway Boulevard)
Project Development and Environment (PD&E) Study

Final Wetland Evaluation and Biological Assessment Report



January 2017

Florida Department of Transportation
District Seven

Work Program Item Segment No. 430056-1
ETDM Project No. 5180
Hillsborough County

US 41 (SR 45)

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Prepared for:

Florida Department of Transportation
District Seven

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January 2017

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) conducted a Project Development and Environment (PD&E) Study to evaluate alternative improvements for US 41 (SR 45) from Kracker Avenue (milepoint 15.784) to south of SR 676 (Causeway Boulevard – milepoint 22.791) in Hillsborough County (**Figure 1-1)**, a distance of approximately 7.0 miles. Study objectives included: determine proposed typical sections and develop preliminary conceptual design plans for proposed improvements, while minimizing impacts to the environment; consider agency and public comments; and ensure project compliance with all applicable federal and state laws. Improvement alternatives were identified which will improve safety and satisfy future transportation demand. A *State Environmental Impact Report* (SEIR) was prepared for this study and approved on January 12, 2017.

This Wetland Evaluation and Biological Assessment Report (WEBAR) was prepared as part of this PD&E study. This report summarizes potential impacts to wetlands, federal- and state-listed species and their habitats, and Essential Fish Habitat (EFH). Identification of measures to avoid, minimize and mitigate for any potential impacts is also discussed. This WEBAR documents the results of geographic information system (GIS) data, field reviews, coordination to date with regulatory agencies including comments received through the Efficient Transportation Decision Making (ETDM) process, and aerial interpretation for potential impacts to the resources listed above.

Coordination has been conducted with federal and state agencies throughout the study process.

Wetlands

Pursuant to Executive Order 11990 entitled Protection of Wetlands, (May 1977) the U.S. Department of Transportation (USDOT) has developed a policy, Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978, which requires all federally-funded highway projects to protect wetlands to the fullest extent possible.

The proposed Build Alternative would result in approximately 1.29 acres of wetland and 2.12 acres of surface water impacts based on the proposed conceptual design. The majority of the surface water impacts will result from the extension of existing culverts and the replacement of the bridges over Bullfrog Creek and the Alafia River. Wetland mitigation options include compensation pursuant to 373.4137, Florida Statutes (F.S.), purchase of wetland mitigation credits through an approved mitigation bank, potential projects in association with Hillsborough County, or creation, restoration or enhancement of wetlands within the project watersheds. The mitigation will satisfy the requirements of Part IV, Chapter 373, F.S. and 33 United States Code (U.S.C.) 1344.

Protected Species and Habitat

The project corridor was assessed for the presence of suitable habitat for federal- and state-listed protected species in accordance with 50 Code of Federal Regulations (CFR) Part 402 of the Endangered Species Act (ESA) of 1973, as amended, Chapters 5B-40: Preservation of Native Flora of

Florida and 68A-27 Florida Administrative Code (F.A.C.) Rules Relating to Endangered or Threatened Species, and Part 2, Chapter 27 - Wildlife and Habitat Impacts of the FDOT PD&E Manual.

Literature reviews, agency database searches and field reviews for protected species and their habitat were conducted within and adjacent to the project corridor. Based on the findings obtained during corridor field survey efforts, no protected faunal species and no protected floral species were observed within the Right of Way (ROW). However, three listed faunal species and one listed floral species were observed in habitats immediately adjacent to or in the near vicinity of the project corridor. Twenty-six listed faunal species, one protected, non-listed faunal species, and 14 listed floral species were determined to have the potential to occur within or adjacent to the project corridor based on database and literature research and field observations of available habitat.

Federal-Protected Species

A finding of may affect, but not likely to adversely affect was determined for the wood stork, Florida manatee, Gulf sturgeon, smalltooth sawfish, sea turtles and eastern indigo snake. A finding of no effect was determined for the Florida scrub-jay and piping plover.

State-Protected Species

A finding of may affect, but not likely to adversely affect was determined for the gopher tortoise, gopher frog and coastal and wetland dependent birds, including the roseate spoonbill, snowy plover, little blue heron, reddish egret, snowy egret, tricolored heron, white ibis, American oystercatcher, osprey, brown pelican, black skimmer and least tern. A finding of no effect was determined for the American alligator.

Commitments to protect these species and habitat are provided and detailed in this report. These commitments include but are not limited to protection measures employed during design and construction phases. Standard operating measures such as providing compensatory mitigation measures for impacts to foraging habitat and resurveying of suitable habitat areas prior to construction will also provide protection for species and habitat. If protected species are located, coordination with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Florida Fish and Wildlife Conservation Commission (FWC) and/or the Florida Department of Agriculture and Consumer Services - Division of Plant Industry (FDACS–DPI) will be initiated to determine permit requirements or modifications to construction activities that may be required.

USFWS Critical Habitat

The project corridor was evaluated for Critical Habitat designated by Congress in 17 CFR 35.1532. Review of the USFWS's available GIS data resulted in the identification of no Critical Habitat within the project area; therefore, the project will have no effect on Critical Habitat.

Essential Fish Habitat

An EFH Assessment is included as part of this report in accordance with Part 2, Chapter 11 – Essential Fish Habitat of the FDOT PD&E Manual and the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1996. EFH includes all types of aquatic

habitat, such as open waters, wetlands, seagrasses and substrate, necessary to fish for spawning, breeding, feeding, and development to maturity.

Literature reviews, agency database searches and field reviews for EFH were conducted within and adjacent to the project corridor. Estuarine and marine habitats exist within and adjacent to the project corridor on the east and west side of US 41 and below the existing Alafia River and Bullfrog Creek bridges. These habitats include NMFS trust resources including mangroves and salt marsh. Mangroves and salt marsh are located in the project area. Mangroves have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and juvenile goliath grouper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Salt marshes have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. Based on field reviews and NMFS consultation 0.91 acres of wetland impacts to potential EFH and 1.48 acres of surface water impacts to potential EFH are anticipated. These impacts are part of the total wetland impacts listed above.

It is anticipated the proposed project will have no impacts to seagrasses or other submerged aquatic vegetation (SAV); therefore, no mitigation for SAV is proposed at this time. If any changes are made during design that may result in seagrass or other SAV impacts, mitigation measures will be developed with further consultation with the NMFS, USFWS and other appropriate agencies. Mitigation will be provided for all wetland impacts. While impacts to the water column would result from the new bridge pilings, this displacement of the water column would be offset by the removal of the existing bridges. Minimal net loss of the water column is therefore anticipated.

Degradation of water quality resulting from construction of the project or excess pollutant loading of stormwater runoff from the project has the potential to adversely affect project waters. Impacts to water quality from construction activities will be avoided and minimized through the use of BMPs. BMPs generally include phased construction, turbidity screens, silt fences, cofferdams, and other construction techniques approved by the regulatory agencies. Stormwater runoff for the proposed improvements will be collected as part of the stormwater management system that will be evaluated during future project phases and ERP permitting with the Southwest Florida Water Management District (SWFWMD). The project will be designed to meet all state water quality standards at the time of permitting. Commitments to protect EFH and associated species have been included in this report.

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SECTION 1 INTRODUCTION

1.1 PD&E STUDY PURPOSE

The objective of this Project Development and Environment (PD&E) study was to assist the Florida Department of Transportation (FDOT) in reaching a decision on the type, location, and conceptual design of the proposed improvements for widening US 41 (SR 45) from Kracker Avenue to south of Causeway Boulevard (SR 676). The PD&E study satisfied all applicable requirements in order for this project to qualify for state funding of subsequent project development phases (design, right of way [ROW] acquisition, and construction).

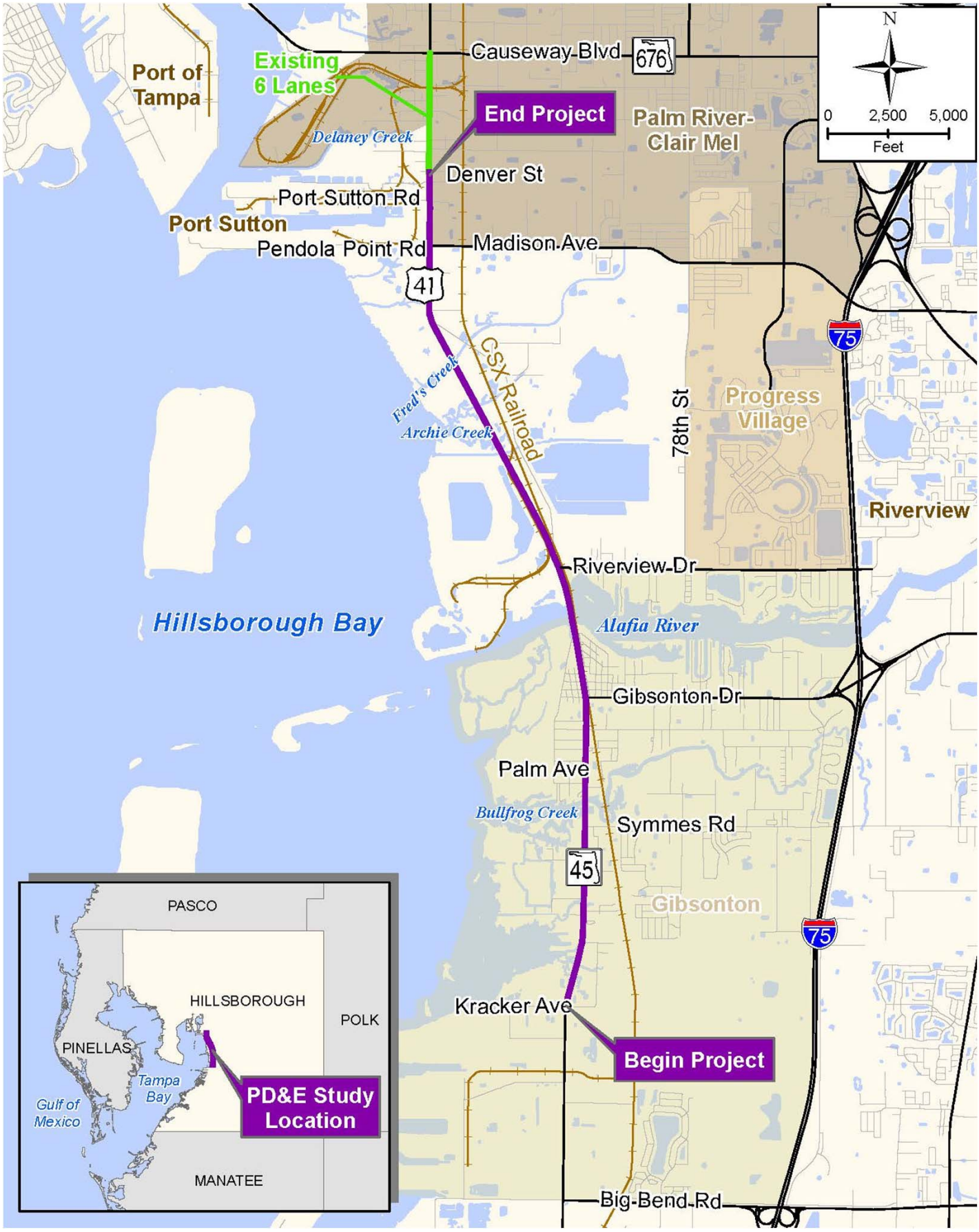
US 41 is a major north-south arterial of regional significance that parallels Interstate 75 (I-75) and US 301 in Hillsborough County. This project was screened through FDOT's Efficient Transportation Decision Making (ETDM) process as Project #5180. A *Final Programming Screen Summary Report* was published on April 10, 2013. A *State Environmental Impact Report* (SEIR) was prepared as part of this study and approved on January 12, 2017.

1.2 PROJECT DESCRIPTION

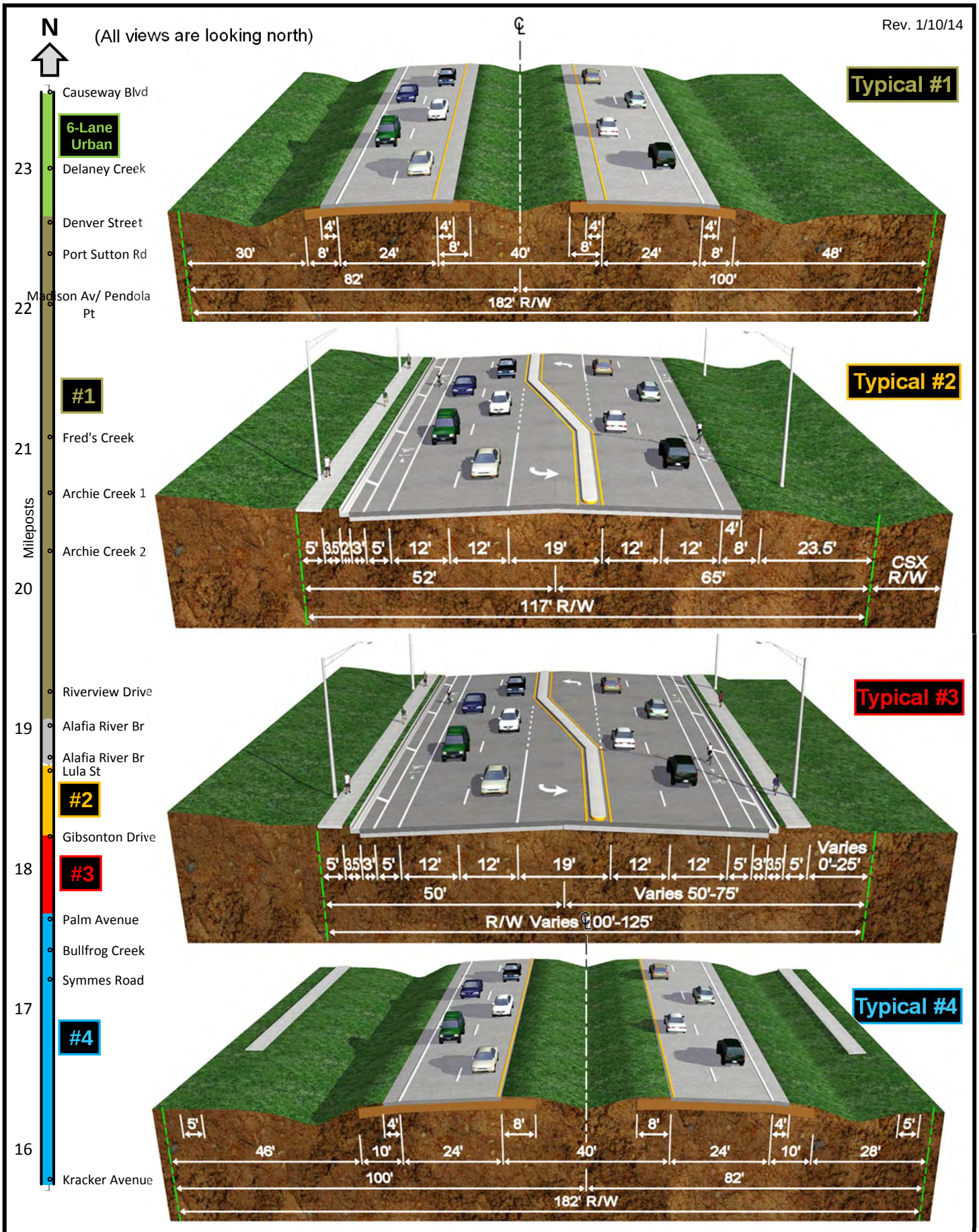
The FDOT conducted a PD&E study to evaluate alternative capacity and operational improvements to US 41 from Kracker Avenue (milepoint 15.784) to south of Causeway Boulevard (milepoint 22.791) in Hillsborough County (**Figure 1-1**), a distance of approximately 7.0 miles. The highway is to be improved from an existing, four-lane divided rural and urban facility to a six-lane divided facility. Bridges over Bullfrog Creek and the Alafia River are planned to be replaced. The planned improvements will include construction of stormwater management and floodplain compensation facilities and various intersection improvements, in addition to multimodal facilities (trail, pedestrian, bicycle and transit accommodations). However, the PD&E study for the proposed project did not evaluate specific stormwater management facilities and floodplain compensation sites as these locations will be identified during the proposed project's future design phase.

1.3 EXISTING FACILITY AND PLANNED IMPROVEMENTS

US 41 currently has both four-lane divided rural and urban typical sections (**Figure 1-2**). In addition, a 0.9-mile segment near the north end, between Denver Street and SR 676, was previously widened to a six-lane urban section. Existing lane widths vary from 11 to 12 feet and median widths vary from 19 to 40 feet. The rural typical section areas include 4-foot paved shoulders. The posted speed limit is 50 miles per hour (mph) in the north Gibsonton area and 55 mph in the areas to the south and north. The existing right of way width varies from 100 feet in north Gibsonton to 182 feet in the areas to the south and north. Existing bridge typical sections are shown in **Figure 1-3**.

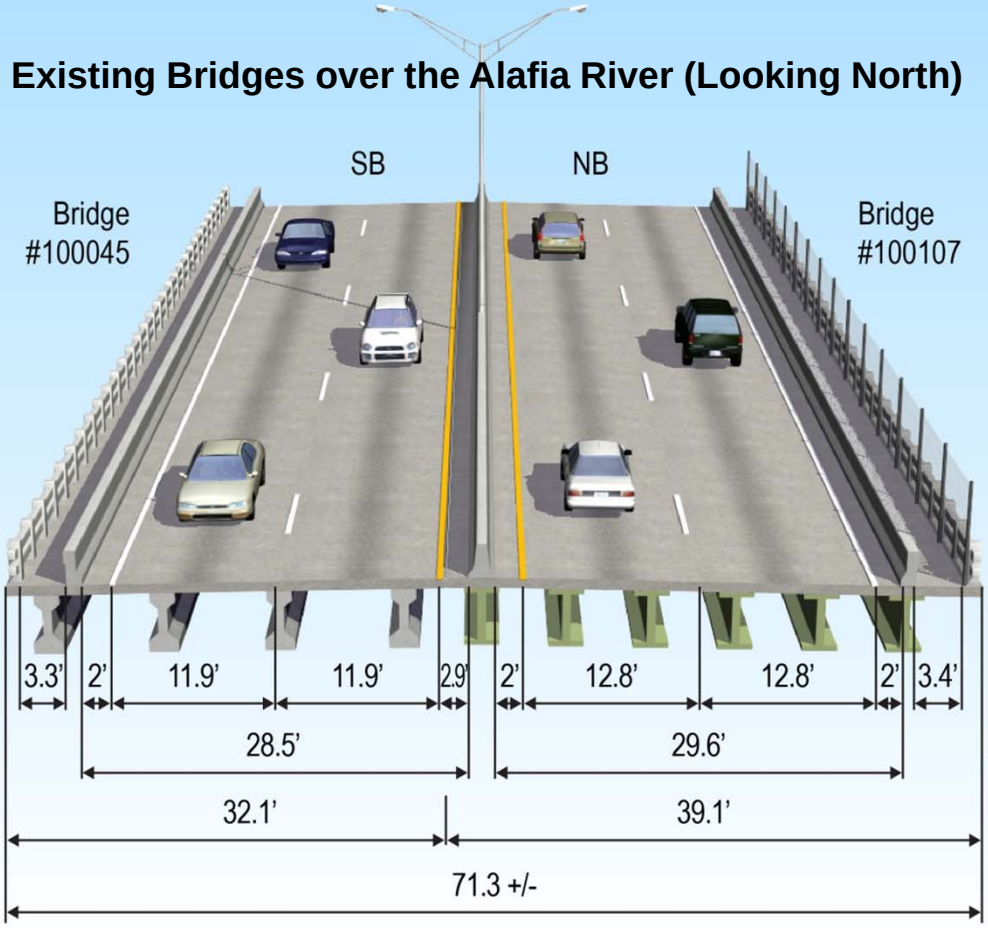


US 41(SR 45) PD&E Study *From Kracker Avenue to South of SR 676 (Causeway Blvd)* WPI Segment No. 430056-1 Hillsborough County	**Location and Study Area Map**	**Figure 1-1**

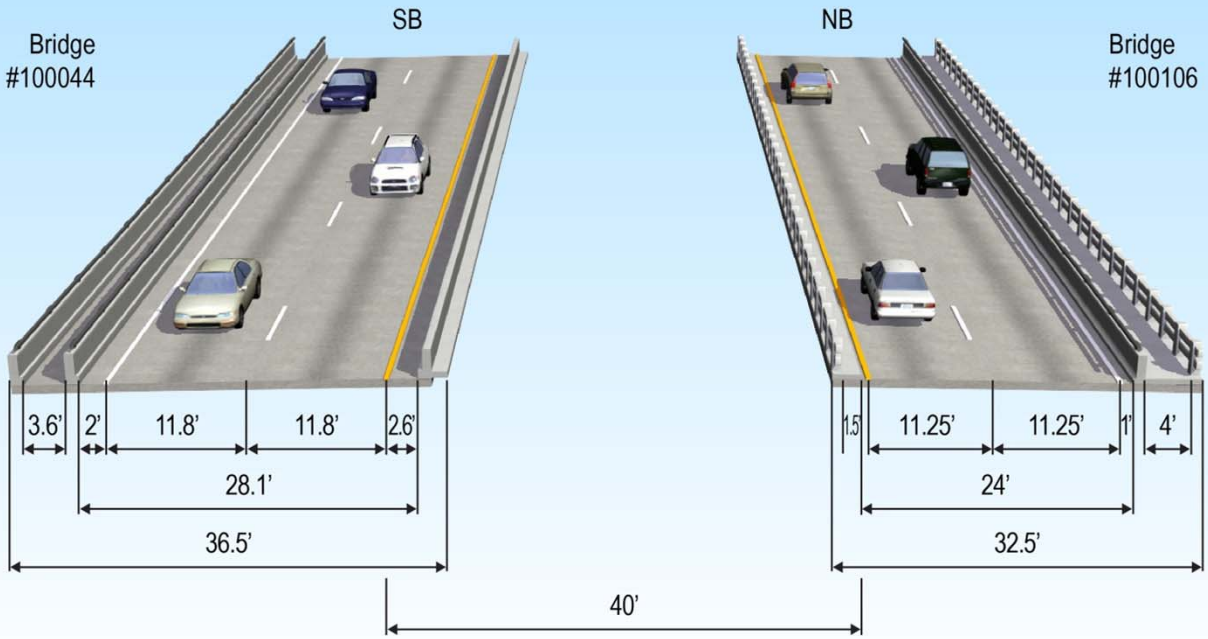


FDOT **US 41(SR 45) PD&E Study** *From Kracker Avenue to South of SR 676 (Causeway Blvd)* WPI Segment No. 430056 1 - Hillsborough County	**Existing Roadway Typical Sections**	**Figure 1-2**

Existing Bridges over the Alafia River (Looking North)



Existing Bridges over Bullfrog Creek (Looking North)



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US 41(SR 45) PD&E Study *From Kracker Avenue to South of SR 676 (Causeway Blvd)* WPI Segment No. 430056 1 - Hillsborough County	**Existing Bridge Typical Sections**	**Figure 1-3**

Planned improvements include widening to six lanes as well as intersection improvements, construction of stormwater management and floodplain compensation facilities and multimodal facilities. Planned typical sections include both suburban and urban typical sections. Additional right of way will be required in the north Gibsonton area for the planned improvements. Alternatives to replace the bridges at Bullfrog Creek and the Alafia River were evaluated. Planned typical sections are shown in **Figures 1-4, 1-5** and **1-6**. A "No-Build" Alternative was also evaluated. No future phases for this proposed project are included in FDOT's current adopted 5-year work program (Fiscal Years 16/17 through 20/21).

1.4 PROJECT PURPOSE AND NEED

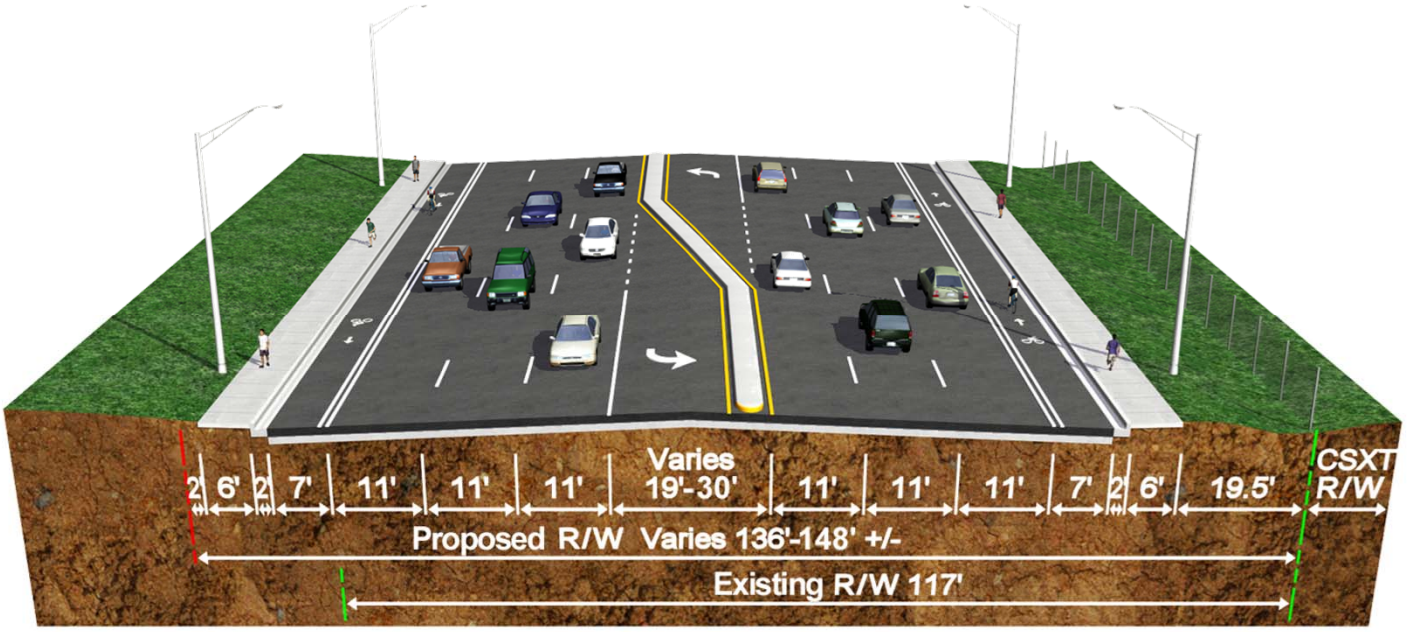
US 41 within the study area plays a significant role in connecting southern Hillsborough County to the Tampa Bay region. The purpose of the proposed project is to accommodate future traffic demands on US 41 due to growth within the project limits and surrounding areas. Segments within this corridor are projected to operate at level of service (LOS) F in the design year (2040) if no increase in capacity is provided. Additional factors which support the need for the project include:

Regional Connectivity - US 41 is a major north-south regional arterial that parallels I-75 and US 301 and connects south Hillsborough County to the Tampa Bay region. It provides connectivity between the communities of Apollo Beach, Riverview, and Gibsonton. US 41 is a "regional road" according to the West Central Florida Metropolitan Planning Organization's (MPO's) Chairs Coordinating Committee (CCC). US 41 also provides highway access to the Port of Tampa facilities at Pendola Point and Port Sutton.

Safety - With the additional capacity provided in the corridor by the widening of US 41 from four to six lanes, roadway congestion will be reduced, which will decrease potential conflicts with other vehicles and potentially increase safety. An analysis of traffic crash data for years 2008 thru 2012 revealed that the overall average crash rate within the study limits was lower than the statewide average crash rate for similar type facilities. While not structurally deficient, the bridges over both Bullfrog Creek and the Alafia River are classified as *functionally obsolete* due to substandard-width shoulders. In addition, the sidewalks on the bridges are very narrow and there are no dedicated bicycle facilities.

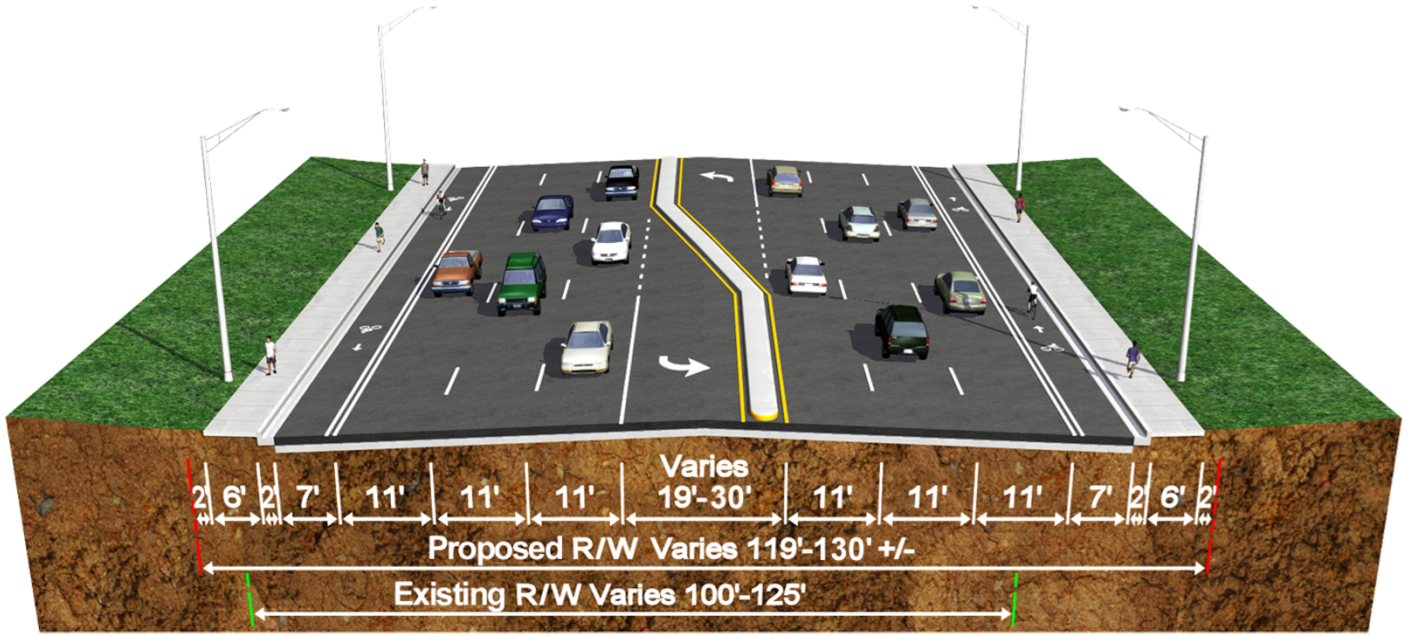
Plan Consistency - This project is consistent with the Comprehensive Plan for Unincorporated Hillsborough County. The Hillsborough County *Imagine 2040 Long-Range Transportation Plan (LRTP)* indicates a need to widen US 41 to 6-lanes from 19th Avenue to north of Madison Avenue, "beyond 2040". In addition, a short segment between Madison Avenue and Causeway Boulevard is shown as 6 lanes in the Cost Feasible FDOT Strategic Intermodal System Projects, with design after year 2026.

(All views are looking north)



From Gibsonton Drive to Lula Street

Design Speed = 45 mph



From Palm Avenue to Gibsonton Drive

Design Speed = 45 mph

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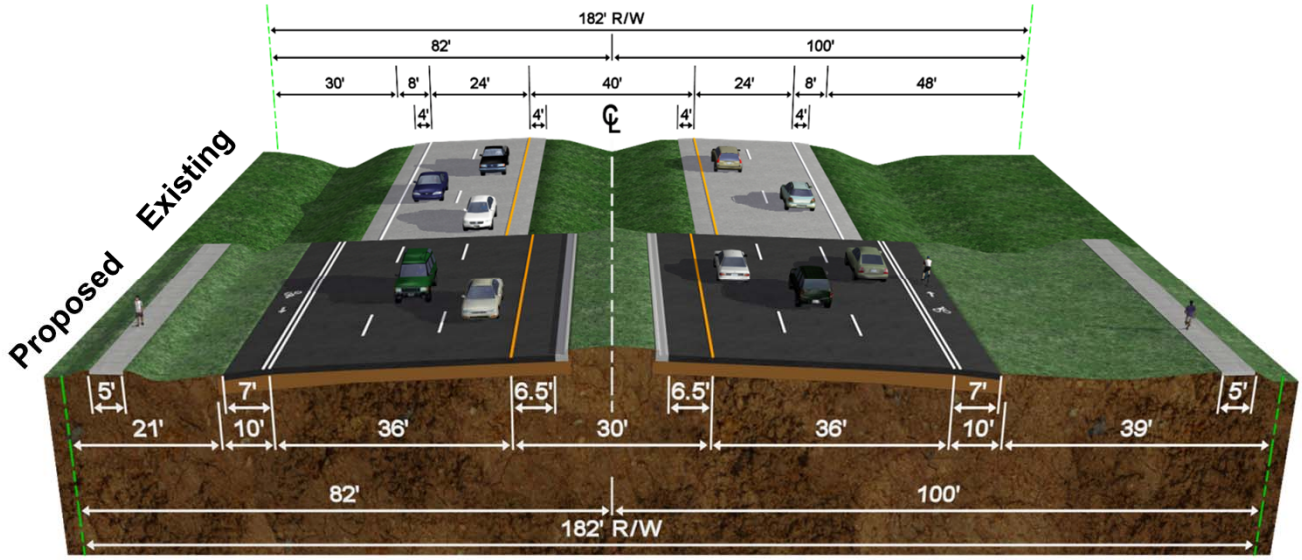
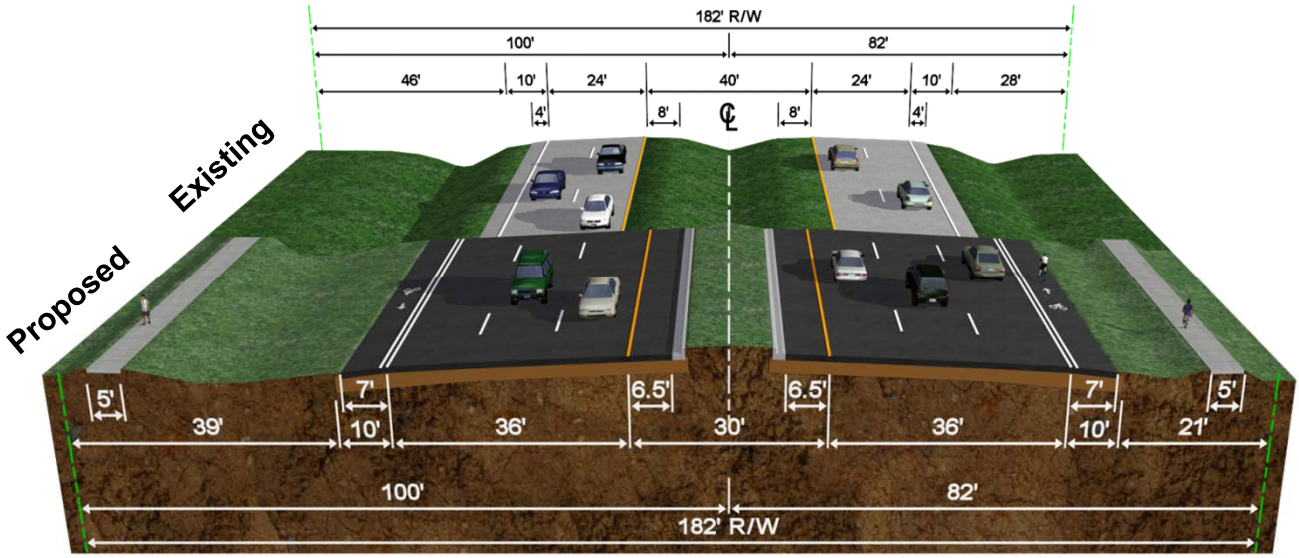
US 41(SR 45) PD&E Study *From Kracker Avenue to South of SR 676 (Causeway Blvd)* WPI Segment No. 430056 1 - Hillsborough County	**Planned Urban Typical Sections**	**Figure 1-4**

Suburban Alternatives Utilizing the Existing Pavement



- Provides 50 mph design speed (required for SIS Connector Segment north of Pendola Point)
- Design variation for border width required
- No additional ROW required

Between Alafia River Bridge & Denver Street (Near the North End of the Project)



- Provides 50 mph design speed
- Design variation for border width required
- No additional ROW required

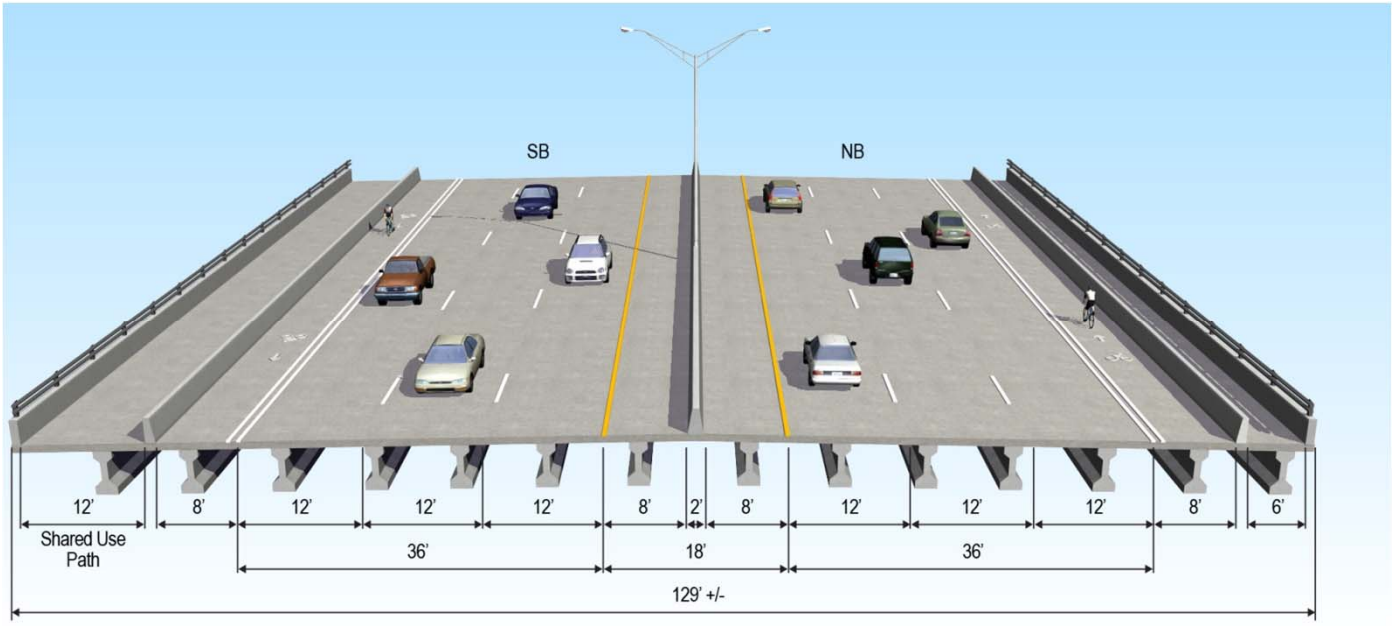
Between Kracker Ave. & Palm Ave. (Near the South End of the Project)

(All views are looking north)

Rev. 10/12/16

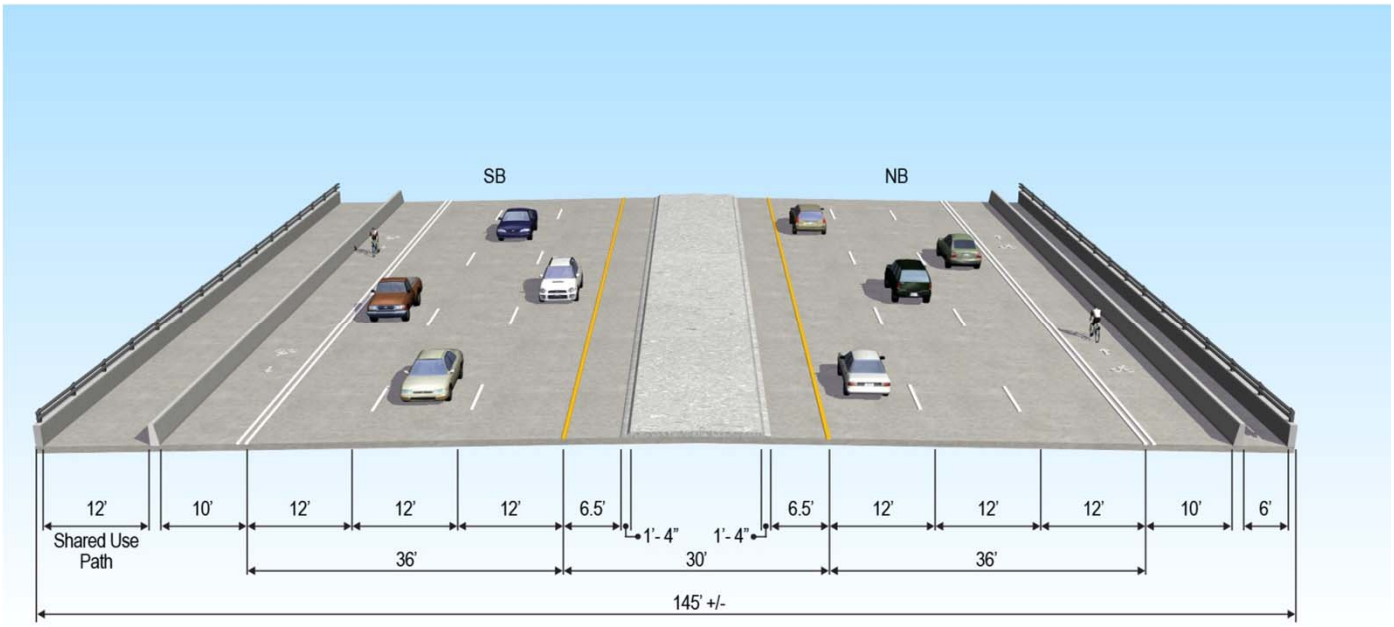
US 41(SR 45) PD&E Study *From Kracker Avenue to South of SR 676 (Causeway Blvd)* WPI Segment No. 430056 1 - Hillsborough County	**Planned Suburban Typical Sections**	**Figure 1-5**

(All views are looking north)



Bridge at Alafia River

Design Speed = 50 mph



Bridge at Bullfrog Creek

Design Speed = 50 mph

Rev. 10/12/16

US 41(SR 45) PD&E Study *From Kracker Avenue to South of SR 676 (Causeway Blvd)* WPI Segment No. 430056 1 - Hillsborough County	**Planned Bridge Typical Sections**	**Figure 1-6**

Emergency Evacuation - US 41 is listed as an evacuation route by the Hillsborough County Emergency Management and shown on the Florida Division of Emergency Management's evacuation route network. US 41 provides access to I-75 via interchanges with east-west connections on Gibsonton Drive, Big Bend Road (CR 672) and SR 60 in close proximity to the study limits.

Current and Future Transportation Demand - Traffic in the corridor is expected to increase due to projected population and employment growth along the corridor. In 2013, the Annual Average Daily Traffic (AADT) ranged between 23,400 vehicles per day (VPD) (Level of Service [LOS] B) and 36,400 VPD (LOS B) within the study area according to the *Traffic Technical Memorandum*. With a maximum AADT of 32,350 VPD over the four lane section, US 41 is at 88 percent capacity for the adopted level of service standard of D. In 2040, AADTs are expected to range between 38,800 VPD and 61,000 VPD. The existing four lane cross section would result in a LOS F in some segments with the future projected traffic volumes. The widening of this facility is also intended to provide relief to parallel facilities such as I-75 and US 301.

Modal Interrelationships – Expansion of the existing roadway would help improve mobility for the Hillsborough Area Regional Transit (HART) Authority local bus route 31 within the corridor. Bicycle and pedestrian accommodations will also be considered as part of the proposed improvements.

US 41 is part of the highway network that provides access to regional intermodal facilities such as the Port of Tampa and Port Manatee. The segment of US 41 between Madison Avenue/Pendola Point Road and SR 676 is designated as a Strategic Intermodal System (SIS) *connector*. The SIS is a statewide network of highways, railways, waterways, and transportation hubs that handle the bulk of Florida's passenger and freight traffic. Improvements to US 41 would enhance access to activity centers in the area and would improve movement for goods and freight in the Tampa Bay region and across the State.

1.5 REPORT PURPOSE

This *Draft Wetland Evaluation and Biological Assessment Report* (WEBAR) is one of several documents prepared as part of this PD&E Study. This report documents the proposed project's wetlands and potential impacts. Pursuant to Presidential Executive Order 11990 entitled Protection of Wetlands, (May 1977) the U.S. Department of Transportation (USDOT) has developed a policy, Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978, which requires all federally-funded highway projects to protect wetlands to the fullest extent possible. In accordance with this policy, as well as *Part 2, Chapter 18 - Wetlands* of the FDOT PD&E Manual (04/22/13) a No-Build and Build alternative were assessed to determine potential impacts to wetland and other surface waters associated with construction of each alternative.

This report also documents existing wildlife resources and habitat types found within the project area, and the potential for occurrences of federal- and state-listed protected plant and animal species and their suitable habitat, in accordance with *Part 2, Chapter 27 - Wildlife and Habitat*

Impacts of the FDOT PD&E Manual (10/01/91). Potential impacts to protected species and habitats that may support these species are also addressed in this report.

An Essential Fish Habitat (EFH) Assessment is also included as part of this report in accordance with *Part 2, Chapter 11 – Essential Fish Habitat* of the FDOT PD&E Manual (11/26/07) and the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1996. This assesses waters and substrate necessary to fish for spawning, breeding, feeding, and development to maturity.

SECTION 2 EXISTING ENVIRONMENTAL CONDITIONS

2.1 EXISTING LAND USE

Land use and vegetative cover within and adjacent to the project corridor was classified using the FDOT's Florida Land Use, Cover and Forms Classification System (FLUCCS). The study corridor, located in Hillsborough County, has a variety of mixed uses, including but not limited to, residential, commercial, and natural communities. FLUCCS data, aerial photographs and wetland data from the National Wetlands Inventory (NWI) were utilized to determine current land use and habitat types within the corridor. The land uses and habitat types within and adjacent to the project corridor were subsequently ground-truthed for verification during field reviews conducted in October 2013. The land uses were identified by their FLUCCS descriptions as well as the FLUCCS code (number that represents the type of land use). For evaluating existing land use within the project area, a 300-foot buffer was created from the centerline of US 41; a detailed land use map is included in **Appendix B**. Approximately 47 percent of the landscape adjacent to the corridor is classified as residential (110-130), commercial (140), and industrial (150-160). Natural communities found within the project corridor make up approximately 37 percent of the land use/land cover and include pine flatwoods (411), hardwood conifer mixed (434), mixed hardwoods (438), surface waters (510-540), mangrove swamps (612), stream and lake swamps (615), wetland forested mixed (630), freshwater marshes (641), saltwater marshes (642), and emergent aquatic vegetation (644). Other land uses along the corridor consist of recreational (180), open land (190), tropical fish farms (255), other open lands (260), transportation (810), and utilities (830). **Table 2-1** shows the land use acreages identified within this buffer as well as the percent total of each land use along the project corridor.

2.2 FUTURE LAND USE

Future land use data was obtained from the Hillsborough County Adopted 2025 Future Land Use Unincorporated County-Wide Map, effective December 3, 2014. The data is provided by the Hillsborough City-County Planning Commission and shows the future land use for 2025. The map shows that the majority of the area surrounding the project corridor will be industrial, residential, suburban mixed-use, and commercial with areas identified as significant wildlife habitat.

Table 2-1 Existing Land Use/Land Cover (FLUCCS)

FLUCCS	Description	Acreage (Approx. 300' from centerline)	Percentage
110	Residential Low Density < 2 Dwelling Units	3.2	0.6%
120	Residential Med Density 2->5 Dwelling Unit	44.4	8.8%
130	Residential High Density	16.1	3.2%
140	Commercial And Services	83.9	16.6%
150	Industrial	33.7	6.7%
160	Extractive	56.3	11.2%
180	Recreational	3.3	0.7%
190	Open Land	4.7	0.9%
255	Tropical Fish Farms	0.3	0.1%
260	Other Open Lands <Rural>	3.8	0.7%
411	Pine Flatwoods	28.2	5.6%
434	Hardwood Conifer Mixed	23.1	4.6%
438	Mixed Hardwoods	4.6	0.9%
510	Streams And Waterways	3.8	0.7%
520	Lakes	0.6	0.1%
530	Reservoirs	0.4	0.1%
540	Bays And Estuaries	18.1	3.6%
612	Mangrove Swamps	14.3	2.8%
615	Stream And Lake Swamps (Bottomland)	0.0	0.0%
630	Wetland Forested Mixed	10.6	2.1%
641	Freshwater Marshes	0.6	0.1%
642	Saltwater Marshes	31.7	6.3%
644	Emergent Aquatic Vegetation	0.3	0.1%
810	Transportation	112.5	22.3%
830	Utilities	5.7	1.1%
TOTAL		**504.0**	**100%**

2.3 SOILS

The Natural Resource Conservation Service (NRCS) *Soil Survey of Hillsborough County* and Geographic Information services (GIS) data indicate that there are multiple soil types that exist within the corridor. The dominant soil types and their soil map unit identification numbers are as follows: Myakka fine sand (29), Pinellas fine sand (38), Malabar fine sand (27), Myakka fine sand, frequently flooded (30) and Kesson muck, frequently flooded (24). Soils within a 300-foot buffer from the centerline of the project corridor were evaluated. Acreages and percentages of soil types within the project corridor can be found in **Table 2-2.** A detailed soil map can be found in **Appendix C**. A brief description of dominant soil types is provided below:

Myakka fine sand (29) – This soil is deep and poorly drained. They formed in sandy marine sediment. They are on broad plains on the flatwoods and in tidal areas. A seasonal high water table is within 10 inches of the soil surface for 1 to 4 months during most years (Soil Survey of Hillsborough County, May 1989).

Pinellas fine sand (38) - This soil is nearly level and poorly drained. It is on broad plains in the flatwoods. In most years, a seasonal high water table fluctuates from the soil surface to a depth of 10 inches for less than 3 months and recedes to a depth of more than 40 inches during prolonged dry periods (Soil Survey of Hillsborough County, May 1989).

Malabar fine sand (27) – This soil is nearly level and poorly drained. It is in low-lying sloughs and shallow depressions on the flatwoods. In most years, a seasonal high water table fluctuates from the soil surface to a depth of about 10 inches for 2 to 6 months (Soil Survey of Hillsborough County, May 1989).

Myakka fine sand, frequently flooded (30) – This soil is level and very poorly drained and is subject to shallow flooding by the highest of normal tides. The seasonal high water table fluctuates from the soil surface to a depth of about 10 inches (Soil Survey of Hillsborough County, May 1989).

Kesson muck, frequently flooded (24) – This soil is level and very poorly drained. It is in tidal swamps and marshes. The seasonal high water table fluctuates from the soil surface to a depth of about 6 inches (Soil Survey of Hillsborough County, May 1989).

Table 2-2 Existing Soils (NRCS)

Map Unit Symbol	Description	Acreage (1,000 feet from centerline)	Percentage
4	Arents, nearly level	7.5	1.5%
5	Basinger, Holopaw, and Samsula soils, depressional	6.9	1.4%
15	Felda fine sand	13.8	2.7%
17	Floridana fine sand	12.3	2.4%
20	Gypsum land	0.1	0.0%
24	Kesson muck, frequently flooded	40.1	8.0%
27	Malabar fine sand	66.4	13.2%
29	Myakka fine sand	205.9	40.8%
30	Myakka fine sand, frequently flooded	25.0	5.0%
32	Myakka-Urban land complex	0.9	0.2%
38	Pinellas fine sand	68.8	13.7%
39	Arents, very steep	1.0	0.2%
44	St. Augustine fine sand	7.2	1.4%
46	St. Johns fine sand	9.7	1.9%
57	Wabasso fine sand	15.2	3.0%
61	Zolfo fine sand	0.0	0.0%
99	Water	23.3	4.6%
TOTAL		**504.0**	**100.0%**

SECTION 3 WETLANDS AND SURFACE WATER IMPACTS

3.1 METHODOLOGY AND ASSESSMENT

In accordance with Executive Order 11990, "Protection of Wetlands" (May 1977), the proposed project has been evaluated for potential effects to wetlands. A variety of resources including NWI maps and GIS data, Soil Survey of Hillsborough County, United States Geological Survey (USGS) topographical maps, and aerial photographs (2013) were utilized to identify wetlands that occur within the study area. Project scientists identified wetlands and surface waters within the project corridor during field reviews in October 2013. Field reviews of the project corridor were conducted to collect pertinent data to perform an assessment of the quality of wetlands and surface waters found along the project corridor. Wetland boundaries were identified using the U.S. Army Corps of Engineers (USACE) *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* and the Florida Department of Environmental Protection's (FDEP) *Delineation of the Landward Extent of Wetlands and Surface Waters* (1995) (Chapter 62-340, F.A.C).

A review of the Efficient Transportation Decision Making (ETDM) Programming Screen Summary Report [(PSSR), dated 4/10/2013] was conducted to gather comments from participating regulatory agencies. Many of the comments from the agencies include the following:

- Avoidance/minimization of wetland impacts;
- The replacement of the two bridges over the Alafia River have the potential for both wetland and surface water impacts;
- Maximum effort should be made to treat stormwater runoff from the increase in impervious surface area;
- The area contains many sensitive tidal wetlands, mangrove areas and seagrasses that should be considered during design planning; and
- The preferred mitigation option for unavoidable wetland impacts would be an approved mitigation bank.

The ETDM PSSR indicates there are estuarine, lacustrine, and palustrine wetlands in and/or adjacent to the project corridor. The ETDM also indicates there are several unnamed and named tidal streams hydraulically connected under US 41, including Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek, and Delaney Creek. An excerpt from the ETDM PSSR, which provides comments from the regulatory agencies on numerous environmental categories, is included in **Appendix D**.

The study area includes all areas within the existing FDOT ROW as well as areas located directly adjacent. The assessment consisted of a review of wetland and upland habitats. Wetlands were classified using the FLUCCS codes (FDOT, 1999) and the United States Fish and Wildlife Services' (USFWS) *Wetlands and Deepwater Habitats Classification* (Cowardin et al. 1979) methodology. A breakdown of wetland classifications are shown in **Table 3-1** and surface waters in **Table 3-2**. These

tables provide an overview of the wetlands and surface waters, as well as their FLUCCS and USFWS codes. Wetlands are named according to their approximate station along the project corridor. Potential wetland impacts were assessed using the Uniform Mitigation Assessment Method (UMAM), Chapter 62-345, F.A.C. The extent of all wetland sites identified in the field was digitized over aerial photography of the project corridor in order to perform measurements and acreage calculations.

There are no Outstanding Florida Waters, Aquatic Preserves, or Wild and Scenic Rivers within or adjacent to the project limits.

Table 3-1 Wetland Descriptions

Wetland ID	NWI/USFWS	FLUCCS	Wetland Description
840+60L	E2SS3	612	Mangrove Swamp
841+50R	E2SS3	612	Mangrove Swamp
911+60R	E2SS3	612	Mixed Wetland Hardwoods
911+40L	E2SS3	612	Mangrove Swamp
915+00R	E2SS3	612	Mangrove Swamp
990+30L	E2SS3	612	Mangrove Swamp
990+60R	E2SS3	612	Mangrove Swamp
998+50L	E2SS3	612	Mangrove Swamp
65+50R	PSS3	640/619	Non-Forested with Exotics
77+00R	PSS3	640/619	Non-Forested with Exotics
91+00R	E2EM1	642	Saltwater Marsh
96+70R	E2EM1/SS3	642/612	Saltwater Marsh/Mangrove Swamp
96+70L	E2EM1/SS3	642/612	Saltwater Marsh/Mangrove Swamp
112+40R	E2EM1/SS3	642/612	Saltwater Marsh/Mangrove Swamp
129+30L	PEM1	641	Freshwater Marsh
132+40L	PEM1	641	Freshwater Marsh
135+10R	PEM1	641	Freshwater Marsh
140+80R	E2SS3	612	Saltwater Marsh
146+90R	PEM1/SS3	641/618	Freshwater Marsh/Willow
147+75L	PEM1	641	Freshwater Marsh
153+80L	PEM1/SS1	641/618	Freshwater Marsh/Willow
163+60L	E2SS3/EM1	612/642	Mangrove Swamp/Saltwater Marsh
204+55R	PEM1/SS3	641	Herbaceous Ditch with few Mangroves

Table 3-2 Surface Water Descriptions

Surface Water ID	NWI/ USFWS	FLUCCS	Surface Water Description
Kitchen Branch	E1UB	510	Streams and Waterways
Dug Creek	E1UB	510	Streams and Waterways
Bullfrog Creek	E1UB	510	Streams and Waterways
Alafia River	E1UB	510	Streams and Waterways
SW 953+50R	PUBx/SS1	510	Streams and Waterways
SW 999+20R	E1UB	510	Streams and Waterways
Archie Creek	E1UB	510	Streams and Waterways
Archie Creek North	E1UB	510	Streams and Waterways
Fred's Creek	E1UB	510	Streams and Waterways
SW 90+50L	PUBx	510	Streams and Waterways
SW 170+50R	PUBx	510	Streams and Waterways
SW 184+20L	PUBx	510	Streams and Waterways
SW 186+50R	PUBx	510	Streams and Waterways
SW 190+50R	PUBx	510	Streams and Waterways
SW 192+00R	PUBx	510	Streams and Waterways
SW 194+50R	PUBx	510	Streams and Waterways
SW 196+00R	PUBx	510	Streams and Waterways

3.2 WETLAND CLASSIFICATION

Many wetlands and jurisdictional surface waters were identified adjacent to or within the project ROW. The majority of these are estuarine marsh systems with mangroves and herbaceous vegetation. Wetlands and surface waters that have the potential to be impacted by the proposed project improvements have been identified by the FDOT's FLUCCS codes as well as the USFWS's Wetlands and Deepwater Habitats Classifications. Representative site photographs can be found in **Appendix E**. An overview of the wetlands and surface waters within the project vicinity is provided in **Figure 3-1**, and a detailed wetland and surface water map can be found in **Appendix A**.

US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676 (Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

Wetland and Surface Water Overview Map

Source: NWI (with some field verify)

Figure 3-1

3.2.1 Wetlands

Mangrove Swamps (FLUCCS 612)

Estuarine Intertidal Scrub-Shrub Broad-Leaved Evergreen (E2SS3)

Mangrove swamps are identified as a coastal hardwood community consisting of predominantly red mangroves (*Rhizophora mangle*) and black mangroves (*Avicennia germinans*). Other vegetation typically associated with this habitat type includes the white mangrove (*Laguncularia racemosa*), buttonwood (*Conocarpus erectus*), cabbage palm (*Sabal palmetto*), and sea grape (*Coccoloba uviferai*). The majority of the mangrove swamps along the project corridor are dominated by white mangroves, with red mangrove fringes and areas with some black mangroves. Some of the mangrove areas have Brazilian pepper (*Schinus terebinthifolius*), especially near the roadway side slopes.

Vegetated Non-Forested Wetland (FLUCCS 640)

Palustrine Scrub-Shrub Broad-Leaved Evergreen (PSS3)

These wetland systems typically include marshes and seasonally flooded basins and meadows. This community does not include areas which have a tree cover that meet the forested criteria threshold. Wetlands within the project area described as vegetated non-forested wetlands include saltbush (*Baccharis halimifolia*), wax myrtle (*Myrica cerifera*), saw palmetto (*Serenoa repens*), cabbage palms and Brazilian pepper. For this project, these wetlands are low areas located between US 41 and the parallel railroad facility. Since there are exotics such as Brazilian pepper located within the wetlands, they have been further classified as 640/619. FLUCCS code 619 is identified as Exotic Wetland Hardwods.

Freshwater Marsh (FLUCCS 641)

Palustrine Emergent Persistent (PEM1)

Freshwater marshes are vegetated herbaceous wetlands with no tree cover and minimal to no shrubs; however, many freshwater marshes can be surrounded by forested or scrub-shrub wetlands. Freshwater marshes are usually dominated by one or more emergent vegetation species. Vegetation identified within the freshwater marsh systems includes pickerelweed (*Pontedaria cordata*), rushes (*Juncus* spp.), bulrush (*Scirpus* spp.), lizard's tail (*Saururus cernuus*), duck potato (*Sagittaria latifolia*), lance-leaf arrowhead (*Sagittaria lancifolia*), and pennywort (*Hydrocotyle* spp.). Carolina willow (*Salix caroliniana*) and other similar shrub vegetation were observed within or on the edge of some of the freshwater marshes located within the project corridor and have been further classified as 641/618. FLUCCS code 618 is identified as Willow and Elderberry.

Saltwater Marsh (FLUCCS 642)

Estuarine Intertidal Emergent Persistent (E2EM1)

Saltwater marshes are usually flooded or inundated by tides and are dominated by salt-tolerant emergent vegetation or low-growing shrubs. The saltwater marshes within the project area are

hydrologically maintained by rivers, streams, creeks and manmade linear waterways that connect to Hillsborough Bay to the west. The dominant vegetation within the saltwater marshes is black needle rush (*Juncus roemerianus*). There are mangroves within some of the systems and many are surrounded by mangrove swamps. For this reason, some of the wetland systems have been classified as 642/612.

3.2.2 Surface Waters

Streams and Waterways (FLUCCS 510)

Estuarine Subtidal Unconsolidated Bottom (E1UB)

This category consists of linear waterways including rivers, creeks and canals that have tidal connections to Hillsborough Bay. The main waterways for this project are the Alafia River and Bullfrog Creek. There are several other named systems that are included within this category along the project corridor. Some of the surface waters appear to have been altered in the past for some of the larger industrial activities and restoration projects in the area.

Streams and Waterways (FLUCCS 510)

Palustrine Unconsolidated Bottom Excavated (PUBx)

These surface waters are upland cut ditches, many of which appear to be used for stormwater management or conveyance. Vegetation within these surface waters includes cattails (*Typha* spp.), primrose willow (*Ludwigia* spp.), pennywort and other typical vegetation found in roadside ditches. There are a few locations where mangroves have settled into deeper parts of the surface waters and other areas where Brazilian pepper is present, especially along the edges of the surface waters.

3.3 IMPACT EVALUATION

The Build and No-Build Alternatives were evaluated in developing this project study. Under the No Build Alternative, no changes would be made to the existing roadway system and this alternative would have no impact on wetlands and surface waters. Below is a description of potential impacts from the Build Alternative. Only impacts from roadway and bridge improvements have been evaluated in this report. Stormwater treatment and floodplain compensation sites have not been identified for this project; therefore, no wetland impacts were evaluated for potential pond sites.

3.3.1 Project Impacts

The Build Alternative for the widening of US 41 will result in 1.29 acres of wetland impact. Impacts were evaluated from ROW to ROW in most areas to accommodate the proposed sidewalk and trail along the project corridor. The additional ROW areas in north Ginsonton were also evaluated. The breakdown of impacts per wetland and habitat type is shown in **Table 3-3**. Impacts will occur to wetlands 840+60L, 841+50R, 911+40L, 990+30L, 990+60R, 998+50L, 65+50R, 91+00R, 96+70R, 112+40R, 140+80R, 146+90R, 147+75L and 204+55R. In addition, approximately 2.12 acres of impact to surface waters are anticipated through the extension of the culverts and bridge replacements to accommodate the widened roadway. Impacts will occur to Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek, North Archie Creek, and Fred's Creek. There will also be impacts to

roadside ditches identified along the project corridor. A summary of the surface water impacts is identified in **Table 3-4**.

Table 3-3 Wetland Impacts

Wetland ID	NWI/ USFWS	FLUCCS	Project Impact Acreage
840+60L	E2SS3	612	0.16
841+50R	E2SS3	612	0.33
911+40L	E2SS3	612	0.00*
990+30L	E2SS3	612	0.05
990+60R	E2SS3	612	0.03
998+50L	E2SS3	612	0.03
65+50R	PSS3	619/640	0.03
91+00R	E2EM1	642	0.01
96+70R	E2EM1/SS3	642/612	0.21
112+40R	E2EM1/SS3	642/612	0.09
140+80R	E2SS3	612	0.03
146+90R	PEM1/SS3	641	0.19
147+75L	PEM1	641	0.02
204+55R	PEM1/SS3	641	0.11
TOTAL			**1.29**

**Impact value below two significant digits.*

Table 3-4 Surface Water Impacts

Surface Water ID	NWI/USFWS	FLUCCS	Project Impact Acreage
Kitchen Branch	E1UB	510	0.04
Dug Creek	E1UB	510	0.22
Bullfrog Creek	E1UB	510	0.32
Alafia River	E1UB	510	0.66
SW 999+20R	E1UB	510	0.10
Archie Creek	E1UB	510	0.07
North Archie Creek	E1UB	510	0.08
Fred's Creek	E1UB	510	0.09
SW 170+50R	E1UB	510	0.14
SW 186+50R	E1UB	510	0.09
SW 190+50R	E1UB	510	0.01
SW 192+00R	E1UB	510	0.03
SW 194+50R	E1UB	510	0.03
SW 196+00R	E1UB	510	0.25
Total			**2.12**

Note: Most surface water impacts identified will result from extension of box culverts or shading from bridge replacements.

3.3.2 Secondary, Cumulative and Temporary Impacts

Secondary impacts are defined as effects that are caused by and result from an activity, although they happen later in time or are further removed in distance, but are still reasonably foreseeable. Cumulative impacts result from the total effect of the proposed project when added to other past, present, and reasonably foreseeable future projects or actions. Examples of secondary and cumulative impacts that could result from the US 41 widening project include altered hydrologic regime, water quality degradation, and edge effects. These impacts will be further evaluated during future project phases based on more-detailed design and construction techniques.

3.4 AVOIDANCE AND MINIMIZATION

Improvements to US 41 include widening the current four-lane rural and urban facility to a six-lane divided facility. Bridges over Bullfrog Creek and the Alafia River are proposed to be replaced. Almost all proposed improvements are within the existing ROW, which is largely devoid of wetlands and surface waters. ROW acquisition would only occur within an urbanized section of Gibsonton in an area where no wetlands have been identified. Stormwater treatment and floodplain compensation facilities were not evaluated in this report. Opportunities to minimize impacts to wetlands will continue to be evaluated during future project phases.

Environmental impacts associated with the two bridge replacements will be minimal. Bullfrog Creek and the Alafia River have minimal natural vegetation within the ROW. The banks beneath the existing bridges consist mostly of rip rap. The bridges will be replaced in a similar location to avoid a new alignment and increased wetland habitat impacts. However, due to future Maintenance of Traffic (MOT) needs, additional wetland habitat impacts could occur if temporary bridge structures area required.

Proper BMPs will be implemented during construction to avoid impacts to wetlands that are not to be directly impacted by the roadway and bridge improvements. Both vegetative and structural BMPs will be utilized during construction. A Stormwater Pollution Prevention Plan (SWPPP) and an erosion and sediment control plan will be developed during the design phase of this project and implemented during construction. The erosion control devices will be designed per the FDOT Standard Specifications for Road and Bridge Construction.

3.5 FUNCTIONAL ANALYSIS

The Uniform Mitigation Assessment Method (UMAM) was used to assess functions and values for the wetlands within the project corridor. The UMAM scores are based on the FLUCCS categories and not developed for individual wetlands within the project area. UMAM scores for specific wetlands will be completed during the design/permitting phase. The wetland quality ratings (delta values) are expressed numerically with numbers ranging between 0 and 1, with 1 representing an

extremely high quality wetland and 0 reflecting an extremely low quality wetland, or an area that is no longer functioning as a wetland.

The functional loss of a wetland system is the estimated loss of function by the proposed project impacts and is calculated by multiplying the delta value by the impact acreage. Functional loss values for wetland habitat types along the project corridor range from 0.02 to 0.44. Functional loss values are used to determine the amount of mitigation that would be required to offset the loss of wetland function caused by the proposed project. Different formulas are used based on the type of proposed mitigation. The total functional loss value for wetlands within the project is 0.92 and for surface waters is 1.41. Mitigation is not typically required for surface water impacts but is included for potential impacts to wood stork foraging habitat. **Table 3-2** summarizes impact acreage, delta values and functional loss for each wetland and surface water habitat. The UMAM assessments are included in **Appendix F**.

Table 3-5 Functional Loss Analysis

FLUCCS	Wetland/Surface Water Description	Impact Acreage	Delta Values (UMAM)	Functional Loss Values
612	Mangrove Swamps	0.63	0.70	0.44
640	Vegetated Non-Forested	0.03	0.50	0.02
641	Freshwater Marshes	0.32	0.67	0.21
642	Saltwater Marshes	0.31	0.80	0.25
Total Wetlands		**1.29**	**--**	**0.92**
510	Streams and Waterways	2.12	0.67	1.41
Total Surface Waters		**2.12**	**--**	**1.41**

3.6 WETLAND IMPACT MITIGATION

There are no practical avoidance alternatives to the construction of the proposed project design within wetland areas. Wetland impacts will be further refined during future project phases and minimization/avoidance measures will be implemented to the extent practicable.

The entire project, with the exception of a small area near the Alafia River, is located within the service area of the Tampa Bay Mitigation Bank (TBMB). The TBMB provides Southwest Florida Water Management District (SWFWMD) and USACE mitigation credits for saltwater and freshwater marshes and mangrove impacts. Other sources of mitigation may be needed for impacts to vegetated non-forested wetlands. Wetland mitigation options include compensation pursuant to 373.4137, Florida Statutes (F.S.), purchase of wetland mitigation credits through an approved mitigation bank as mentioned above, potential projects in association with Hillsborough County, or creation, restoration or enhancement of wetlands within the project watersheds. The mitigation will satisfy the requirements of Part IV, Chapter 373, F.S. and 33 United States Code (U.S.C.) 1344.

3.7 COORDINATION WITH PERMITTING AGENCIES

All necessary permits will be acquired prior to construction of the proposed project improvements. Coordination and/or permitting will be conducted with the following agencies during the design phase of this project:

- **U.S. Army Corps of Engineers** (USACE) – Section 404 Permit
- **Southwest Florida Water Management District** (SWFMWD) – ERP Permit
- **Florida Department of Environmental Protection** (FDEP) – NPDES Permit
- **Florida Fish and Wildlife Conservation Commission** (FWC) – Species coordination and/or permitting
- **United States Fish and Wildlife Service** (USFWS) – Species coordination and/or permitting
- **National Marine Fisheries Service** (NMFS) – Species coordination and/or permitting

SECTION 4 PROTECTED SPECIES AND HABITAT

4.1 METHODOLOGY AND ASSESSMENT

The project corridor was assessed for the presence of suitable habitat for federal- and/or state-listed protected species in accordance with 50 Code of Federal Regulation (CFR) Part 402 of the Endangered Species Act (ESA) of 1973, as amended, Chapters 5B-40 and 68A-27 F.A.C., and Part 2, Chapter 27 - Wildlife and Habitat Impacts of the FDOT PD&E Manual.

Literature reviews, agency database searches and coordination, analysis of GIS data, and field reviews were conducted in order to determine protected species and potential suitable habitat that exists within the project corridor. The SWFWMD land use data and recent aerial photographs were reviewed to assist in determining habitat types occurring within and adjacent to the project corridor. Information sources and databases utilized include the following:

- FDOT Efficient Transportation Decision Making (ETDM) Programming Screen Summary Report (PSSR) Project No. 5180,
- Florida Fish and Wildlife Conservation Commission (FWC) data, including the Eagle Nest Locator,
- U.S. Fish and Wildlife Service (USFWS) data,
- National Marine Fisheries Service (NMFS) data,
- Florida Geographic Data Library (FGDL),
- Florida Natural Areas Inventory (FNAI) data,
- Southwest Florida Water Management District (SWFWMD) data,
- National Wetlands Inventory (NWI) data, and
- SWFWMD 2010 seagrass data

Figure 4-1 provides observed species locations during field reviews and **Figure 4-2** provides documented species occurrences database searches. Project scientists conducted wildlife and habitat field surveys in October 2013 and October 2014. Potential habitat in and immediately adjacent to the project ROW was visually scanned for evidence of protected species, appropriate habitat and general wildlife observations.

The ETDM PSSR was used as a reference to review agency comments provided during the process and also provide focal species identified by the reviewing agencies. The ETDM PSSR was used to address reviewing agencies' comments. The ETDM PSSR, published April 10, 2013, is located in **Appendix D**.

A list of potentially occurring protected species was developed, and each species was assigned a low, moderate or high likelihood for occurrence within habitats found on the project corridor. **Table 4-1** lists the federal- and state-listed wildlife species with the potential to occur within the project

corridor, based on the availability of suitable habitat and known ranges. **Table 4-2** provides the same information for federal and state listed plant species. Definitions for likelihood of occurrence are provided below:

Low - Species with a low likelihood of occurrence within the project corridor are defined as those species that are known to occur in Hillsborough County or within the region, but preferred habitat is limited on the project corridor and no species were observed during field observations or documented in agency databases.

Moderate - Species with a moderate likelihood for occurrence are those species known to occur in Hillsborough County or nearby counties, and for which suitable habitat is well represented on the project corridor, but no observations or positive indications exist to verify their presence.

High - Species with a high likelihood for occurrence are suspected within the project corridor based on known ranges and existence of sufficient preferred habitat on the corridor, are known to occur adjacent to the corridor, or have been previously observed or documented in the project vicinity.

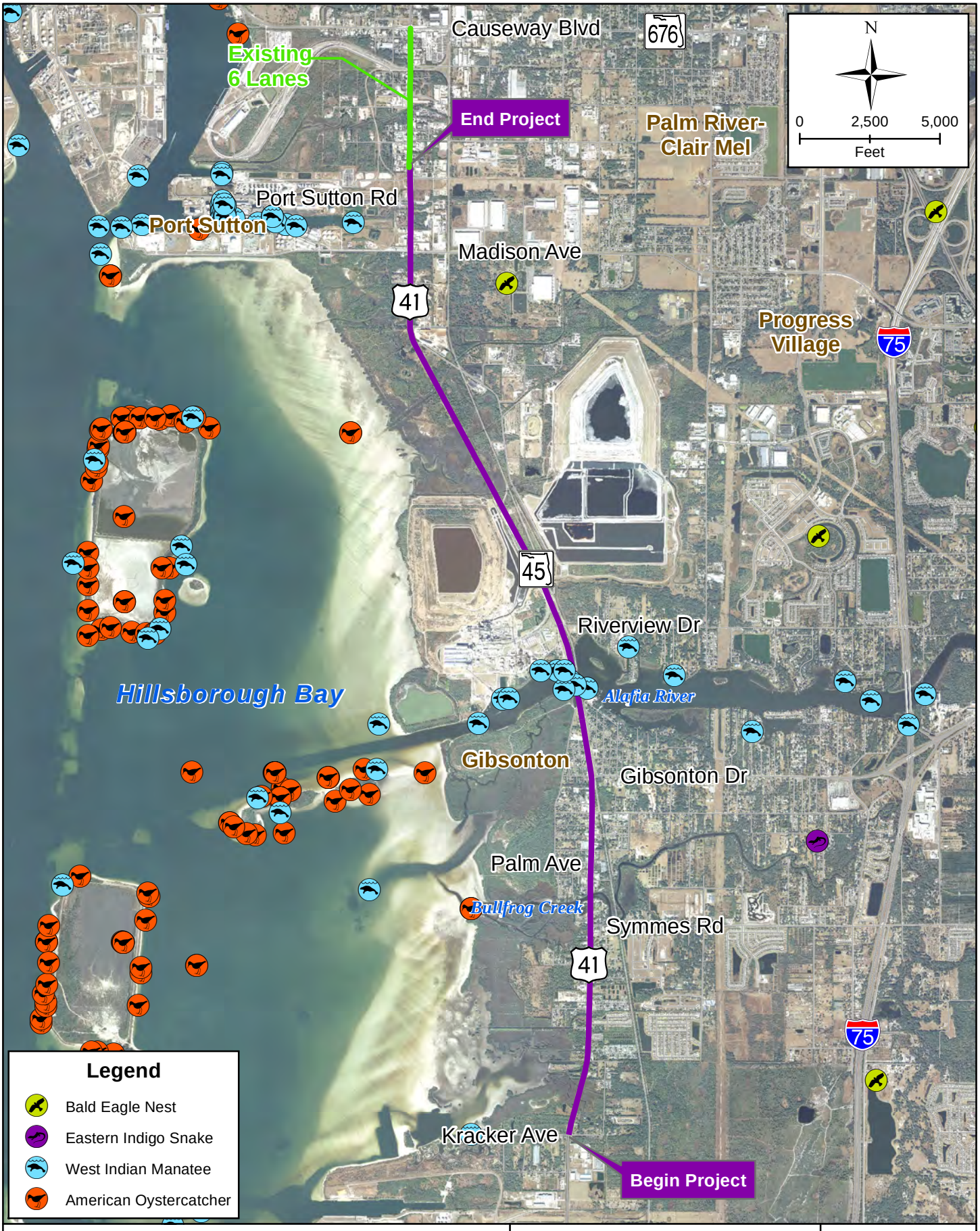
US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676 (Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

Observed Species

Figure 4-1



US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676 (Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

Documented Species

Source: FWC, FWRI, USFWS

Figure 4-2

Table 4-1 Potentially Occurring Listed Wildlife Species

Species	Common Name	Federal Listing (USFWS)	State Listing (FWC)	Habitat	Probability Of Presence Or Occurrence
FISH					
Acipenser oxyrinchus desotoi	Gulf sturgeon	T	FT	Marine/Estuarine primarily Spawn in freshwater rivers	Low
Pristis pectinata	Smalltooth sawfish	E		Marine/Estuarine	Low
REPTILES & AMPHIBIANS					
Alligator mississippiensis	American alligator	SAT	FT(S/A)	Tidal marsh, tidal swamp, lacustrine (lakes, ponds), palustrine, riverine	Moderate
Caretta caretta	Loggerhead	T	FT	Marine Nesting on beaches	Low
Chelonia mydas	Green turtle	E	FE	Marine Nesting on beaches	Low
Dermochelys coriacia	Leatherback	E	FE	Marine Nesting on beaches	Low
Drymarchon corais couperi	Eastern indigo snake	T	FT	Associated w/ gopher tortoise burrows, high-dry sandy areas	Moderate
Gopherus polyphemus	Gopher tortoise	C	T	Old field, sandhill, scrub, xeric hammock, ruderal, dry prairie, pine flatwood	Moderate
Lepidochelys kempii	Kemp's Ridley	E	FE	Marine Nesting on beaches	Low
Rana capito	Gopher (crayfish) frog		SSC	Associated w/ gopher tortoise burrows, high-dry sandy areas	Low

Species	Common Name	Federal Listing (USFWS)	State Listing (FWC)	Habitat	Probability Of Presence Or Occurrence
BIRDS					
Aphelocoma coerulescens	Florida scrub jay	T	FT	Scrub, scrubby flatwoods	Low
Ajaia ajaja	Roseate spoonbill		SSC	Marine, estuarine, palustrine, mangroves	High
Charadrius alexandrinus	Snowy plover		T	Dry, sandy beaches or salt/mudflats	Low
Charadrius melodus	Piping plover	T	FT	Open, sandy beaches and tidal mudflats and sandflats	Low
Egretta caerulea	Little blue heron		SSC	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	High
Egretta rufescens	Reddish egret		SSC	Tidal Marsh, unconsolidated substrate, mangrove island,	High
Egretta thula	Snowy egret		SSC	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	High
Egretta tricolor	Tricolored heron		SSC	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	High
Eudocimus albus	White ibis		SSC	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	High
Haematopus palliatus	American oystercatcher		SSC	Beach dune, exposed marine and estuarine substrate, mudflat, beach, sandbar	Low

Species	Common Name	Federal Listing (USFWS)	State Listing (FWC)	Habitat	Probability Of Presence Or Occurrence
Haliaeetus leucocephalus	Bald eagle	**		Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	High
Mycteria americana	Wood stork	T	E	Estuarine tidal swamps/marshes, lacustrine, seepage stream, ditches, ruderal	High
Pandion haliaetus	Osprey		SSC	Estuarine, lacustrine, riverine	High
Pelecanus occidentalis	Brown pelican		SSC	Marine, estuarine, mangroves	High
Rynchops niger	Black skimmer		SSC	Beach dune, tidal marsh, beaches, sand dunes, large lakes in Central & South FL	Low
Sterna antillarum	Least tern		T	Beach dune, coastal grassland,	Low
MAMMALS					
Trichechus manatus (Trichechus manatus latirostris)	West Indian Manatee	E	FE	Alluvial stream, blackwater stream, spring fed stream, estuarine, marine	High

Note: F = Listed by the State of Florida as Federally Designated, E = Endangered, T = Threatened, SSC = Species of Special Concern, SAT = Treated as threatened due to similarity of appearance, (S/A) = Designated due to similarity of appearance, C – candidate species

*** No longer listed but protected under Migratory Birds Program per the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA)*

4.2 AGENCY COORDINATION

Agency coordination was conducted as part of the ETDM screening and Advanced Notification review process. The ETDM screening process was used to become aware of any issues noted by the commenting agencies. ETDM coordination was conducted with USFWS, NMFS, FWC, and SWFWMD. NMFS comments are addressed separately in **Section 5** of this report. Much of the coordination for potential species occurrence was conducted electronically utilizing databases from USFWS, FFWCC, SWFWMD and FNAI. The agency comments can be found in the ETDM PSSR excerpt in **Appendix D**, and a summary of the relevant agency findings during the ETDM screening is provided below:

4.2.1 U.S. Fish and Wildlife Service

The USFWS identified two potential species within the project area: wood stork and eastern indigo snake. The project passes through the CFA of at least five active nesting colonies of the endangered wood stork. The USFWS has determined that the loss of wetlands within a CFA due to project impacts could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork and other wetland dependent species, the USFWS recommended that impacts to suitable foraging habitat be avoided.

Twenty percent of the land within 200 feet of the corridor is classified as active agricultural land. These agricultural lands are within the geographic range of the threatened eastern indigo snake. Implementing the current standard construction conditions and protection measures for eastern indigo snake will reduce the direct risks to snakes during the construction phase. Surveys for gopher tortoise burrows will also facilitate the use of the eastern indigo snake effect determination keys utilized by the USACE. The gopher tortoise is a federal candidate species for listing.

4.2.2 Florida Fish and Wildlife Conservation Commission

The FWC identified numerous federal- and state-endangered and threated species as well as species of special concern that may exist within the project corridor. FWC noted the project site is within the USFWS Consultation Areas for the Florida scrub-jay, Florida manatee and the piping plover, and within the CFA for five wood stork colonies.

The greatest potential for adverse impacts is associated with in-water work required for bridge demolition and new construction. The *Sea Turtle and Smalltooth Sawfish Construction Conditions* and the *Standard Manatee Conditions for In-Water Work* (2011) will be utilized to avoid and minimize effects on the Florida manatee and sea turtles during removal of the old bridge structures and construction of the new bridges.

4.2.3 Southwest Florida Water Management District

The SWFWMD identified the following potential species that may be located within the project area: smalltooth sawfish, Gulf sturgeon, bald eagle and the manatee. The manatee is a listed threatened species and will require additional measures to be in place in order to protect this mammal during the construction process. A Specific Condition will be used in the Environmental Resource Permit (ERP) outlining the standard operating procedure during the demolition of the old bridge and construction of the replacement bridge. SWFWMD advised that stormwater outfall pipes and structures extending below the Mean High Water Line (MHWL), exceeding 8 inches in diameter, will require manatee grating to be installed over the waterward end to ensure no manatees become entrapped.

4.3 HABITAT CLASSIFICATION

Existing land use along the project corridor was determined utilizing a variety of resources including the National Wetlands Inventory (NWI), U.S. Geological Survey (USGS) topographical maps, aerial

photographs (1994, 1999, 2003, 2006, 2010, & 2012), land use mapping from the SWFWMD (2004-2005), and field verification during habitat and species field reviews. Field reviews generally agreed with the recorded land use data. A map of land use categories present within the project corridor is provided in **Appendix B**.

The study included an assessment of wetland and upland habitats within the existing FDOT ROW as well as areas located directly adjacent to the ROW. The majority of the uplands within the project area are dominated by residential and commercial land uses. Natural upland habitats that remain in the project area are extremely limited and have moderate to high levels of disturbance due to human activity. Uplands found on the corridor consist primarily of cleared and altered habitats associated with existing transportation facilities and residential and commercial development. Although some native upland communities exist within the overall project vicinity, native upland habitat is extremely limited within and adjacent to the ROW. Wetlands and surface waters are discussed in greater detail in **Section 3.** Upland habitats within the project area are discussed below:

Pine Flatwoods (FLUCCS – 411)

Small areas of pine flatwoods, heavily disturbed due to fragmentation, exotic vegetation, and fire suppression, occur at the edges of the ROW and are located sporadically throughout the corridor. The canopy stratum is dominated by slash pine (*Pinus elliottii*). Other abundant canopy and sub-canopy species observed include cabbage palm (*Sabal palmetto*), live oak (*Quercus virginiana*) and saw palmetto (*Serenoa repens*). The sub-canopy and understory has been heavily infested by Brazilian pepper (*Schinus terebinthifolius*) which ranges from moderate cover to near monoculture dominance, especially at the habitat periphery, or ecotonal areas.

Hardwood – Conifer Mixed (FLUCCS 434)

Small areas of hardwood – conifer mixed habitat, heavily disturbed due to fragmentation, exotic vegetation, and fire suppression, occur at the edges of the ROW and are located sporadically throughout the corridor. Common canopy species include a mix of slash pine, cabbage palm and live oak. This habitat is similar to Pine Flatwoods (FLUCCS – 411), however pine species are not the dominant canopy cover. Saw palmetto is also present in defined patches with reduced canopy cover. Coverage by exotic species is moderate to high, with Brazilian pepper and lead tree (*Leucaena leucocephala*) being the most abundant. Other exotic canopy species includes patches of Australian-pine (*Casuarina equisetifolia*).

Brazilian Pepper (FLUCCS - 422)

Brazilian Pepper, an exotic invasive tree species, is common throughout the project area and surrounding properties. It can be found within the project area in dense stands adjacent to and encroaching on the ROW. Within the study area Brazilian pepper is common on developed parcels, undeveloped uplands, and as a buffer between wetlands and surface waters adjacent to the ROW.

Transportation (FLUCCS – 810)

The transportation corridor is dominated by a grassy maintained ROW adjacent to the transportation facilities. Upland, wetland, and surface water habitats described above and below are interspersed primarily outside of the maintained ROW. Maintained ROW areas are dominated by Bermuda grass and Bahia grass. Other vegetation found within the maintained ROW includes white beggar-ticks *(Bidens alba)* and encroaching Brazilian pepper. Brazilian pepper is present in dense thickets along most of the undeveloped property adjacent to the ROW.

4.4 IMPACT EVALUATION

The Build and No-Build Alternatives were evaluated in developing this project study. Under the No Build Alternative, no changes would be made to the existing roadway system and this alternative would have no impact on wildlife or habitat. Below is a description of potential impacts from the Build Alternative. Only impacts from roadway and bridge improvements have been evaluated in this report. Stormwater treatment and floodplain compensation sites have not been identified for this project; therefore, no habitat impacts were evaluated for potential pond sites. Pond sites will be analyzed during future project phases.

During the field surveys performed in October of 2013 and October of 2014, no federally- or state-listed plant species and no federally- or state-listed wildlife species were identified within the ROW. The federally-protected wood stork (*Mycteria americana)* was observed within the vicinity of the project area and the state-listed brown pelican (*Pelecanus occidentalis*) was also observed at a distance from the project area. The erect prickly pear (*Opunta stricta*), a state-listed plant, was also observed in an adjacent habitat (**Figure 4-1**).

The following paragraphs discuss potential affects the proposed project may have on observed species, species with likelihood for occurrence, and species for which the project is within a USFWS Consultation Area. When applicable, specific avoidance and mitigation measures are discussed for species potentially affected by the proposed project.

4.5 FEDERALLY-PROTECTED SPECIES

Wood Stork (*Mycteria americana)*

The wood stork is a large, white wading bird with black on the underside of the wings and the tail. They utilize freshwater and estuarine habitats for nesting, foraging and roosting. Wood storks are typically colonial nesters and construct their nests in medium to tall tress located within inundated forested wetlands including cypress swamps, mixed hardwood swamps, mangroves and sloughs. The wood stork was recently down-listed and is designated as threatened by both the USFWS and FWC.

According to the USFWS GIS database, the project corridor is within the Core Foraging Area (CFA) of five (5) active wood stork nesting colonies (**Figure 4-3**). No rookeries were observed during field surveys. Wetlands and surface waters within the CFA can be considered Suitable Foraging Habitat

(SFH) for wood storks. As defined by the USFWS, SFH includes wetlands and surface waters which have areas of water that is relatively calm, uncluttered by dense thickets of aquatic vegetation, and has permanent or seasonal water depth between 2 and 15 inches. Wetlands and surface waters that meet the criteria of SFH typically include herbaceous wetlands and ditches/swales, ponds, and canals. The project corridor will be re-evaluated during final permitting of the project as the hydrology and vegetative structure of surface waters may change due to maintenance activities associated with surface water systems.

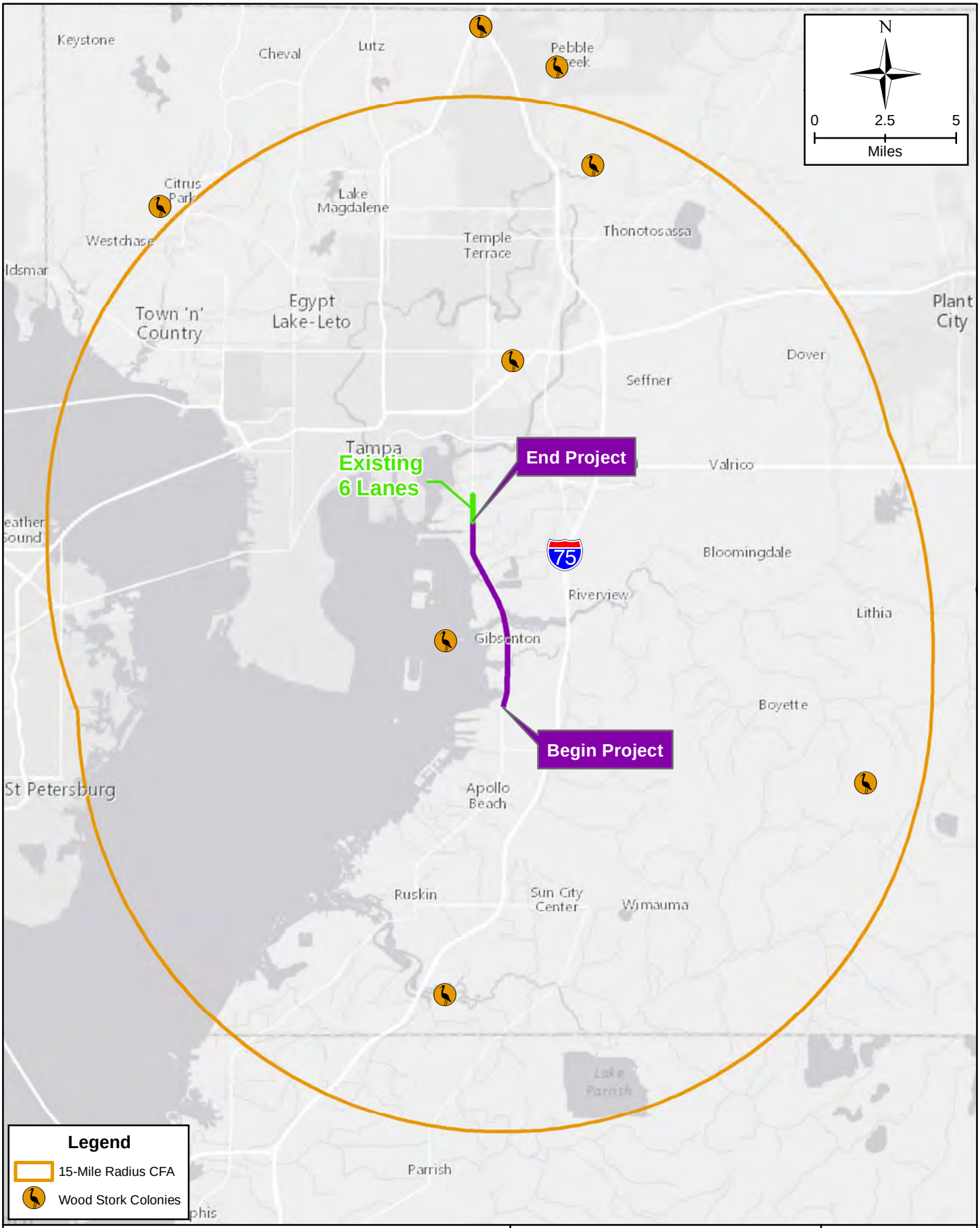
Wood storks were observed in the project vicinity (**Figure 4-1**), and potential SFH for wood storks occurs within and adjacent to the corridor. Impacts to potential SFH will be re-evaluated during final permitting and compensated for in the final mitigation plan. The USFWS *Wood Stork Key for Central and North Peninsular Florida* was completed for this project (**Appendix G**). As a result, the project may affect, but is not likely to adversely affect the wood stork.

Florida Manatee (*Trichechus manatus latirostris)*

The Florida manatee is a large, gray or brown aquatic mammal that can weigh 1,000 pounds and measure 10 feet long. They have no hind limbs, their fore limbs are modified as flippers, and their tails are flattened horizontally and rounded. Their body is covered with sparse hairs and their muzzles are covered with stiff whiskers. Although the manatee is primarily herbivorous and will consume any available aquatic vegetation and sometimes shoreline vegetation, they occasionally feed on fish. Manatees may spend five hours a day feeding, and consume 4 to 9 percent of their body weight a day.

Manatees inhabit salt and fresh water between 5 to 20 feet deep throughout their range. They may be encountered in canals, rivers, estuarine habitats, saltwater, and bays. Between October and April, they concentrate in areas of warmer water in Florida's natural springs and industrial outfalls. During the remainder of the year they select areas based on an adequate food supply, water depth, and proximity to fresh water.

The manatee is listed by the USFWS and FWC as endangered. The project corridor is within the USFWS Florida Manatee Consultation Area. No individuals were observed during field reviews, but the species has been regularly documented in the general area (**Figure 4-2**). There are no permanent impacts to habitat associated with the project; the greatest potential for adverse impacts to this species is associated with in-water work required for the proposed bridge replacements. In order to avoid impacts to the Florida manatee during removal of the old bridge structures and construction of the new bridges, manatee protection measures including *Standard Manatee Conditions for In-Water Work* (**Appendix H**), restrictions on blasting, monitoring of turbidity barriers, exclusionary grating on culverts, presence of manatee observers during in-water work, a defined or limited construction window, and prohibition of night-time in-water work will be included in the final construction plans and permits. As a result, the project may affect, but is not likely to adversely affect the Florida manatee.



US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676 (Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

Wood Stork Colonies

Figure 4-3

Source: USFWS

Eastern Indigo Snake (*Drymarchon corais couperi*)

The eastern indigo snake is a large, black, non-venomous snake reaching lengths of almost 9 feet. Its color is uniformly a lustrous black, although the chin, throat, and sometimes the cheeks may be red to creamy in color. Diet may include fish, frogs, toads, snakes, lizards, turtles, turtle eggs, small alligators, birds, and small mammals. Juvenile eastern indigo snakes eat mostly invertebrates. The eastern indigo snake occurs in a wide variety of habitats, including forested uplands and wetlands as well as wet and dry prairies.

The eastern indigo snake is listed by the USFWS and FWC as threatened. No individuals were observed during the field surveys and areas of suitable habitat for this species are limited within the ROW. Some areas of suitable habitat remain, however, in remnant uplands and wetlands adjacent to the project corridor. The eastern indigo snake utilizes gopher tortoise burrows, holes, cavities and other refugia for protection. Potential habitat in the vicinity includes agricultural fields, undeveloped parcels, disturbed pine flatwoods, and freshwater marshes.

To assure the protection of this species during construction, when it is most likely to be affected, the Department will require adherence to specific guidelines where appropriate habitat is present. Standard construction precautions for the eastern indigo snake will be implemented and these construction guidelines will be a part of the final project design. *Standard Protection Measures for the Eastern Indigo Snake* are provided in **Appendix I**. When the project proceeds to permitting and construction phases, the most current guidelines will be obtained and followed. The USFWS *Eastern Indigo Snake Programmatic Effect Determination Key* was completed for this project (**Appendix J**). Since standard protection guidelines will be incorporated in the final project design and implemented during construction, appropriate habitat is limited, and if found during preconstruction surveys all active and inactive gopher tortoise burrows will be evacuated prior to construction, this project may affect, but is not likely to adversely affect the eastern indigo snake.

Florida Scrub-Jay (*Aphelocoma coerulescens)*

The Florida scrub-jay is a 12 inch long, blue and gray, crestless jay that lacks the white wing spots and tail feather tips of the more common and widespread blue jay. A necklace of blue feathers separates the whiter throat from the gray whitish forehead. The tail is long and loose in appearance and the back is gray.

The Florida scrub-jay is restricted to scattered, often small and isolated patches of sand pine scrub, xeric oak scrub, and scrubby flatwoods in peninsular Florida. They have very specific habitat requirements and prefer forms of scrub habitat that burn frequently enough to maintain a tree height of 3-10 feet. While scrub-jays can be found in areas where scrub has been recently converted to other uses such as residential developments or farmland, their survival and reproductive success are generally very poor in these areas. No individuals or suitable habitat were documented during field reviews. The limited remaining undeveloped upland habitat within the corridor is disturbed by human activity, fire suppression, fragmentation, and invasive species; specifically, dense Brazilian pepper coverage makes these areas unsuitable for the scrub-jay.

The Florida scrub-jay is listed by the USFWS and FWC as threatened. The project corridor is within the USFWS Consultation Area for the Florida scrub-jay, but suitable habitat does not exist within or directly adjacent to the corridor; therefore, the project will have no effect on the Florida scrub-jay.

Piping Plover (*Charadrius melodus*)

The piping plover is a small, migratory shorebird with a body length of 6 to 8 inches. Throughout the year adults have sand-colored upper body parts, white undersides, and orange legs. During the breeding season adults acquire a black forehead, a single black breast band, and orange bills with black tips.

The piping plover is listed by the USFWS and FWC as threatened. Though this species does not breed in Florida, individuals from the three breeding populations winter in Florida at sites along the Gulf of Mexico and Atlantic coasts. Piping plover wintering habitat includes beaches, mudflats, and sandflats, as well as barrier island beaches, spoil islands and sand or algal flats in protected bays. The project corridor is within the USFWS Consultation Area for the piping plover, but suitable habitat does not exist within or directly adjacent to the corridor; therefore, the proposed project will have no effect on the piping plover.

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

The Gulf sturgeon is an anadromous fish, inhabiting coastal rivers from Louisiana to Florida during the warmer months, and the Gulf of Mexico and its estuaries and bays in the cooler months.

Gulf sturgeon are primitive fish characterized by a bony plate and a hard, extended snout; the tail is distinctly asymmetrical with the upper lobe longer than the lower. Adults range from 4-8 feet in length; females attain larger sizes than males. They can live for up to 60 years, but average about 20-25 years.

The Gulf sturgeon is listed as threatened by both the USFWS and FWC. The sturgeon forages in the Gulf of Mexico and spawns in most coastal rivers. This species is more common in Gulf waters and rivers near the Panhandle west to Mississippi, but has been documented as far south as Florida Bay. No USFWS Critical Habitat is documented within the proposed project area. The FDOT will implement BMPs and adhere to the *Construction Special Conditions for the Protection of the Gulf Sturgeon* (**Appendix K**) during construction of the proposed bridges. It is therefore anticipated that this project may affect, but is not likely to adversely affect the Gulf sturgeon.

Smalltooth Sawfish *(Pristis pectinata)*

The sawfish get its name from its long, flat snout edged with pairs of teeth which are used to locate, stun, and kill prey. Males have broader teeth than females. Their diet includes mostly fish but also some crustaceans. Smalltooth sawfish commonly reach 18 feet in length and may grow to 25 feet and may live up to 25-30 years. Like many elasmobranchs, smalltooth sawfish are ovoviviparous, meaning the mother holds the eggs inside of her until the young are ready to be born, usually in litters of 15 to 20 pups.

Smalltooth sawfish normally inhabit shallow, tropical, coastal waters and estuarine habitats such as seagrass beds, mangroves, and inshore bars. They can be found in sheltered bays, estuaries, and mouths of rivers; some sawfish are even known to go upstream into fresh water in larger riverine systems. This species was historically found throughout most of the Gulf of Mexico and the Atlantic Ocean, but is now confined to peninsular Florida and only relatively common in areas of south Florida near the Everglades. The NMFS has designated coastal waters near Fort Myers and the Everglades as Critical Habitat for the smalltooth sawfish. Sandy bottom with seagrasses, which provides potential habitat for the smalltooth sawfish, is not present in the immediate project area; however, there are limited amounts of mangrove shoreline (specifically red mangrove) that provide habitat for this species. Red mangroves are found along the Alafia River and Bullfrog Creek, but very limited within the project area. Since it is unlikely this species is present in the project area and FDOT will implement BMPs and adhere to the NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* (**Appendix L**) during construction of the project, it is anticipated the project may affect, but is not likely to adversely affect the smalltooth sawfish.

Sea Turtles

Sea turtles that have the potential to exist within the project corridor include the loggerhead (*Caretta caretta*), green sea turtle (*Chelonia mydas*), leatherback (*Dermochelys coriacea*), and Kemp's Ridley (*Lepidochelys kempii*). These marine turtles are often found in the Gulf of Mexico and the coastal waters of Florida, although leatherbacks are rarely seen in coastal waters except when hatchlings are dispersing from nesting beaches. Sea turtles generally nest on sandy beaches near the dune lines, away from areas that are disturbed by tidal influences. These sea turtles are known to nest more commonly on the east coast of Florida, with Kemp's Ridley rarely nesting in Florida. No nesting habitat exists with the project corridor for these sea turtles.

Juvenile turtles are known to frequent bays or inlets where they may seek calmer waters and forage in seagrass beds. Movement and foraging within or adjacent to the project will not be limited by construction or by the new bridge structures. The FDOT will implement BMPs and will adhere to the NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* (**Appendix L**) during construction. No seagrass impacts are anticipated, therefore it is anticipated that this project may affect, but is not likely to adversely affect sea turtles.

4.6 STATE-PROTECTED SPECIES

Gopher Tortoise (*Gopherus polyphemus*)

The gopher tortoise is a large, dark brown to grayish-black, terrestrial tortoise. The shell is approximately 5.9-14.6 inches long. The gopher tortoise has elephantine hind feet, shovel-like forefeet, and a gular projection beneath the head of the yellowish, hingeless plastron or undershell. This species reaches reproductive maturity at 16 - 21 years of age. Gopher tortoises nest in late April to mid-July. Preferred habitats include xeric areas with sandy soils and open canopy with low ground cover. The gopher tortoise feeds primarily on new shoots of grasses and broad leaf herbs, but may also consume mushrooms, fleshy fruits and some animal matter.

The gopher tortoise is listed by the FWC as threatened and is a candidate for listing by the USFWS. Surveys were conducted for gopher tortoises and burrows in all potential habitats within and immediately adjacent to the ROW. Survey intensity was only designed to identify presence/absence within suitable habitat and not conducted to provide a 100% survey. Although no gopher tortoises or burrows were observed during surveys, appropriate habitat exists within the project vicinity.

More comprehensive surveys for tortoises and their burrows will be conducted during the final design phase of the project. If tortoise burrows are identified within the proposed project limits, the Department will contact the FWC in order to acquire a relocation permit(s). The project may affect, but is not likely to adversely affect the gopher tortoise.

Coastal and Wetland Dependent Birds

This category includes all state-listed coastal and wetland dependent birds that have potential to occur on the project corridor. This includes the roseate spoonbill, snowy plover, little blue heron, reddish egret, snowy egret, tricolored heron, white ibis, American oystercatcher, osprey, brown pelican, black skimmer and least tern. The species are all listed as species of special concern or threatened by the FWC.

Multiple non-listed coastal and wetland dependent avian species were observed foraging and flying over the project corridor. No nesting or roosting activity was observed by any of these species. Foraging is generally limited to the open water and wetland systems adjacent to but outside of the project corridor. No state listed coastal or wetland dependent avian species were observed within the ROW during field surveys; the state-listed brown pelican and osprey were observed in adjacent habitats (**Figure 4-1**).

Foraging habitat for coastal and wetland dependent avian species is limited within the ROW. Impacts to potential foraging habitat for these species (appropriate wetlands and surface waters) will be re-evaluated during final permitting and addressed in the final mitigation plan. As a result, the project may affect, but is not likely to adversely affect coastal and wetland-dependent avian species.

American Alligator (*Alligator mississippiensis*)

The American alligator is a large, semi-aquatic reptile ranging 6 -14 feet in length when it reaches reproductive maturity at 8 to 13 years of age. Females construct nests comprised of vegetation, sticks, leaves, and mud in a location near a regularly inundated water source. The female lays 20 - 50 eggs and remains near the nest during the 65-day incubation period. The alligator is an opportunistic feeder that will consume almost anything, but primarily eats fish, turtles and snails.

The American alligator is listed by the FWC as federally threatened due to similarity of appearance. The American alligator is not covered under the federally-listed species since there is no potential for occurrence of the federally threatened American crocodile (*Crocodylus acutus*) within the project area. During field surveys, no individuals of this species were observed along the project corridor;

however, habitats utilized by the American alligator such as canals, ditches, and freshwater marshes, are found within and adjacent to the project corridor.

Impacts to wetlands and native habitat are anticipated to be minimal if the project is implemented. In addition, this species is common in local habitats and it is not anticipated that the long term viability of this species will be affected. Due to the lack of impacts to known habitat types and the species common occurrence throughout the state, this project will have no effect on the American alligator.

Gopher Frog (*Rana capito*)

The gopher frog is a stout-bodied frog approximately 2-4 inches long, found throughout most of the Florida peninsula. They are cream to brown colored with irregular dark spots on their backs and sides. Gopher frogs occupy xeric habitats and commonly utilize gopher tortoise burrows.

When present, gopher frogs can be seen sitting at the mouth of gopher tortoise burrows. Presence may also be confirmed through frog vocalizations. Gopher frogs are winter-spring breeders but vocalizations may be heard during the summer after evening rain showers. Gopher frogs are listed as a species of special concern by the FWC.

No gopher frogs or gopher tortoise burrows were documented; however, appropriate habitat exists within the local region. Relocation efforts, if necessary, associated with the gopher tortoise will include the relocation of any protected burrow commensal species and should offset any potential affects to the gopher frog; therefore, the project may affect, but is not likely to adversely affect the gopher frog.

4.7 NON-LISTED PROTECTED SPECIES

Bald Eagle (*Haliaeetus leucocephalus*)

The bald eagle is distinguished by a white head and white tail feathers. Females are typically larger and may weigh 14 pounds and have a wingspan of 8 feet. Male eagles are smaller, weighing as much as 10 pounds with a wingspan of up to 6 feet. Bald eagles are mostly dark brown until they are four to five years old and acquire their characteristic coloring.

Although the bald eagle is no longer afforded protection by the ESA of 1973, protection for the species is provided through the Migratory Birds Program per the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA). Bald eagles are also no longer listed by the FWC. Bald eagles most commonly inhabit areas near the coast, bays, rivers, lakes or other open bodies of water. They nest in tall trees, typically live pines, which usually have open views to their surroundings. Eagles are also known to utilize artificial structures and other types of tall trees for nesting. The female lays a clutch of two to three eggs between late fall and winter and the adults occupy a fixed home range. The incubation period is approximately 35 days, and the young fledge at approximately 77 days old. This species is an opportunistic feeder, consuming both carrion and live prey, including small turtles, turtle eggs, insects, fish, frogs, lizards, snakes, birds and small mammals.

There are no documented nests within 660 feet of the project area according to the FWC Eagle Nest Locator (March 2015). The closest documented nest is approximately 0.65 miles away from the project corridor (Figure 4-2). No nests were identified within the project corridor during field reviews. The USFWS determined that construction activities greater than 660 feet away from bald eagle nests have no documented negative effects that would halt construction activities during the nesting season. Monitoring of construction and nesting activities is therefore no longer warranted for projects involving construction beyond 660 feet of an active bald eagle nest during nesting season. Nesting season in Florida is from October 1 through May 15, although nesting may occur earlier or later than this period, especially in areas of south Florida. The USFWS Monitoring Guidelines shall be followed if any nests are observed within the project corridor prior to construction. The project is anticipated to have no effect on the bald eagle.

4.8 PLANTS

No federally- or state-listed plant species were observed during field reviews inside or within 300 feet of the ROW. One species, erect prickly pear *(Opunta stricta*) was observed approximately 550 feet outside the ROW.

Table 4-2 provides a list of potentially occurring protected plant species, with each species assigned a low, moderate or high likelihood for occurrence within habitats found on the project corridor based on availability of suitable habitat and known ranges. Field surveys should be conducted during future project phases during the appropriate growing seasons. If protected species are observed during preconstruction surveys, coordination with the USFWS, FWC and/or the Florida Department of Agriculture and Consumer Services - Division of Plant Industry (FDACS–DPI) will be initiated to determine any permit requirements or modifications to construction activities that may be required.

Table 4-2 Potentially Occurring Listed Plant Species

Species	Common Name	Federal Listing (USFWS)	State Listing (FWC)	Habitat	Probability Of Presence Or Occurrence
Acrostichum aureum	Golden Leather Fern		T	Estuarine, tidal marsh, tidal swamp	Moderate
Andropogon arctatus	Pine-woods Bluestem		T	Wet pine-flatwoods	Low
Asclepias curtissii	Curtiss Milkweed		E	Scrub, scrubby flatwoods	Low
Bonamia grandiflora	Florida Bonamia	T	E	sand pine scrub	Low
Centrosema arenicola	Sand Butterfly Pea		E	Sandhill, scrubby flatwoods, dry upland woods	Low
Chrysopsis floridana	Florida Goldenaster	E	E	Sand pine scrub	Low
Glandularia tempensis	Tampa Vervain		E	live oak–cabbage palm hammocks and pine–palmetto flatwoods	Low
Lechea cernua	Nodding Pinweed		T	Pine/oak scrub	Low
Opunta stricta	Erect Prickly Pear		T	Scrub, dry pasture, scrubby flatwoods	Moderate
Pteroglossaspis ecristata	Giant Orchid		T	pine rocklands and cypress swamps	Low
Rhynchospora megaplumosa	Large-plumed Beaksedge		E	Sandy openings in scrubby flatwoods	Low
Thelypteris serrata	Toothed Maiden Fern		E	Cypress swamps, sloughs, floodplains	Low
Triphora amazonica	Broad-leaved Nodding-caps		E	Mesic and hydric hammocks	Low
Zephyranthes simpsonii	Rain Lily		T	Pastures and open pine flatwoods	Moderate

T = Threatened, E = Endangered

4.9 USFWS CRITICAL HABITAT

The project corridor was evaluated for Critical Habitat designated by Congress in 17 CFR 35.1532. Review of the USFWS's available online Critical Habitat Mapper GIS data (March 2015) resulted in the identification of no Critical Habitat within the project area; therefore, the project will have no effect on Critical Habitat.

4.10 AVOIDANCE AND MINIMIZATION

Improvements to US 41 include widening the current four-lane rural and urban facility to a six-lane divided facility. Bridges over Bullfrog Creek and the Alafia River are proposed to be replaced. Most of the proposed improvements are within the existing ROW, which is largely devoid of appropriate habitat for listed species. Small strips of ROW will be needed through the north Gibsonton area for roadway and bridge improvements. Stormwater treatment and floodplain compensation facilities were not evaluated in this report. Opportunities to minimize impacts to listed species and habitat will continue to be evaluated during the project design phase.

Environmental impacts associated with the two bridge replacements will be minimal. Bullfrog Creek and the Alafia River support minimal natural vegetation within the ROW. The banks beneath the existing bridges contain rip rap. In order to avoid impacts to listed species during removal of the old bridge structures and construction of the new bridges, protection measures will be included in the final construction plans and permits. These measures are described in greater detail in **Section 6.2**.

SECTION 5 ESSENTIAL FISH HABITAT

This EFH Assessment is included as part of this report in accordance with Part 2, Chapter 11 – Essential Fish Habitat of the FDOT PD&E Manual and the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1996. EFH includes all types of aquatic habitat, such as open waters, wetlands, seagrasses and substrate, necessary to fish for spawning, breeding, feeding, and development to maturity. See **Figure 5-1** for seagrass locations in the project vicinity.

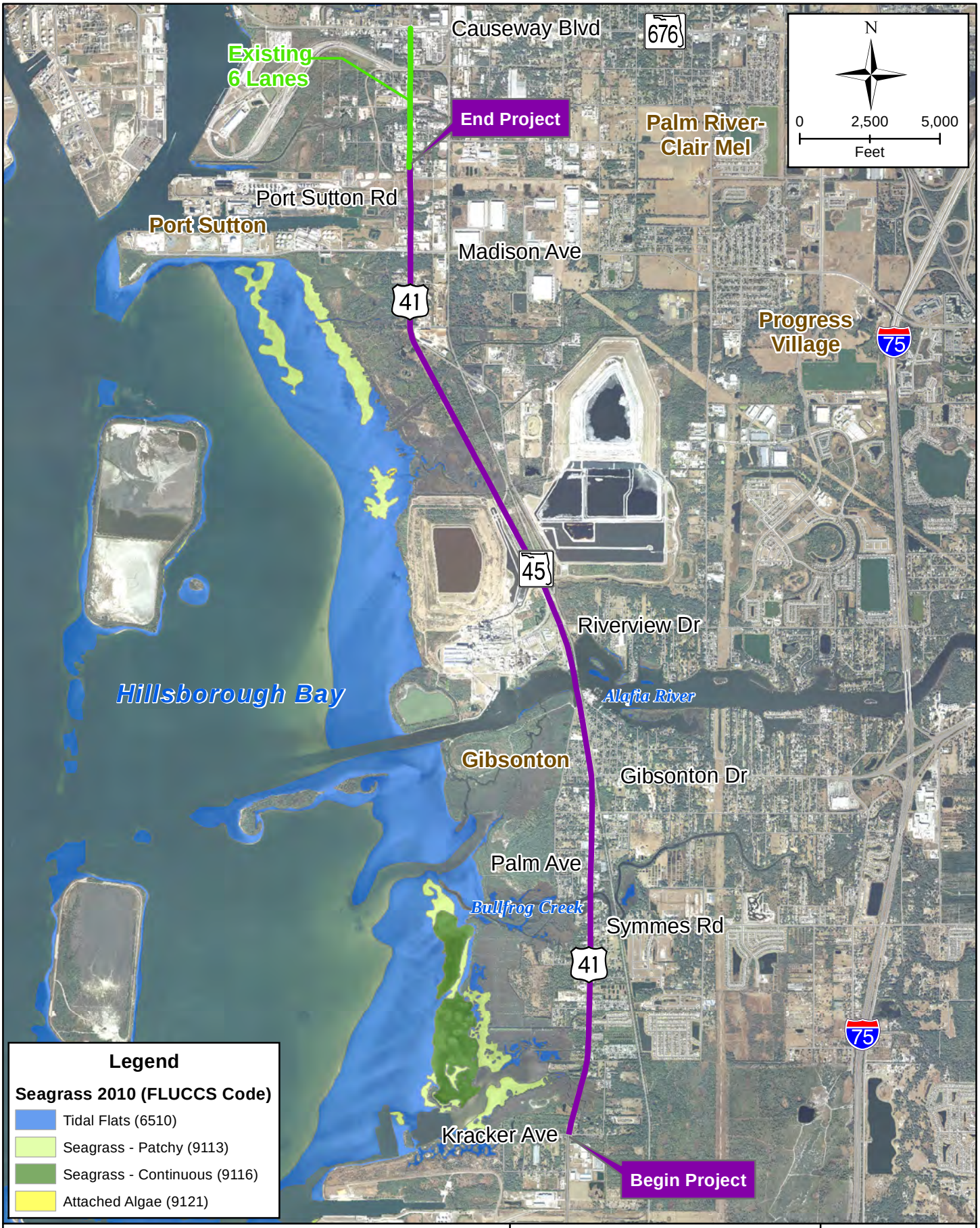
The National Oceanic and Atmospheric Administration (NOAA) NMFS Gulf Coast (Habitat Conservation Division) commented on this project as part of the ETDM screening process for the EFH assessment needs for this project. All agency correspondence, including an excerpt of the ETDM PSSR, is located in **Appendix D**. A summary of the relevant agency findings during the ETDM screening is provided below:

The NMFS staff conducted a site inspection of the project area on September 21, 2012, to assess potential concerns related to living aquatic resources. NMFS stated that the lands adjacent to the project are principally residential, commercial, industrial, agricultural, palustrine wetlands and estuarine habitats, and that certain estuarine habitats within the project area are designated as EFH. Mangroves have been identified as EFH for postlarval/juvenile, sub-adult and adult red and gray snapper, and juvenile goliath grouper, and salt marshes have been identified as EFH for postlarval/juvenile, sub-adult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. NMFS also recommended that stormwater treatment systems be upgraded to prevent degraded water from entering estuarine habitats within the ecosystem. In addition, best management practices should be employed during road construction to prevent siltation of estuarine habitats.

5.1 MAGNUSON-STEVENS ACT

Under the requirements of the MSFCMA of 1996, an EFH Assessment is required for the proposed project. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, and development to maturity. The MSFCMA created conservation and management standards established through Fishery Management Councils (FMCs) to implement the national standards in the Fishery Management Plans (FMP).

The 1996 amendments to the Magnuson-Stevens Act set forth a number of mandates for the NMFS, eight regional FMCs, and other federal agencies to identify and protect important marine and anadromous fish habitat. The FMCs, with assistance from NMFS, are required to identify and delineate EFH for all managed species. Federal action agencies that fund, permit, or carry out activities that may adversely impact EFH are required to consult with NMFS regarding the potential effects of their actions on EFH and to respond in writing to the NMFS's recommendations.



US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676 (Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

Documented Seagrass

Figure 5-1

Source: SWFWMD

5.2 ESSENTIAL FISH HABITAT INVOLVEMENT

The objective of the EFH Assessment is to describe how the actions associated with the proposed project design may affect EFH designated by the NMFS. Land development activities may adversely affect EFH either directly or indirectly (i.e. loss of prey items), and this activity, either site-specific or habitat-wide, is to be identified and evaluated individually and cumulatively. In response to the EFH assessment, NMFS may provide recommendations and/or comments to the responsible federal permitting agency. The information provided by NMFS is considered by the permitting agency, and may be included in the recommendations as part of the Section 404 permit conditions.

According to NOAA guidelines for EFH (1998), EFH assessments must include:

- A description of the proposed action;
- An analysis of the effects, including cumulative effects, of the action on EFH, the managed species, and associated species by life history stage;
- The federal agency's reviews regarding the effects of the action on EFH; and
- Proposed mitigation, if applicable.

The sections below include the description of the proposed activity, EFH existing conditions, analysis of effects, and the federal agency's reviews regarding those effects on the EFH.

5.3 DESCRIPTION OF THE PROPOSED ACTION

The FDOT District 7 proposes the construction of capacity and operational improvements along US 41 from Kracker Avenue to south of SR 676 in Hillsborough County. US 41 is a major north-south regional arterial that parallels I-75 and US 301 within the southern portions of Hillsborough County.

The proposed project consists of the widening of US 41 from a four-lane divided arterial to a six-lane divided arterial and the anticipated replacement of the existing US 41 bridges over the Alafia River (Bridge #100045 and 100107) and Bullfrog Creek (Bridges #100106 and 100044). The length of the proposed project is approximately 7.0 miles and is represented in **Figure 1-1.**

5.4 FIELD SURVEY/EXISTING CONDITIONS

Existing land use along the project corridor was determined utilizing a variety of resources including the NWI, USGS topographical maps, aerial photographs (1994, 1999, 2003, 2006, 2010, & 2012), land use mapping from the SWFWMD (2004-2005), ETDM PSSR, and field verification during habitat and species field reviews. Field reviews largely agreed with the recorded land use data. Properties adjacent to the existing ROW are principally residential, commercial, industrial, and agricultural properties, palustrine wetlands, and estuarine habitats. Mangroves occur adjacent to the existing road and its associated bridges and culverts at Fred's Creek (Bridge #100467), Archie Creek (Bridges #100047 and 100046), Alafia River (Bridges #100045 and 100107), Bullfrog Creek (Bridges #100106 and 100044), Kitchen Branch, Dug Creek, North Archie Creek and along the stretch of US 41 from south of Adams Street to Kracker Avenue.

5.5 ANALYSIS OF EFFECTS ON ESSENTIAL FISH HABITAT

The Build and No-Build Alternatives were evaluated in developing this project study. Under the No-Build Alternative, no changes would be made to the existing roadway system and this alternative would have no impact on EFH. The Build Alternative for the widening of US 41 will result in 1.29 acres of wetland impact and 2.12 acres of surface water impact. The breakdown of total impacts per wetland and habitat type is shown in **Table 3-3** and surface water impacts are shown in **Table 3-4**.

It appears that the project will directly impact NMFS trust resources (EFH including mangroves and tidally influenced marshes) at wetlands: 840+60L, 841+50R, 911+40L, 990+30L, 990+60R, 998+50L, 91+00R, 96+70R, 112+40R, and 140+80R. Mangroves have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and juvenile goliath grouper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Salt marshes have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. The breakdown of wetland impacts to potential EFH per wetland and habitat type is shown in **Table 5-1**.

Table 5-1 Wetland Impacts to Potential EFH

Wetland ID	NWI/ USFWS	FLUCCS	Project Impact Acreage
840+60L	E2SS3	612	0.16
841+50R	E2SS3	612	0.33
911+40L	E2SS3	612	0.00
990+30L	E2SS3	612	0.05
990+60R	E2SS3	612	0.03
998+50L	E2SS3	612	0.03
91+00R	E2EM1	642	0.01
96+70R	E2EM1/SS3	642/612	0.21
112+40R	E2EM1/SS3	642/612	0.09
140+80R	E2SS3	612	0.03
TOTAL			**0.91**

Impacts will also occur to estuarine habitats and surface waters within the project area that are designated as EFH as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. This includes the surface waters of Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek, North Archie Creek, and Fred's Creek. The breakdown of surface water impacts to potential EFH per water body and habitat type is shown in **Table 5-2**.

Table 5-2 Surface Water Impacts to Potential EFH

Surface Water	NWI/USFWS	Project Impact Acreage
Kitchen Branch	E1UBL	0.04
Dug Creek	E1UBL	0.22
Bullfrog Creek	E1UB	0.32
Alafia River	E1UB	0.66
Archie Creek	E1UB	0.07
North Archie Creek	E1UB	0.08
Fred's Creek	E1UB	0.09
TOTAL		**1.48**

More detailed descriptions of wetlands and surface waters can be found in **Section 3**. No other wetland or surface water systems within the study area occur within the proposed footprint of the project or are anticipated to be impacted by its design.

Table 5-3 lists the Managed Fisheries Species and life history stage anticipated to occur in Hillsborough County and potentially occurring within the study area. Due to the minimal quantity of habitat anticipated to be impacted, the disturbed nature of the existing habitat (i.e. adjacent to active roadway, invasive species, direct runoff) and the barriers to the waters of the Gulf of Mexico (culverts, dense stands of invasive vegetation) impacted habitat is less than optimal for all species in **Table 5-3** that may utilize this type of EFH.

Table 5-3 Potentially Occurring Listed Managed Fisheries Species

Common Name	Scientific Name	Life History Stage
Red Drum	*Sciaenops ocellatus*	Postlarval, Juvenile, Subadult and Adult
White Shrimp (Penaeid Shrimp)	*Penaeus setiferus*	Juvenile and Subadult
Stone Crab	*Menippe mercenaria*	Juvenile and Subadult
Schoolmaster	*Lutjanus apodus*	Juvenile and Adult
Mutton Snapper	*Lutjanus analis*	Juvenile and Adult
Gag Grouper	*Mycteroperca microlepis*	Juvenile
Goliath Grouper	*Epinephelus itajara*	Juvenile
Red Grouper	*Epinephelus morio*	Juvenile
Black Grouper	*Mycteroperca bonaci*	Juvenile
Nassau Grouper	*Epinephelus striatus*	Juvenile
Yellowfin Grouper	*Mycteroperca venenosa*	Juvenile
Lane Snapper	*Lutjanus synagris*	Juvenile
Dog Snapper	*Lutjanus jocu*	Juvenile
Yellowtail Snapper	*Ocyurus chrysurus*	Juvenile
Cubera Snapper	*Lutjanus cyanopterus*	Juvenile

5.6 PROPOSED MITIGATION AND MINIMIZATION EFFORTS

Minimization and avoidance measures for wetland impacts were taken into consideration during this study. There are no practical avoidance alternatives to the construction of the proposed project within wetland areas. It is anticipated the proposed project will have no impacts to seagrasses or other submerged aquatic vegetation (SAV); therefore, no mitigation for SAV is proposed at this time. If any changes are made during design that may result in seagrass or other SAV impacts, mitigation measures will be developed with further consultation with the NMFS, USFWS and other appropriate agencies. Mitigation will be provided for all wetland impacts. While impacts to the water column would result from the new bridge pilings, this displacement of the water column would be offset by the removal of the existing bridges. Minimal net loss of the water column is therefore anticipated.

Degradation of water quality resulting from construction of the project or excess pollutant loading of stormwater runoff from the project has the potential to adversely affect project waters. Impacts to water quality from construction activities will be avoided and minimized through the use of BMPs. BMPs generally include phased construction, turbidity screens, silt fences, cofferdams, and other construction techniques approved by the regulatory agencies. Stormwater runoff for the proposed improvements will be collected as part of the stormwater management system that will be evaluated during future project phases. The project will be designed to meet all state water quality standards at the time of permitting.

SECTION 6 CONCLUSIONS AND COMMITMENTS

6.1 CONCLUSIONS

6.1.1 Wetlands

The proposed Build Alternative would result in approximately 1.29 acres of wetland and 2.12 acres of surface water impacts based on the proposed conceptual design. The majority of the surface water impacts will result from the extension of existing culverts and the replacement of the bridges over Bullfrog Creek and the Alafia River. Wetland mitigation options include compensation pursuant to 373.4137, Florida Statutes (F.S.), purchase of wetland mitigation credits through an approved mitigation bank, potential projects in association with Hillsborough County, or creation, restoration or enhancement of wetlands within the project watersheds. The mitigation will satisfy the requirements of Part IV, Chapter 373, F.S. and 33 United States Code (U.S.C.) 1344.

6.1.2 Protected Species and Habitat

The project corridor was assessed for the presence of suitable habitat for federal- and state-listed protected species in accordance with 50 CFR Part 402 of the ESA of 1973, as amended, *Chapters 5B-40: Preservation of Native Flora of Florida and 68A-27, F.A.C. Rules Relating to Endangered or Threatened Species*, and *Part 2, Chapter 27 - Wildlife and Habitat Impacts* of the FDOT PD&E Manual.

Literature reviews, agency database searches and field reviews for protected species and their suitable habitat were conducted within and adjacent to the project corridor. Based on the findings obtained during corridor field survey efforts, no protected faunal species and no protected floral species were observed within the ROW; however, two listed faunal species (wood stork, brown pelican) and one listed floral species (erect prickly pear) were observed in adjacent habitats. Twenty-six listed faunal species, one protected, non-listed faunal species and 14 listed floral species were determined to have potential to utilize habitats within or adjacent to the project corridor based on database and literature research, and field observations of available habitat.

Federal-Protected Species

A finding of may affect, but not likely to adversely affect was determined for the wood stork, Florida manatee, Gulf sturgeon, smalltooth sawfish, sea turtles and eastern indigo snake. A finding of no effect was determined for the Florida scrub-jay and piping plover. A concurrence letter was received by the USFWS on September 1, 2015, and is included in **Appendix D**.

State-Protected Species

A finding of may affect, but not likely to adversely affect was determined for the gopher tortoise, gopher frog and coastal and wetland dependent birds, including the roseate spoonbill, snowy plover, little blue heron, reddish egret, snowy egret, tricolored heron, white ibis, American oystercatcher, osprey, brown pelican, black skimmer and least tern. A finding of no effect was

determined for the American alligator. A concurrence letter was received by the FWC on August 11, 2015, and is included in **Appendix D**.

USFWS Critical Habitat

Review of the USFWS's available GIS data resulted in the identification of no Critical Habitat within the project area; therefore, the project will have no effect on Critical Habitat.

6.1.3 Essential Fish Habitat

An EFH Assessment is included as part of this report in accordance with Part 2, Chapter 11 – Essential Fish Habitat of the FDOT PD&E Manual and the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1996. EFH includes all types of aquatic habitat, such as open waters, wetlands, seagrasses and substrate, necessary to fish for spawning, breeding, feeding, and development to maturity.

Literature reviews, agency database searches and field reviews for EFH were conducted within and adjacent to the project corridor. Estuarine and marine habitats exist within and adjacent to the project corridor on the east and west side of US 41 and below the existing bridges. These habitats include NMFS trust resources including mangroves and salt marsh. Mangroves occur adjacent to the existing road and its associated bridges and culverts at Kitchen Branch, Dug Creek, Bullfrog Creek, the Alafia River, North Archie Creek, Fred's Creek, other unnamed tidal creeks, and along the stretch of US 41 from south of Adams Street to Kracker Avenue. In addition, salt marsh occurs in the vicinity of Kitchen Branch, Archie Creek, other unnamed tidal creeks, and along the stretch of US 41 from south of Adams Street to Kracker Avenue. Mangroves have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and juvenile goliath grouper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Salt marshes have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. Based on field reviews and NMFS consultation, 0.91 acres of wetland impacts to potential EFH and 1.48 acres of surface water impacts to potential EFH are anticipated. The potential EFH impacts are part of the project's overall wetland and surface water impacts discussed above in **Section 3**. Comments were received from NMFS via email on August 6, 2015, and have been incorporated into this WEBAR. Endangered Species Act Section 7 consultation with NMFS should be initiated once design details (final impacts, pile driving activities, etc.) are available.

6.2 COMMITMENTS

- The FDOT will adhere to the *Standard FDOT Construction Precautions for the Eastern Indigo Snake* (**Appendix I**) during construction. Additional measures to minimize impacts to protected species and their habitats include implementation of BMPs during construction, preconstruction surveys, and avoidance of unnecessary land clearing.
- Comprehensive surveys for gopher tortoises and their burrows will be conducted prior to construction of the project per FWC guidelines. If tortoise burrows are identified within the

proposed project limits, the Department will secure the necessary permits in order to relocate any tortoises prior to construction.

- Impacts to potential wood stork SFH will be re-evaluated as part of final permitting and compensated for in the final mitigation plan.
- If protected species are observed during preconstruction surveys, coordination with the USFWS, FWC and/or the FDACS–DPI will be initiated to determine any permit requirements or modifications to construction activities that may be required.
- The FDOT commits to resurvey the project corridor for bald eagle nests prior to construction. If bald eagle nests are present, the FDOT will adhere to most current FWC and USFWS guidelines.
- The FDOT will adhere to the NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* (**Appendix L**) during construction of the project.
- FDOT will incorporate the *Construction Special Conditions for the protection of the Gulf Sturgeon* (**Appendix K**).
- The FDOT will coordinate with NMFS on potential impacts associated with pile driving activities.
- To assure the protection of wildlife during construction, the FDOT will implement a Marine Wildlife Watch Plan (MWWP), which includes the FWC *Standard Manatee Conditions for In-Water Work*. The FDOT will require the construction contractor to abide by these guidelines during construction. **Appendix H** provides an example of the most current *Standard Manatee Conditions for In-Water Work* (2011).
- Special conditions for manatees will need to be addressed during construction and include the following:
    - No nighttime in-water work will be performed. In-water work can be conducted from official sunrise until official sunset times;
    - Two dedicated (minimum one primary) experienced manatee observers will be present when in-water work is performed. Primary observers should have experience observing manatees in the wild on construction projects similar to this one;
    - All siltation barriers or coffer dams should be checked at least twice a day, in the morning and in the evening, for manatees that may become entangled or entrapped at the site;
    - Barges will be equipped with fender systems that provide a minimum standoff distance of four feet between wharves, bulkheads and vessels moored together to prevent crushing manatees. All existing slow speed or no wake zones will apply to all work boats and barges associated with construction; and
    - Although culverts are unlikely for this project, any culverts larger than eight inches and less than eight feet in diameter should be grated to prevent manatee entrapment.

The spacing between the bridge pilings will be at least 60 inches to allow for manatee movement in between the pilings. If a minimum of 60-inch spacing is not provided between piles, further coordination will be conducted with the USFWS.

- If blasting is required, informal consultation will be undertaken with the USFWS for the manatee. Blasting should be performed during specific times of the year, if possible. An extensive blast plan would need to be developed and submitted to the USFWS and FWC for approval as early as possible prior to construction.

SECTION 7 REFERENCES

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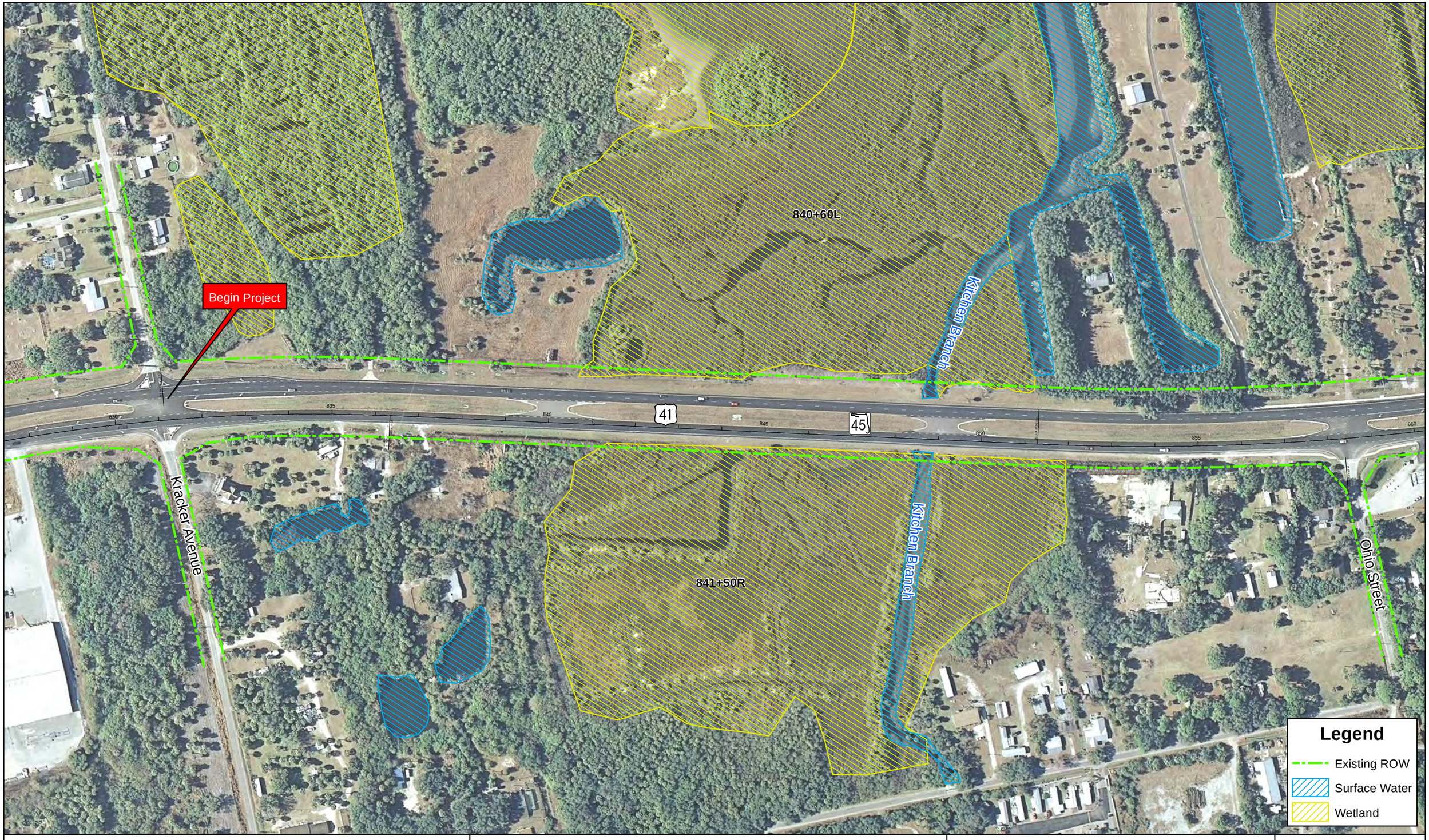
LIST OF APPENDICES

Appendix A
Wetland and Surface Water Map



US 41 (SR 45) PD&E Study
From Kracker Avenue to South of SR 676
(Causeway Boulevard)
WPI Segment No. 430056 1 - Hillsborough County

Wetland and Surface Water Map

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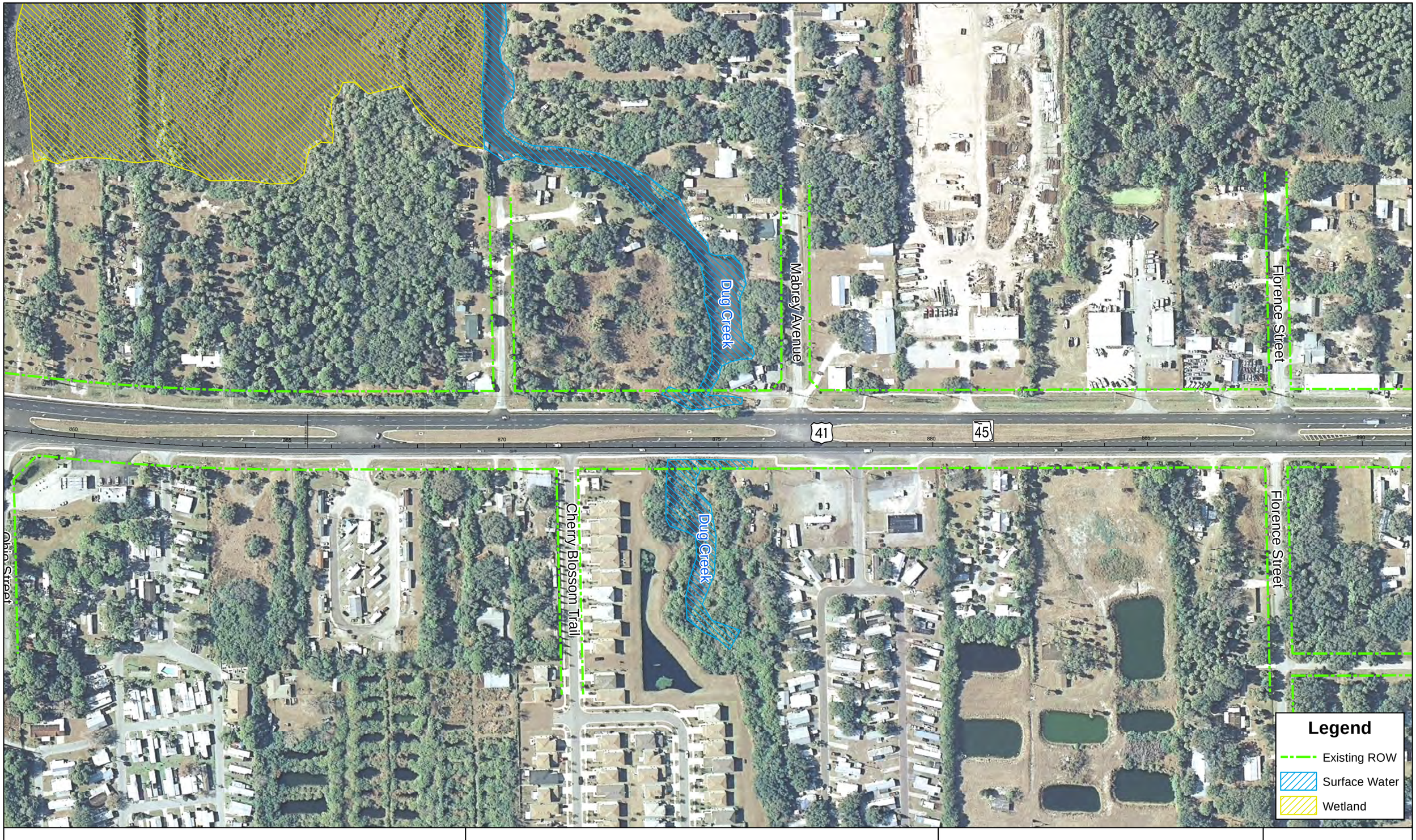

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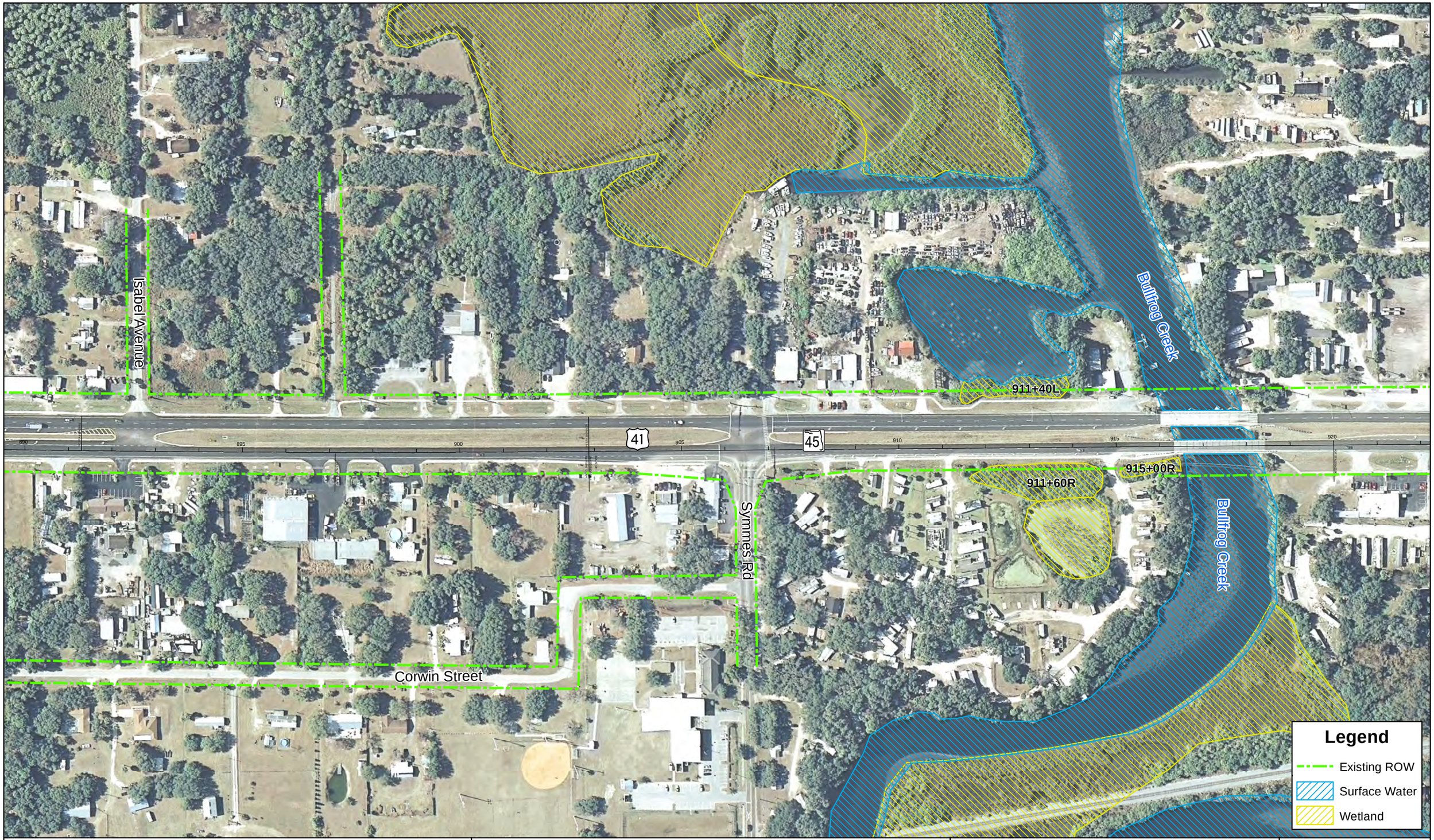

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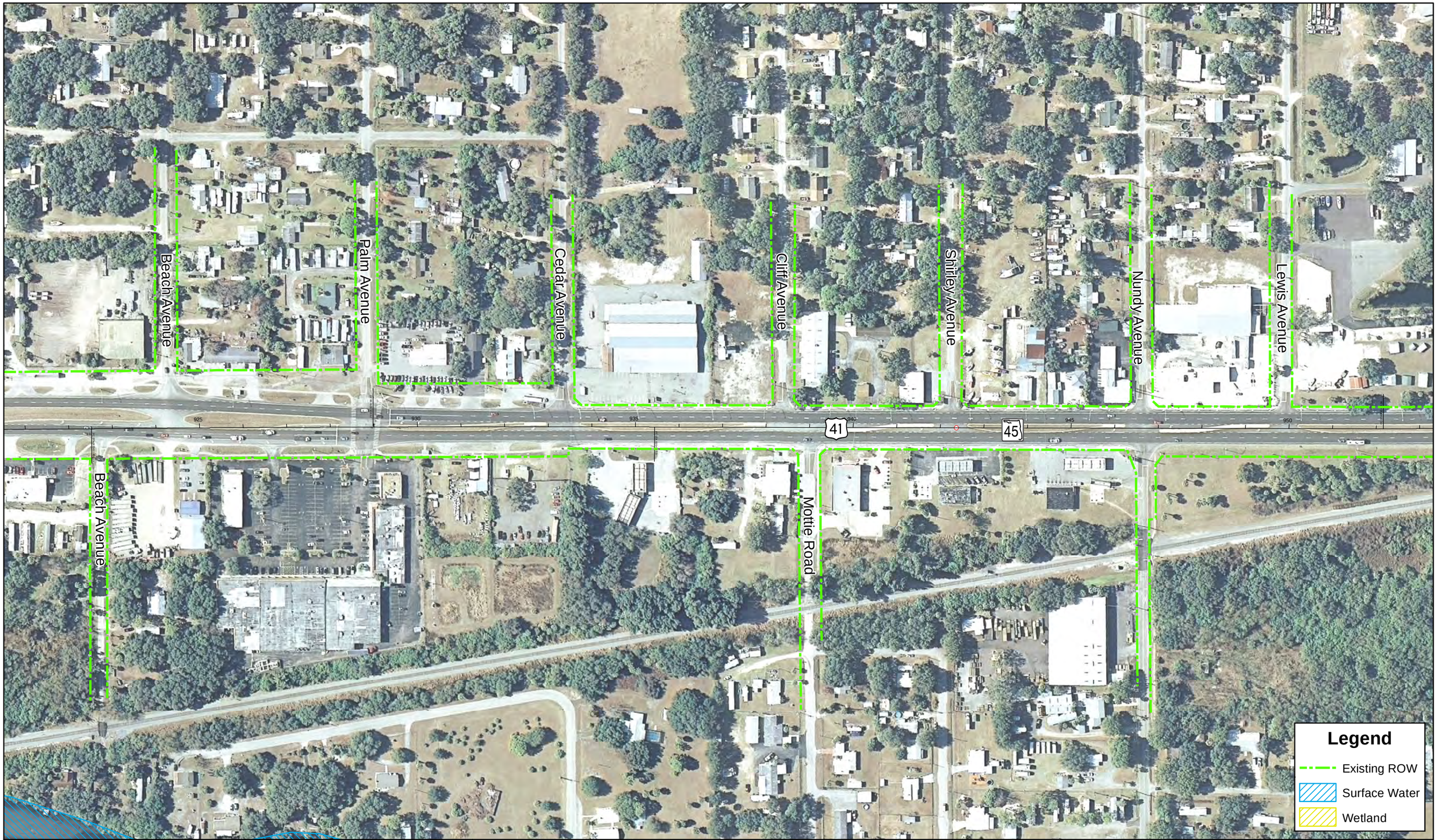

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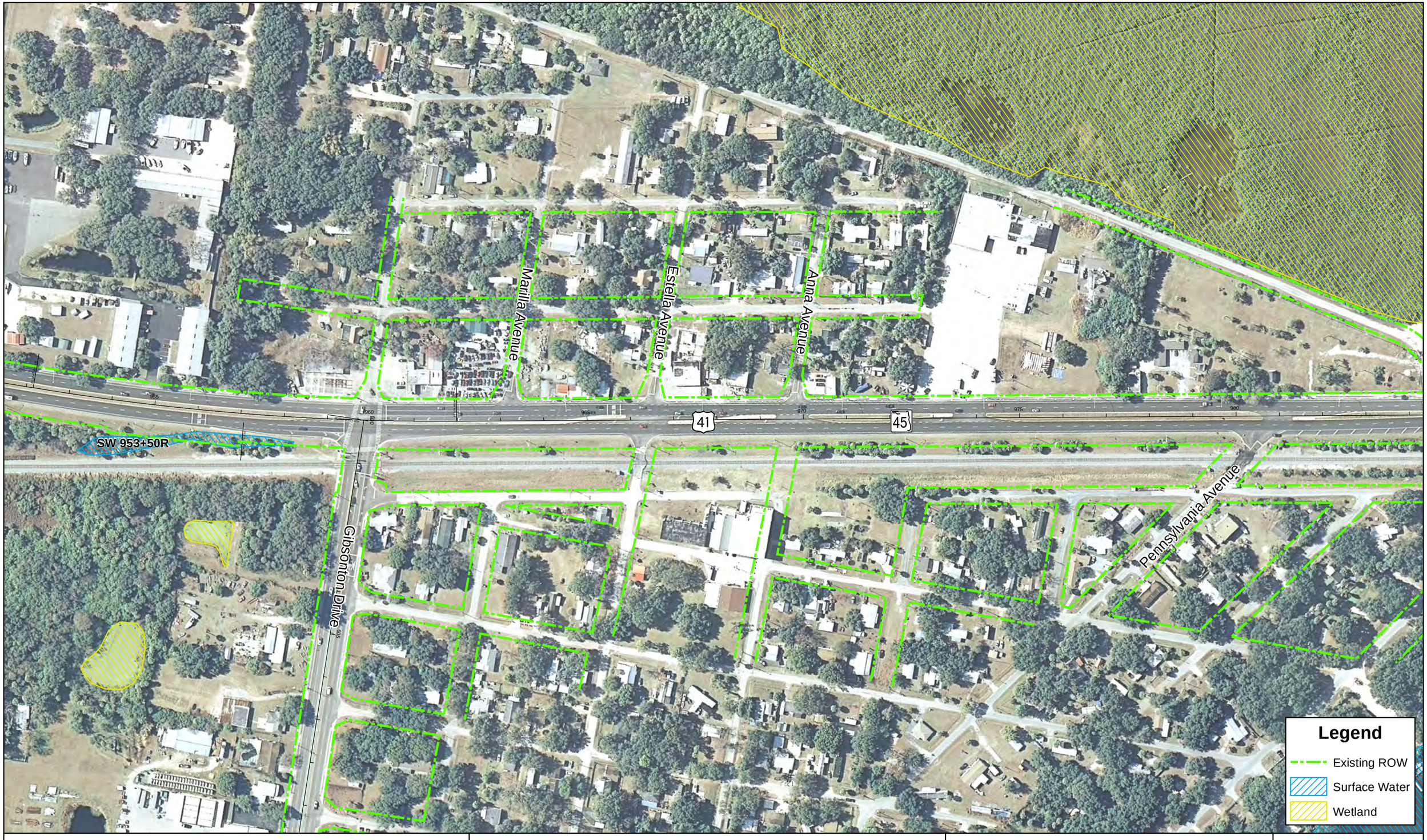

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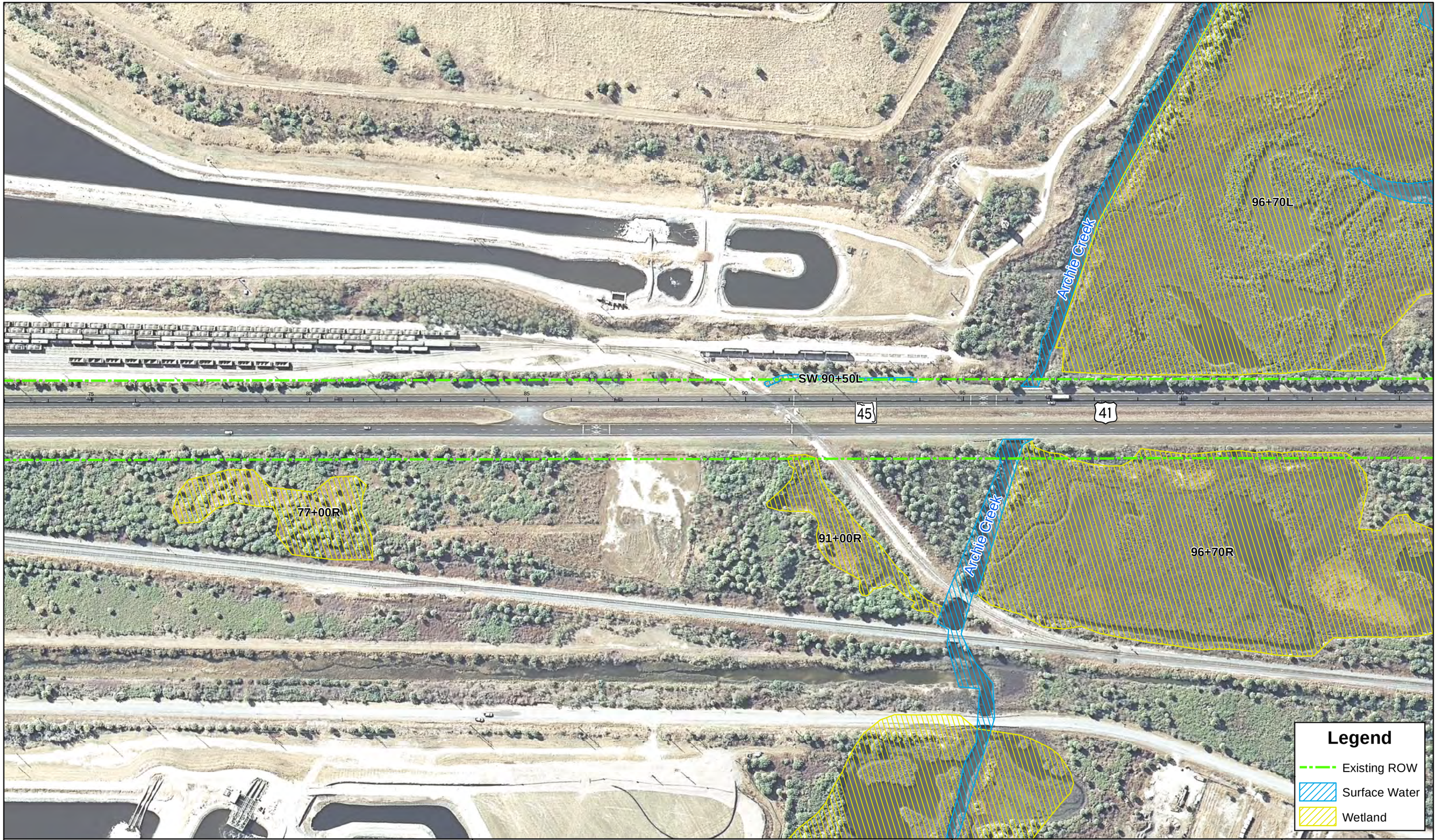

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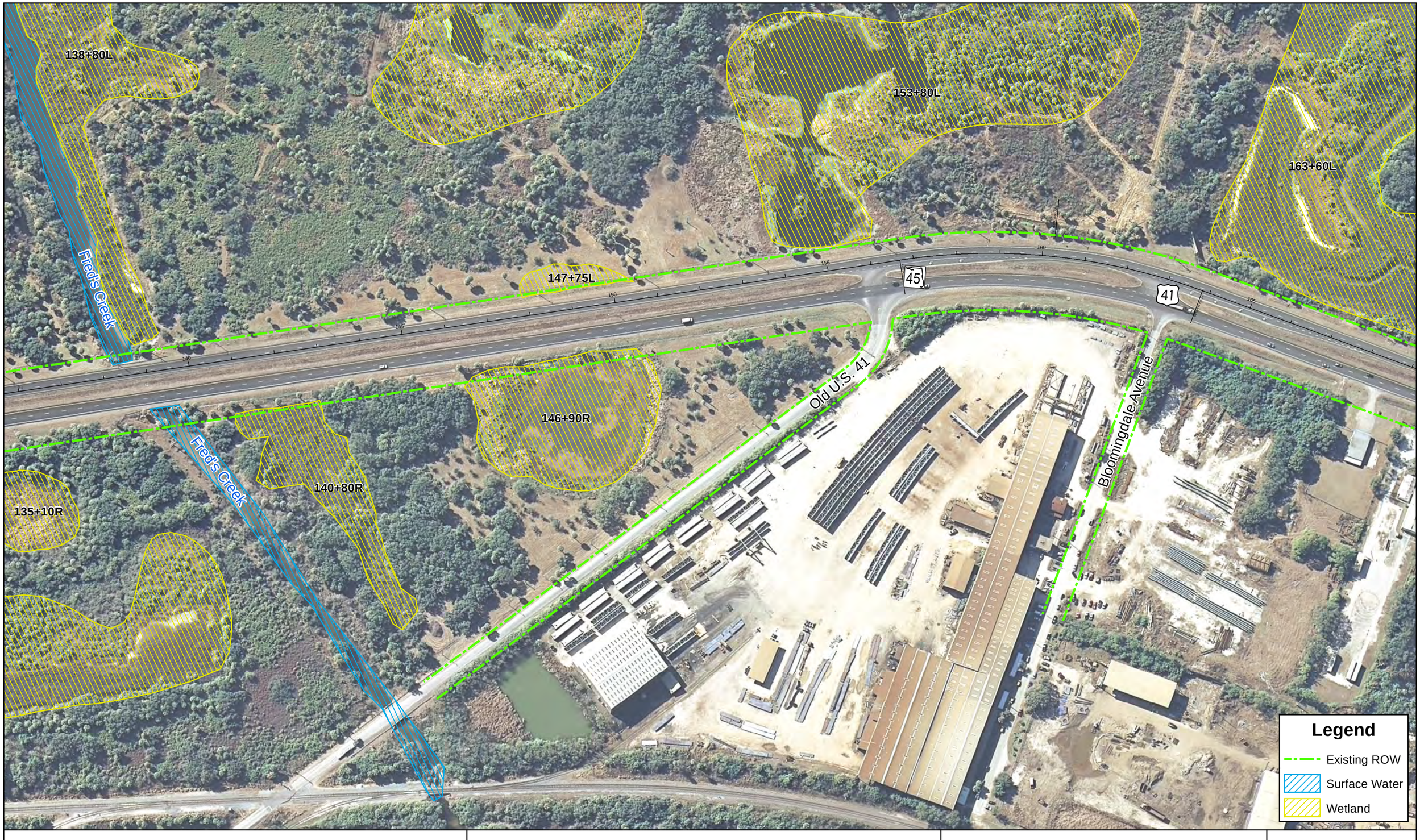

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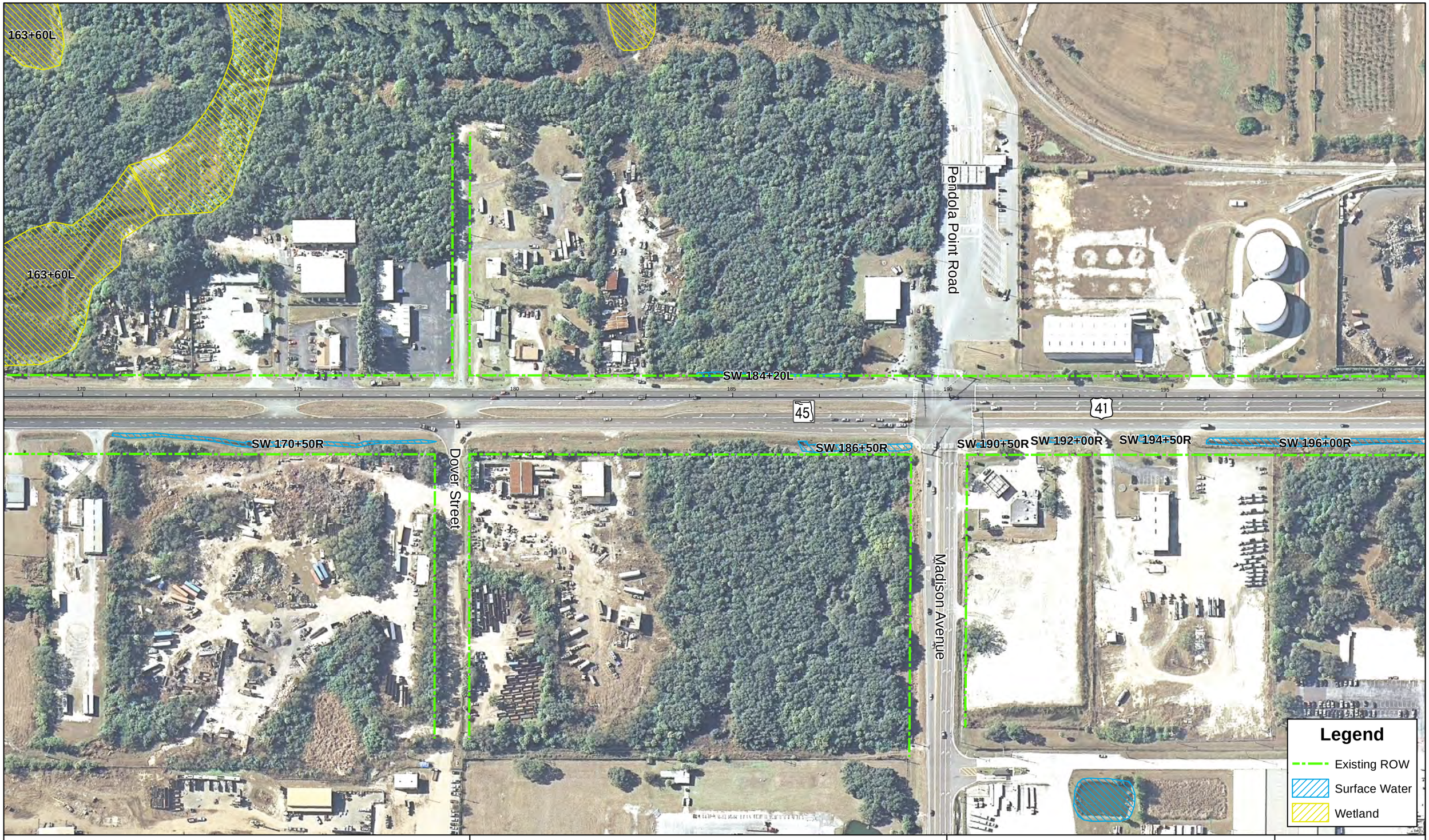

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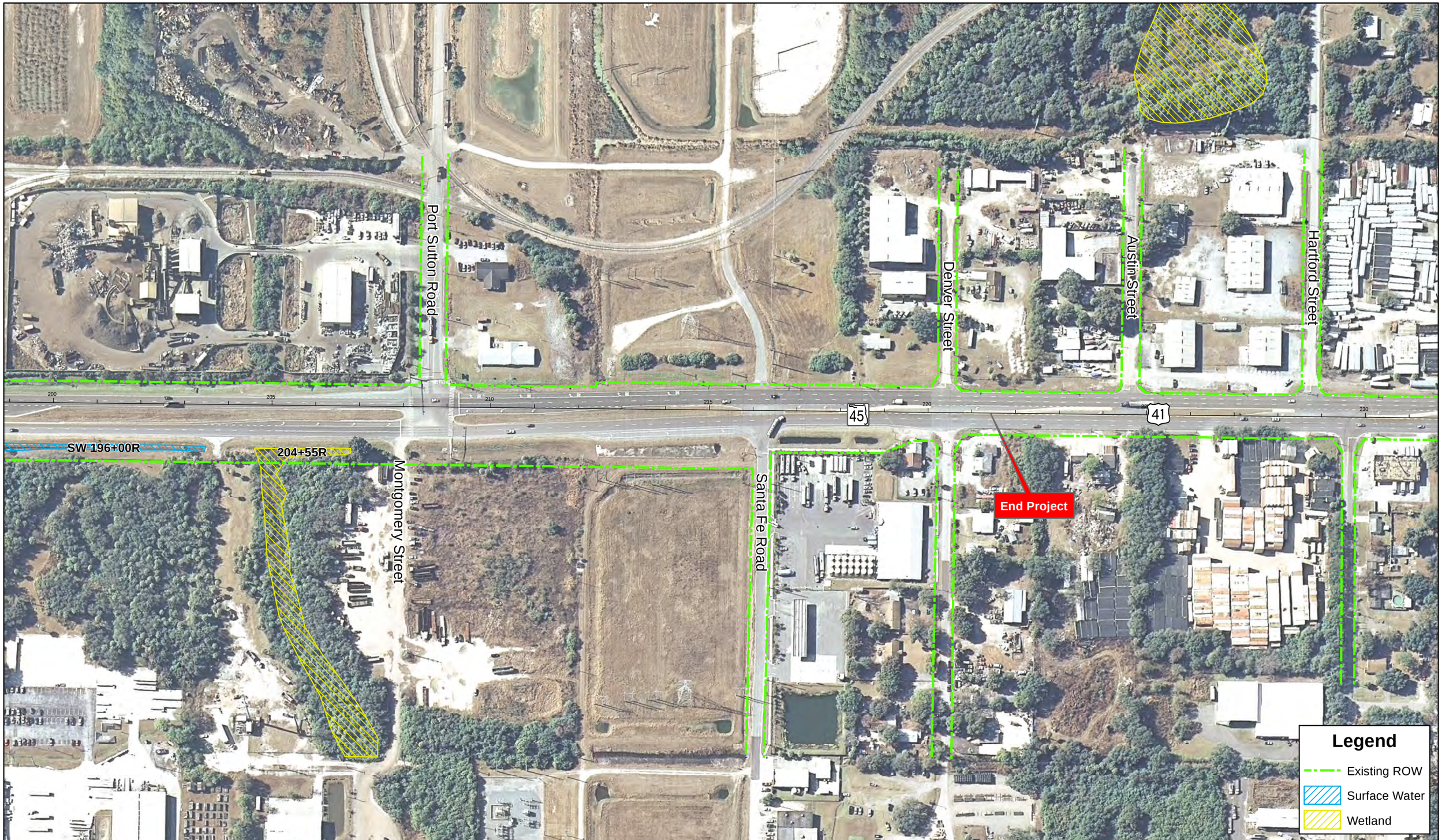

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Appendix A

Appendix B
Existing Land Use Map

Begin Project

120
260
540
190
612
540
612
540
540
110
120
810
260
120
530
642
120
130
41
45
Kitchen Branch
Kracker Avenue
Kitchen Branch
Ohio Street

Legend

Existing ROW

FLUCCS Code - Description

110 - RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120 - RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT
130 - RESIDENTIAL HIGH DENSITY
190 - OPEN LAND
260 - OTHER OPEN LANDS <RURAL>
530 - RESERVOIRS
540 - BAYS AND ESTUARIES
612 - MANGROVE SWAMPS
642 - SALTWATER MARSHES
810 - TRANSPORTATION

FDOT

US 41 (SR 45) PD&E Study
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Existing Land Use Map

Source: SWFWMD 2011

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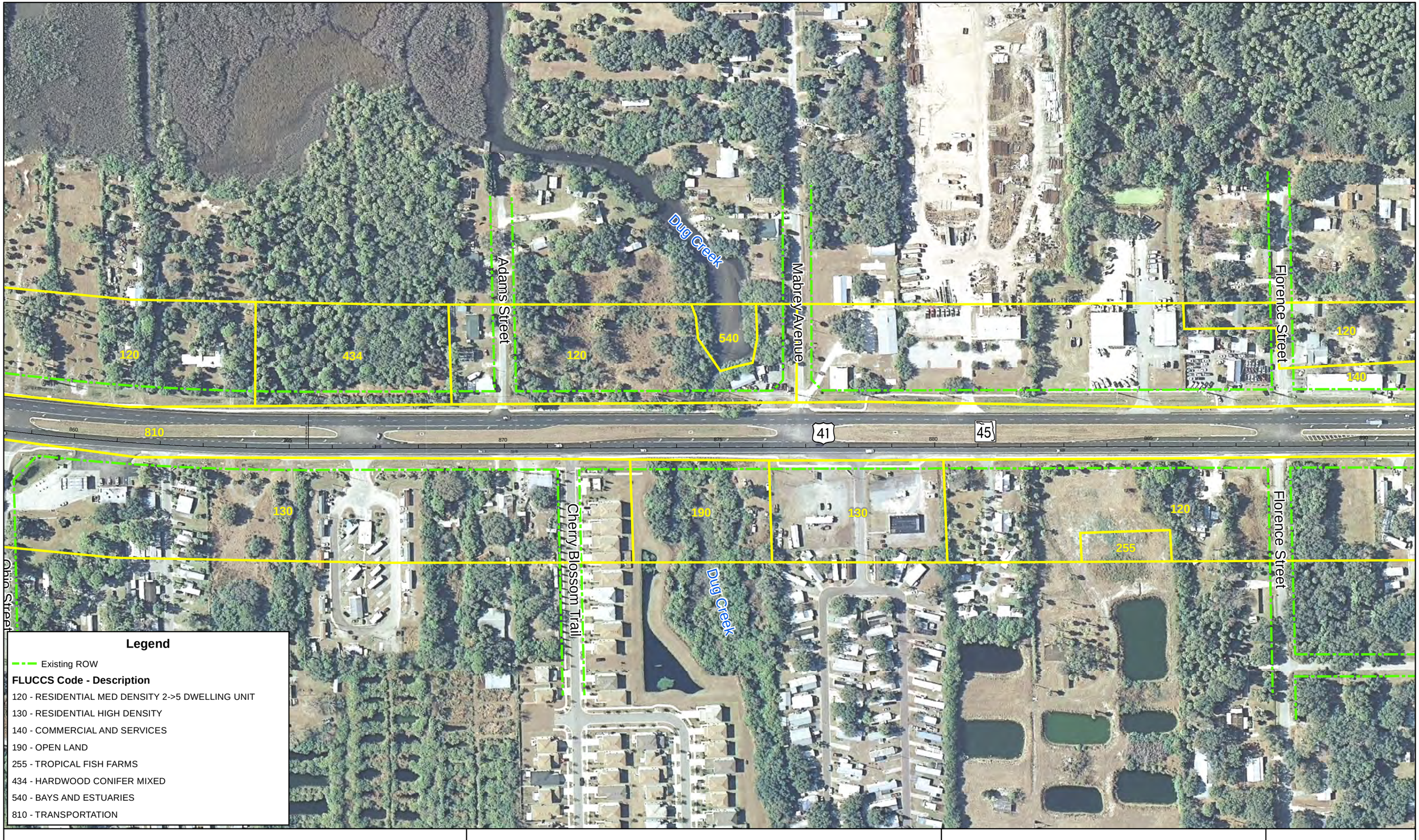

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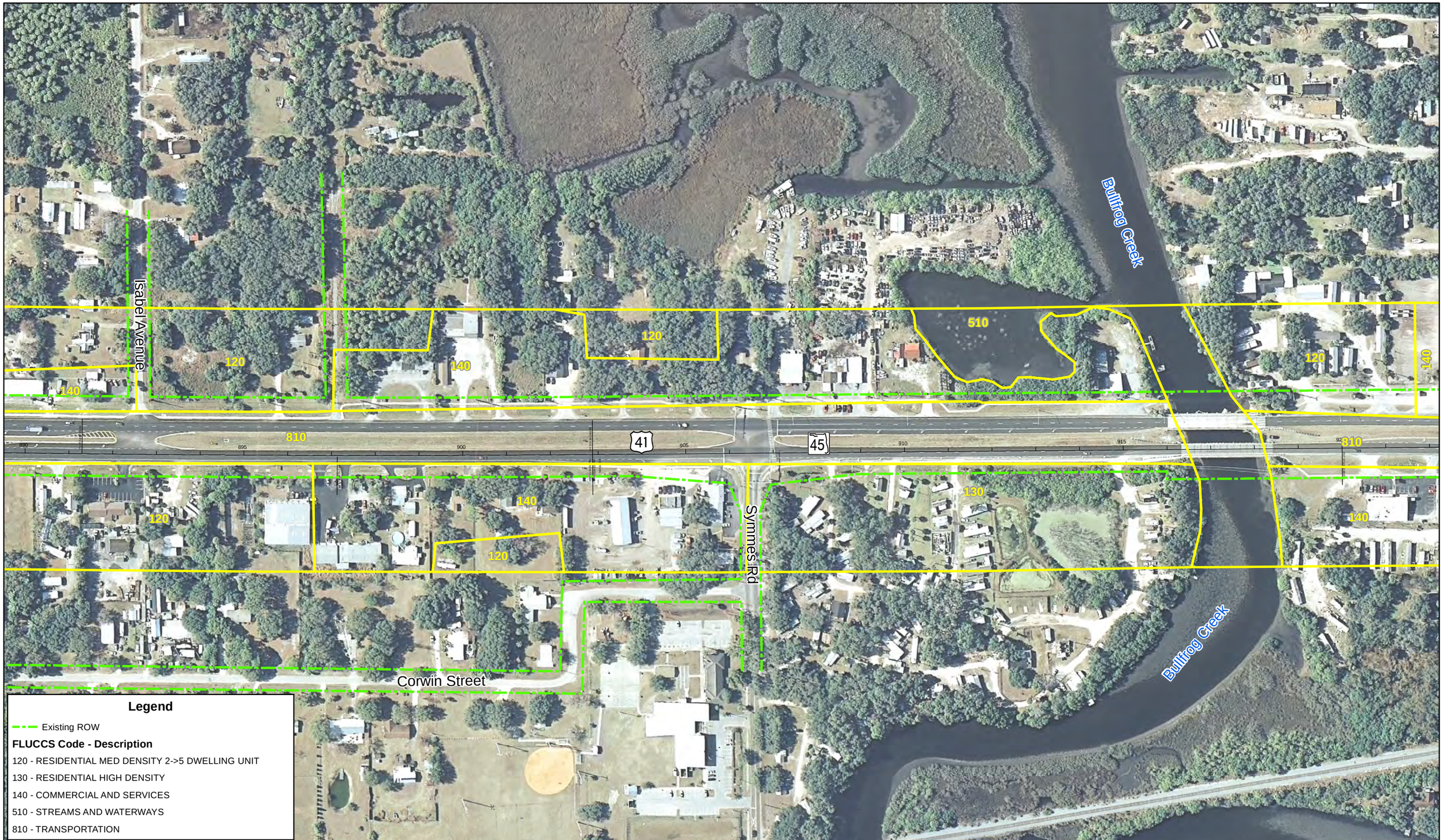

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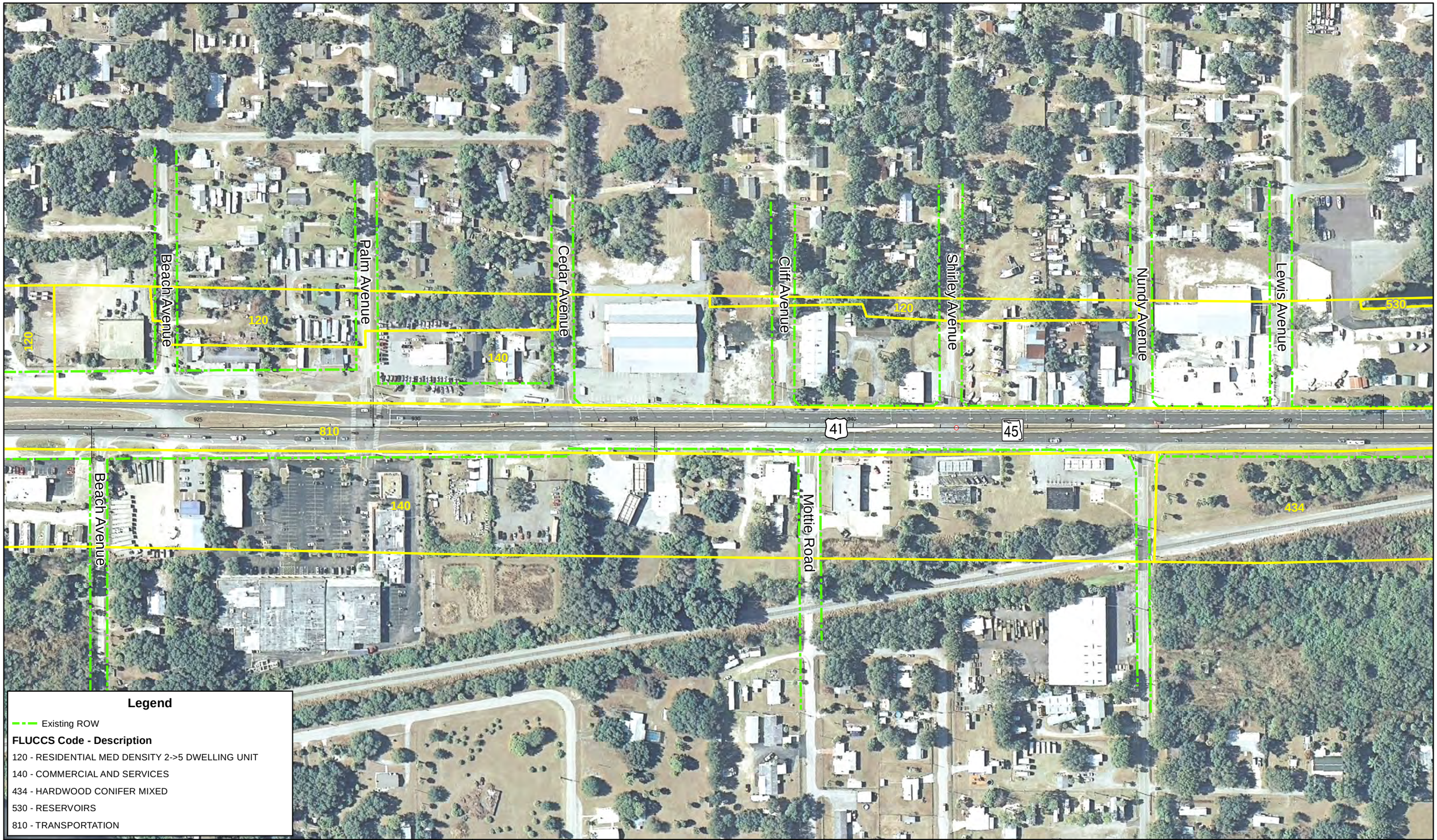

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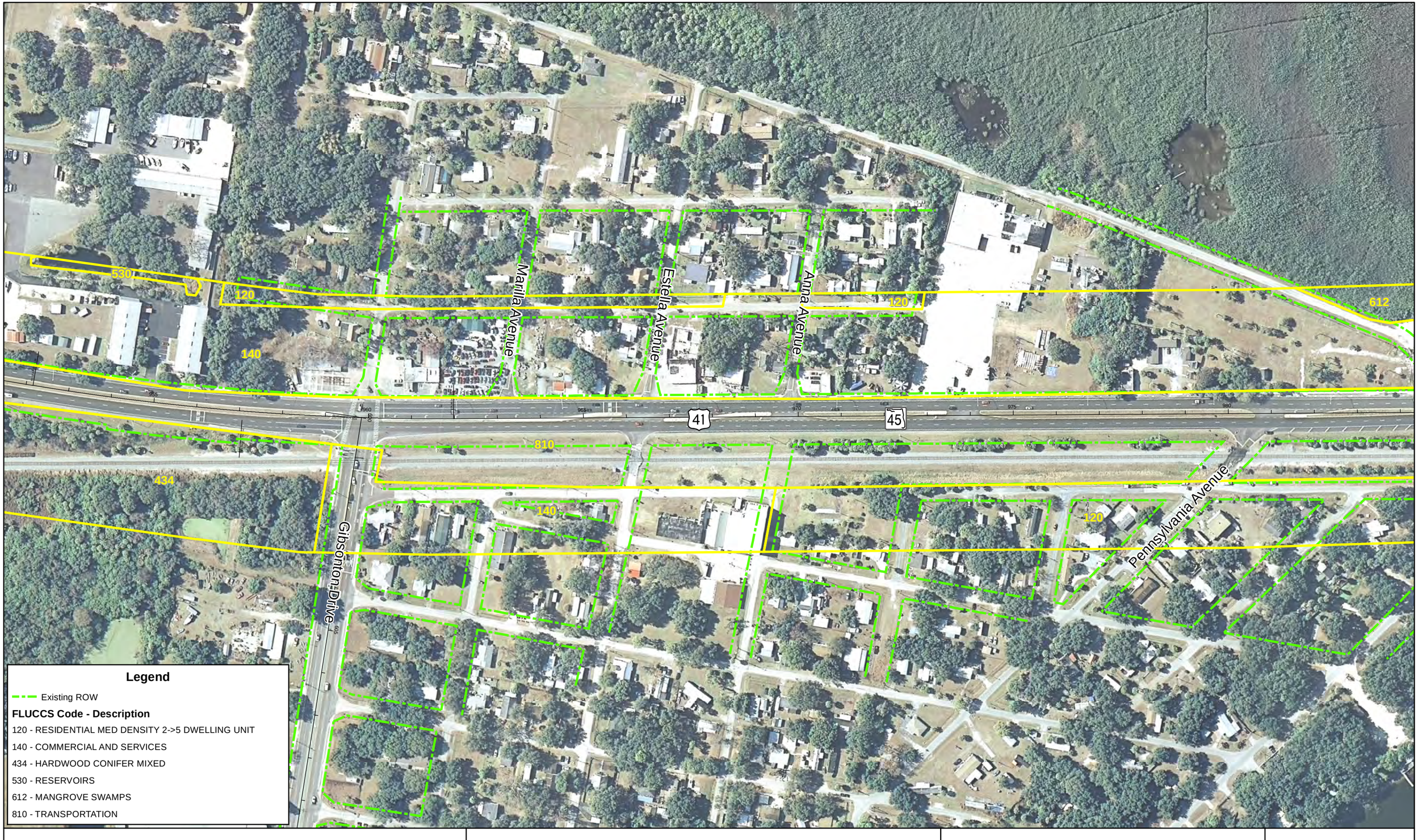

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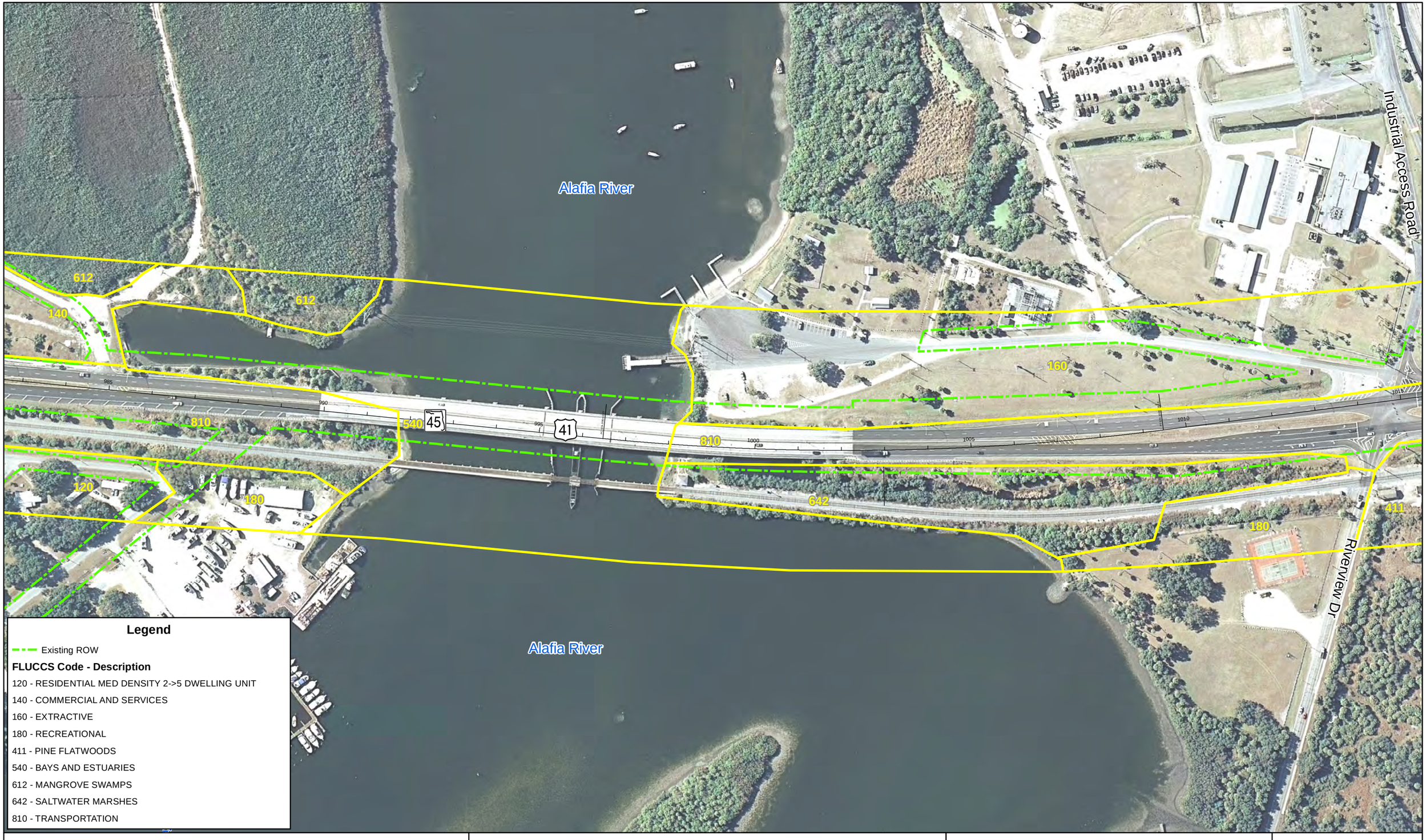

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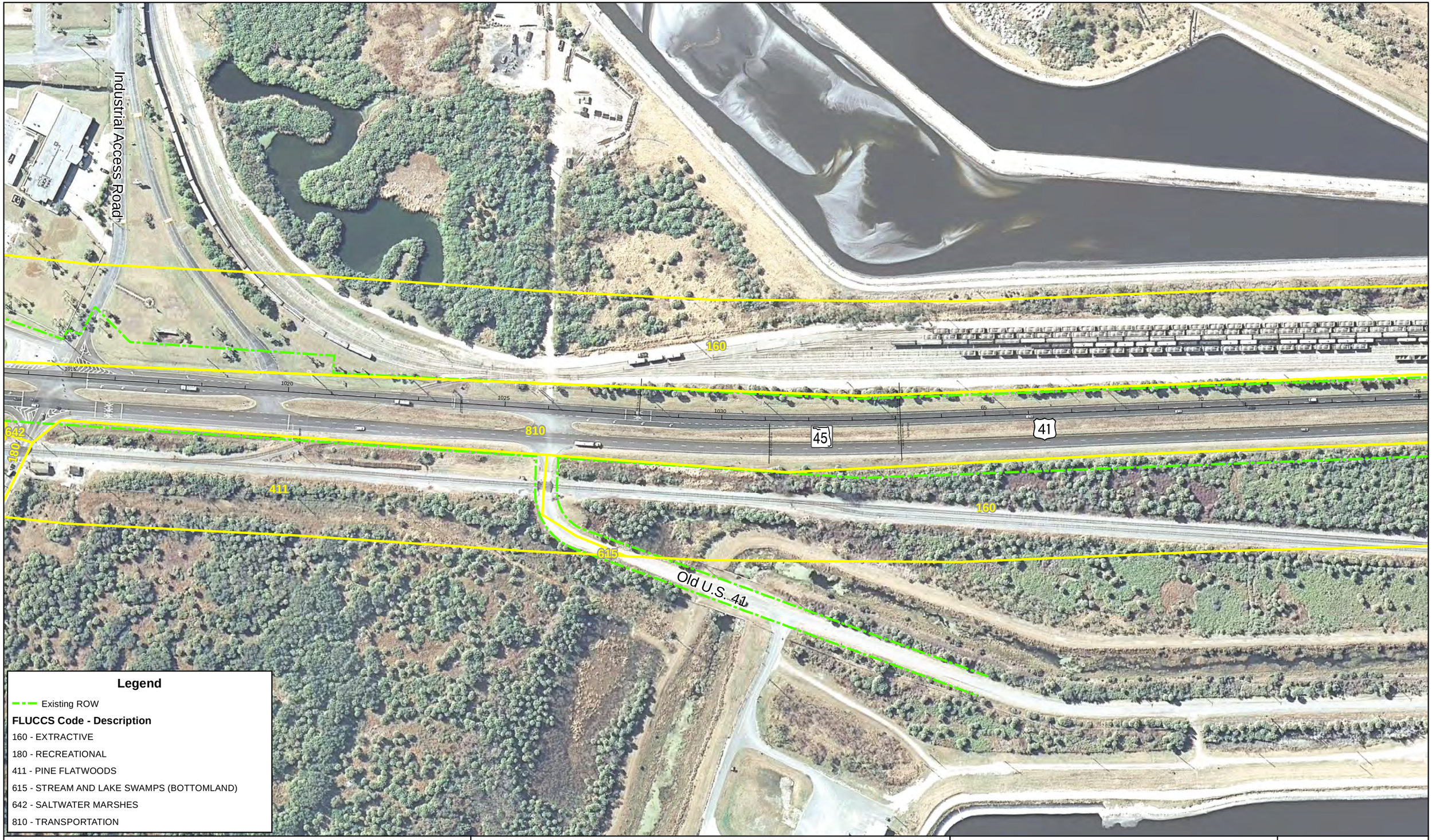
Feet

Appendix B



Legend

Existing ROW

FLUCCS Code - Description

160 - EXTRACTIVE

180 - RECREATIONAL

411 - PINE FLATWOODS

615 - STREAM AND LAKE SWAMPS (BOTTOMLAND)

642 - SALTWATER MARSHES

810 - TRANSPORTATION

FDOT

US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676

(Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

Existing Land Use Map

Source: SWFWMD 2011

N

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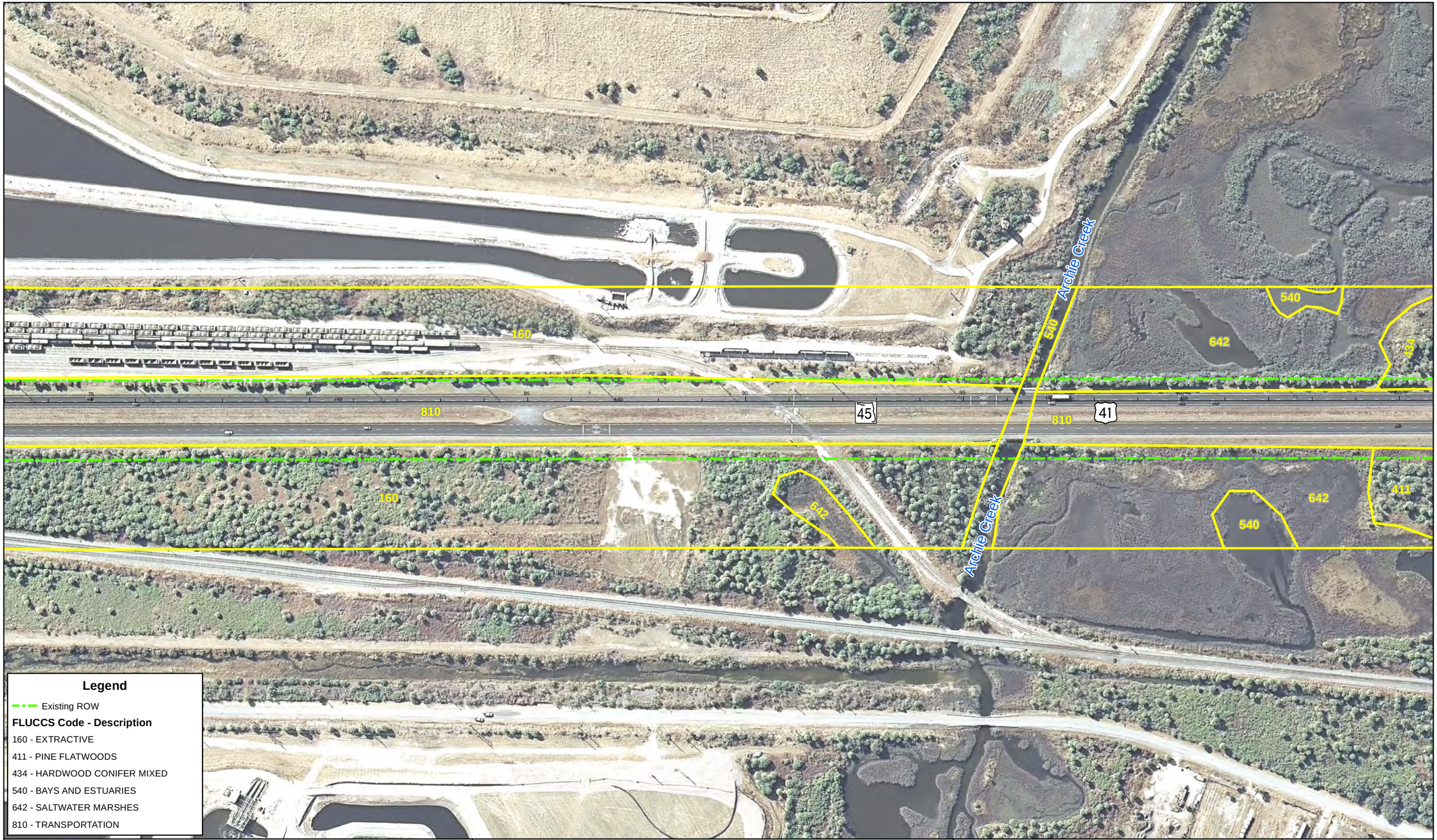
Feet

Appendix B



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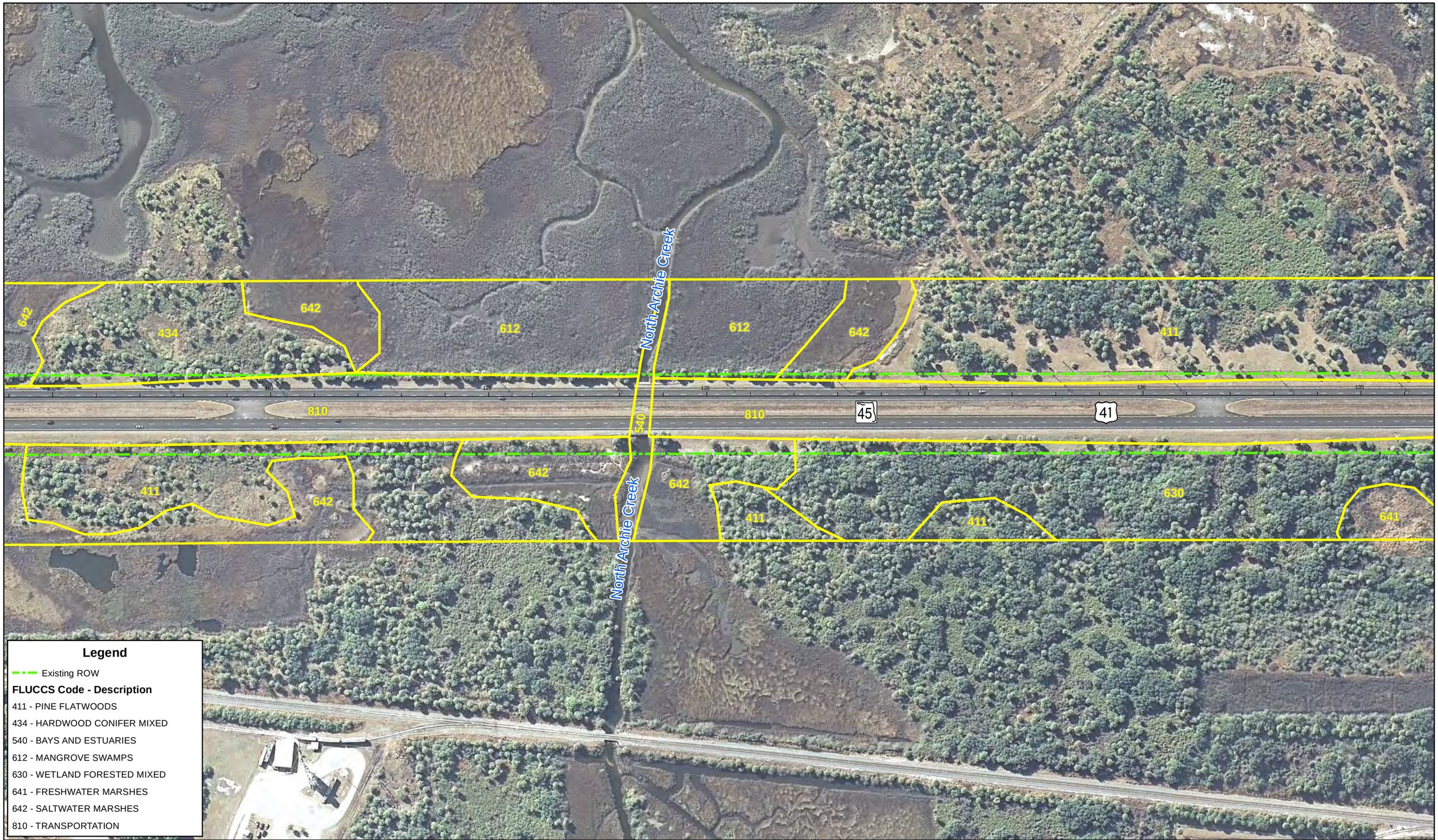

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Source: SWFWMD 2011

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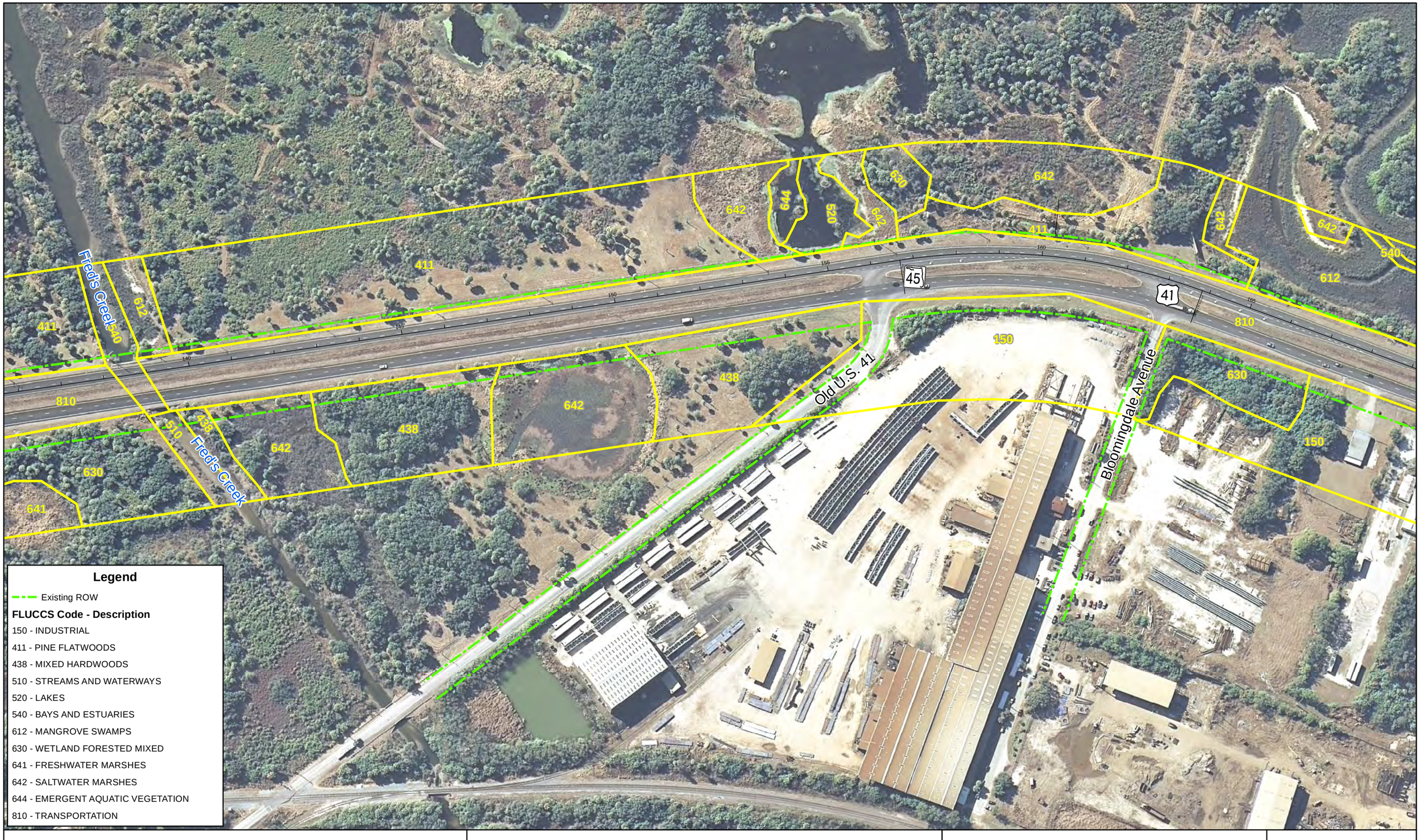

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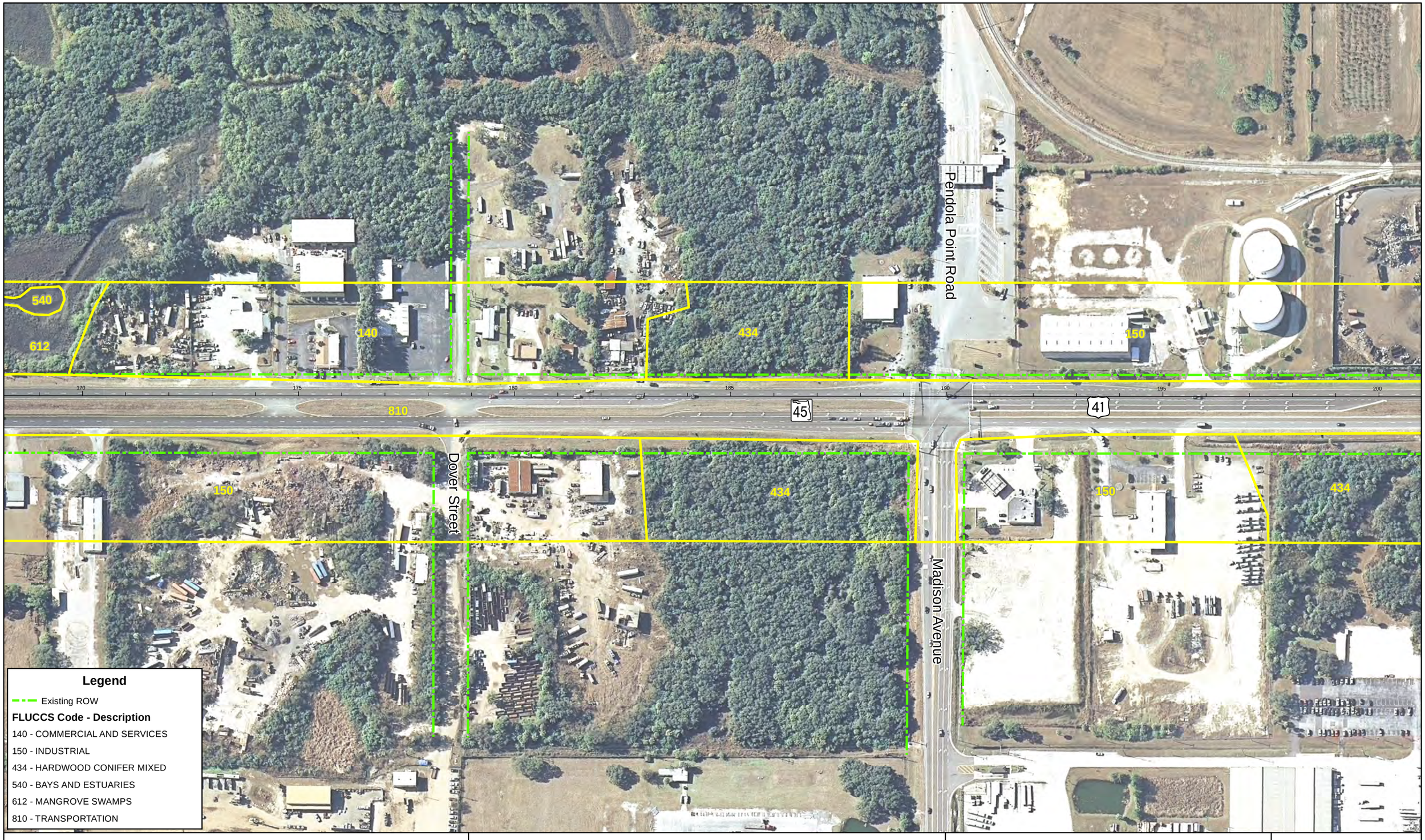

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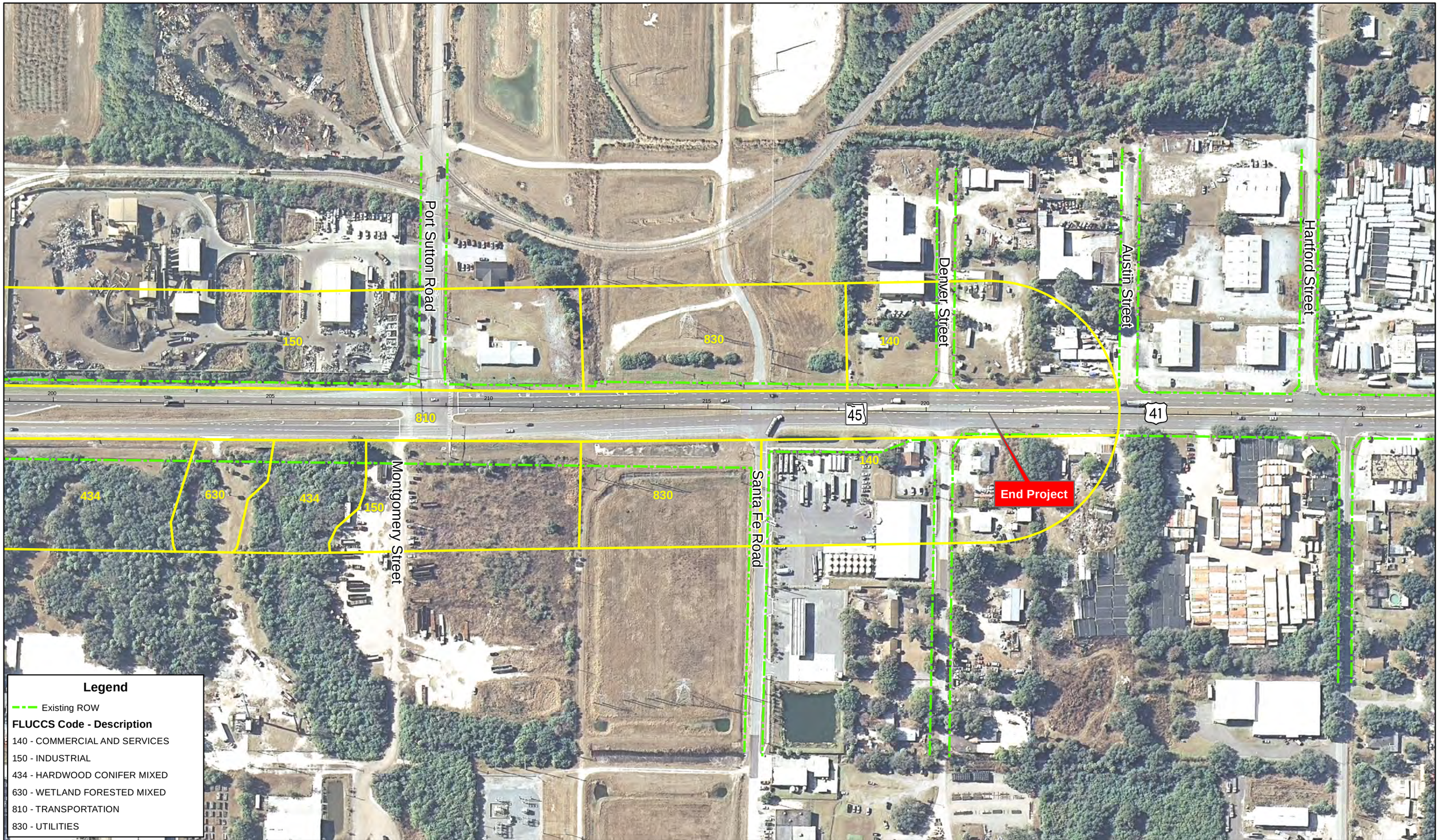

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Existing Land Use Map

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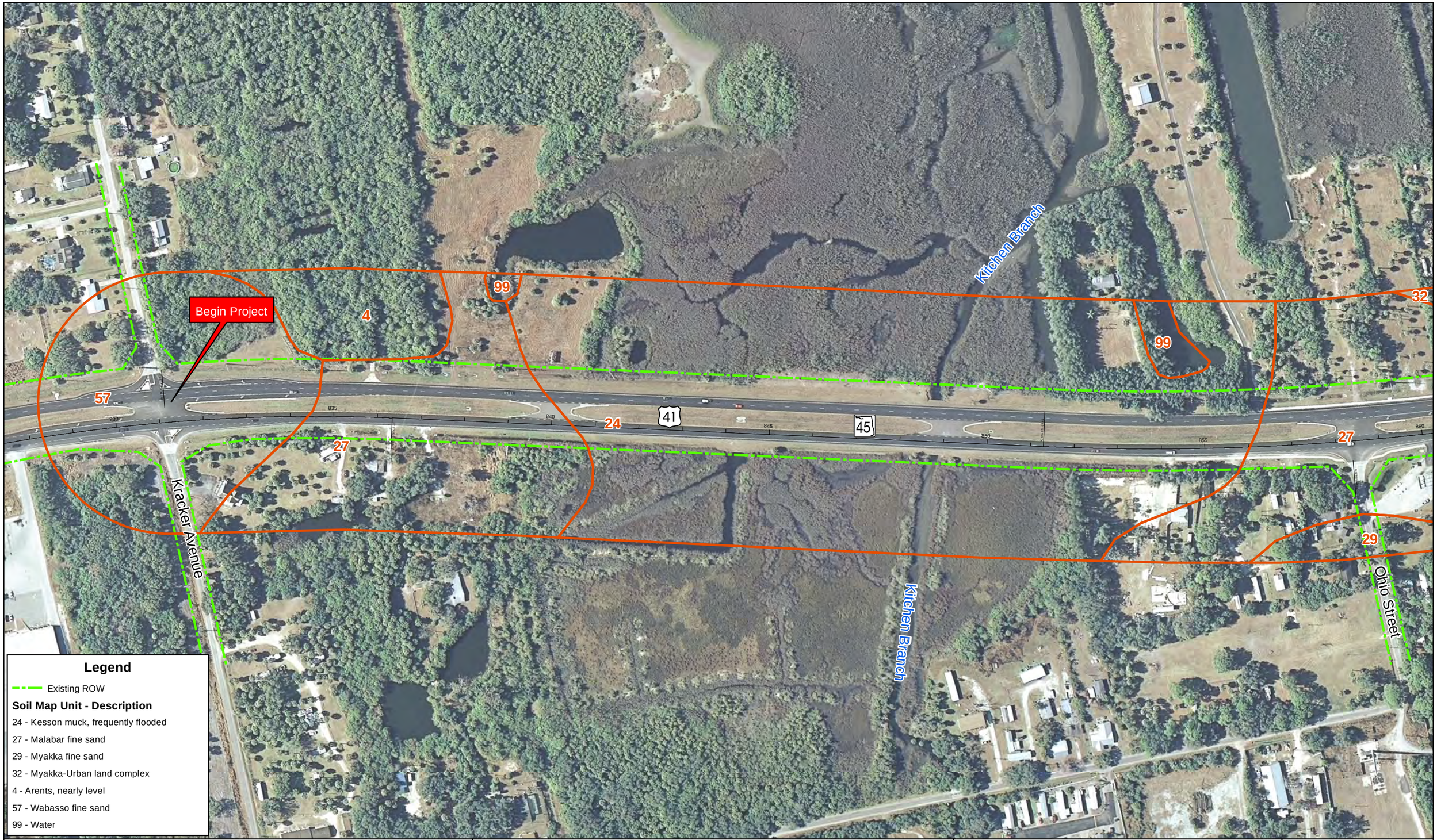
Feet

Appendix B
Page 12 of 12

Appendix C
NRCS Soils Map



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US 41 (SR 45) PD&E Study
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Source: USDA-NRCS Web Soil Survey

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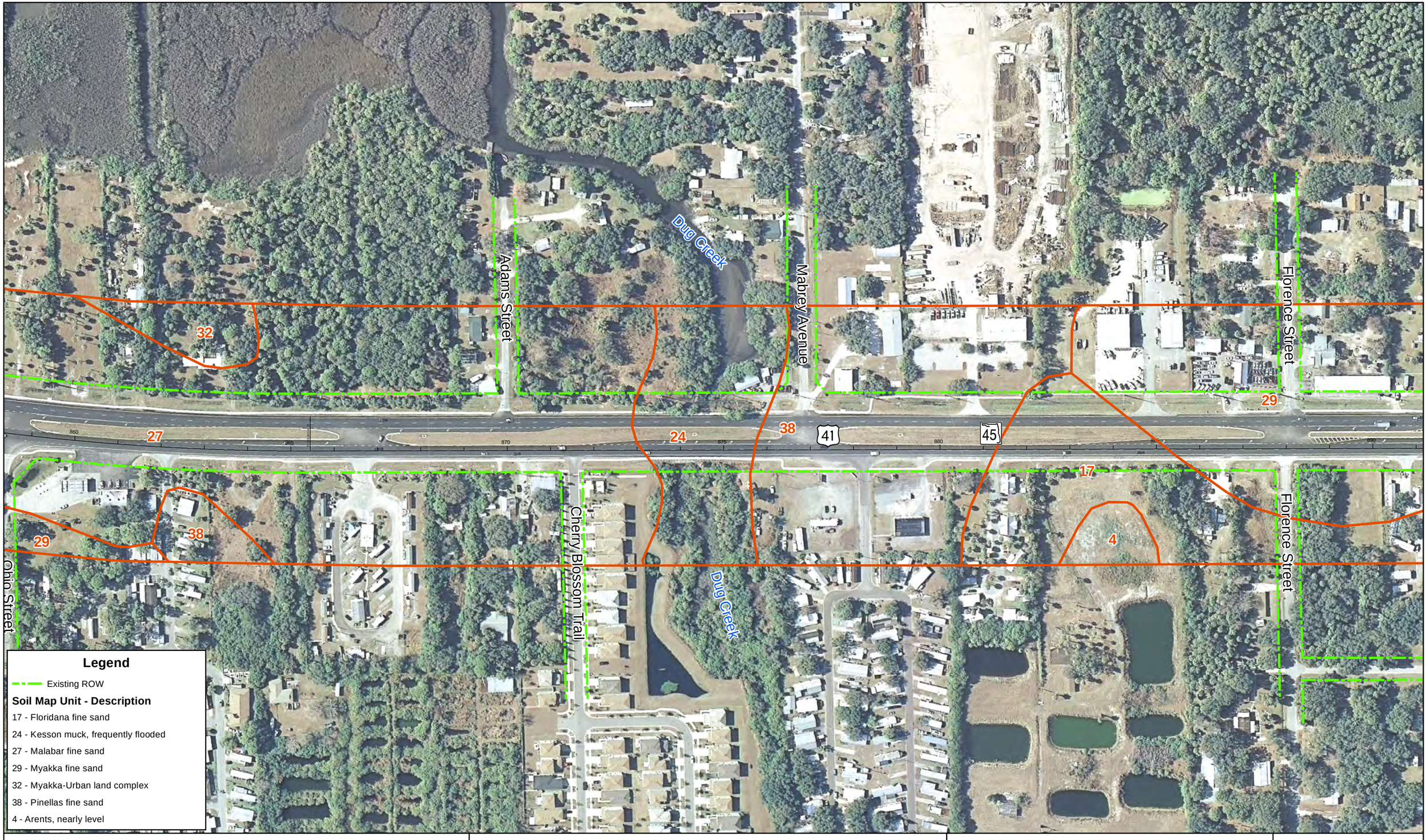

US 41 (SR 45) PD&E Study
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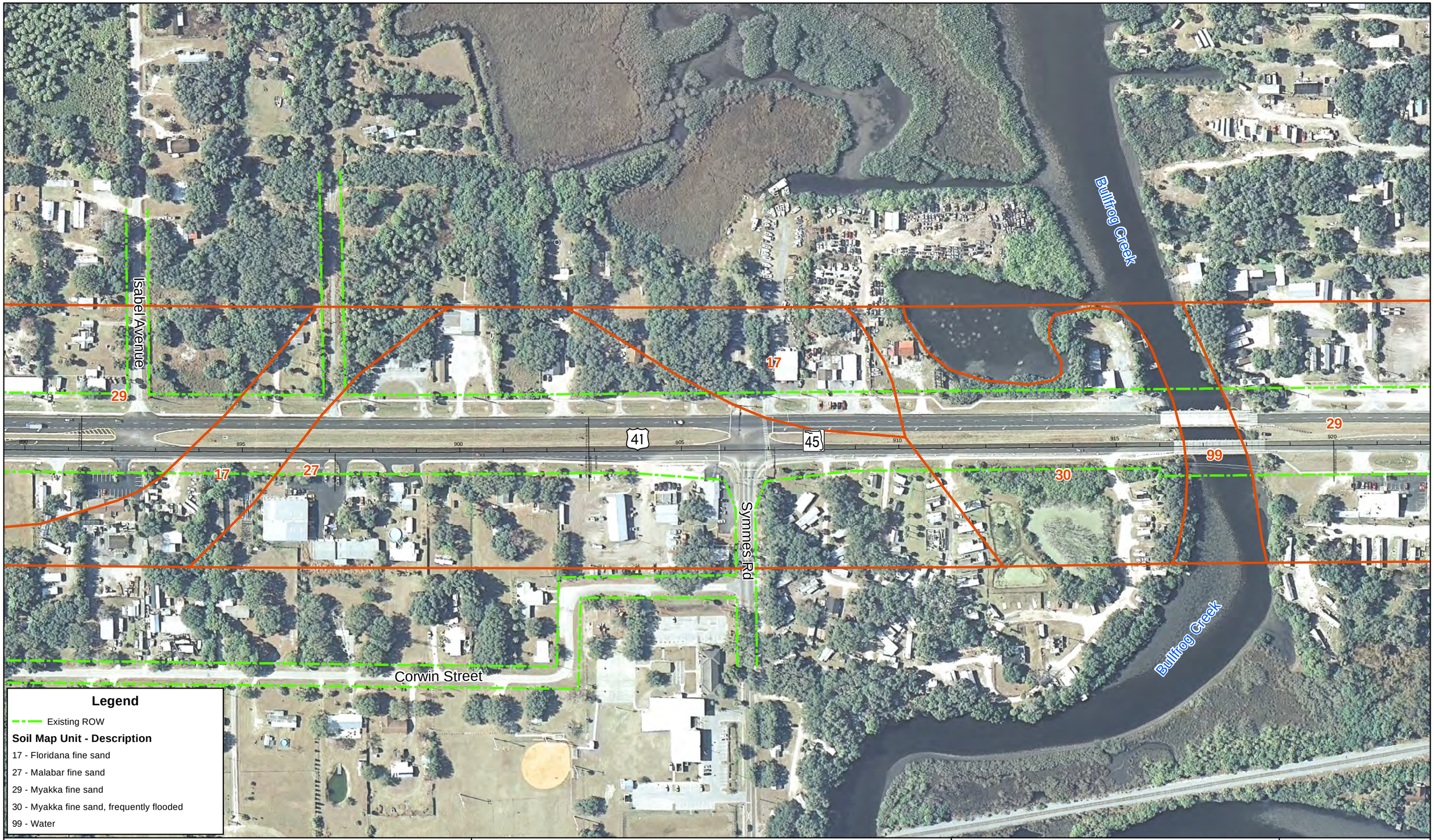

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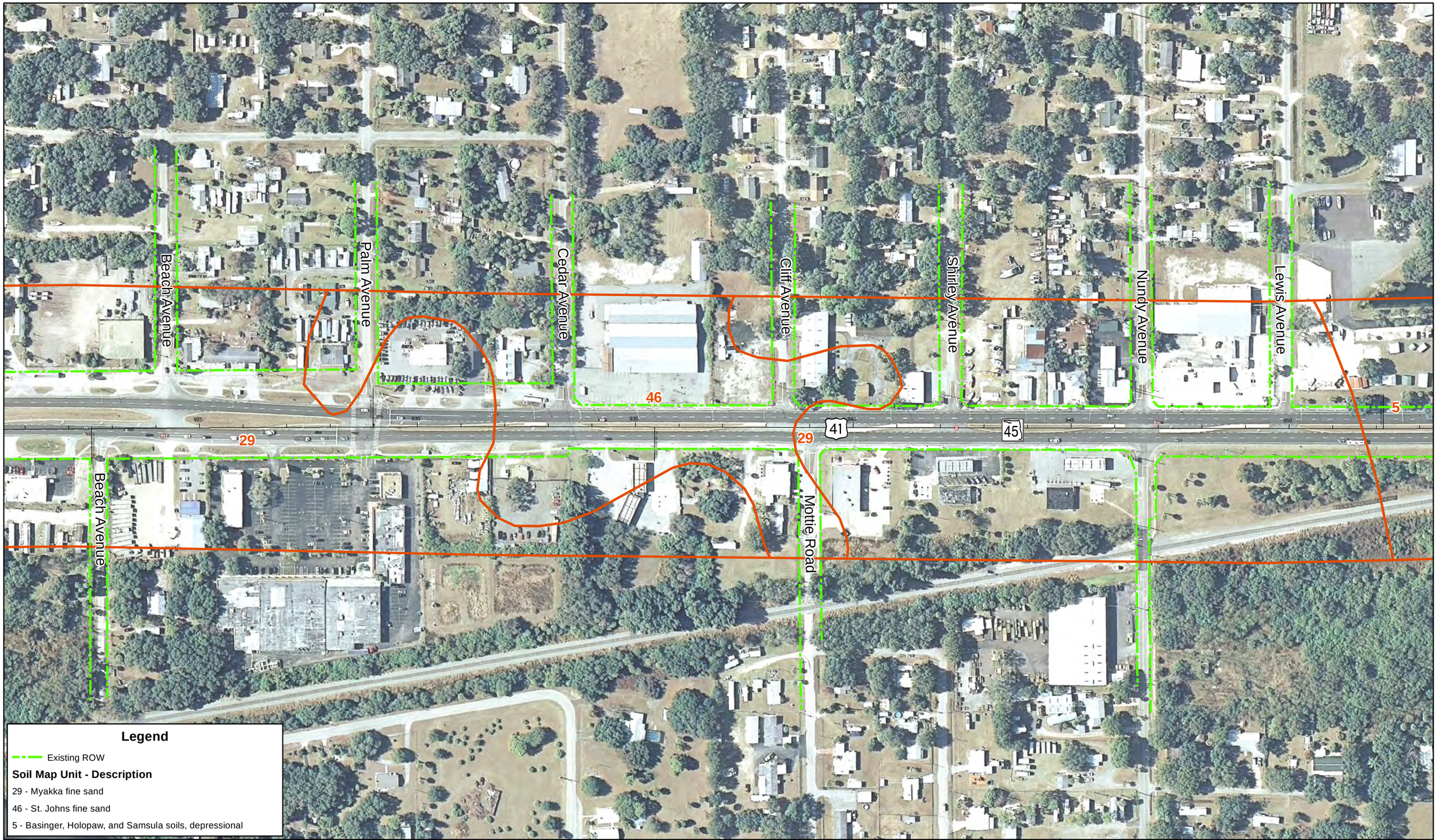

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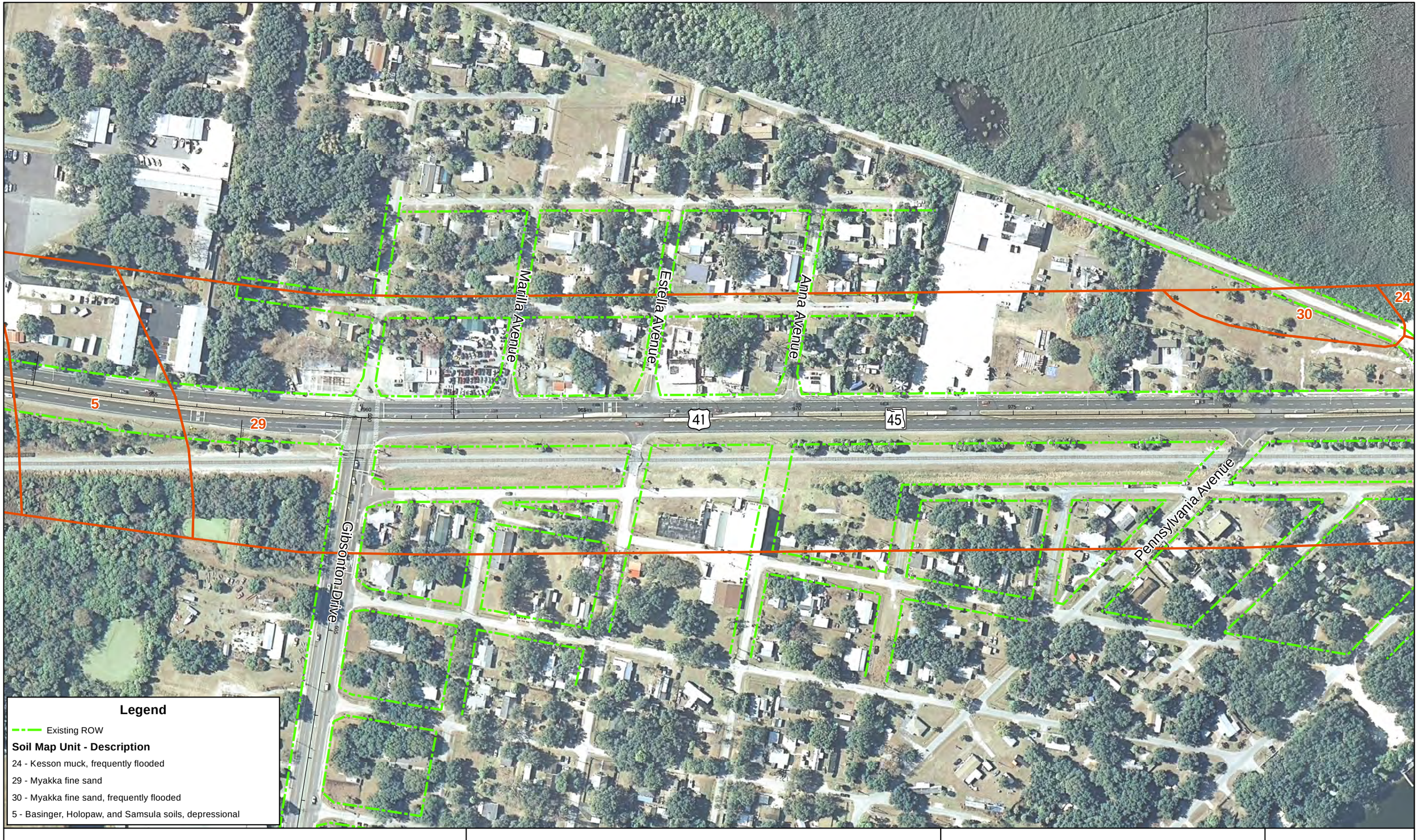

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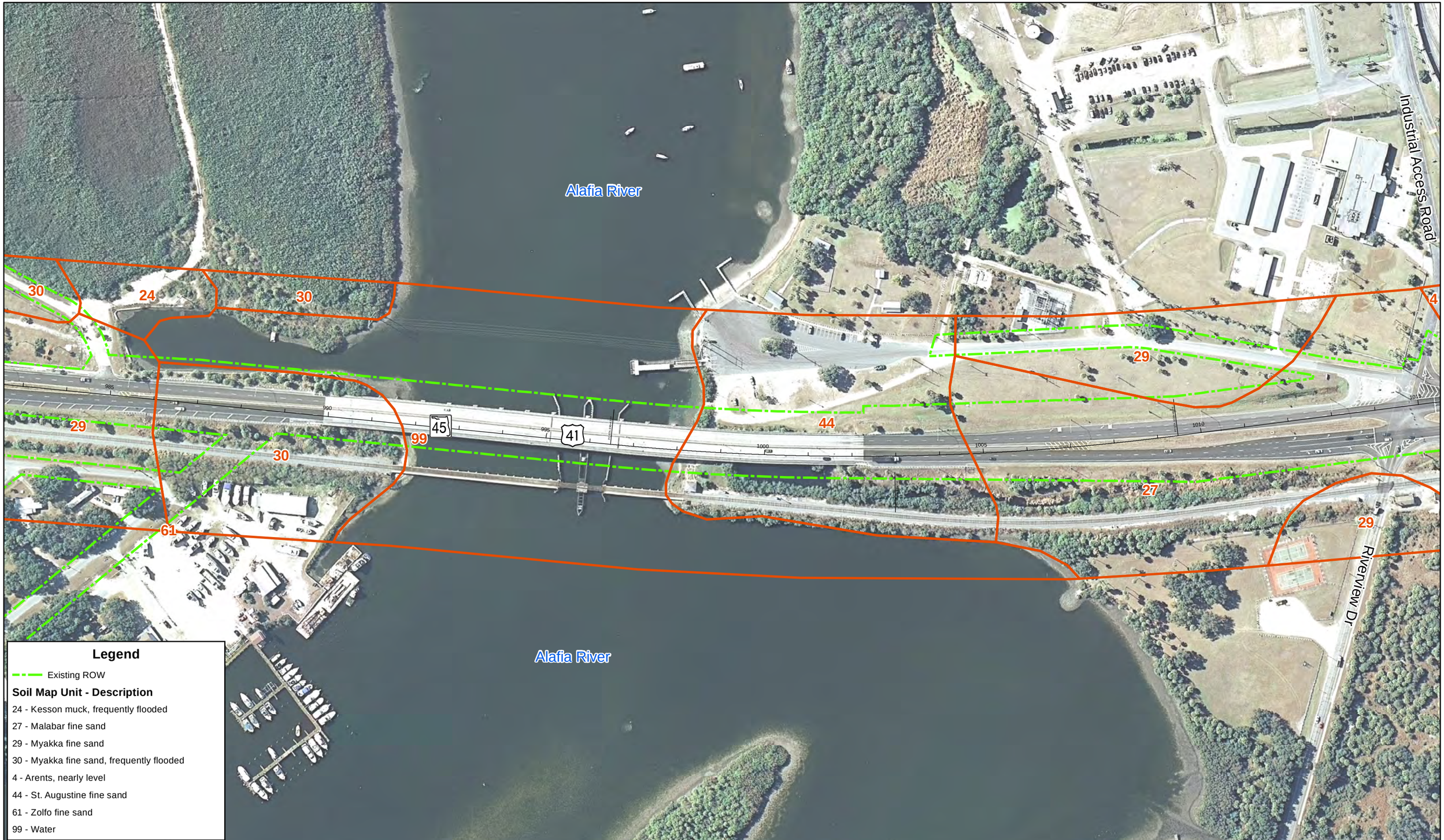

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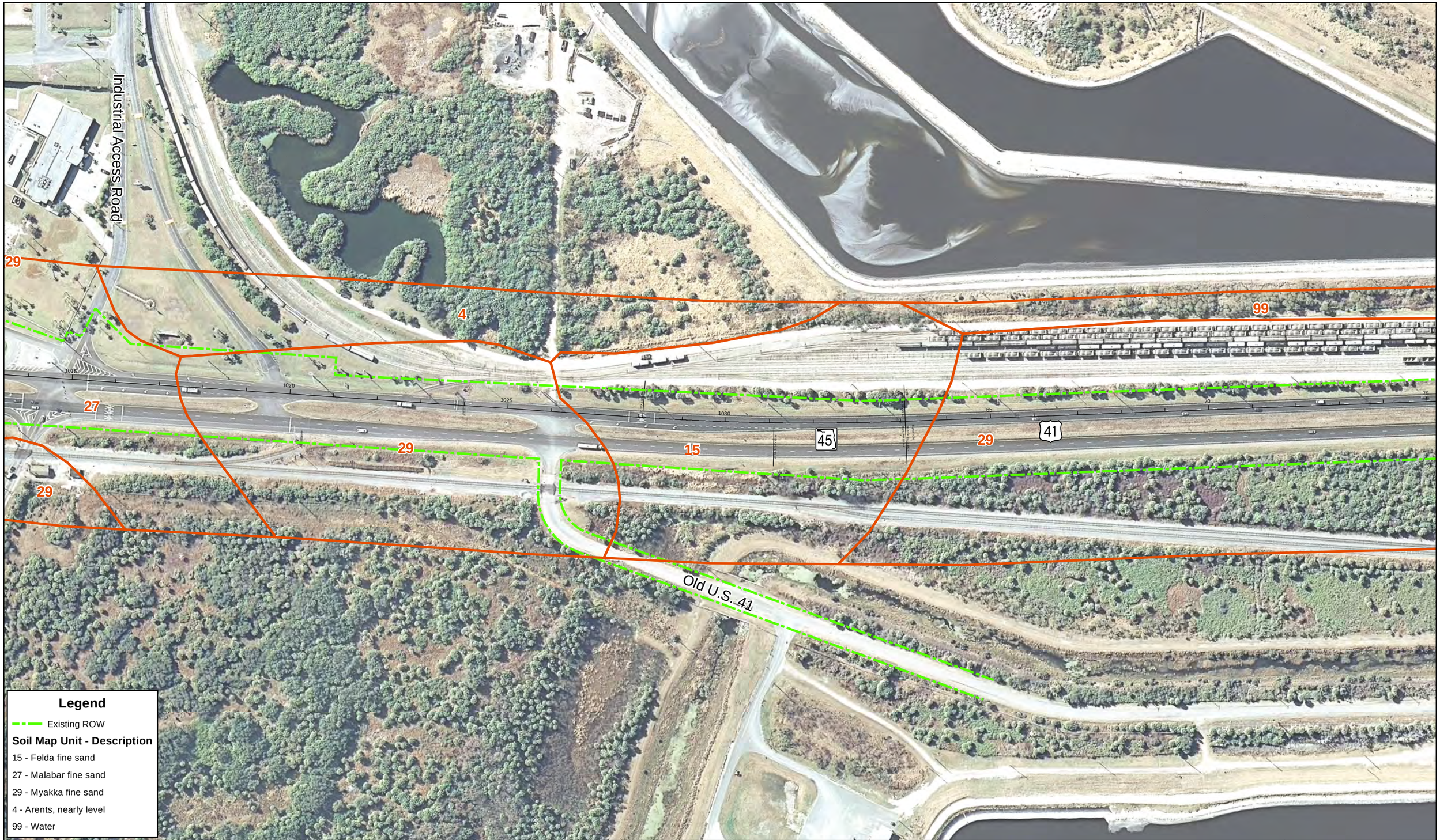

Legend

Existing ROW

Soil Map Unit - Description

15 - Felda fine sand

27 - Malabar fine sand

29 - Myakka fine sand

4 - Arents, nearly level

99 - Water

US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676

(Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

NRCS Soils Map

Source: USDA-NRCS Web Soil Survey

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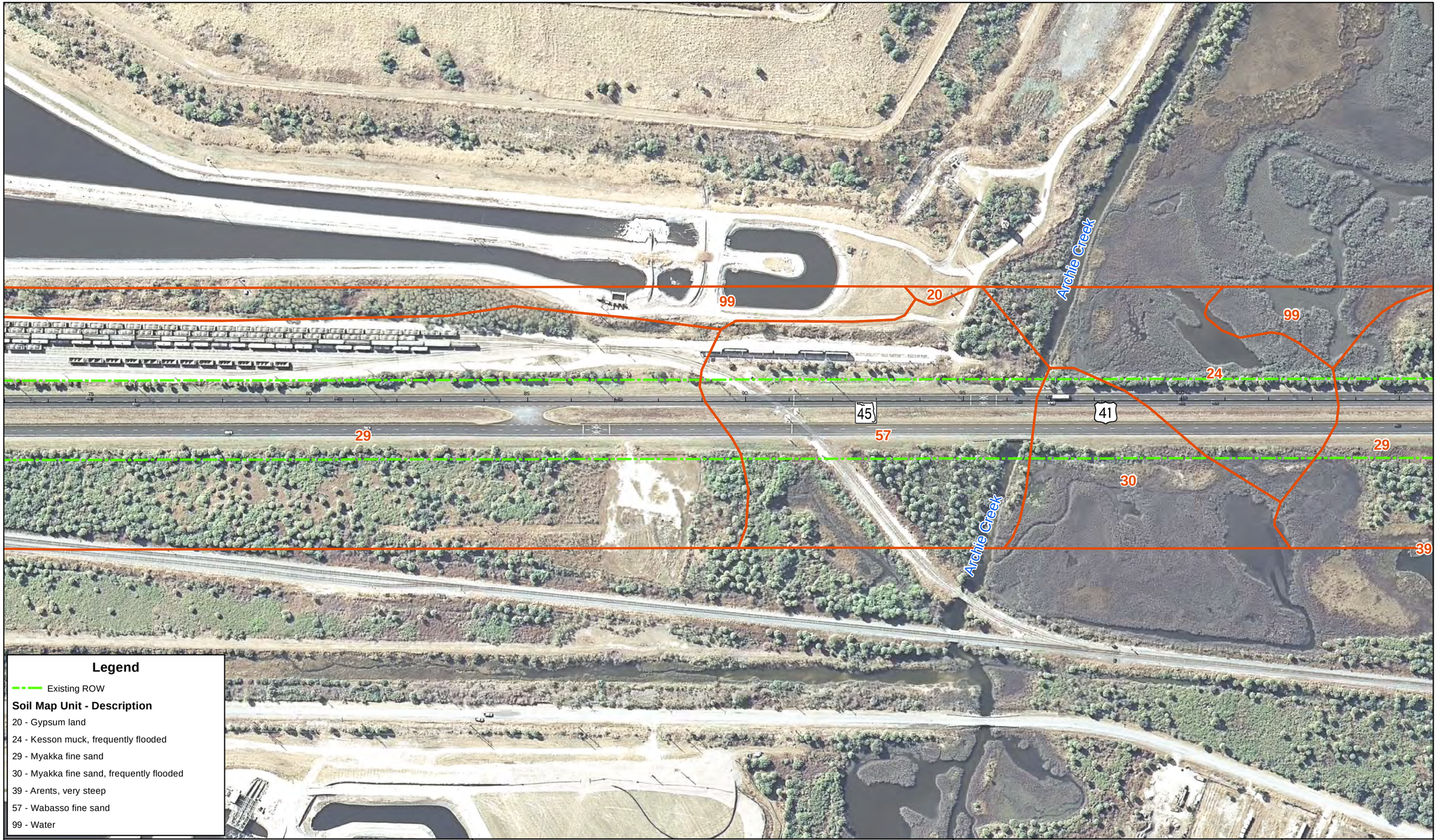

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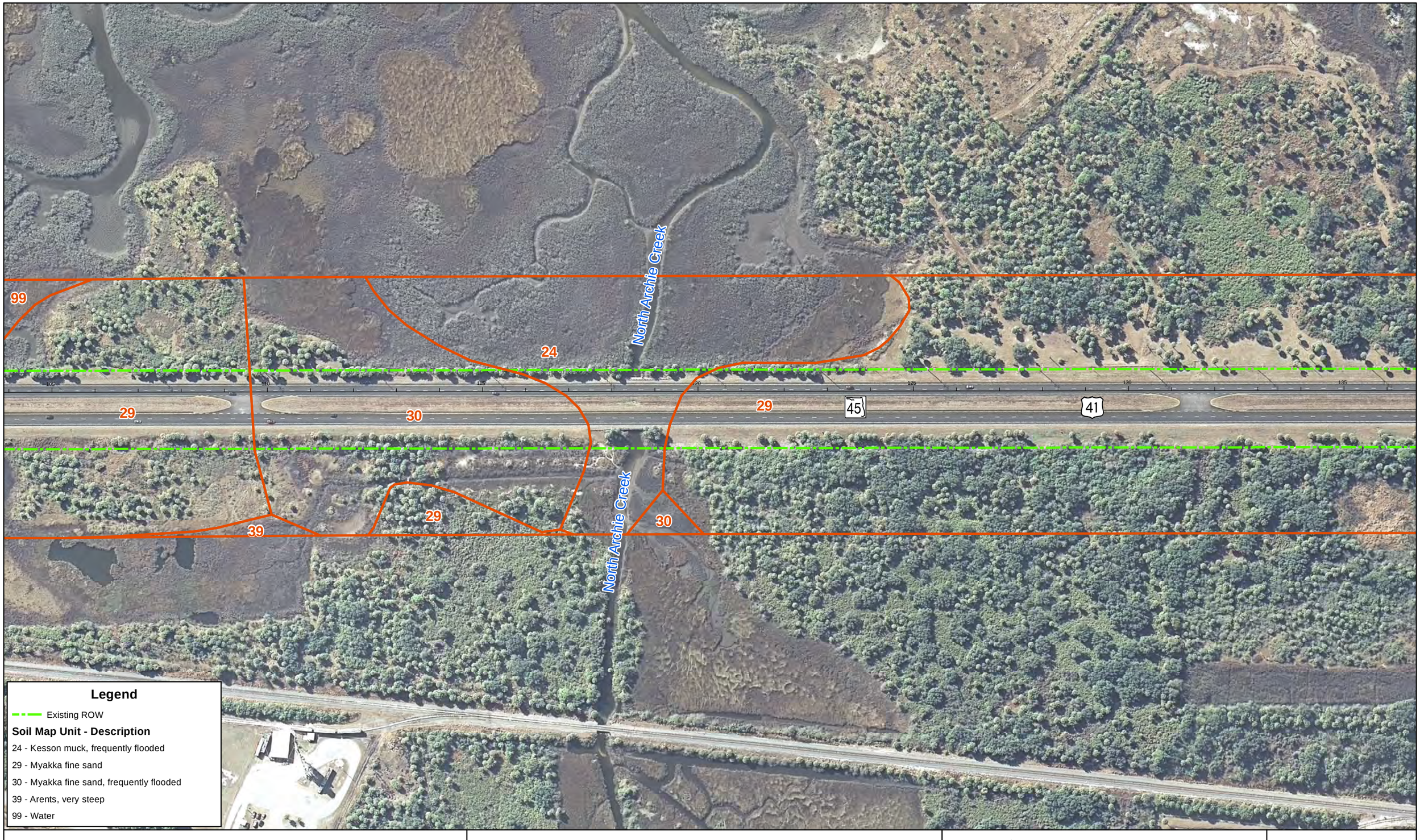

Legend

Existing ROW

Soil Map Unit - Description

24 - Kesson muck, frequently flooded

29 - Myakka fine sand

30 - Myakka fine sand, frequently flooded

39 - Arents, very steep

99 - Water

US 41 (SR 45) PD&E Study

From Kracker Avenue to South of SR 676

(Causeway Boulevard)

WPI Segment No. 430056 1 - Hillsborough County

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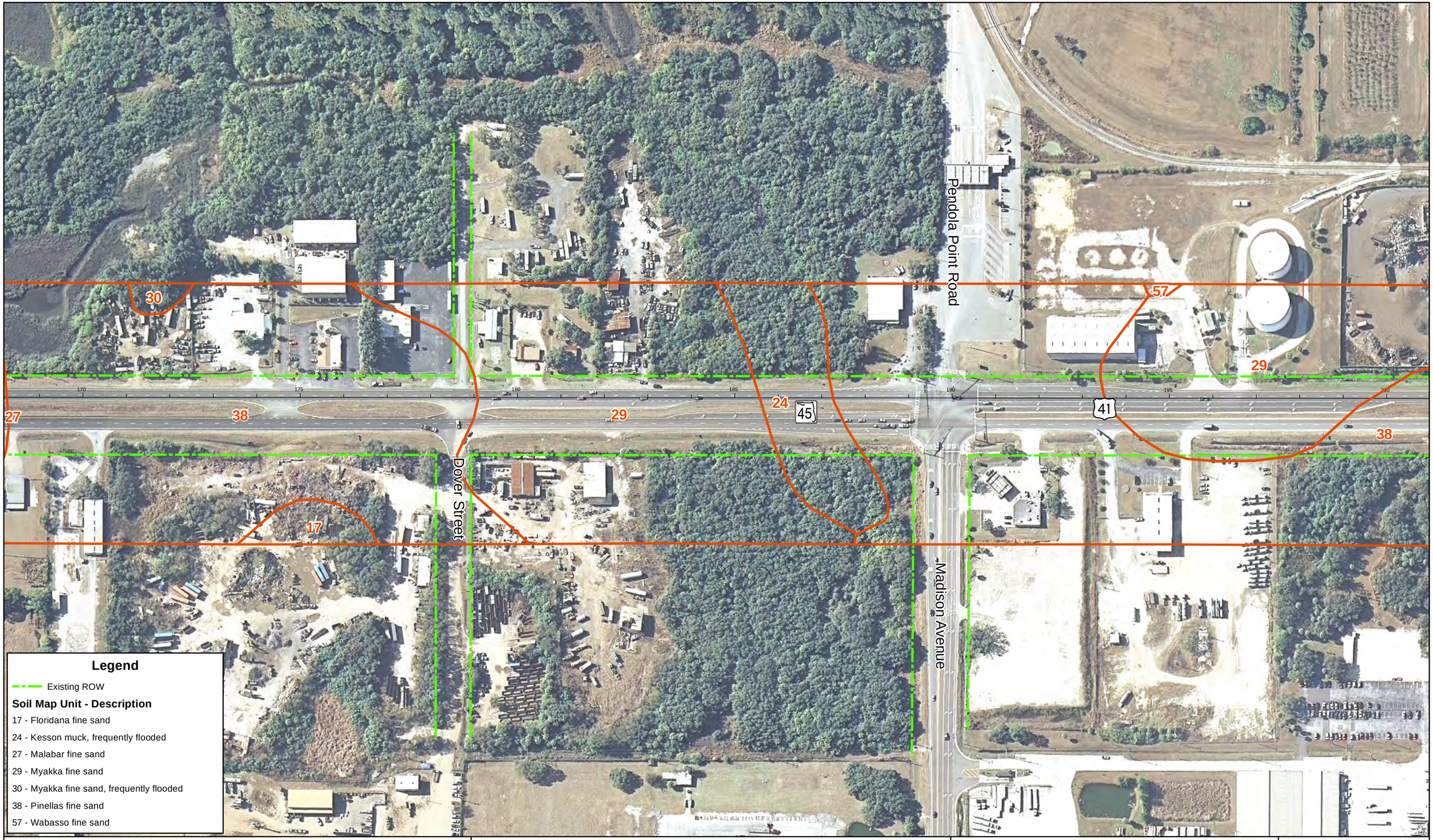

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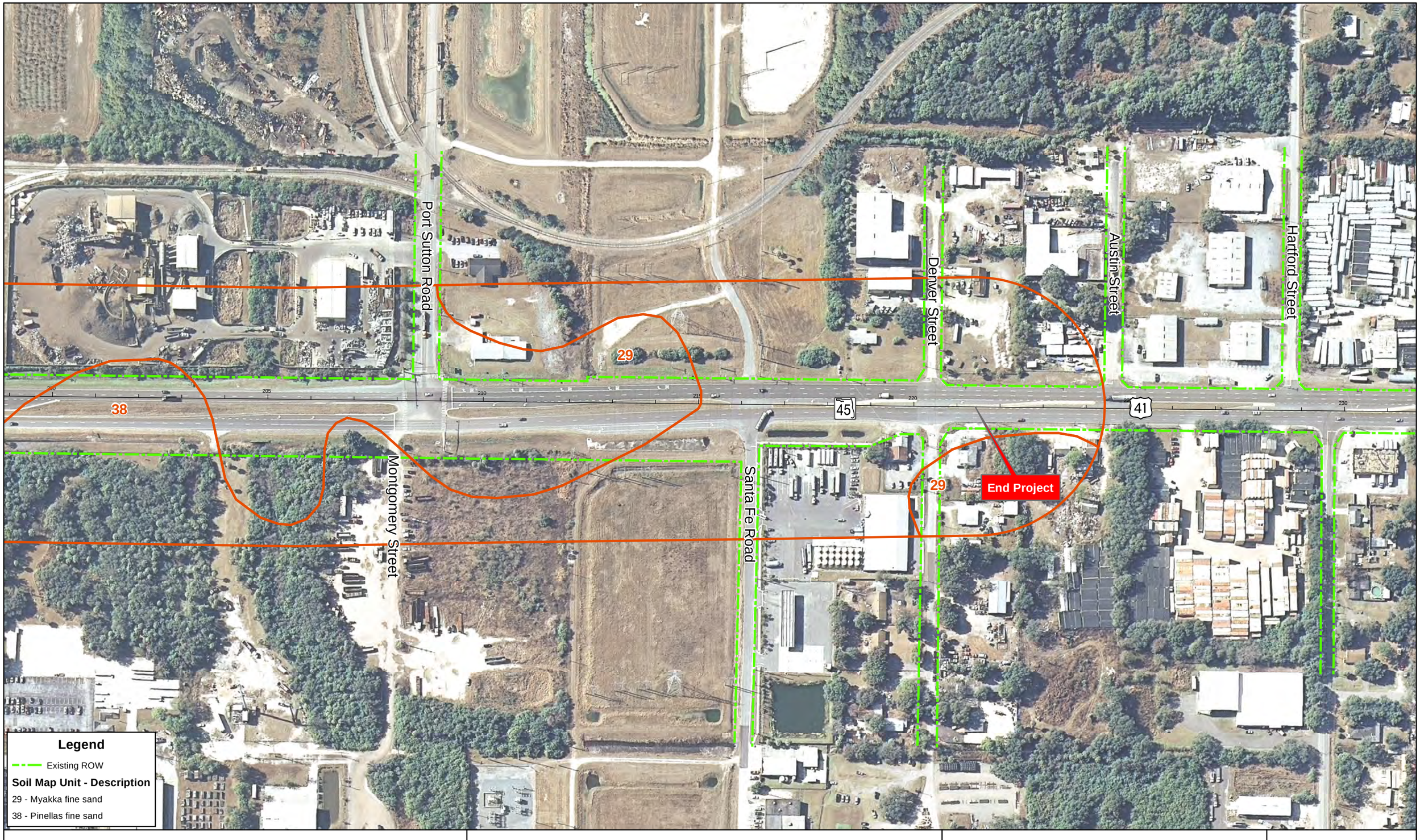

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NRCS Soils Map

Source: USDA-NRCS Web Soil Survey

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Appendix C

Appendix D
Agency Coordination/ETDM PSSR Excerpt

Florida Fish and Wildlife Conservation Commission

Commissioners
Brian Yablonski
Chairman
Tallahassee

Aliese P. "Liesa" Priddy
Vice Chairman
Immokalee

Ronald M. Bergeron
Fort Lauderdale

Richard A. Corbett
Tampa

Richard Hanas
Oviedo

Bo Rivard
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Charles W. Roberts III
Tallahassee

Executive Staff
Nick Wiley
Executive Director

Eric Sutton
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

Office of the
Executive Director
Nick Wiley
Executive Director

(850) 487-3796
(850) 921-5786 FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676

Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com

August 11, 2015

Ms. Nicole Selly
Environmental Specialist
Florida Department of Transportation (FDOT) District Seven
11201 North McKinley Drive
Tampa, FL 33612
Nicole.Selly@DOT.state.fl.us

Re: US 41 from Kracker Ave. to South of SR 676 PD&E Study, Hillsborough County, Draft Wetland Evaluation and Biological Assessment Report

Dear Ms. Selly:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the Draft Wetland Evaluation and Biological Assessment Report (WEBAR) for the above-referenced project, prepared as part of the PD&E Study for the proposed project. We have previously reviewed this project via the Efficient Transportation Decision Making process as ETDM #5180. We provide the following comments and recommendations for your consideration in accordance with Chapter 379, Florida Statutes, and Rule 68A-27, Florida Administrative Code (F.A.C.).

The project involves widening US 41 from four to six lanes between Kracker Avenue and south of SR 676 in Hillsborough County, a distance of approximately 7.0 miles. The project will also include intersection improvements, construction of stormwater management and floodplain compensation facilities, multimodal facilities, and widening or replacement of the bridges over Bullfrog Creek and the Alafia River. A State Environmental Impact Report (SEIR) will be prepared for the project. The project vicinity consists of a mix of industrial, residential, commercial, and natural vegetative landcover. Natural communities include mangrove and saltmarsh wetlands, forested and herbaceous freshwater wetlands, and forested or shrubby uplands.

The WEBAR evaluated potential project impacts to 26 wildlife species classified under the Endangered Species Act as Federally Endangered (FE) or Threatened (FT), or by the State of Florida as Threatened (ST) or Species of Special Concern (SSC). Listed species were evaluated based on range and potential appropriate habitat or because the project is within a U.S. Fish and Wildlife Service (USFWS) Consultation Area. Included were: Gulf sturgeon (FT), smalltooth sawfish (FE), Eastern indigo snake (FT), American alligator (FT due to similarity of appearance to American crocodile), loggerhead sea turtle (FT), green sea turtle (FE), leatherback sea turtle (FE), Kemp's ridley sea turtle (FE), wood stork (FE), Florida scrub jay (FT), piping plover (FT), Florida manatee (FE), gopher frog (SSC), gopher tortoise (ST), snowy plover (ST), roseate spoonbill (SSC), snowy egret (SSC), reddish egret (SSC), little blue heron (SSC), tricolored heron (SSC), white ibis (SSC), American oystercatcher (SSC), brown pelican (SSC), least tern (ST), black skimmer (SSC), and osprey (SSC, but only in Monroe County). We recommend the addition of rivulus (SSC), Florida pine snake (SSC), and Florida mouse (SSC) to this list and deletion of the osprey.

Also evaluated was the bald eagle, which was delisted by state and federal agencies, but this species remains protected under state rule in Section 68A-16.002, F.A.C. and by the federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d).

Project biologists made a finding of "no effect" for the scrub jay, piping plover, and American alligator due to a lack of suitable habitat for these species within the project area, or in the case of the alligator, a lack of relevant connection to the species listing. The biologists determined that the project "may affect, but is unlikely to adversely affect" all the other species. We agree with these determinations.

We support the project commitments for protected species, which include the following.

1. Should a bald eagle nest be built prior to or during construction within 660 feet of the construction limits, further coordination will occur with the FWC and/or USFWS as appropriate.

2. The standard FDOT Construction Precautions for the Eastern Indigo Snake will be followed during construction.

3. Due to the presence of gopher tortoise habitat within the project area, a gopher tortoise survey in appropriate habitat will be performed within construction limits prior to construction, and the FDOT will secure any relocation permit from the FWC.

   Please reference the FWC's Gopher Tortoise Permitting Guidelines (Revised February 2015 http://myfwc.com/media/2984206/GT-Permitting-Guidelines-FINAL-Feb2015.pdf) for survey methodology and permitting guidance prior to any construction activity. Specific guidance in the permitting guidelines includes methods for avoiding permitting as well as options and state requirements for minimizing, mitigating, and permitting potential impacts of the proposed activities. Any commensal species observed during the burrow excavations should be relocated in accordance with Appendix 9 of the Gopher Tortoise Permitting Guidelines. To the maximum extent possible, the FWC also recommends that all staging and storage areas be sited to avoid impacts to gopher tortoise burrows and their habitat.

4. If protected species are observed during preconstruction surveys, coordination with the USFWS, FWC and/or the Florida Department of Agriculture and Consumer Services (for protected plants) will be initiated to determine any permit requirements or modifications to construction activities that may be required.

5. Wetland impacts will result in loss of wood stork foraging habitat, thus requiring mitigation acceptable to the USFWS. This mitigation should also compensate for habitat loss for the other potentially affected wading birds.

6. The FDOT will adhere to the National Marine Fisheries Service (NMFS) *Sea Turtle and Smalltooth Sawfish Construction Conditions* and *Construction Special Conditions for the protection of the Gulf Sturgeon* during construction of the project.

7. The FDOT will coordinate with NMFS on potential impacts associated with pile driving activities.

8. To assure the protection of wildlife during construction, the FDOT will implement a Marine Wildlife Watch Plan (MWWP), which includes the FWC *Standard Manatee Conditions for In-Water Work*. The FDOT will require the construction contractor to abide by these guidelines during construction.

The WEBAR evaluates the potential project impacts to an estimated 1.29 acres of wetlands and 2.12 acres of surface waters with a commitment to provide appropriate mitigation. We agree with the findings of this evaluation.

Thank you for the opportunity to review the WEBAR for the US 41 from Kracker Avenue to SR 676 project in Hillsborough County. If you need further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or at FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions regarding the content of this letter, please contact Brian Barnett at (772) 579-9746 or email brian.bamett@MyFWC.com.

Sincerely,

Jennifer D. Goff
Land Use Planning Program Administrator
Office of Conservation Planning Services

jdg/bb
ENV 1-13-2

United States Department of the Interior
U. S. FISH AND WILDLIFE SERVICE
7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
FWS Log No. 04EF1000-2015-I-0295

September 1, 2015

Nicole Selly
District 7 Environmental Specialist
Florida Department of Transportation
11201 N. McKinley Drive
Tampa, Florida 33612-6456

RE: PD&E Study (US 41 (SR 45) from Kracker Ave to South of SR 676 (Causeway Blvd)
WPI Segment Number: 430056-1
Hillsborough County, Florida

Dear Ms. Selly:

The U.S. Fish and Wildlife Service (Service) has completed its review of the final draft Wetland Evaluation and Biological Assessment Report (WEBAR) for the Project Development and Environmental (PD&E) Study that is evaluating the alternatives to improve safety and satisfy future transportation demand for US 41 (SR 45) from Kracker Avenue to south of SR 676 (Causeway Boulevard) in Hillsborough County, Florida. The proposed project is approximately 7.0 miles. The highway is a four-lane divided rural and urban facility which will be improved to a six-lane divided facility that will include construction of stormwater management facilities and multimodal facilities (trail, pedestrian, bicycle, and transit accommodations). Bridges over Bullfrog Creek and the Alafia River are also proposed to be widened or replaced. The Service provides the following comments in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

Eastern Indigo Snake (*Drymarchon corais couperi*)

The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands but they also utilize some wetlands and agricultural areas. FDOT will adhere to the Service's *Standard Protection Measures for the Eastern Indigo Snake* (USFWS 2013) during the construction phase of this project, through implementation of BMPs during construction, preconstruction surveys, and avoidance of unnecessary land clearing. Based on these commitments and our review of the information available in the WEBAR the Service concurs with a 'may affect, but not likely to adversely affect' determination for the Eastern indigo snake.

Wood stork (*Mycteria americana*)

In Florida, wood storks depend on wetlands for foraging and nesting. They have been documented foraging in forested wetlands, cypress domes, fresh water marshes, retention ponds and roadside ditches. FDOT commits to evaluate impacts to wood stork suitable foraging habitat (SFH) during the permitting process and compensation during the final mitigation plan. Based on the information provided in the WEBAR and our records for this area the Service concurs with FDOT's determination that this project 'may affect, but will not likely to adversely affect' the wood stork.

Florida Manatee (*Trichechus manatus latirostris*)

The Florida manatee (manatee) inhabits 5 to 20 feet deep canals, rivers, estuarine habitats, and bays in the Tampa Bay area. During the colder months (October-April), manatees concentrate in areas of warmer water in Florida's natural springs and industrial outfalls. The proposed project may impact the species during in-water work required for the proposed bridge replacements. In order to avoid impacts to the Florida manatee during removal of the old bridge structures and construction of the new bridges, FDOT commits to implementing manatee protection measures in the construction plans and permits for the proposed project. These measures include the *Standard Manatee Conditions for In-Water Work*, restrictions on blasting, monitoring of turbidity barriers, and exclusionary grating on culverts, presence of manatee observers during in-water work, a defined or limited construction window, and prohibition of night-time in-water work. Based on above mentioned commitments and the information reviewed in the WEBAR the Service concurs with FDOT's determination that this project 'may affect, but will not likely to adversely affect' the manatee.

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

The Gulf sturgeon is an anadromous fish that forages in the Gulf of Mexico (Gulf) and spawns in most coastal rivers along the Gulf and has been documented as far south as Florida Bay. FDOT evaluated potential impacts to the species during the construction of the proposed bridges for the project and commits to implementing Best Management Practices (BMPs) and adhere to the *Construction Special Conditions for the Protection of the Gulf Sturgeon* during construction of the proposed bridges. Based on the information provided in the WEBAR for this species and the above mentioned commitments, the Service concurs with FDOT's determination that the proposed project 'may affect, but will not likely to adversely affect' the Gulf sturgeon.

Florida Scrub Jay (*Aphelocoma coerulescens*) and Piping Plover (*Charadrius melodus*)

Suitable habitat for the Florida scrub jay was not identified during field reviews or through the data available to the Service. The WEBAR identifies the upland habitat along the proposed project corridor as being disturbed by human activity with high invasive species coverage (Brazilian peppers) which make the surrounding area unsuitable for scrub jays. On the coast, we find piping plovers which come to winter in Florida in beaches, mudflats, and sandflats along the Gulf of Mexico and the Atlantic. Suitable habitat was not identified in the immediate corridor within the proposed project or directly adjacent to the corridor. Based on the information

provided in the WEBAR and the location of the proposed project, the Service concurs with FDOT's determination that the proposed project will have no effect on the Florida scrub jay or the piping plover.

Thank you for considering the effects of your proposed project on fish and wildlife, and the ecosystems upon which they depend. Should changes to the proposed project occur or new information regarding fish and wildlife resources become available, further consultation with the Service should be initiated to assess any potential impacts. All additional information available will be evaluated when ESA consultation is reinitiated. If you have any questions, please contact Lourdes Mena at (904)731-3119.

Sincerely,

for Jay B. Herrington
Field Supervisor

From: David Rydene - NOAA Federal <david.rydene@noaa.gov>
Sent: Thursday, August 06, 2015 11:22 AM
To: Selly, Nicole
Subject: NMFS response to the US 41 (Kracker Ave to SR 676) WEBAR

Follow Up Flag: Follow up
Flag Status: Flagged

NMFS staff has reviewed the Draft Wetland Evaluation and Biological Assessment Report. NMFS believes that the report provides an adequate assessment of impacts to NMFS trust resources at this phase of project development. It is NMFS's understanding that the wetland impact assessment will be refined as the project moves forward into the design phase. The determination of compensatory mitigation for unavoidable wetland impacts also needs to be finalized. Endangered Species Act Section 7 consultation with NMFS should be initiated once design details (especially regarding pile driving) are available.

On page 6-4, the statement "If blasting is required, informal consultation will be undertaken with the USFWS for the manatee. Blasting should be performed during specific times of the year, if possible. An extensive blast plan would need to be developed and submitted to the USFWS and FWC for
approval as early as possible prior to construction.", should be modified to include coordination with NMFS.

Thank you for the opportunity to provide comments.

--
David Rydene, Ph.D.
Fish Biologist
National Marine Fisheries Service
Habitat Conservation Division
263 13th Avenue South
St. Petersburg, FL 33701
Office (727) 824-5379
Cell (813) 992-5730
Fax (727) 824-5300

ETDM Summary Report

Project #5180 - US HWY 41

Final Programming Screen - Published on 04/10/2013

Generated by Theresa Farmer (on behalf of FDOT District 7)

Printed on: 4/10/2013

Table of Contents

Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project commitments resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

#5180 US HWY 41

District: District 7
County: Hillsborough
Planning Organization: FDOT District 7
Plan ID: 5180
Phase: Programming Screen
From: Kracker Avenue
To: South of Causeway Boulevard
Financial Management No.: 43005612201
Federal Involvement: Maintain Federal Eligibility Federal Permit

Contact Information: Manny Santos Manuel.Santos@dot.state.fl.us
Snapshot Data From: Programming Screen Summary Report Re-published on 04/10/2013 by Theresa Farmer
Issues and Categories are reflective of what was in place at the time of the screening event.

	Natural											Cultural			Community						
	Air Quality	Coastal and Marine	Contaminated Sites	Farmlands	Floodplains	Infrastructure	Navigation	Special Designations	Water Quality and Quantity	Wetlands	Wildlife and Habitat	Historic and Archaeological Sites	Recreation Areas	Section 4(f) Potential	Aesthetics	Economic	Land Use	Mobility	Relocation	Social	Secondary and Cumulative Effects
Alternative #2 - US 41-Kracker to s/o Causeway From: Kracker Ave To: South of Causeway Boulevard *Re-Published: 04/10/2013 Reviewed from 09/20/2012 to 11/04/2012)*	2	3	3	2	4	2	3	3	4	4	3	3	2	0	2	1	0	1	3	3	3

Purpose and Need

Purpose and Need

Purpose and Need Statement

The purpose of the proposed project is to accommodate existing and future traffic demands on US 41 due to growth within the project limits and surrounding areas. US 41 is part of the Florida Intrastate Highway System (FIHS) and plays a significant role in connecting southern Hillsborough County to the Tampa Bay region.

Need

The need for this project stems from projected future traffic, which shows the level of service (LOS) deficiencies in this Corridor. This corridor is projected to operate at LOS F with the 2035 traffic.

Regional Connectivity

US 41 is a major north-south regional arterial that parallels I-75 and US 301 and connects south Hillsborough County to the Tampa Bay region. It provides connectivity between the communities of Apollo Beach, Riverview, and Gibsonton.

US 41 is part of the FIHS, which is the highway component of the Strategic Intermodal System (SIS), a statewide network of highways, railways, waterways, and transportation hubs that handle the bulk of Florida's passenger and freight traffic. US 41 is part of the regional roadway network identified by the West Central Florida Metropolitan Planning Organization's (MPO's) Chairs Coordinating Committee (CCC).

Safety

With the additional capacity provided in the corridor by the widening of US 41 from four to six lanes, roadway congestion will be reduced, which will decrease potential conflicts with other vehicles and potentially increase safety.

Crash data was analyzed for a 5-year period from 2006 to 2010. During this 5-year period, 803 crashes occurred along the study corridor involving 11 fatal crashes and 151 injury crashes. In 2006 there were five fatal crashes, in 2008 there were three fatal crashes, and in 2007, 2009, and 2010 there was one fatal crash each. The actual crash rates per million vehicle miles for this study corridor from the Florida Department of Highway Safety and Motor Vehicles are shown for 2006 through 2010, together with the statewide average for similar facility types. This information can be reviewed in Table 1 found in the Project Attachments.

As shown in Table 1, five spots and one segment that were analyzed had higher average actual crash rates than the statewide average crash rate. The spots that exceeded the statewide average crash rate are: US 41 and Riverview Drive; US 41 and Madison Avenue/Pendola Point Road; US 41 and Gibsonton Drive; US 41 and Palm Avenue; and US 41 and Symmes Road. The average actual crash rates were 4.88 and 3.25 times higher than the statewide average crash rate, respectively. The segment that exceeded the statewide average crash rate is from Port Sutton Road to Causeway Boulevard. This segment has a crash rate that is 13% higher than the statewide average crash rate.

Plan Consistency

This project is consistent with the Future of Hillsborough Transportation Element, which is the Comprehensive Plan for Unincorporated Hillsborough County. The plan was originally adopted in July 1989 and last amended in June of 2008. The comprehensive plan and the Hillsborough County 2035 LRTP, adopted in December 2009, both indicate the need to improve US 41 to 6-lanes from 19th Avenue NE to Madison Avenue.

The project identified in the Hillsborough County 2035 LRTP, as part of the Cost Affordable Highway, Bicycle, and Pedestrian Projects is the widening of US 41 between 19th Avenue NE and Madison Avenue. The project overlaps with the boundaries of US 41 from Kracker Avenue to south of Causeway Boulevard for approximately 6.2 miles. US 41 between 19th Avenue NE and Madison Avenue is listed in the LRTP as expected to be constructed after 2035 as the project is funded for design but unfunded for right-of-way and construction in the LRTP. The remaining portion of the corridor, from Madison Avenue to Causeway Boulevard is not listed in the LRTP.

The West Central Florida MPO Chair's Coordinating Committee (CCC) has classified US 41 as a "regional road" and as an "unfunded need" on the "regionally significant road network" in west central Florida.

Emergency Evacuation

US 41 is listed as an evacuation route by the Hillsborough County Emergency Management and shown on the Florida Division of Emergency Management's evacuation route network. US 41 provides access to I-275 and I-75 via connection with many east-west roads.

Future Population and Employment Growth in Corridor

Traffic in the corridor is expected to increase due to projected population and employment growth along the corridor. According to the Hillsborough County 2035 LRTP, Hillsborough County population is expected to grow from 1,173,360 to 1,729,300 (47% increase) between 2006 and 2035, and employment is expected to grow from 759,300 to 1,175,920 (55% increase) within this timeframe.

Current and Future Transportation Demand
In 2011, the Annual Average Daily Traffic (AADT) ranged between 24,000 (Level of Service [LOS] B) and 34,500 (LOS C) within the proposed project area (as shown in Table 2) according to the Hillsborough County March 2011 Level of Service Report. With an AADT of 34,500, US 41 is at 94% capacity for the adopted level of service standard of D (LOS D has a capacity of 36,700). The current Tampa Bay Regional Planning Model (TBRPM) - Version 7.0 indicates that the AADTs in 2035 are expected to range between 51,500 and 73,000. The existing four lane configuration would result in a LOS F with the future traffic volume.

Modal Interrelationships
The Hillsborough Area Regional Transit (HART) Authority operates local route 31 within the corridor. Bicycle and pedestrian accommodations will be considered as part of the proposed improvements.

US 41 is part of the highway network that provides access to regional intermodal facilities such as the Port of Tampa and Port Manatee. US 41 is designated as part of the Florida's SIS highways. Improvements to US 41 will enhance access to activity centers in the area and will improve movement for goods and freight in the Tampa Bay region and across the State. The widening of this facility is also intended to provide relief to parallel facilities such as I-75 and US 301.

Project Description

Project Description Summary
The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) study to evaluate alternative capacity and operational improvements along US Highway 41/State Road 45 (US 41/SR 45) from Kracker Avenue to south of SR 676 (Causeway Boulevard) in Hillsborough County, FL. US 41 is a major north-south regional arterial that parallels Interstate 75 (I-75) and US Highway 301 (US 301) within the southern portions of Hillsborough County.

US 41 is classified as an urban principal arterial - other. The proposed project consists of the widening of US 41 from a four-lane divided arterial to a six-lane divided arterial and the anticipated replacement of the existing US 41 bridges (Bridge Nos. 100045 and 100107) over the Alafia River. The proposed project is intended to accommodate projected future traffic. Multi-modal improvements such as sidewalks, bicycle facilities, and transit accommodations will be considered as part of the project. The length of the proposed project is approximately 7.7 miles.

Project Status
Portions of US 41, within the project limits, have previously been screened through the Environmental Screening Tool (EST). A Planning Screen Summary Report was published on June 9, 2005 under Efficient Transportation Decision Making (ETDM) Project number 5180 - US 41 from SR 674 (College Avenue) to Madison Avenue. A Programming Screen Summary Report was published on November 18, 2008, under ETDM Project number 9511. The ETAT reviewed limits of US 41 from 19th Avenue NE to Gibsonton Drive, but after the ETAT review was complete the limits were reduced to be from 12th Street to Kracker Avenue. The FDOT based their Programming Summary Report and Class of Action on these new reduced limits. The current project is using the same ETDM Project Number 5180 as the Planning Screen, but the limits have been reduced to connect to the southern segment along US 41 that was evaluated in the Programming Screen (ETDM Project number 9511).

The project is currently state-funded for PD&E for $1,116,000. This project is not listed on the Hillsborough County Long Range Transportation Plan (LRTP) for construction until after 2035. FDOT will coordinate with the local planning agencies for inclusion on the 2035 LRTP, and costs for construction and right of way will be determined at that time.

This project will be evaluated as a State Environmental Impact Report (SEIR). The project will consist of three segments: (1) Kracker Avenue to Pennsylvania Avenue, (2) Pennsylvania Avenue to Industrial Access Road - bridge over Alafia River, and (3) Industrial Access Road to south of SR 676 (Causeway Boulevard). Segment 2, which includes the bridge over the Alafia River, will require review from the U.S. Coast Guard. The project can be reviewed in the EST by segment or as the entire project limits.

Summary of Public Comments

Summary of Public Comments are not available at this time.

Planning Consistency Status

No information available.

Federal Consistency Determination

Date: 11/06/2012

Determination: CONSISTENT with Coastal Zone Management Program.

Lead Agency

FL Department of Transportation

Exempted Agencies

Agency Name	Justification	Date
US Forest Service	No forest service lands.	09/18/2012
National Park Service	No national parks within project area.	09/18/2012
Federal Transit Administration	FTA has requested to be exempt from reviewing any non-transit projects.	06/29/2012

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

Communities Within 500 Feet

- 3040 Gibsonton
- 3359 Palm River-Clair Mel

Purpose and Need Reviews

FDOT District 7

Acknowledgment	Date Reviewed	Reviewer	Comments
Accepted	12/12/2012	Theresa Farmer (theresa.farmer@dot.state.fl.us)	No Purpose and Need comments found.

FL Department of Economic Opportunity

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/19/2012	Chris Wiglesworth (chris.wiglesworth@deo.myflorida.com)	No Purpose and Need comments found.

FL Department of Environmental Protection

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/31/2012	Lauren Milligan (lauren.milligan@dep.state.fl.us)	No Purpose and Need comments found.

FL Fish and Wildlife Conservation Commission

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/29/2012	Bonita Gorham (bonita.gorham@myfwc.com)	No Purpose and Need comments found.

National Marine Fisheries Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	09/24/2012	David Rydene (David.Rydene@noaa.gov)	No Purpose and Need comments found.

National Park Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/30/2012	Anita Barnett (anita_barnett@nps.gov)	No Purpose and Need comments found.

Natural Resources Conservation Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/02/2012	Rick Robbins (rick.a.robbins@fl.usda.gov)	No Purpose and Need comments found.

Southwest Florida Water Management District

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	11/01/2012	Hank Higginbotham (Hank.Higginbotham@swfwmd.state.fl.us)	No Purpose and Need comments found.

US Army Corps of Engineers

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	11/16/2012	Garett Lips (Garett.G.Lips@usace.army.mil)	No Purpose and Need comments found.

US Coast Guard

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	12/18/2012	Gene Stratton (allen.e.stratton@uscg.mil)	No Purpose and Need comments found.

US Environmental Protection Agency

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/30/2012	Madolyn Dominy (dominy.madolyn@epa.gov)	No Purpose and Need comments found.

US Fish and Wildlife Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/25/2012	Jane Monaghan (Jane_Monaghan@fws.gov)	No Purpose and Need comments found.

The following organizations were notified but did not submit a review of the Purpose and Need:
- FL Department of Agriculture and Consumer Services
- FL Department of State
- Federal Highway Administration
- Seminole Tribe of Florida

Alternative #2 - US 41-Kracker to s/o Causeway

Alternative Description

Name	From	To	Type	Status	Total Length	Cost	Modes	SIS
US 41-Kracker to s/o Causeway	Kracker Ave	South of Causeway Boulevard	Widening	ETAT Review Complete	6.84 mi.	$1,116,000.00	Roadway Bicycle Pedestrian	Y

Segment Description(s)

Segment No.	Name	Beginning Location	Ending Location	Length (mi.)	Roadway Id	BMP	EMP
Segment 1 - South of Alafia	Segment 1 - South of Alafia	Kracker Ave	Pennsylvania Ave	2.84			
Segment 2 - Alafia Bridge	Segment 2 - Alafia Bridge	Pennsylvania Ave	Riverview Dr	0.63			
Segment 3 - North of Alafia	Segment 3 - North of Alafia	Riverview Dr	Denver St	3.35			

Jurisdiction and Class

Segment No.	Jurisdiction	Urban Service Area	Functional Class
Segment 1 - South of Alafia	FDOT	In	URBAN: Principal Arterial - Other
Segment 2 - Alafia Bridge	FDOT	In	URBAN: Principal Arterial - Other
Segment 3 - North of Alafia	FDOT	In	URBAN: Principal Arterial - Other

Base Conditions

Segment No.	Year	AADT	Lanes	Config
Segment 1 - South of Alafia	2011	24000	4	Lanes Divided
Segment 2 - Alafia Bridge	2011	24000	4	Lanes Divided
Segment 3 - North of Alafia	2011	34500	4	Lanes Divided

Interim Plan

Segment No.	Year	AADT	Lanes	Config
Segment 1 - South of Alafia				
Segment 2 - Alafia Bridge				
Segment 3 - North of Alafia				

Needs Plan

Segment No.	Year	AADT	Lanes	Config
Segment 1 - South of Alafia	2035	51700	6	Lanes Divided
Segment 2 - Alafia Bridge	2035	54000	6	Lanes Divided
Segment 3 - North of Alafia	2035	73500	6	Lanes Divided

Cost Feasible Plan

Segment No.	Year	AADT	Lanes	Config
Segment 1 - South of Alafia	2035			
Segment 2 - Alafia Bridge	2035			
Segment 3 - North of Alafia	2035			

Funding Sources

Segment No.	FDOT	Unknown
Segment 1 - South of Alafia	$1,116,000.00	
Segment 2 - Alafia Bridge	$1,116,000.00	

Segment 3 - North of Alafia	$1,116,000.00	

Project Effects Overview for Alternative #2 - US 41-Kracker to s/o Causeway

Issue	Degree of Effect	Organization	Date Reviewed
Natural			
Air Quality	2 Minimal	US Environmental Protection Agency	11/04/2012
Coastal and Marine	3 Moderate	National Marine Fisheries Service	01/23/2013
Coastal and Marine	3 Moderate	Southwest Florida Water Management District	11/01/2012
Contaminated Sites	3 Moderate	US Environmental Protection Agency	11/04/2012
Contaminated Sites	3 Moderate	Southwest Florida Water Management District	11/01/2012
Contaminated Sites	3 Moderate	FL Department of Environmental Protection	10/31/2012
Farmlands	2 Minimal	Natural Resources Conservation Service	10/02/2012
Floodplains	4 Substantial	US Environmental Protection Agency	11/04/2012
Floodplains	4 Substantial	Southwest Florida Water Management District	11/01/2012
Infrastructure	2 Minimal	Southwest Florida Water Management District	11/01/2012
Navigation	3 Moderate	US Coast Guard	12/18/2012
Navigation	3 Moderate	US Army Corps of Engineers	11/16/2012
Special Designations	3 Moderate	US Environmental Protection Agency	01/17/2013
Special Designations	3 Moderate	Southwest Florida Water Management District	11/01/2012
Water Quality and Quantity	4 Substantial	US Environmental Protection Agency	11/04/2012
Water Quality and Quantity	4 Substantial	Southwest Florida Water Management District	11/01/2012
Water Quality and Quantity	3 Moderate	FL Department of Environmental Protection	10/31/2012
Wetlands	3 Moderate	National Marine Fisheries Service	01/23/2013
Wetlands	4 Substantial	US Army Corps of Engineers	11/16/2012
Wetlands	3 Moderate	US Environmental Protection Agency	11/04/2012
Wetlands	3 Moderate	Southwest Florida Water Management District	11/01/2012
Wetlands	3 Moderate	FL Department of Environmental Protection	10/31/2012
Wetlands	4 Substantial	US Fish and Wildlife Service	10/29/2012
Wildlife and Habitat	3 Moderate	Southwest Florida Water Management District	11/01/2012
Wildlife and Habitat	3 Moderate	FL Fish and Wildlife Conservation Commission	10/29/2012
Wildlife and Habitat	3 Moderate	US Fish and Wildlife Service	10/29/2012
Cultural			
Historic and Archaeological Sites	3 Moderate	FL Department of State	02/15/2013
Historic and Archaeological Sites	2 Minimal	Southwest Florida Water Management District	11/01/2012

Recreation Areas	2 Minimal	US Environmental Protection Agency	11/04/2012
Recreation Areas	2 Minimal	Southwest Florida Water Management District	11/01/2012
Recreation Areas	2 Minimal	FL Department of Environmental Protection	10/31/2012
Recreation Areas	N/A N/A / No Involvement	National Park Service	10/30/2012
Community			
Aesthetics	2 Minimal	FDOT District 7	11/01/2012
Economic	1 Enhanced	FDOT District 7	11/01/2012
Economic	1 Enhanced	FL Department of Economic Opportunity	10/19/2012
Land Use	1 Enhanced	FDOT District 7	11/01/2012
Land Use	0 None	FL Department of Economic Opportunity	10/19/2012
Mobility	1 Enhanced	FDOT District 7	11/01/2012
Relocation	3 Moderate	FDOT District 7	11/01/2012
Social	3 Moderate	FDOT District 7	11/01/2012
Secondary and Cumulative			
Secondary and Cumulative Effects	3 Moderate	Southwest Florida Water Management District	11/01/2012

ETAT Reviews and Coordinator Summary: Natural

Air Quality

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the US Environmental Protection Agency (USEPA) and recommends a Degree of Effect of Minimal.

The USEPA stated that Hillsborough County and the Tampa area surrounding the project has not been designated non-attainment or maintenance for ozone, carbon monoxide (CO) or particulate matter (PM) in accordance with the Clean Air Act. There are no violations of the National Ambient Air Quality Standards (NAAQS); nevertheless, it was recommended that the PD&E study consider the need for additional air impact analyses. It was also recommended that environmental reviews of the project include hot spot analyses at the points in time and places where congestion are expected to be greatest or in areas of sensitive receptors. Current and proposed air quality requirements and standards should be used in modeling software programs. In addition, USEPA stated that as population growth and vehicle volumes increase, there is the potential to have air quality conformity and non-attainment issues in the future.

The FDOT will conduct an air quality screening test for this project during the PD&E study.

Degree of Effect: 2 *Minimal* assigned 11/04/2012 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Resources: Air Quality

Level of Importance: Low, due to minimal degree of effect. A minimal degree of effect is being assigned to the air quality issue for the proposed project, US Hwy 41,ETDM #5180.

Comments on Effects to Resources:

Hillsborough County and the Tampa area surrounding the project has not been designated non-attainment or maintenance for ozone, carbon monoxide (CO) or particulate matter (PM) in accordance with the Clean Air Act. There are no violations of National Ambient Air Quality Standards (NAAQS). Nevertheless, it is recommended that the environmental review phase of this project consider the need for additional air impact analyses. If needed and/or applicable, these types of analyses would include documenting

the current pollutant concentrations recorded at the nearest air quality monitors, an evaluation of anticipated emissions, and air quality trend analyses. It is also recommended that environmental reviews of the project include hot spot analyses at the points in time and places where congestion are expected to be greatest or in areas of sensitive receptors. Air quality modeling using an approved software program could be used as a means to determine whether any conformity issues or violations of air quality standards are anticipated within the project area and/or counties. Current and proposed air quality requirements and standards should be used in modeling software programs.

Additional Comments (optional):
As population growth and vehicle volumes increase, there is the potential to have air quality conformity and non-attainment issues in the future. FDOT, MPOs, municipalities, and regional planning agencies should conduct air quality modeling as traffic forecasts increase.

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Air Quality issue for this alternative: Federal Highway Administration

Coastal and Marine

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 03/14/2013 by FDOT District 7

Comments:
The Florida Department of Transportation (FDOT) has evaluated comments from the Southwest Florida Water Management District (SWFWMD) and National Marine Fisheries Service (NMFS) and recommends a Degree of Effect of Moderate.
The geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates there are 163.24 acres of Coastal Assessment Framework (CAF) drainage area within the 100-foot buffer and 325.93 acres within the 200-foot buffer. There are 31 environmentally sensitive shorelines in the 100-foot buffer and 35 within the 200-foot buffer. There are 4.7 acres and 11.2 acres of bays and estuaries, 1.0 acres and 6.8 acres of mangrove swamps, and 5.3 acres and 19.3 acres of saltwater marshes within the 100-foot and 200-foot buffers, respectively.
The SWFWMD stated that Hillsborough County is listed as a coastal county under the Coastal Zone Management Act. The bridges located within the project area may extend over lands currently deeded to the Tampa Port Authority.
The NMFS staff conducted a site inspection of the project area on September 21, 2012, to assess potential concerns related to living aquatic resources within Delaney Creek and unnamed tidal creeks, the mouth of the Alafia River, Bullfrog Creek and Hillsborough Bay. NMFS stated that the lands adjacent to the corridor are principally residential, commercial, industrial, agricultural, palustrine wetlands and estuarine habitats. Mangroves occur adjacent to the project at Delaney Creek (Bridge #100467), unnamed tidal creeks (Bridge #100047 and 100046), the Alafia River bridges (Bridge #100045 and 100107), the Bullfrog Creek bridges (Bridge #100106 and 100044), a tidal creek south of Mabrey Avenue, and along the stretch of US 41 from south of Adams Street to Kracker Avenue. In addition, salt marsh occurs in the vicinity of Bridge #100047 and along the stretch of US 41 from south of Adams Street to Kracker Avenue. Certain estuarine habitats within the project area are designated as essential fish habitat (EFH). Mangroves have been identified as EFH for postlarval/juvenile, sub-adult and adult red and gray snapper, and juvenile goliath grouper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Salt marshes have been identified as EFH for postlarval/juvenile, sub-adult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. Activities which may adversely impact EFH are required to consult with NMFS and an EFH Assessment must be prepared as part of the consultation process for impacts to EFH. NMFS recommends that stormwater treatment systems be upgraded to prevent degraded water from entering estuarine habitats within the ecosystem. In addition, best management practices should be employed during road construction to prevent siltation of estuarine habitats.
The FDOT will prepare an EFH Assessment as part of the Wetland Evaluation and Biological Assessment Report (WEBAR) during the PD&E study. This report will assess potential species and existing habitat within the project area. This report and the FDOTs findings will be coordinated with the appropriate regulatory agencies. The FDOT provided additional information regarding the project to NMFS to reduce the degree of effect from Substantial to Moderate.

Degree of Effect: 3 *Moderate* assigned 01/23/2013 by David A. Rydene, National Marine Fisheries Service

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects
Identified Resources and Level of Importance:
Delaney Creek and unnamed tidal creeks, the mouth of the Alafia River, Bullfrog Creek, and Hillsborough Bay which contain estuarine and marine habitats such as seagrass, mangrove, and salt marsh used by federally-managed fish species and their prey.
Comments on Effects to Resources:
NOAA's National Marine Fisheries Service (NMFS) has reviewed the information contained in the Environmental Screening Tool for

ETDM Project # 5180. The Florida Department of Transportation District 7 proposes widening US 41 from south of Causeway Boulevard to Kracker Avenue in Hillsborough County, Florida. The road would be widened from four lanes to six lanes, and the US 41 Alafia River Bridges would be replaced. NMFS staff conducted a site inspection of the project area on September 21, 2012, to assess potential concerns related to living marine resources within Delaney Creek and unnamed tidal creeks, the mouth of the Alafia River, Bullfrog Creek, and Hillsborough Bay. The lands adjacent to the proposed project are principally residential, commercial, industrial, and agricultural properties, palustrine wetlands, and estuarine habitats. It appears that the project will directly impact NMFS trust resources (i.e. mangroves and salt marsh). Mangroves occur adjacent to the existing road and its associated bridges and culverts at Delaney Creek (Bridge #100467), unnamed tidal creeks (Bridges # 100047 and 100046), the Alafia River Bridges (Bridges # 100045 and 100107), the Bullfrog Creek Bridges (Bridges # 100106 and 100044), a tidal creek just south of Mabrey Avenue, and along the stretch of US 41 from south of Adams Street to Kracker Avenue. In addition, salt marsh occurs in the vicinity of Bridge # 100047 and along the stretch of US 41 from south of Adams Street to Kracker Avenue. Certain estuarine habitats within the project area are designated as essential fish habitat (EFH) as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. The generic amendment was prepared by the Gulf of Mexico Fishery Management Council as required by the 1996 amendment to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Mangroves have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and juvenile goliath grouper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Salt marshes have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. Federal agencies which permit, fund, or undertake activities which may adversely impact EFH are required to consult with NMFS and, as a part of the consultation process, an EFH Assessment must be prepared to accompany the consultation request. Regulations require that EFH Assessments include: 1. a description of the proposed action; 2. an analysis of the effects (including cumulative effects) of the proposed action on EFH, the managed fish species, and major prey species; 3. the Federal agency's views regarding the effects of the action on EFH; and 4. proposed mitigation, if applicable. Provisions of the EFH regulations [50 CFR 600.920(c)] allow consultation responsibility to be formally delegated from federal to state agencies, including FDOT. Whether EFH consultation is undertaken by the federal agency (e.g. Federal Highway Administration) or FDOT, it should be initiated as soon as specific project design and construction impact information are available. EFH consultation can be initiated independent of other project review tasks or can be incorporated in environmental planning documents. Upon review of the EFH Assessment, NMFS will determine if it is necessary to provide EFH Conservation Recommendations for the project. NMFS also recommends that stormwater treatment systems be upgraded to prevent degraded water from entering estuarine habitats within the system. In addition, best management practices should be employed during road construction to prevent siltation of estuarine habitats.
NMFS has changed its original Degree of Effect determination from "Substantial" to "Moderate" based on additional information provivded by FDOT indicating that the road widening should occur within the the existing right of way with the possible exception of some stormwater treatment ponds. FDOT has also indicated that an EFH Assessment will be done and included within the Wetland Evaluation Report during the PD&E phase.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:
Hillsborough County is listed as a coastal county under the Coastal Zone Management Act. In addition to the general county classification, the bridges located within the proposed project area may be extending over lands currently deeded to the Tampa Port Authority.

Comments on Effects to Resources:
Prior to the issuance of the permit an additional CZM Noticing period will be required for all wetland and surface water impacts associated with the construction. Depending on the type of permit requested the CZM Noticing period is either 10 days (General) or 30 days (Individual) with an additional 5 day mailing timeframe added to each.

Additional Comments (optional):
SWFWMD has assigned a Degree of Effect (DOE) of Moderate based on the additional time and effort associated with the permitting requirements for the proposed construction activities.

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Coastal and Marine issue for this alternative:
Federal Highway Administration

A Contamination Screening Evaluation (similar to Phase I and Phase II Audits) may need to be conducted along the project right-of-way, considering the proximity to potential petroleum and hazardous material handling facilities. The Contamination Screening Evaluation should outline specific procedures that would be followed by the applicant in the event drums, wastes, tanks or potentially contaminated soils are encountered during construction. Special attention should be made in the screening evaluation to historical land uses (such as solid waste disposal) that may have an affect on the proposed project, including stormwater retention and treatment areas.

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Contaminated Sites issue for this alternative: Federal Highway Administration

Farmlands

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the Natural Resources Conservation Service (NRCS) and recommends a Degree of Effect of Minimal.

Geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates there are 106.2 acres (63.76%), 207.4 acres (61.99%), and 466.6 acres (55.08%) of Farmland of Unique Importance within the 100-foot, 200-foot and 500-foot buffers, respectively.

The USDA-NRCS considers soil map units with important soil properties for agricultural uses to be Prime Farmland. In addition, any soils with important soil properties and have significant acreages that are used in production of commodity crops are considered as Farmlands of Unique Importance or Farmlands of Local Importance. Even though there is Prime Farmland and agricultural cropland acreage at all buffer widths, a degree of effect of minimal was assigned based on 3 factors: (1) the project is strictly a widening project; (2) the agricultural resources along this portion of US 41 are highly fragmented an trending towards conversion to urban lands; and (3) mapping of Hillsborough County was completed in 1983. If these areas were re-mapped today, many of the map units would be correlated as Soil-Urban land complexes and would not be considered as Farmlands of Prime, Unique, or Local importance.

The majority of the corridor is developed and includes industrial, commercial and residential land uses. The FDOT will evaluate potential impacts to farmland during the PD&E study.

Degree of Effect: 2 *Minimal* assigned 10/02/2012 by Rick Allen Robbins, Natural Resources Conservation Service

Coordination Document: No Selection

Direct Effects

Identified Resources and Level of Importance:

The USDA-NRCS considers soil map units with important soil properties for agricultural uses to be Prime Farmland. In addition, the USDA-NRCS considers any soils with important soil properties and have significant acreages that are used in the production of commodity crops (such as, cotton, citrus, row crops, specialty crops, nuts, etc.) to be considered as Farmlands of Unique Importance or Farmlands of Local Importance. Nationally, there has been a reduction in the overall amount of Prime and Unique Farmlands through conversion to non-farm uses. This trend has the possibility of impacting the nation's food supply and exporting capabilities.

Comments on Effects to Resources:

We are rating the Degree of Effect to Farmland Resources as Minimal, even though there is Prime Farmland and agricultural cropland acreage at all buffer widths. This reduced rating is based on 3 factors. First, the project is strictly a widening project. Second, the agricultural resources along this portion of U.S. 41 is highly fragmented and tending towards conversion to urban lands. Third, mapping of Hillsborough County was completed in 1983. Substantial urbanization has taken place. If these areas were re-mapped today, many of the map units would be correlated as "Soil-Urban land complexes". These map units would not be considered as Farmlands of Prime, Unique, or Local importance.

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Farmlands issue for this alternative: Federal Highway Administration

Floodplains

Project Effects

Coordinator Summary Degree of Effect: 4 *Substantial* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the US Environmental Protection Agency (USEPA) and Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect of Substantial.

A review of the geographic information system (GIS) analysis data indicates that there are 166.5 acres (100%), 334.5 acres (100%) and 846.1 acres (99.88%) of FEMA flood Zone AE (100-year flood plain) located within the 100-foot, 200-foot, and 500-foot buffer, respectively.
The USEPA indicated that development within the 100-year floodplain is of a high level of importance. It is indicated that nearly 100% of the project area is located within Zone AE of the 100-year floodplain. Any development within the 100-year floodplain has the potential for placing citizens and property at risk of flooding and producing changes in floodplain elevations and plan view extent. Development within floodplains increases the potential for flooding by limiting flood storage capacity and exposing people and property to flood hazards. The PD&E phase of the project should include an evaluation of floodplain impacts. FDOT should consider alternatives to avoid adverse effects and incompatible development in the floodplains.
The SWFWMD has assigned a degree of effect of substantial due to the present belief that Environmental Resource Permitting (ERP) permitting will not be routine for expected impacts to Zone AE floodplains which currently cover over 99% of the proposed project area. SWFWMD supported Watershed Management Models are generally based on more recent land cover and topographic information, and it is recommended that the FDOT utilize data from these flood studies in preference to generalized information on flows and stages. Proposed stormwater management systems by FDOT may necessitate updates to the current or proposed Watershed Management Models. The SWFWMD will require compensation for fill/encroachments into floodplains, floodways and historic basin storage areas up to the 100-year event if such encroachments will adversely affect conveyance, storage, water quality or adjacent lands.
The FDOT will evaluate floodplain impacts and evaluate compensation opportunities for any floodplain encroachment and lost floodplain storage. Compensatory mitigation will be provided if mitigation is deemed necessary by regulatory agencies. The FDOT will prepare a Location Hydraulics Report (LHR) for the project. The FDOT will avoid or minimize impacts to floodplain resources and functions wherever possible.
No comments were received from the Florida Department of Environmental Protection (FDEP).

Degree of Effect: 4 *Substantial* assigned 11/04/2012 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Resources: Floodplains
Level of Importance: Development within the 100-year floodplain is of a high level of importance. Construction of roadways within the floodplain should not impede, obstruct or divert the flow of water or debris in the floodplain which would alter the roadways discharge capacity or otherwise adversely affect public health, safety and welfare, or cause damage to public or private property in the event of a flood.

Comments on Effects to Resources:

A review of GIS analysis data (Special Flood Hazard Areas, FEMA Insurance Rate Maps 1996 and DFIRM Flood Hazard Areas) in the EST at the programming screen phase of the project indicates that nearly 100% of the project area is located within Zone AE of the 100-year floodplain, as indicated by both DFIRM mapping information and FEMA Special Flood Hazard Areas designation. Digital Flood Insurance Rate Maps (DFIRMs) are digital versions of the Flood Insurance Rate Maps (FIRMs) that are the official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community. 100% of the project area is located within the 100-year floodplain. The proposed project is located to the south of Tampa, a fast growing region in the metropolitan area. The stated purpose of the proposed project is to accommodate existing and future traffic demands on US 41 due to growth within the project limits and surrounding areas. US 41 is part of the Florida Intrastate Highway System (FIHS) and plays a significant role in connecting southern Hillsborough County to the Tampa Bay region.
Comments relating to floodplains include the fact that any development within the 100-year floodplain has the potential for placing citizens and property at risk of flooding and producing changes in floodplain elevations and plan view extent. Development (such as roadways, housing developments, strip malls and other commercial facilities) within floodplains increases the potential for flooding by limiting flood storage capacity and exposing people and property to flood hazards. Development also reduces vegetated buffers that protect water quality and destroys important habitats for fish and wildlife.
The PD&E phase of the project should include an evaluation of floodplain impacts. FDOT should consider alternatives to avoid adverse effects and incompatible development in the floodplains. Efforts should be made to avoid or minimize impacts to floodplain resources and functions. Consultation and coordination with appropriate flood management agencies, such as the Southwest Florida Water Management District and FEMA, should occur relating to regulatory requirements, avoidance, minimization and/or mitigation strategies.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 4 *Substantial* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

The following information was obtained from the FDOTs Environmental Screening Tool (EST) and supplemented with information from the SWFWMDs Geographic Information System (GIS):

Digital Flood Insurance Rate Map (DFIRM) areas of interest include the following:

- Zone A: representing 0.1 + / - % of US-41 within the 500 foot buffer.
- **Zone AE: representing 99.9 + / - % of US-41 within the 500 foot buffer.**
- **Zone VE: NOT within the 500 foot buffer of this US-41 project.**

Approximate locations of these DFIRM Zones can be viewed within the EST under the Floodplains map and *Water Resource* > *DFIRM Flood Hazard Zones* layer.

As of October, 2012, the following DFIRM Panel Numbers for the US-41 widening project (from south to north) can be obtained from the FEMA Map Service Center at:

https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Panel # 12057C0492H: Date of issue 08/28/08 (Hillsborough County)
Panel # 12057C0484H: Date of issue 08/28/08 (Hillsborough County)
Panel # 12057C0482H: Date of issue 08/28/08 (Hillsborough County)
Panel # 12057C0369H: Date of issue 08/28/08 (Hillsborough County)
Panel # 12057C0367H: Date of issue 08/28/08 (Hillsborough County)

Comments on Effects to Resources:

Potential impacts for the US-41 widening project will depend upon the required filling, encroachment or alteration of existing (or future) Zone A & AE Floodplains, Historic Basin Storage areas and (if applicable) Floodways.

Additional Comments (optional):

The SWFWMD has assigned a Degree of Effect based on the potential need for increased coordination or effort associated with the SWFWMDs proprietary or regulatory interests and obligations. For this US-41 widening project, a DOE of Substantial was assigned to this issue due to the present belief that future **ERP permitting is expected to be non-routine for expected impacts to Zone AE floodplains which currently cover over 99 percent of the proposed project area. ERP permitting is expected to be more difficult, and will require close coordination and considerable effort on the part of the SWFWMDs permitting staff.** SWFWMD supported Watershed Management Models are generally based on more recent land cover and topographic information. The SWFWMD recommends that the FDOT utilize data from these flood studies in preference to generalized information on flows and stages. FDOT should coordinate with District Engineering & Watershed Management Section staff in Brooksville regarding the status & data availability of these Watershed Management Models. Ongoing / future SWFWMD studies (within mile of US-41) that may be helpful in the PD&E and design phase include the following:

Project Number: B126
Project Name: WMP - Hillsborough County Model Review
Area(s) of Responsibility: Flood Protection / Floodplain Management
Project Status: **Complete**
Project Manager: Ms. Robin Bailey
Project Number: L099
Project Name: WMP - Hillsborough Watershed Model Update
Area(s) of Responsibility: Flood Protection / Floodplain Management
Project Status: **Ongoing**
Project Manager: Ms. Robin Bailey

As of October, 2012, the SWFWMDs GIS indicated the following watershed studies would apply to this US-41 widening project:

- **Bullfrog Creek (all of Segment S-001 and the southern portion of Segment S-002).**
- **Alafia River [within all three segments (S-001, S-002 and S-003)].**
- **Delaney Creek (all of Segment S-003 and the northern portion of Segment S-002).**

If available, floodplain information developed through these studies can be viewed through the SWFWMDs Floodplain Map Viewer at http://www.swfwmd.state.fl.us/projects/wmp**/. As of October, 2012, no information was available the Floodplain Map Viewer.** Proposed stormwater management systems by FDOT may necessitate updates to the current or proposed Watershed Management Models.

Filling within any floodplain, floodway or historic basin storage area may decrease stormwater storage which could increase flooding depth and duration. The SWFWMD will require compensation for fill (or other encroachments) into floodplains, floodways and historic basin storage areas up to the 100-year event if such encroachment(s) will adversely affect conveyance, storage, water quality or adjacent lands (Reference: Sections 4.4 and 4.7 of the Districts ERP Basis of Review, available at http://www/.swfwmd.state.fl.us/permits/rules).

The FDOT may reduce the degree of effect for flooding by:
- restricting the filling / encroachment into floodplain, floodway and historic basin storage areas to only those areas that are necessary;
- constructing stormwater treatment ponds outside floodplain, floodway and historic basin storage areas;
- providing equivalent compensation for lost floodplain, floodway and historic basin storage.

The SWFWMD recommends that the FDOT quantify floodplain, floodway and historic impacts based on existing or special basin hydrologic studies. Roadway modification improvements may also affect existing cross drainage / bridge facilities along the entire length of the US-41 widening project. Additional bridge hydraulics reports should be prepared and submitted with the Environmental Resource Permit application. The SWFWMD concurs with FDOTs 09/19/12 Advance Notification (AN) package in regard to recommending the following Technical Studies:
- **Location Hydraulics Report**
- **Drainage / Pond Siting Report**
- **Bridge Hydraulics Report**

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Floodplains issue for this alternative: FL Department of Environmental Protection, Federal Highway Administration

Infrastructure

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 03/14/2013 by FDOT District 7

Comments:
The Florida Department of Transportation (FDOT) has evaluated comments from the Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect of Minimal.
A review of the Geographical Information Systems (GIS) analysis data indicates that there is one Federal Aviation Administration (FAA) tower, one limited use drinking water well and one wireless antenna structure within the 500-foot buffer. There are approximately 6,517 feet and 12,739 feet of railways within the 200-foot and 500-foot buffers, respectively.
According to SWFWMDs GIS system, there are multiple ground water and surface water monitoring wells/sites within the 500-foot buffer. The SWFWMD has cooperative programs with National Geodetic Survey (NGS), Florida Department of Environmental Protection (FDEP) and other local agencies to establish and maintain benchmarks throughout the District. There are approximately 37 benchmarks identified near the project corridor. The SWFWMD an active 4-inch ground water/geologic well near Park Grove Drive (Site ID #18110) and three proposed surface water monitoring sites along Bullfrog Creek (Site IDs #703013, #703019, and #703023) are of heightened concern. SWFWMD requests that FDOT avoid disturbing data collection facilities or adjacent survey benchmarks.
The FDOT will assess potential impacts to existing infrastructure and take measures to minimize any project related impacts.

Degree of Effect: 2 *Minimal* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:
From the SWFWMDs Geographic Information System (GIS) and the FDOTs Environmental Screening Tool (EST), **the following District owned / controlled lands are located within the one (1) mile buffer around the US-41 widening project:**
- A 132 + / - acre parcel of the larger Tampa Bay Estuarine Ecosystem project, located about mile west / southwest of the southern terminus of Segment S-001.
- Another 84 + / - acre parcel of the larger Tampa Bay Estuarine Ecosystem project, located on the south side of Bullfrog Creek, approximately 4,800 feet east of Segment S-001.

In addition, several additional parcels are identified for potential acquisition by the SWFWMD within the one (1) mile buffer of this US-41 widening project.
Approximate (graphical) locations of these parcels can be viewed within the EST under the Infrastructure map and > *Conservation* > *Water Management District Owned Lands* layer. Aerial photography of these parcels can also be accessed in this same EST map.
The following information (regarding SWFWMD owned / controlled / cooperative data collection sites) was obtained from the SWFWMDs GIS system, and was analyzed for information within 500 feet of this US-41 widening project:
SITE_ID: 18110
SITE_NAME: SOUTHWEST HILLSBOROUGH 220 FLDN
SITE_TYPE_DESC: Ground Water/Geologic
STATUS_DESC: Active
AGENCY: SWFWMD / US Geological Survey

APPROX_LAT: 27 49 26.93
APPROX_LONG: 82 22 53.20
SITE_ID: 703013
SITE_NAME: BULLFROG CREEK 07BFC19
SITE_TYPE_DESC: Surface water
STATUS_DESC: Proposed
AGENCY:
APPROX_LAT: 27 50 13.19
APPROX_LONG: 82 22 57.70
SITE_ID: 18168
SITE_NAME: WILLIAMS 201
SITE_TYPE_DESC: Surface Water
STATUS_DESC: Inactive
AGENCY:
APPROX_LAT: 27 51 37.80
APPROX_LONG: 82 23 03.48
SITE_ID: 712249
SITE_NAME: HILLSBOROUGH-ALAFIA RIVER-201-1
SITE_TYPE_DESC: Surface water
STATUS_DESC: Proposed
AGENCY:
APPROX_LAT: 27 51 33.30
APPROX_LONG: 82 23 03.18
SITE_ID: 703019
SITE_NAME: BULLFROG CREEK 07BFC24
SITE_TYPE_DESC: Surface Water
STATUS_DESC: Proposed
AGENCY:
APPROX_LAT: 27 50 11.39
APPROX_LONG: 82 22 55.90
SITE_ID: 17991
SITE_NAME: ALAFIA RIVER AT GIBSONTON
SITE_TYPE_DESC: Surface water
STATUS_DESC: Canceled
AGENCY: US Geological Survey
APPROX_LAT: 27 51 32.80
APPROX_LONG: 82 23 01.00
SITE_ID: 703023
SITE_NAME: BULLFROG CREEK 07BFC25
SITE_TYPE_DESC: Surface Water
STATUS_DESC: Proposed
AGENCY:
APPROX_LAT: 27 50 10.67
APPROX_LONG: 82 22 46.18

The SWFWMD has cooperative programs with NGS, FDEP and other local agencies to establish and maintain benchmarks throughout the District. The following Benchmarks are located near this proposed US-41 widening project:

http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7608
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7607
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7606
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1721
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1720
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7611
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7609
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7610
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7612
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1718
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7472
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7473
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7471

http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7470
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7469
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7468
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7467
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7466
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7465
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1715
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1716
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6117
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG8853
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG8856
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=CR8126
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=CR8127
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6124
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6123
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1714
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6120
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1717
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6118
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6119
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG7372
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=DL1719
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG6076
http://www.ngs.noaa.gov/cgi-bin/ds_mark.prl?PidBox=AG1774
Beginning on 09/04/12, the SWFWMD revised its website to provide benchmark data that is searchable by section, township and range, or by interactive map. The URL for this website is as follows:
http://www.swfwmd.state.fl.us/data/surveycontrol/

Comments on Effects to Resources:
Construction activities related to the project and associated surface water management facilities have the potential to damage the Districts data collection stations or to impair their collection functions. Of heightened concern are potential R/W acquisitions and construction easements that could impact:
- The active 4 inch Ground Water/Geologic well near Park Grove Drive (Site ID #18110 noted above).
- The three (3) proposed surface water monitoring sites along Bullfrog Creek (Site IDs #703013, #703019 and #703023 noted above).

Additional Comments (optional):
The SWFWMD has assigned a Degree of Effect based on the potential need for increased coordination or effort associated with the SWFWMDs proprietary or regulatory interests and obligations. For the US-41 widening project, a DOE of Minimal was assigned to this issue due to the present belief that that little or no adverse impacts to SWFWMD owned or controlled infrastructure.
The SWFWMD requests that FDOT avoid disturbing data collection facilities or adjacent survey benchmarks. Coordination with the SWFWMDs Hydrologic Data and Survey Sections in Brooksville will be helpful in protecting these infrastructure components.

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Infrastructure issue for this alternative: Federal Highway Administration

Navigation

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 03/14/2013 by FDOT District 7

Comments:
The Florida Department of Transportation (FDOT) has reviewed comments from the US Army Corps of Engineers (USACE) and recommends a Degree of Effect of Moderate.
Geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates that there are 4 Florida Marine Facilities within the 100-foot and 200-foot buffers and 6 within the 500-foot buffer. No potential navigable waterways or potential navigable waterway crossing were identified by the EST GIS analysis; however, the Alafia River, Bullfrog Creek and other waterway crossings are known to exist within the project corridor.

The USCG identified that a Coast Guard Permit will be required for any modification or replacement of any bridge that crosses a navigable waterway. It is clear that a Coast Guard Bridge Permit will be required for the bridges that cross the Alafia River and Bullfrog Creek. Any other waterway crossings will need to be evaluated to ensure a permit will not be required.
The USACE identified navigable waterways within the project area. The study should ensure an evaluation, with an emphasis on vessel usage, is performed for the waterways anticipated to be affected by the project. The effects to be considered should include, but not limited to, effects associated with temporary work trestles or bridges, bridge demolition, and usage of barges or other vessels during construction.
There are navigable waterways within the project area and bridges over these waterbodies, including the Alafia River and Bullfrog Creek. The FDOT will evaluate horizontal and vertical clearance of the existing and proposed bridges as well as the considerations listed above by the USACE.

Degree of Effect: 3 *Moderate* assigned 12/18/2012 by Gene Stratton, US Coast Guard

Coordination Document: Permit Required

Direct Effects
Identified Resources and Level of Importance:
A Coast Guard Permit will be required for any modification or replacement of any bridge that crosses a navigable waterway. From the project description, it is clear that a Coast Guard Bridge Permit will be required for the bridges that cross the Alafia River and Bullfrog Creek. Any other waterways crossings will need to be evaluated to ensure a permit will not be required.

Comments on Effects to Resources:
Any bridge crossing is an obstruction to navigation. A change to the approved clearances will impact all navigation up river of the bridge site.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 11/16/2012 by Garett Lips, US Army Corps of Engineers

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects
Identified Resources and Level of Importance:
Navigable waters are within the project area.
Comments on Effects to Resources:
The study should ensure an evaluation with an emphais on vessel usage is performed for the waterways anticipated to be affected by the project. The effects that should be considered include, but not limited to, effects associated with temporary work trestles or tempoary bridges, bridge demoliton, and usage of barges or other vessels used during construction.
Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Navigation issue for this alternative: Federal Highway Administration

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Special Designations

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 03/14/2013 by FDOT District 7

Comments:
The Florida Department of Transportation (FDOT) has evaluated comments from the Southwest Florida Water Management District (SWFWMD) and US Environmental Protection Agency (USEPA) and recommends a Degree of Effect (DOE) of Moderate.
Other special designation resources associated with Floodplains, Recreation Areas, Contamination, and Farmlands are identified in their respective Degrees of Effect.
According to the geographic information system (GIS) data from the Environmental Screening Tool (EST), there are 0.97 acre, 6.77 acres, and 28.37 acres of mangroves within the 100-foot, 200-foot and 500-foot buffers, respectively.
The USEPA identified two brownfield areas within the project area. The mangrove acreages in the EST were identified by USEPA. Mangroves provide nursery habitat for fish, crustaceans, and shellfish and provide food for several types of marine species. Mangroves also provide shelter and nesting areas for coastal birds. Water quality within this area of Tampa Bay is impaired; therefore, protection of the coastal wetlands is critical to fish habitat and other marine resources. The USEPA recommended that the PD&E study project include an analysis and review of soils mapping and classification information to determine any potential impacts to farmland resources. Efforts should be made to avoid or minimize impacts to farmland resources and functions.

The SWFWMD identified portions of the Alafia River, Bullfrog Creek and the Bullfrog Creek Marine Preserve extend into the 200-foot buffer of the proposed project. Work proposed in, on or over wetlands and surface waters associated with the Alafia River, Bullfrog Creek and Bullfrog Creek Marine Preserve will require additional permitting efforts with the Tampa Port Authority.
The FDOT will evaluate potential impacts to special designations as part of the PD&E study. The FDOT will design the project to meet SWFWMD water quality standards pursuant to state rules and statutes and the Environmental Resource Permit (ERP) Basis of Review (BOR), as well as criteria set forth by other regulatory agencies. The FDOT provided additional information regarding the project to USEPA to reduce the degree of effect from Substantial to Moderate.
No comments were received from the Florida Department of Agriculture and Consumer Services (DACS).

Degree of Effect: 3 *Moderate* assigned 01/17/2013 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Resources: Features identified as Special Designations (Brownfield Location Boundaries, Special Flood Hazard Areas, Mangroves, Public Lands, Prime Farm Land).
Level of Importance: These special designation features are of a high level of importance in the State of Florida. A moderatedegree of effect is being assigned to this issue for the proposed project (ETDM #5180, US Hwy 41).

Comments on Effects to Resources:

A review of GIS analysis data at the programming screen phase of the project indicates that there are Brownfield Location Boundaries, DFIRM 100-Year Flood Plain/Special Flood Hazard Areas, Mangroves, Public Lands, and Prime Farm Lands within proximity of the proposed project.
See Floodplains issue for information relating to floodplains.
See Recreation Areas issue for information relating to public lands (The Kitchen).
Brownfield Location Boundaries -
The GIS analysis data indicates that there are two Brownfield properties (Kracker Road Area and Pendola Point Brownfield Area) located within proximity of the proposed project.
Mangroves -
According to the GIS analysis results, the following acres of mangroves are located within the project area:
100-foot buffer distance 1.0 acre
200-foot buffer distance 6.8 acres
500-foot buffer distance 28.4 acres
Mangroves serve several important ecosystem functions. They provide nursery habitat for fish, crustaceans, and shellfish and they provide food for several types of marine species. Both recreational and commercial fisheries in Florida are dependent upon healthy mangrove forests. Mangroves also provide shelter and nesting areas for coastal birds. Protecting mangrove acreage is critical, especially since most of the loss of acreage is due to human impact such as development and construction.
Tampa Bay is one of the largest ports in the nation. As a result of dramatic changes in the Tampa Bay area, a significant amount of coastal wetlands acreage has been lost, including mangroves and salt marshes. Water quality in this area of Tampa Bay is impaired due to historical and current industrial activities. Therefore, protection of the coastal wetlands is critical to fish habitat and other marine resources.
Regulations to protect mangrove forests have been developed by both state and local agencies. These regulations must be met and consultation with other agencies such as the National Marine Fisheries Service may be required. Avoidance measures should be strongly considered for this project. Also, mitigation to provide enhanced or increased function should be strongly evaluated within the same general area of Tampa Bay.
Prime Farm Land -
A review of the GIS analysis data in the EST at the programming screen phase of the project indicates that there are Prime Farmland Soils present within the project area. At the 100 foot buffer distance there are 106.2 acres ofsoils that could support farmlands of unique importance, at the 200 foot buffer distance there are 207.4 acres, and at the 500 foot buffer distance there are 466.6 acres. Based upon land use changes within the County and project areafrom agricultural to urban and the fact that the listed acreage of farmlands of unique importance in the GIS analysis data are outdated map units (1983), most of these soils within the project buffer distances are most likely not in agricultural use. The project, as proposed is not expected to impact farmland cropsof unique importance. The environmental review phase (PD&E) of the project should include an analysis and review of soils mapping and classification information to determine any potential impacts to farmland resources. Efforts should be made to avoid or minimize impacts to farmland resources and functions.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

Portions of the Alafia River, Bullfrog Creek and the Bullfrog Creek Marine Preserve extend into the 200 foot buffer limits of this proposed US-41 widening project. Beyond the 200 foot buffer, but still within the 5,280 foot buffer, there are several parcels of land owned and maintained by ELAPP, FDEP and the District.

As previously noted in the Contaminated Sites section of the EST, no sinkholes or subsidence Incident Reports were noted within the 500 foot buffer of this US-41 project. However, segments S-001 and S-003 are between one (1) and two (2) miles away from Sensitive Karst Areas - SKAs (reference: the FDOTs EST Contaminated Sites Map and > *Geology* > *SWFWMD Sensitive Karst Areas* layer).

Comments on Effects to Resources:

Work proposed in, on, or over wetlands and surface waters associated with the Alafia River, Bullfrog Creek and the Bullfrog Marine Preserve will require additional permitting efforts with the Tampa Port Authority. Expansion of the ROW into the limits of the ELAPP, FDEP, and SWFWMD properties will also require additional coordination to receive authorization to utilize lands purchased with State Funds or deeded to the state.

Additional Comments (optional):

The SWFWMD has assigned a Degree of Effect (DOE) based on the potential need for increased coordination or effort associated with the SWFWMDs proprietary or regulatory interests and obligations. **For this US-41 widening project, a DOE of Moderate was assigned to this issue due to additional permitting coordination with the Tampa Port Authority.** However, the expected permitting effort by FDOT should be straight forward and a normal effort is expected on the part of SWFWMDs regulatory staff.

It is recommended that the stormwater facilities be designed as shallow as practical and that geotechnical evaluations of specific pond sites be conducted to determine the potential for sinkhole development and direct entry of runoff to the underlying Intermediate and Floridan Aquifers**.** A Drainage or Pond Siting Report, incorporating area-specific geotechnical information on the basin, will be necessary. Direct discharges to active sinkholes (if applicable) are strongly discouraged due to the potential for groundwater contamination. **The SWFWMD concurs with FDOTs 09/19/12 Advance Notification (AN) package in regard to recommending the following Technical Studies:**

- **Drainage / Pond Siting Report**

Additional information on the Florida Aquifer Vulnerability Assessment (FAVA) can be obtained at the following web addresses:
http://www.dep.state.fl.us/geology/programs/hydrogeology/fava.htm
http://www.dep.state.fl.us/geology/programs/hydrogeology/fava_gis_data.htm
http://www.dep.state.fl.us/swapp/documents/Florida Aquifer Vulnerability Assessment.pdf

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Special Designations issue for this alternative: FL Department of Agriculture and Consumer Services, Federal Highway Administration

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Water Quality and Quantity

Project Effects

Coordinator Summary Degree of Effect: 4 *Substantial* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the Florida Department of Environmental Protection (FDEP), US Environmental Protection Agency (USEPA), and Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect of Substantial.

A review of the Geographical Information Systems (GIS) analysis data indicates that there are 73.62 acres, 149.62 acres and 381.83 acres of 303(d) 1998 Impaired Waters within the 100-foot, 200-foot and 500-foot buffer, respectively. There are 33, 57 and 126 EPA water quality data monitoring stations within the 100-foot, 200-foot and 500-foot buffer, respectively. There are two principal aquifers of the State of Florida and two recharge areas of the Floridan Aquifer within the 100-500 foot buffers. The EST identified 18 Verified Impaired Florida Waters: Cycle 1 Group 1-5 Basins and Cycle Group 1-3 Basins (2010) within the 100-foot and 200-foot buffers and 19 within the 500-foot buffer.

The USEPA stated the project location encompasses several drainage basins, some of which are on the Clean Water Act 303(d) list of impaired waters for exceedance of water quality standards. Further impairment to waterbodies such as Bullfrog Creek, Alafia River, Delaney Creek, and Tampa Bay is a concern from both point and non-point sources. Bridge removal and construction techniques should minimize impacts to water quality. The PD&E study should include an in-depth review of water quality data, water

quality concerns in nearby surface waters and wetlands, and groundwater concerns and/or issues. It is recommended the FDOT coordinate with both the SWFWMD and FDEP during the PD&E study.
The SWFWMD identified eleven waterbody IDs (WBIDs) within the 500-foot buffer of the project. It was noted that the FDEP recently posted the Draft list of impaired waters for Cycle 3 of the Group 1 Basins. Proposed updates to pollutants are identified for WBIDs within the project area. Untreated or under-treated runoff from the proposed US 41 improvements could impact the eleven WBIDs within the project area. The FDOT recommends FDOT participate as a stakeholder in future TMDL and BMAP activities by the FDEP. Additional runoff from the proposed US 41 improvements could cause flooding impacts to existing off-site stormwater management systems and drainage conveyance facilities. A degree of effect of Substantial was assigned due to the belief that Environmental Resource Permitting (ERP) is expected to be non-routine for expected impacts to Zone AE floodplains and potential impacts to nutrient verified impaired waters within three of the eleven WBIDs and four additional WBIDs with the recent release of the Draft Cycle 3 assessments. The SWFWMD will require stormwater management systems that directly or indirectly discharge into water not meeting water quality standards provide a net improvement condition in the waterbody terms of the pollutants that contribute to the waterbodys impairment. It is recommended that the FDOT consider stormwater quality treatment together with water quality impacts to wetlands and other surface waters when designing the stormwater management components of this project.
The FDEP noted that every effort should be made to maximize the treatment of stormwater runoff from the proposed project to prevent ground and surface water contamination. Stormwater management system should be designed to maintain the natural predevelopment hydroperiod and water quality and protect the natural functions of adjacent wetlands. Retrofitting of stormwater conveyance systems could help reduce impacts to water quality.
The FDOT will create a stormwater pollution prevention plan (SWPPP) and erosion and sediment control plan during any future design phase of this project. Proper best management practices (BMPs) will be used during construction. The FDOT will coordinate with SWFWMD for water quality and will adhere to state water quality standards during permitting of the proposed project. The FDOT will prepare a Pond Siting Report and an ERP permit will be obtained from SWFWMD during any future design of this project and prior to construction.

Degree of Effect: 4 *Substantial* assigned 11/04/2012 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Resources: Water quality (surface water, groundwater) Level of Importance: Water quality is of a high level of importance in the State of Florida and in the project area. A substantial degree of effect is being assigned to this issue for the proposed project.

Comments on Effects to Resources:

The project location encompasses several drainage basins, some of which are listed on the Clean Water Act 303(d) list of impaired waters for exceedance of water quality standards. Certain segments of surface water bodies within the project area are scheduled for development of or have approved/established Total Maximum Daily Loads (TMDLs). Further impairment to water bodies such as Bullfrog Creek, Alafia River, Delaney Creek, and Tampa Bay is a concern from both point and non-point sources. The project includes the replacement of bridges over the Alafia River, the bridge over Bullfrog Creek and several other small bridges. Bridge removal and construction techniques should minimize impacts to water quality. Consideration should be given to construction activities and the potential for stormwater runoff into the water bodies. Best management practices and stormwater collection, treatment, and pond design should avoid or minimize impacts to surface water bodies in the area. Due to the potential to have a significant impact on surface water bodies, the PD&E study should include an indepth review of water quality data, water quality concerns in nearby surface waters and wetlands, and groundwater concerns and/or issues. FDOT should consult with the Southwest Florida Water Management District (SWFMD) and FDEP on stormwater permitting issues and other water quality issues relating to point and nonpoint source discharges into surface water bodies. The PD&E study should include a review of water quality standards in 303(d) listed (water quality impaired) water bodies, sources of water quality impairments, and TMDL requirements and how these regulations and/or requirements may affect the proposed project and environmental resource permits. It is recommended that FDOT consult with the Florida Department of Environmental Protection water quality program on this issue. Impacts to water quality include stormwater runoff into nearby surface water bodies. Stormwater runoff from urban sources, including roadways, carry pollutants such as volatile organics, petroleum hydrocarbons, heavy metals, and pesticides/herbicides. Proper stormwater conveyance, containment, and treatment will be required in accordance with state and federal regulations and guidelines.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 4 *Substantial* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

Water Quality:

The following information was obtained from the FDOTs Environmental Screening Tool (EST) and supplemented with information from the SWFWMDs Geographic Information System (GIS):

The total length of the US-41 widening project equals 6.84 miles within three (3) segments for planning and evaluation purposes. A graphical location of this project can be viewed within the EST. The public EST can be accessed at https://etdmpub.fla-etat.org/est/

The SWFWMDs public GIS can be accessed at http://www.swfwmd.state.fl.us/data/

and http://www8.swfwmd.state.fl.us/GeneralMapViewer/

From south to north, Water Body Identification Numbers (WBIDs) for this US-41 widening project (within the 500 foot buffer) include:

Segment S-001

- The Kitchen (WBID #1676)
- Kitchen Branch (WBID #1682)
- Bullfrog Creek Tidal Segment (WBID #1666A)
- South Channel (WBID #1664)
- Alafia River above Hillsborough Bay (WBID #1621G)

Segment S-002

- South Channel (WBID #1664)
- Alafia River above Hillsborough Bay (WBID #1621G)

Segment S-003

- Alafia River above Hillsborough Bay (WBID #1621G)
- Direct runoff to Bay (WBID #1648)
- Archie Creek - Tidal (WBID #1628A)
- Delaney Creek Pop off Canal (WBID #1632)
- Black Point Channel (WBID #1637)
- Port Sutton Ditch (WBID #1636)
- Delaney Creek Tidal (WBID #1605D)

An approximate (graphical) location of these eleven (11) WBIDs can be viewed within the FDOTs EST Water Quality & Quantity Map and > *Water Resource* > *Drainage Basins (Water body IDs)* layer.

During October, 2012, the following information was obtained from the FDEP regarding Impaired Water Assessments along this US-41 widening project:

The Kitchen (WBID #1676), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:

Selected Assessments for Cycle 2 (as of 05/14/09):

- Not impaired (Assessment Category 2)for Dissolved Oxygen.
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**
- Not impaired (Assessment Category 2) **for** Nutrients (Chlorophyll-a).
- Insufficient data (Assessment Category 3B) for Nutrients (Historic Chlorophyll-a).

A Total Maximum Daily Load (TMDL) document was not available for this WBID.

No Basin Management Action Plan (BMAP) was available for this WBID.

It should be noted that the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site:

http://www.dep.state.fl.us/water/watersheds/assessment/index.htm

For WBID 1676 (The Kitchen), the following pollutants are listed as Impaired (Assessment Category 5):

- **Dissolved Oxygen (Nutrients and BOD).**
- **Fecal Coliform.**
- **Nutrients (Chlorophyll-a).**

Kitchen Branch (WBID #1682), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:

Selected Assessments for Cycle 2 (as of 05/14/09):

- Insufficient data (Assessment Category 3B) for Dissolved Oxygen.
- Insufficient data (Assessment Category 3B) for Fecal Coliform.
- Insufficient data (Assessment Category 3B)for Nutrients (Chlorophyll-a).
- Insufficient data (Assessment Category 3B) for Nutrients (Historic Chlorophyll-a).

A Total Maximum Daily Load (TMDL) document was not available for this WBID.

No Basin Management Action Plan (BMAP) was available for this WBID.

It should be noted that the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site:

http://www.dep.state.fl.us/water/watersheds/assessment/index.htm
For WBID 1682 (Kitchen Branch), the following pollutants are listed as Impaired (Assessment Category 5):
- **Dissolved Oxygen (BOD).**
- **Fecal Coliform.**
- **Nutrients (Chlorophyll-a).**
- **Mercury (in fish tissue).**

Bullfrog Creek Tidal Segment (WBID 1666A), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- **Verified Impaired (Assessment Category 5) for Dissolved Oxygen.**
- **Verified Impaired (Assessment Category 5) or Fecal Coliform.**
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**
- **Verified Impaired (Assessment Category 5) (Chlorophyll-a).**
- **Verified Impaired (Assessment Category 5) for Nutrients (Historic Chlorophyll-a).**

Two (2) TMLD documents are available at the following FDEP web site:
http://webapps.dep.state.fl.us/DearTmdl/dashboardAction.do?method=tmdlPermitDetailsAction&srcWbid=1666A
The first (August, 2009) document is entitledis entitled *Final TMDL Report: Fecal Coliform TMDL for Bullfrog Creek (WBID 1666A), Bullfrog Creek (WBID 1666) and Little Bullfrog Creek (WBID 1688).* **This 1st report is FDEP adopted and EPA approved.**
The second (February, 2010) document is entitledis entitled *TMDL Report: Dissolved Oxygen and Nutrient TMDL for the Bullfrog Creek Tidal Segment (WBID 1666A.* **This 2nd report is a DRAFT document by FDEP.**
A Basin Management Action Plan (BMAP) was not available from the following FDEP web site:
http://www.dep.state.fl.us/water/watersheds/bmap.htm

South Channel (WBID #1664), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- Insufficient data (Assessment Category 3B) for Dissolved Oxygen.
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**

A Total Maximum Daily Load (TMDL) document was not available for this WBID.
No Basin Management Action Plan (BMAP) was available for this WBID.

Alafia River above Hillsborough Bay (WBID #1621G), Group 2 (Tampa Bay), Alafia River Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- **Verified Impaired (Assessment Category 5) for Dissolved Oxygen.**
- Not impaired (Assessment Category 2) for Fecal Coliform.
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**
- **Verified Impaired (Assessment Category 5) for Nutrients (Chlorophyll-a).**
- **Verified Impaired (Assessment Category 5) for Nutrients (Historic Chlorophyll-a).**

A TMLD documents is available at the following FDEP web site:
http://webapps.dep.state.fl.us/DearTmdl/dashboardAction.do?method=tmdlPermitDetailsAction&srcWbid=1621G
This (March, 2011) FINAL document is entitledis entitled *TMDL Report: Dissolved Oxygen and Nutrient TMDL for the Alafia River above Hillsborough Bay Tidal Segment (WBID 1621G).* **This report is FDEP adopted and EPA approved.**
A Basin Management Action Plan (BMAP) was not available from the following FDEP web site:
http://www.dep.state.fl.us/water/watersheds/bmap.htm
However, the large scale BMAP graphic (dated June, 2012) from this web site indicates the Alafia River Basin is a priority area with BMAP activities in progress. This is verified with the supporting table (dated 07/22/11) of ongoing BMAP activities within the FDEPs Southwest District.

Direct Runoff to Bay (WBID #1648), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- Insufficient data (Assessment Category 3B) for Dissolved Oxygen.
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**

A Total Maximum Daily Load (TMDL) document was not available for this WBID.
No Basin Management Action Plan (BMAP) was available for this WBID.

Archie Creek Tidal (WBID #1628A), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- Insufficient data (Assessment Category 3B)for Dissolved Oxygen.
- Insufficient data (Assessment Category 3B) for Fecal Coliform.
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**

- Insufficient data (Assessment Category 3B)for Nutrients (Chlorophyll-a).
- Insufficient data (Assessment Category 3B) for Nutrients (Historic Chlorophyll-a).
A Total Maximum Daily Load (TMDL) document was not available for this WBID.
No Basin Management Action Plan (BMAP) was available for this WBID.
It should be noted that the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site: http://www.dep.state.fl.us/water/watersheds/assessment/index.htm
For WBID 1628A (Archie Creek - Tidal), the following pollutants are listed as Impaired (Assessment Category 5):
- **Dissolved Oxygen (Nutrients).**
- **Fecal Coliform.**

Delaney Creek Pop off Canal (WBID #1632), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**
- No data (Assessment Category 3A) for Fecal Coliform.

A Total Maximum Daily Load (TMDL) document was not available for this WBID.
No Basin Management Action Plan (BMAP) was available for this WBID.
It should be noted that the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site: http://www.dep.state.fl.us/water/watersheds/assessment/index.htm
For WBID 1632 (Delaney Creek Pop off Canal), the following pollutants are listed as Impaired (Assessment Category 5):
- **Fecal Coliform.**

Black Point Channel (WBID #1637), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- Not impaired (Assessment Category 2) for Dissolved Oxygen
- No data (Assessment Category 3A) for Fecal Coliform.
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**
- Planning List (Assessment Category 3C)for Nutrients (Chlorophyll-a).
- Insufficient data (Assessment Category 3B) for Nutrients (Historic Chlorophyll-a).

A Total Maximum Daily Load (TMDL) document was not available for this WBID.
No Basin Management Action Plan (BMAP) was available for this WBID.

Port Sutton Ditch (WBID #1636), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Assessments incomplete (for Cycle 2).
It should be noted that the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site: http://www.dep.state.fl.us/water/watersheds/assessment/index.htm
For WBID 1636 (Port Sutton Ditch), the following pollutants are listed as Impaired (Assessment Category 5):
- **Dissolved Oxygen (BOD).**
- **Fecal Coliform.**
- **Mercury (in fish tissue).**

Delaney Creek - Tidal (WBID #1605D), Group 1 (Tampa Bay), Coastal Hillsborough Bay Tributary Planning Unit, FDEP Southwest Regulatory District:
Selected Assessments for Cycle 2 (as of 05/14/09):
- **Verified Impaired (Assessment Category 5) for Dissolved Oxygen**.
- **Verified Impaired (Assessment Category 5) or Fecal Coliform.**
- **Verified Impaired (Assessment Category 5) for Lead.**
- Insufficient data (Assessment Category 3B) for Copper
- No data (Assessment Category 3A) for Iron
- **Verified Impaired (Assessment Category 5) for Mercury (in fish tissue).**
- **Verified Impaired (Assessment Category 5) for Nutrients (Chlorophyll-a).**
- Not impaired (Assessment Category 2) for Nutrients (Historic Chlorophyll-a).

A Total Maximum Daily Load (TMDL) document was not available for this WBID.
No Basin Management Action Plan (BMAP) was available for this WBID.
It should be noted that the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site: http://www.dep.state.fl.us/water/watersheds/assessment/index.htm

For WBID 1605D (Delaney Creek - Tidal), the following pollutants are listed as Impaired (Assessment Category 5):
- **Copper**
- **Iron**

Assessment Category information (for the above 11 WBIDs) was obtained from the Permits tab of the FDEPs TMDL Tracker, accessible at:
http://webapps.dep.state.fl.us/DearTmdl/dashboardAction.do?method=dashboard#
Assessment Category definitions can be found in Table 7.5 of FDEPs *2012 Integrated Water Quality Assessment for Florida,* (May, 2012), available at:
http://www.dep.state.fl.us/water/pubs.htm
http://www.dep.state.fl.us/water/docs/2012_integrated_report.pdf
From Table 7.3 of this same report, it should be noted that Cycle 3 rotation assessments are scheduled to be completed as follows:
Group 1 Basins 06/30/12 [will potentially affect ten (10) of the eleven (11) WBIDs within this US-41 project (ETDM 5180)]
Group 2 Basins - 06/30/13 (will potentially affect WBID 1621G (the Alafia River above Hillsborough Bay)
Group 3 Basins 06/13/14
Group 4 Basins 06/30/15
Group 5 Basins 06/30/16
As noted previously, the FDEP recently posted their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. As of October, 2012, this list is available at the following FDEP web site:
http://www.dep.state.fl.us/water/watersheds/assessment/index.htm
This DRAFT list may affect the following six (6) WBIDs for this US-41 project (ETDM 5180):
- **The Kitchen (WBID #1676)**
- **Kitchen Branch (WBID #1682)**
- **Archie Creek Tidal (WBID #1628A)**
- **Delaney Creek Pop off Canal (WBID #1632)**
- **Port Sutton Ditch (WBID #1636)**
- **Delaney Creek - Tidal (WBID #1605D)**

Total Maximum Daily Load (TMDL) information is available from the following FDEP web sites:
http://www.dep.state.fl.us/water/basin411/default.htm
http://www.dep.state.fl.us/water/tmdl/final_tmdl.htm
http://www.dep.state.fl.us/water/tmdl/repost_tmdl.htm
http://www.dep.state.fl.us/water/tmdl/draft_tmdl.htm
Basin Management Action Plan (BMAP) information is available from the following FDEP web site:
http://www.dep.state.fl.us/water/watersheds/bmap.htm
Additional FDEP web links & gateways for impaired waters information (including new listings / delistings) are as follows:
http://www.dep.state.fl.us/water/watersheds/assessment/vdllists.htm
http://www.dep.state.fl.us/water/watersheds/assessment/index.htm
http://www.dep.state.fl.us/water/tmdl/index.htm
http://ca.dep.state.fl.us/mapdirect/?focus=tmdlvi
http://www.dep.state.fl.us/gis/

Water Quantity:
Floodplain issues for the US-41 widening project were addressed in a previous section of this document.

Comments on Effects to Resources:
Water Quality:
Untreated or under-treated runoff generated by the US-41 widening project could impact the eleven (11) watersheds (WBIDs) identified in the previous section. For Cycle 2 assessments three (3) of the eleven (11) watersheds are currently classified as Verified impaired (Assessment Category 5) by the FDEP for nutrient related pollutants. **However, this could change in the future as development activities increase within these respective WBIDs. As noted previously, this has already occurred with FDEPs recent release of their *DRAFT list of impaired waters for Cycle 3 of the Group 1 Basins*. Four (4) additional WBIDs may be classified (in the near future) as Verified impaired (Assessment Category 5) for nutrient related pollutants. The SWFWMD recommends that FDOT participate as a stakeholder in future TMDL and BMAP activities by the FDEP.**
Water Quantity:
Un-attenuated or under-attenuated runoff from the US-41 widening project could cause flooding impacts to existing off-site stormwater management systems and drainage conveyance facilities. Additional impacts will depend upon the required filling, encroachment or alteration of existing Zone A & AE Floodplains, Historic Basin Storage areas and (if applicable) Floodways.

Additional Comments (optional):
The SWFWMD has assigned a Degree of Effect based on the potential need for increased coordination or effort associated with the SWFWMDs proprietary or regulatory interests and obligations. For this US-41 widening project, a DOE of Substantial was assigned to this issue due to the present belief that future ERP permitting is expected to be non-routine for:
- **Expected impacts to Zone AE floodplains which currently cover over 99 percent of the proposed project area.**
- **Potential impacts to Nutrient verified impaired waters within three (3) of the eleven (11) WBIDs (Cycle 2 assessments) and four (4) additional WBIDs with the recent release of the DRAFT (Cycle 3) assessments.**
ERP permitting is expected to be more difficult, and will require close coordination and considerable effort on the part of the SWFWMDs permitting staff.
As applicable, the SWFWMD will require that stormwater management systems that discharge directly or indirectly into waters not meeting standards, including impaired waters, provide a net improvement condition in the water body in terms of the pollutants that contribute to the water bodys impairment. A higher level of treatment may be necessary (Reference: Section 3.3.1.4 of the Districts ERP Basis of Review, available at http://www/permits/rules/). If applicable, reductions in pollutant loading from stormwater runoff via stormwater treatment facilities or other BMPs will be required to implement future TMDLs and BMAPs should they be finalized and adopted.
If equivalent stormwater quality treatment is to be considered, the FDOT must reasonably demonstrate the following:
- The alternate, contributing areas are hydrologically equivalent to the new and existing, directly-connected impervious watershed areas that would otherwise contribute to the treatment system;
- The pollution source and loading characteristics are reasonably equivalent, and
- The treatment benefits occur in the same receiving waters and in the same general locality as the existing point(s) of discharge from the new project area.
It is recommended that the FDOT consider stormwater quality treatment together with water quality impacts to wetlands and other surface waters when designing the stormwater water management, components of this project.
The SWFWMD concurs with FDOTs 09/19/12 Advance Notification (AN) package in regard to recommending the following Technical Studies:
- **Water Quality Impact Evaluation (WQIE)**
- **Location Hydraulics Report**
- **Drainage / Pond Siting Report**
- **Bridge Hydraulic Report**
The US-41 widening project is within the Tampa Bay Watershed of the SWFWMDs Surface Water Improvement and Management (SWIM) program. FDOT should coordinate with the SWFWMDs Surface Water Improvement and Management (SWIM) department in Tampa regarding the appropriate details & data availability. The nearest SWIM projects that may be of interest in the PD&E and design phase of this US-41 widening project include the following:
Project Number: W385
Project Name: Ekker Property Restoration (Tampa Bay)
Area(s) of Responsibility: Natural Systems / Natural Systems Conservation & Restoration
Project Status: **Ongoing**
Project Manager: Mr. Mike Dalsis
Project Number: W346
Project Name: Davis Tract Habitat Restoration
Area(s) of Responsibility: Natural Systems / Natural Systems Conservation & Restoration
Project Status: Complete
Project Manager: Mr. Brant Henningsen
Project Number: W345
Project Name: Dug Creek Habitat Restoration
Area(s) of Responsibility: Natural Systems / Natural Systems Conservation & Restoration
Project Status: Complete
Project Manager: Mr. Brant Henningsen
Project Number: W347
Project Name: The Kitchen Ecosystem Restoration
Area(s) of Responsibility: Natural Systems / Natural Systems Conservation & Restoration
Project Status: Complete
Project Manager: Mr. Brant Henningsen
Project Number: W357
Project Name: Apollo Beach Habitat Restoration
Area(s) of Responsibility: Natural Systems / Natural Systems Conservation & Restoration
Project Status: Complete
Project Manager: Ms. Stephanie Powers
Project Number: W386

Project Name: Newman Branch Habitat Restoration
Area(s) of Responsibility: Natural Systems / Natural Systems Conservation & Restoration
Project Status: **Ongoing**
Project Manager: Mr. Mike Dalsis
Project Number: W367
Project Name: Palm River Restoration
Area(s) of Responsibility: Water Quality
Project Status: **Ongoing**
Project Manager: Ms. Stephanie Powers
Project Number: W370
Project Name: Desoto Park Addition Shoreline Restoration
Area(s) of Responsibility: Natural Systems / Water Quality
Project Status: Complete
Project Manager: Ms. Stephanie Powers
Project Number: W243 East Shore Commerce Park Parcel Stormwater Retrofit
Project Name: Northeast McKay Bay
Area(s) of Responsibility: Natural Systems / Water Quality
Project Status: Complete
Project Manager: Ms. Janie Hagberg
Project Number: W389
Project Name: Hillsborough County - McKay Bay Nature Preserve
Area(s) of Responsibility: Natural Systems
Project Status: Complete
Project Manager: BJ Grant
Project Number: W392
Project Name: Tampa Shoreline Restoration Initiative
Area(s) of Responsibility: Natural Systems
Project Status: Complete
Project Manager: BJ Grant
Specific studies that contain useful water quality and hydrologic information have been done by FDEP, the SWFWMD and the USGS. These reports can be accessed through the Districts Library at http://www15.swfwmd.state.fl.us/dbtw-wpd/mywebqbe/librarybasic.htm. Type in the County or water body of interest, click on Submit query then click on the pull-down menu in the upper left and select Record Display Web.

The following information is provided for the SWFWMDs Minimum Flows and Levels (MFL) Program within 1.0 mile of the US-41 widening project:

Adopted MFLs:
- ALAFIA RIVER ESTUARY - INCLUDES LITHIA AND BUCKHORN SPRINGS

Proposed MFLs:
- Bullfrog Creek

MFL reports are available at:
http://www.swfwmd.state.fl.us/projects/mfl/mfl_reports.php
Guidance Level information is available at:
https://www.flrules.org/gateway/ChapterHome.asp?Chapter=40D-8
Filling within any floodplain, floodway or historic basin storage area may decrease stormwater storage which could increase flooding depth and duration. The SWFWMD will require compensation for fill (or other encroachments) into floodplains, floodways and historic basin storage areas up to the 100-year event if such encroachment(s) will adversely affect conveyance, storage, water quality or adjacent lands (Reference: Sections 4.4 and 4.7 of the Districts ERP Basis of Review, available at http://www/.swfwmd.state.fl.us/permits/rules).
The FDOT may reduce the degree of effect for flooding by:
- restricting the filling / encroachment into floodplain, floodway and historic basin storage areas to only those areas that are necessary;
- constructing stormwater treatment ponds outside floodplain, floodway and historic basin storage areas;
- providing equivalent compensation for lost floodplain, floodway and historic basin storage.

As previous noted in the Floodplains section of this document, the SWFWMD recommends that the FDOT quantify floodplain, floodway and historic impacts based on existing, future or special basin hydrologic studies.
Roadway widening improvements may also affect existing cross drainage facilities along the entire length of this US-41 widening project, or require additional cross drains. Additional / updated bridge hydraulics reports should be prepared and submitted with the Environmental Resource Permit application.
Impacts to existing permitted stormwater management systems may decrease performance in terms of flood management and

stormwater treatment. Information on Environmental Resource Permits (ERPs), Storm Water Permits, Dredge & Fill Permits and Works of the District Permits is now available in the EST under Water Quality & Quantity > Permits. Useful (but limited) information includes the permit number, a short description of the project, name of the permittee, project acreage and an approximate location of the project (shown graphically). **As of October, 2012, the EST indicated the following permits had been issued within 500 feet of this US-41 widening project:**
SWFWMD Works of the District: None
SWFWMD Dredge & Fill Permits: None
SWFWMD Environmental Resource Permits: Fifty-four (54)
SWFWMD Storm Water Management Permits: Three (3)
Similar information can be obtained from the SWFWMDs Permits Map Viewer and Environmental Resource Permit Search web sites as follows:
http://www8.swfwmd.state.fl.us/ExternalPermitting/
http://www18.swfwmd.state.fl.us/erp/erp/search/ERPSearch.aspx
Previous FDOT, D7 permits that may be of interest to in the future PD&E and design phases of the US-41 widening project are as follows:
Environmental Resource Permits (5):
- 31842.000 - FDOT-US41-15TH AVE-RUSKIN-BULLFROG
- 31842.001 - FDOT-US 41 OVER BULLFROG CREEK SCOUR PROTECTION
- 14399.000 - DEP-TAMPA BAY PARK & amp; CARGILL PROPERTIES
- 24555.000 - HILLS CO-MADISON AVE AT US41
- 32399.000 - DOT-TRADEMARK METALS TURNLANE WIDENING

Water quantity concerns must be addressed for the project in accordance with Chapter 4 of the Districts ERP Basis of Review. This includes making provisions to allow runoff from up-gradient areas to be conveyed to down-gradient areas without adversely affecting the stage point or manner of discharge and without degrading water quality (refer to Section 4.8 of the Districts Basis of Review, available at http://www.swfwmd.state.fl.us/permits/rules/).
The Districts ERP Basis of Review document describes design approaches and criteria that will provide reasonable assurances that the proposed surface water management systems will meet the conditions for issuance of an Environmental Resource Permit (ERP). Parameters frequently over or under estimated include: seasonal high water levels, seasonal high groundwater table elevations, soil vertical & horizontal hydraulic conductivity, depth to the soil confining units, historic basin storage, floodplain storage, conveyance way hydraulic capacity, peak discharge rates and timing, tailwater conditions in the receiving system, total discharged volume, and off-site hydrograph timing impacts. Site-specific design data is preferable to book values.
The District recommends that the FDOT consider providing a pond siting report that addresses the above referenced design approaches and criteria. For those improvements that may affect existing cross drainage facilities, an updated bridge hydraulics report(s) should be prepared and submitted with the ERP application.
If this project will require the acquisition of new right-of-way areas, the current rule for eminent domain noticing is 40D-1.603(9), FAC and requires the applicant to provide the noticing to the affected property owners. Additionally, any issued permit may include special conditions prohibiting construction until the FDOT provides evidence of ownership and control.
For ETDM #5180, the District has assigned a pre-application file **(PA #399568)** for the purpose of tracking its participation in the ETDM review of this project. File **PA #399568** is maintained at the Tampa Service Office of the SWFWMD. Please refer to this pre-application file whenever contacting District regulatory staff regarding this project.

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 10/31/2012 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: Permit Required

Direct Effects
Identified Resources and Level of Importance:
The recreational, ecological, and commercial impacts of the Tampa Bay system on West Central Florida make it a regionally significant environmental resource.
Comments on Effects to Resources:
Every effort should be made to maximize the treatment of stormwater runoff from the proposed highway widening project to prevent ground and surface water contamination. Stormwater treatment should be designed to maintain the natural predevelopment hydroperiod and water quality, as well as to protect the natural functions of adjacent wetlands. We recommend that the PD&E study include an evaluation of existing stormwater treatment adequacy and details on the future stormwater treatment facilities. Retro-fitting of stormwater conveyance systems would help reduce impacts to water quality.
Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Water Quality and Quantity issue for this alternative: Federal Highway Administration

Wetlands

Project Effects

Coordinator Summary Degree of Effect: 4 *Substantial* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the US Environmental Protection Agency (USEPA), Southwest Florida Water Management District (SWFWMD), Florida Department of Environmental Protection (FDEP), US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS) and recommends a Degree of Effect of Substantial.

Geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates that there are approximately 4.8 acres, 18.8 acres and 94.0 acres of estuarine wetlands, 0.3 acre, 1.8 acres and 14.1 acres of lacustrine, and 0.6 acre, 5.8 acres, and 26.2 acres of palustrine wetlands within the 100-foot, 200-foot and 500-foot buffers, respectively.

The USACE noted that Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek and Delaney Creek are hydrologically connected under US 41, while The Kitchen and Bullfrog Creek Marine Preserve are directly abutting the existing roadway. There are conveyance roadside ditches throughout most of the project which may also be classified as wetlands depending on presence of hydric soils, hydrology, and hydrophytic vegetation. There are large, undisturbed areas of mangrove swamps and tidally influenced wetlands that comprise a portion of Hillsborough Bay, many of which are protected or in a preservation status. The replacement of the bridge at the Alafia River has the potential to impact both wetlands and surface waters by shading and direct impacts. Impacts to the canals would likely be considered surface water impacts; however, the creeks will require additional assessment since the systems may be classified as wetlands. Bridges are not regulated by the USACE; however, the dredging/filling or other work in, over or under tidal water would require authorization. Impacts to roadway ditches can be classified as temporary surface water ditches if they are only going to be shifted during construction. All existing compensatory mitigation sites and should be identified and avoided. The USACE will not process an application for projects that propose adverse effects on previously authorized mitigation sites. The USACE stated they reserve the right to change the degree of effect to Dispute Resolution depending on the depending on the anticipated effects based on findings of the study. The study should quantify all avoidance and minimization efforts in acres or magnitude of effect. The USACE recommends the FDOT follow the Every day counts philosophy prescribed by FHWA to pursue only the minimum project size and footprint, but which also achieves the project purpose. For unavoidable wetland impacts, the USACE recommends using an approved mitigation bank for mitigation.

The USEPA assigned a moderate degree of effect to the wetlands issue due to the fact that the project encompasses several surface waterbodies, includes many bridge crossings, and the presence of mangrove swamps within close proximity. The USEPA recommends the PD&E include a delineation and evaluation of wetlands be completed. The evaluation should include analysis of value and function of wetlands, avoidance and minimization strategies, and mitigation for adverse impacts. A wetlands evaluation report should be prepared for the project.

The SWFWMD stated that Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek and Delaney Creek are hydrologically connected under US 41, while The Kitchen and Bullfrog Creek Marine Preserve are directly abutting the existing roadway. There are large, undisturbed areas of mangrove swamps and tidally influenced wetlands associated with Hillsborough Bay, many of which are owned and/or managed by ELAPP, FDEP or SWFWMD and are under a protected, preservation status. Tampa Bay Park is one of the largest areas and is owned by Mosaic Fertilizer, LLC; however, the Environmental Education Center was permitted in coordination with FDEP. The replacement of the bridge at the Alafia River has the potential to impact both wetlands and surface waters by shading and direct impacts. The bottomlands associated with the Alafia River and Bullfrog Creek appear to fall under the jurisdiction of the Tampa Port Authority. Impacts to the canals would likely be considered surface water impacts; however, the creeks will require additional assessment since the systems may be classified as wetlands. Impacts to roadway ditches can be classified as temporary surface water ditches if they are only going to be shifted during construction; however, if piped and filled the impact will be considered permanent. Proposed wetland impacts and impacts to the creeks will require an analysis utilizing the Uniform Mitigation Assessment Method (UMAM). The project is located within the service area for the Tampa Bay Mitigation Bank and the Hillsborough River Mitigation Bank. A pre-application file (PA #399568) has been assigned for this project.

The FDEP stated an environmental resource permit (ERP) will be required from SWFWMD, and FDOT will be required to eliminate or reduce the proposed wetland resource impacts to the greatest extent practicable. The FDEP noted that minimization should emphasize avoidance-oriented corridor alignments, wetlands fill reduction via pile bridging and steep/vertically retained side slopes, and median width reductions within safety limits. Wetlands should not be displaced by the installation of stormwater conveyance and treatment swales. Mitigation must be provided to offset unavoidable impacts.

The USFWS stated that the project crosses the Alafia River, Bullfrog Creek, and unnamed tidal creeks, all of which drain to Tampa Bay. At least 2,114 acres of salt and brackish water marsh can be found within 500 feet of the project corridor. Other wetlands include riverine swamps, estuarine and palustrine habitats. The presence of submerged aquatic vegetation is likely due to shallowness of shoreline areas. The method of bridge removal and the timing and duration for the replacement construction should be discussed once detailed design plans are known. Stormwater treatment systems should be upgraded all along the project corridor to prevent run off from reaching wetland ecosystems.

NMFSs summary can be found in the Coastal and Marine DOE.

The FDOT will prepare a WEBAR as part of the PD&E study. The WEBAR will assess locations and function of existing wetlands and the potential for impacts to these resources. As part of the WEBAR, FDOT shall research existing permits for all parcels directly adjacent to the existing and proposed right-of-way for conservation easements (perpetual or temporary), municipal consents, mitigation, or other restrictions that may exist on the adjacent parcels. Conservation easements may include, but not be limited to, easements in favor of the USACE, USFWS, FDEP, FFWCC, and SWFWMD. The FDOT research methods may include, but should not be limited to, review of permit files at the regulatory agencies, review of on-line databases, review of GIS data and shape files, review of local government land use and zoning data, contacting local governments as necessary and review of county property appraisers records.
Permitting will be conducted with the appropriate regulatory agencies during any future design and prior to construction. The FDOT will take measures to minimize and/or avoid impacts to wetlands, existing conservation easements, mitigation areas or other environmentally sensitive areas.

Degree of Effect: 3 *Moderate* assigned 01/23/2013 by David A. Rydene, National Marine Fisheries Service

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:
Delaney Creek and unnamed tidal creeks, the mouth of the Alafia River, Bullfrog Creek, and Hillsborough Bay which contain estuarine and marine habitats such as seagrass, mangrove, and salt marsh used by federally-managed fish species and their prey.

Comments on Effects to Resources:
NOAA's National Marine Fisheries Service (NMFS) has reviewed the information contained in the Environmental Screening Tool for ETDM Project # 5180. The Florida Department of Transportation District 7 proposes widening US 41 from south of Causeway Boulevard to Kracker Avenue in Hillsborough County, Florida. The road would be widened from four lanes to six lanes, and the US 41 Alafia River Bridges would be replaced. NMFS staff conducted a site inspection of the project area on September 21, 2012, to assess potential concerns related to living marine resources within Delaney Creek and unnamed tidal creeks, the mouth of the Alafia River, Bullfrog Creek, and Hillsborough Bay. The lands adjacent to the proposed project are principally residential, commercial, industrial, and agricultural properties, palustrine wetlands, and estuarine habitats. It appears that the project will directly impact NMFS trust resources (i.e. mangroves and salt marsh). Mangroves occur adjacent to the existing road and its associated bridges and culverts at Delaney Creek (Bridge #100467), unnamed tidal creeks (Bridges # 100047 and 100046), the Alafia River Bridges (Bridges # 100045 and 100107), the Bullfrog Creek Bridges (Bridges # 100106 and 100044), a tidal creek just south of Mabrey Avenue, and along the stretch of US 41 from south of Adams Street to Kracker Avenue. In addition, salt marsh occurs in the vicinity of Bridge # 100047 and along the stretch of US 41 from south of Adams Street to Kracker Avenue. Certain estuarine habitats within the project area are designated as essential fish habitat (EFH) as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. The generic amendment was prepared by the Gulf of Mexico Fishery Management Council as required by the 1996 amendment to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Mangroves have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and juvenile goliath grouper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Salt marshes have been identified as EFH for postlarval/juvenile, subadult and adult red drum and gray snapper, and postlarval/juvenile and sub-adult penaeid shrimp. Federal agencies which permit, fund, or undertake activities which may adversely impact EFH are required to consult with NMFS and, as a part of the consultation process, an EFH Assessment must be prepared to accompany the consultation request. Regulations require that EFH Assessments include: 1. a description of the proposed action; 2. an analysis of the effects (including cumulative effects) of the proposed action on EFH, the managed fish species, and major prey species; 3. the Federal agency's views regarding the effects of the action on EFH; and 4. proposed mitigation, if applicable. Provisions of the EFH regulations [50 CFR 600.920(c)] allow consultation responsibility to be formally delegated from federal to state agencies, including FDOT. Whether EFH consultation is undertaken by the federal agency (e.g. Federal Highway Administration) or FDOT, it should be initiated as soon as specific project design and construction impact information are available. EFH consultation can be initiated independent of other project review tasks or can be incorporated in environmental planning documents. Upon review of the EFH Assessment, NMFS will determine if it is necessary to provide EFH Conservation Recommendations for the project. NMFS also recommends that stormwater treatment systems be upgraded to prevent degraded water from entering estuarine habitats within the system. In addition, best management practices should be employed during road construction to prevent siltation of estuarine habitats.
NMFS has changed its original Degree of Effect determination from "Substantial" to "Moderate" based on additional information provivded by FDOT indicating that the road widening should occur within the the existing right of way with the possible exception of some stormwater treatment ponds. FDOT has also indicated that an EFH Assessment will be done and included within the Wetland Evaluation Report during the PD&E phase.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 4 *Substantial* assigned 11/16/2012 by Garett Lips, US Army Corps of Engineers

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

There are several water bodies that intersect with the proposed US-41 widening project, including creeks, canals, rivers, and tidally influenced wetland systems. Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek and Delaney Creek are hydrologically connected under US-41, while The Kitchen and Bullfrog Creek Marine Preserve are directly abuttingthe existing roadway. In addition to these named systems, there are conveyance roadside ditches extending throughout most of the proposed project area which may also be classified as wetland depending on the presence or abscence of hydric soils, hydrology, and hydrophytic vegetation.

There are large, undisturbed segments of mangrove swamps and tidally influenced wetlands that comprise a portion of Hillsborough Bay, andmany of these wetlands areprotected or in a preservation status.

Comments on Effects to Resources:

Widening US-41 from 4 lanes to 6 lanes has the potential to impact wetlands and surface waters throughout the proposed route. Many of the wetlands surrounding the existing right of way are undisturbed and tidally influenced.These systems appear to be high functioning and should be avoided to the extent practical.The replacement of the Alafia River Bridge has the potential to impact both wetlands and surface waters, through shading and direct impacts.

The creeks and canals that cross under US-41 will most likely require replacement or modification to the existing bridges and box culverts to handle the additional lanes of traffic. For the majority of the canals connected under the road, the impacts would be viewed as surface water impacts. However, the creeks will require additional assessments since the system may be classified as wetlands. The widening of the bridges will result in shadowing impacts in addition to the direct wetland impacts from the structure. Bridges are not regulated by the Corps; however, the dredging/filling or other work in over or under tidal waterwould require authorization. The study should include a constructability evaluation to identify and evaluate the anticiapted effects associated with bridge replacements, including the potential fortemporary roads/trestles or other accesses.

Impacts to the roadway ditches can be classified as temporary surface water ditches if they are only going to be shifted during the construction activities. However, if the ditches are proposed to be filled and piped, the impact will be considered to be a permanent impact. Both types of impacts will need to be accounted for during the permitting process along with the total acreage located within the project boundaries.

The project should include an analysis of the adjacent wetlands to ensure the areas were not part of a Department of the Army compensatory mitigation site. All compensatory mitigation site should be identified and avoided. The Corps will not process anapplication for projects that proposeadverse effects on previously authorized mitigation sites. The Corps reserves the right, based on the findings of the study and if mitigation sites exist, to change the degree of effect to Dispute Resolution depending upon the anticipated effects.

Additional Comments (optional):

The Corps is requesting the project alternatives be developed in conjunction witha clearly defined project purpose, and to develop and identify the specific criteriaused in identifying alternatives. The study should show that all practicable alternatives capable of achieving the project purpose are evaluated. All practicable offsite and onsite alternatives shall be evaluated. Each alternative evaluated should identify the extent of wetland impacts or the extent or need tofill waters of the United States.The studyshould quantify all avoidance and minimization efforts totrack, in acres or magnitude of effect, each design feature that results in avoidance or minimization of wetland impacts.

The Corps recommends the FDOT follow the "Every day counts" philosophy prescribed by FHWA to pursueonly the minimium project size and footprint, but which also achieves the project purpose is investigated from the beginning. The Corps recommends in areas of wetlands, reduced lane widths, traffic barriers/seperators in lieu of medians, utilization of disturbed uplands for stormwater treatment areas, and avoidance of scour protection for new bridges by using longer sheet panelsif seagrass or other aquatic resources arepresent, etc.

It is likely an individual permit is required; however, a natonwide may be possible depending on the extent of wetland impacts, including dredging andfilling.

The WER should include a summary discussion of all waters and the acreage. For unavoidable impacts, the FDOT should consider using a mitigation bank as the Corps preferred option.

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 11/04/2012 by Madolyn Dominy, US Environmental Protection Agency

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Resources: wetlands, wetlands habitat, surface waters

Level of Importance: These resources are of a high level of importance in the State of Florida and the project area. A moderate degree of effect is being assigned to this issue for the proposed project.

Comments on Effects to Resources:
A review of GIS analysis data in the EST at the programming screen phase of the project indicates that there are esturarine, lacustrine, and palustrine wetlands located within proximity of the proposed project.
EPA is assigning a moderate degree of effect to the wetlands issue due to the fact that the project encompasses several surface water bodies, includes many bridge crossings (with bridge replacements), and the presence of mangrove swamps within close proximity to the project area. EPA recommends that the environmental phase (PD&E) of the project include a complete delineation of wetlands; functional analysis of wetlands to determine their value and function; an evaluation of stormwater pond sites to determine their impact on wetlands; avoidance and minimization strategies for wetlands; and mitigation plans to compensate for adverse impacts. A wetlands evaluation report should be prepared for the project.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required

Direct Effects
Identified Resources and Level of Importance:
Analysis of SWFWMDs ArcMap GIS system shows there are approximately 36 acres of wetlands and 13 acres of surface waters located within the 200 foot buffer of the proposed US-41 widening project. These estimates are based on the 2010 Land Use Land Cover. The majority of the surface water acreage is associated with the Alafia River (approximately 9.08 acres), which is located in Segment S-002.
There are several water bodies that intersect with the proposed US-41 widening project, including creeks, canals, rivers, and tidally influenced wetland systems. Kitchen Branch, Dug Creek, Bullfrog Creek, Alafia River, Archie Creek and Delaney Creek are hydrologically connected under US-41, while The Kitchen and Bullfrog Creek Marine Preserve are directly adjacent to the existing roadway. In addition to these named systems, there are conveyance roadside ditches extending throughout most of the proposed project area.
Since US-41 is in close proximity to the coast line for Hillsborough Bay, there are large, undisturbed segments of mangrove swamps and tidally influenced wetlands. Many of these wetlands are owned and/or managed by ELAPP, FDEP or SWFWMD and are under a protected, preservation status. Tampa Bay Park is one of the largest areas and is owned by Mosaic Fertilizer, LLC; however, the Environmental Education Center was permitted in coordination with FDEP. This area is located just south of the Alafia River, west of US-41.

Comments on Effects to Resources:
Widening US-41 from 4 lanes to 6 lanes has the potential to impact wetlands and surface waters throughout the proposed route. Many of the wetlands surrounding the existing right of way are undisturbed and tidally influenced. Impacts to these systems may result in high UMAM scores due to their current conditions. This may result in a higher amount of acreage of wetland mitigation to offset the impacts. The replacement of the Alafia River Bridge has the potential to impact both wetlands and surface waters, through shading and direct impacts. **The bottomlands associated with the Alafia River and Bullfrog Creek appear to fall under the jurisdiction of the Tampa Port Authority; therefore, coordination with the Port will be required.**
The creeks and canals that cross under US-41 will most likely require replacement or modification to the existing bridges and box culverts to handle the additional lanes of traffic. For the majority of the canals connected under the road, the impacts would be viewed as surface water impacts. However, the creeks will require additional assessments since the system may be classified as wetlands. The widening of the bridges will result in shadowing impacts in addition to the direct wetland impacts from the structure.
There are several ERP permits with binding wetland lines delineating the wetlands and surface waters located within the defined 200 foot buffer of the proposed project area. The wetland limits as determined by these permits can be utilized during the permitting process if the permits are still valid. However, if the permits have expired then new wetland delineations will be required before or during the permitting process, which can lengthen the amount of time required for the review.
Impacts to the roadway ditches can be classified as temporary surface water ditches if they are only going to be shifted during the construction activities. However, if the ditches are proposed to be filled and piped, the impact will be considered to be a permanent impact. Both types of impacts will need to be accounted for during the permitting process along with the total acreage located within the project boundaries.

Additional Comments (optional):
The SWFWMD has assigned a Degree of Effect based on the potential need for increased coordination or effort associated with the

SWFWMDs proprietary or regulatory interests and obligations. For this project, a DOE of Moderate was assigned to this issue due to the fact the vegetated ditch and wetlands will need to be delineated, quantified, and labeled on the construction plans as part of the permit review. However, the expected permitting effort by FDOT should be straight forward and a normal effort is expected on the part of SWFWMDs regulatory staff. Wetland mitigation may be required to offset the potential impacts to the wetlands located within the proposed ROW. In addition, water quality will need to be addressed to offset the impacts to the existing vegetation.
The District will require a delineation of the landward extent of wetland and surface water features by a qualified environmental scientist, pursuant to Chapter 62-340, F.A.C. The District recommends that the FDOT submit a Formal Wetland Determination Petition prior to the ERP application submittal.
Proposed wetland impacts and the impacts to the creeks will require an analysis utilizing the Uniform Mitigation Assessment Method (UMAM). The proposed US-41 Improvement project is located within the service area for the Tampa Bay Mitigation Bank and the Hillsborough River Mitigation Bank. Therefore, coordination with these mitigation banks may be needed during the permit application process if the proper type of mitigation credits is available. If not, other mitigation options will need to be assessed.
An Environmental Resource Permit (ERP) will be required for this project. However, the final determination of the type of permit will depend upon the final design configuration. **The SWFWMD concurs with FDOTs 09/19/12 Advance Notification (AN) package in regard to recommending the following Technical Studies:**
- **Wetlands Evaluation and Biological Assessment Report**
For ETDM #5180, the District has assigned a pre-application file **(PA #399568)** for the purpose of tracking its participation in the ETDM review of this project. File **PA #399568** is maintained at the Tampa Service Office of the SWFWMD. Please refer to this pre-application file whenever contacting District regulatory staff regarding this project.

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 10/31/2012 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: Permit Required

Direct Effects
Identified Resources and Level of Importance:
The National Wetlands Inventory GIS report indicates that a total of 94.0 acres of estuarine wetlands, 14.1 acres of lacustrine wetlands and 26.2 acres of palustrine wetlands occur within the 500-ft. buffer zone of the project. Additionally, 28.4 acres of mangroves occur within the 500-ft. project buffer zone.
Comments on Effects to Resources:
An Environmental Resource Permit (ERP) will be required from the Southwest Florida Water Management District - the ERP applicant will be required to eliminate or reduce the proposed wetland resource impacts of highway construction to the greatest extent practicable:
- Minimization should emphasize avoidance-oriented corridor alignments, wetland fill reductions via pile bridging and steep/vertically retained side slopes, and median width reductions within safety limits.
- Wetlands should not be displaced by the installation of stormwater conveyance and treatment swales; compensatory treatment in adjacent uplands is the preferred alternative.
- After avoidance and minimization have been exhausted, mitigation must be proposed to offset the adverse impacts of the project to existing wetland functions and values. Significant attention is given to forested wetland systems and seagrass beds, which are difficult to mitigate.
- The cumulative impacts of concurrent and future transportation improvement projects in the vicinity of the subject project should also be addressed.
Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 4 *Substantial* assigned 10/29/2012 by Jane Monaghan, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects
Identified Resources and Level of Importance:
High quality wetland ecosystems associated with the Alafia River and Tampa Bay.
Comments on Effects to Resources:
The project crosses the Alafia River, Bullfrog Creek, and unnamed tidal creeks all of which drain into Tampa Bay. At least 2,114 acres of salt and brackish water marsh can be found within 500 feet of the project corridor. Other wetland ecosystems connected to Tampa Bay include riverine swamps, estuarine and palustrine habitats. The presence of submerged aquatic vegetation (SAV) is likely due to the shallowness of the shoreline areas. Greenways Ecological Priority Linkages and FNAI managed land (The Kitchen) can be found within 200 feet of the proposed widening project. Two bridges across the Alafia River are scheduled to be replaced (#100045 and 310017) as well as the bridge over Bullfrog Creek and several tidal creek bridges. The method of bridge removal and the timing and duration for the replacement construction should be discussed once detailed design plans are known. Bridge design should include the capture of contaminated stormwater runoff and the protection of these already impaired waterways and downstream estuaries. Increased use of the road could result in an increase in the amount of sediment, oil and grease, gas, trash and other contaminants. Stormwater treatment systems should be upgraded all along the project corridor to prevent run off from reaching

wetland ecosystems.

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Wetlands issue for this alternative: Federal Highway Administration

Wildlife and Habitat

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the Southwest Florida Water Management District (SWFWMD), Florida Fish and Wildlife Conservation Commission (FFWCC), and US Fish and Wildlife Service (USFWS) and recommends a Degree of Effect of Moderate.

Geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates there are 166.5 acres, 334.5 acres and 847.1 acres of the Greater Tampa Bay Ecosystem Management Area (EMA) within the 100-foot, 200-foot, and 500-foot buffers, respectively. The Kitchen is located within the 200-foot buffer. Manatee Consultation Area, Piping Plover Consultation Area, Scrub-jay Consultation Area, and Scrub-jay Service Area are located within the 100-foot buffer. The project is also located within the core foraging area (CFA) for five wood stork colonies.

The SWFWMD stated that upland habitat in the project area as a whole is generally rural or converted for commercial or residential purposes. The entire 200-foot buffer falls within the Consultation Area for the scrub-jay and piping plover and the wood stork core foraging area. The site is listed as a USFWS Ecological Service Area for the following federally-listed species: West Indian Manatee, Piping Plover, Florida Scrub-Jay, Wood Stork, Red-Cockaded Woodpecker, Eastern Indigo Snake, and the Florida Golden Aster. The Florida manatee has been observed in Hillsborough Bay. The Florida Manatee is a listed threatened species and will require additional measures to be in place in order to protect this mammal during the construction process for this site. Stormwater outfall pipes and structures extending below the Mean High Water Line, exceeding 8 inches in diameter, will require manatee grating to be installed over the waterward end to ensure no manatees can become entrapped. Correspondence with FFWCC, regarding permitting concerns for widening US 41, would be a completeness item during the permitting process. The District strongly recommends a pre-application meeting with the surface water regulatory staff in the Tampa Service Office happen very early in the design process. A pre-application file (PA #399568) has been assigned for this project.

The FFWCC stated that a majority of the land along the project area is moderately developed. Based on known range and preferred mix of habitat types, the following species listed by the Federal Endangered Species Act and the State of Florida as Federally Endangered (FE), Federally Threatened (FT), State-Threatened (ST), or State Species of Special Concern (SSC) may potentially occur within the project assessment area: gopher tortoise (ST), Florida pine snake (SSC), Eastern indigo snake (FT), gopher frog (SSC), Shermans fox squirrel (SSC), Florida manatee (FE), Florida mouse (SSC), little blue heron (SSC), white ibis (SSC), tri-colored heron (SSC), reddish egret (SSC), snowy egret (SSC), roseate spoonbill (SSC), limpkin (SSC), Florida burrowing owl (SSC), Florida scrub jay (FT), wood stork (FE), brown pelican (SSC), black skimmer (SSC), American oystercatcher (SSC), least tern (T), Florida sandhill crane (T) Southeastern American kestrel (ST), loggerhead sea turtle (FT), green turtle (FE), hawksbill turtle (FE), Kemps Ridley (FE), leatherback turtle (FE). The USFWS has also established that the project is located within the CFA of five wood stork colonies. The project area crosses the Alafia River and Bullfrog Creek, and is 200 feet from The Kitchen, a 384-acre public land tract which is owned and managed by Hillsborough County and supports coastal hammock, tidal marsh, and mangrove swamp. FFWCC Strategic Habitat Conservation Areas have also been established for the Coopers hawk within 1.7 percent (14.2 acres) and the mangrove cuckoo at 3.1% (26.0 acres) within 500 feet of the ROW. As the project moves forward, the FFWCC recommended that impacts to native upland and wetland plant communities including marine habitats be minimized, and that Drainage Retention Areas and equipment and materials staging and storage areas be located on previously disturbed sites. In addition, FDOT should continue to coordinate with resource agencies to implement avoidance and minimization procedures for the Alafia River Bridge replacement projects. Coordination with FWCs Imperiled Species Management Section on avoidance measures for the Florida manatee and seaturtles is recommended because the timing of the bridge replacement, the length and duration of the project as well as the specific dredging plan is still unknown. Manatee protection measures may be required and could include Standard Manatee Conditions for In-Water Work, restrictions on blasting, monitoring of turbidity barriers, exclusionary grating on culverts, presence of manatee observers during in-water work, a defined or limited construction window, and no nighttime work. Further consultation will be necessary in order to determine site-specific measures for this project. A compensatory mitigation plan should include the replacement of any wetland, upland, or aquatic habitat lost as a result of the project.

The USFWS identified two potential species within the project area: wood stork and eastern indigo snake. The roadway passes through the CFA of at least five active nesting colonies of the endangered wood stork. Thousands of acres of salt and brackish water marsh and shrub/scrub occur within 200 feet of the project corridor. Riverine, palustrine and estuarine wetlands are adjacent to the

project including mangroves and tidal creeks. The USFWS has determined that the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork and other wetland dependent species, the USFWS recommended that impacts to suitable foraging habitat be avoided. Twenty percent of the land within 200 feet of the corridor is classified as active and unique agricultural land. These agricultural lands are within the geographic range of the threatened eastern indigo snake. Implementing the current standard construction conditions and protection measures for eastern indigo snake will reduce the direct risks to snakes during the construction phase. Surveys for gopher tortoise burrows will also facilitate the use of the eastern indigo snake effect determination keys utilized by the USACE. The gopher tortoise is a federal candidate species at this point in time but may be federally listed before construction of this project begins.
The FDOT will prepare a Wetland Evaluation and Biological Assessment Report (WEBAR) during the PD&E study. This report will assess potential species and existing habitat within the project area. This report and the FDOTs findings will be coordinated with the USFWS and FFWCC.

Degree of Effect: 3 *Moderate* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

Upland habitat in the project area as a whole is generally rural or converted for commercial or residential purposes. Within the 200-foot buffer, 61.87% of the area is listed as high impact urban, and 13.54% being classified into a wetland or surface, based upon the 2003 FFWCC Habitat and Land Cover Grid.
As analyzed on September 18, 2012, the 200 buffer falls within the Consultation Area for the Scrub Jay and Piping Plover and the Woodstork Core Foraging Area. The site is listed as a USFWS Ecological Service Area for the following Federally Listed Species: West Indian Manatee, Piping Plover, Florida Scrub-Jay, Wood Stork, Red-Cockaded Woodpecker, Eastern Indigo Snake, and the Florida Golden Aster. The uplands and wetlands located within the 200 foot buffer to the 5,280 foot buffer have the potential to provide habitat to Bald Eagles, Brown Pelican (SSC), Black Bear, American Oystercatcher (SSC), American Alligator (FT) and Gopher Frogs (SSC).

Comments on Effects to Resources:

While the proposed US-41 widening project is more than 660 feet away from the eagle nests, coordination with Florida Fish and Wildlife Conservation Commission may be required to be in compliance with the current Eagle Management Plan.
Coordination with the Florida Fish and Wildlife Conservation Commission will be required in order to be in compliance with their requirements for threatened or endangered species who may be utilizing the habitats potentially being impacted through the widening of the roadway and during the construction phase of the project.
The Florida Manatee has been observed in Hillsborough Bay. The Florida Manatee is a listed threatened species and will require additional measures to be in place in order to protect this mammal during the construction process for this site. A Specific Condition will be used in the ERP outlining the standard operating procedure during the demolition of the old bridge and construction of the replacement bridge. Please be advised that stormwater outfall pipes and structures extending below the Mean High Water Line, exceeding 8 inches in diameter, will require manatee grating to be installed over the waterward end to ensure no manatees can become entrapped. [FWC *Grates and Other Manatee Exclusion Devices for Culverts and Pipes (February 2011) http://myfwc.com/media/415238/manatee_grates.pdf]*

Additional Comments (optional):

The SWFWMD has assigned a Degree of Effect of Moderate regarding this section. While there are a number of threatened and endangered species that may inhabit the area, ensuring the continuing safety of these animals would require coordination with Florida Fish and Wildlife Conservation Commission and their regulations. Correspondence with FFWCC, regarding permitting concerns for widening US 41, would be a completeness item during the permitting process.
Depending on the FDOTs approach to design, and the final construction means and methods, portions of this project may qualify under F.A.C. 40D-400.443, General Permit to the Florida Department of Transportation, Counties and Municipalities for Minor Bridge Alteration, Replacement, Maintenance and Operation (bridge and abutment replacement) and F.A.C. 40D-4.051(13), Minor Roadway Safety Projects (roadway improvements on either side of the bridge). **The District strongly recommends a pre-application meeting with the surface water regulatory staff in the Tampa Service Office happen very early in the design process.**
The following comments are offered in the event that the FDOT elects to pursue an Environmental Resource Permit General Permit for Construction for the project.
Wildlife and Habitat impacts can be reduced by the following:
(1) Adjustment of the alignment to avoid direct impacts to the wetlands,
(2) Implementation of strict controls over sediment transport off site during construction,
(3) Restriction of the activity of vehicles and equipment to only those areas that must be utilized for construction and staging; and,
(4) Implementing effective mitigation measures to compensate for seagrass/wetland impacts.
The SWFWMD concurs with FDOTs 09/19/12 Advance Notification (AN) package in regard to recommending the following Technical Studies:

- **Wetlands Evaluation and Biological Assessment Report**
For ETDM #5180, the District has assigned a pre-application file **(PA #399568)** for the purpose of tracking its participation in the ETDM review of this project. File **PA #399568** is maintained at the Tampa Service Office of the SWFWMD. Please refer to this pre-application file whenever contacting District regulatory staff regarding this project.

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 10/29/2012 by Bonita Gorham, FL Fish and Wildlife Conservation Commission

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

The Office of Conservation Planning Services of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated an agency review of ETDM #5180 in Hillsborough County, and provides the following comments related to potential effects to fish and wildlife resources on this Programming Phase project.

Project Description**:**

This project involves widening US-41 from four to six lanes over a distance of 7.7 miles from Kracker Avenue to south of SR-676, and replace two bridges over the Alafia River (Bridge Numbers 100045 and 100107). Multi-modal improvements such as sidewalks, bicycle lanes, and accommodations for transit are also included, however no information was provided on the possible need for additional offsite Drainage Retention Areas (DRAs) to accommodate stormwater runoff for the expanded roadway surface. FDOT is requesting input from state and federal resource and permit agencies at this early project stage to identify potential natural resource issues so they can be addressed and resolved as the project moves forward into the Project Development and Environment phase (PD&E).

Wildlife and Habitat Resources:

The project area was evaluated for potential fish, wildlife, and habitat resources within 500 feet on either side of the existing Right-of-Way (ROW) and results show that a majority of the land along the 23.0 mile project area is moderately developed. A total of approximately 60.6 percent (513.7 acres) is in High and Low Impact Urban Lands, wetlands account for 22.9 percent (194.1 acres), upland plant communities total 14.8 percent (125.1 acres) while agricultural land uses account for 1.8 percent (6.3 acres). Wetlands include cypress swamp (0.5 percent 4.4 acres), freshwater marsh (3.4 percent 28.6 acres), hardwood swamp (1.6 percent 13.8 acres), mixed wetland forest (0.9 percent 7.8 acres), open water (4.7 percent 39.9 acres), shrub swamp (3.6 percent 30.6 acres), mangrove swamp (2.5 percent - 21.3 acres), and coastal salt marsh (5.6 percent - 47.7 acres). Uplands consist of dry prairie (1.9 percent 16.2 acres), upland hardwood hammock (3.6 percent - 30.4 acres) mixed hardwood-pine forests (3.2 percent 27.3 acres), pinelands (5.0 percent 41.9 acres), and shrub and brushland (1.1 percent 9.3 acres).

Based on known range and preferred mix of habitat types, the following species listed by the Federal Endangered Species Act and the State of Florida as Federally Endangered (FE), Federally Threatened (FT), State-Threatened (ST), or State Species of Special Concern (SSC) may potentially occur within the project assessment area: gopher tortoise (ST), Florida pine snake (SSC), Eastern indigo snake (FT), gopher frog (SSC), Shermans fox squirrel (SSC), Florida manatee (FE), Florida mouse (SSC), little blue heron (SSC), white ibis (SSC), tri-colored heron (SSC), reddish egret (SSC), snowy egret (SSC), roseate spoonbill (SSC), limpkin (SSC), Florida burrowing owl (SSC), Florida scrub jay (FT), wood stork (FE), brown pelican (SSC), black skimmer (SSC), American oystercatcher (SSC), least tern (T), Florida sandhill crane (T) Southeastern American kestrel (ST), loggerhead sea turtle (FT), green turtle (FE), hawksbill turtle (FE), Kemps Ridley (FE), leatherback turtle (FE).

In addition, the following species, although not officially state listed, are considered Species of Greatest Conservation Need by our agency and may also occur within appropriate habitats along the project area: spotted skunk, striped skunk, river otter, Eastern cottontail rabbit, Southeastern pocket gopher, Eastern diamondback rattlesnake, Southern hognose snake, Eastern hognose snake, Gulf Coast box turtle, Mississippi diamondback terrapin, Coopers hawk, short-tailed hawk, Northern bobwhite, ground dove, hairy woodpecker, red-headed woodpecker, Northern flicker, swallow-tail kite, bald eagle, and the peregrine falcon.

The results of our habitat assessment also show that FWCs Integrated Wildlife Habitat Ranking System (IWHRS) has mapped about 69.6 percent (589.4 acres) of the lands within 500 feet of the ROW as low quality, while 22.2 percent (187.9 acres) are ranked as medium quality. FWC Strategic Habitat Conservation Areas have also been established for the Coopers hawk within 1.7 percent or the area (14.2 acres), and the mangrove cuckoo 3.1 percent (26.0 acres). Furthermore, the U.S. Fish and Wildlife Service (USFWS) has designated all of the approximately 850 acre assessment area as official Consultation Areas for the following federally listed species: Florida scrub jay, Florida Manatee and the piping plover. The USFWS has also established the following five Wood stork Core Foraging Areas within portions of the total assessment areas as follows: **615336** (73.0 %), **615333** (100 %), **East Lake/Bellows Lake** (100 %), **Lower Hillsborough River and Swamp** (30.6 %), and an unnamed rookery (65 %). The project area crosses the Alafia River and Bullfrog Creek, and is 200 feet from The Kitchen, a 384-acre public land tract which is owned and managed by Hillsborough County and supports coastal hammock, tidal marsh, and mangrove swamp. The project area is also located 0.5 miles west of the 1,191-acre Golden Aster Scrub Nature Preserve which is owned by the State of Florida and managed by Hillsborough County. The tract supports sandpine scrub, scrubby and mesic flatwoods, and upland mixed forests.

Marine habitat at the mouth of the Alafia River and other numerous tidally influenced bays just west of the project area also supports

spotted seatrout, whiting, common snook, grey snapper, red drum, Atlantic croaker, red drum, black drum, striped mullet, Atlantic flounder, blue crab and many other species. The protection of marine plant communities and the quality and clarity of bay waters are important factors in the continued productivity of this marine system, which directly supports commercial fisheries along with recreational opportunities for local residents and tourists, and employment.
Primary wildlife issues associated with this project include: potential direct loss of wildlife habitat from expansion of US-41 from four to six lanes; and potential adverse effects to a significant number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern. Our assessment shows that while portions of the project area are developed and impacted by past last use practices associated with mining processing, mangroves, coastal saltmarsh, and marine bay communities occur adjacent to or within 200 feet of the roadway ROW. In addition two bridges will be replaced over the Alafia River as part of the 7.7 mile project.

Comments on Effects to Resources:
Based on the project information provided, FWC believes direct and indirect effects of this projectcould bemoderate. As the project moves forward, we recommend that impacts to native upland and wetland plant communities including marine habitats be minimized, and thatDrainage Retention Areas and equipment and materials staging and storage areas be located on previously disturbed sites. In addition, FDOT should continue to coordinatewithresource agencies to implement avoidance and minimization procedures for the Alafia River Bridge replacement projects.
The PD&E Study should address natural resources by including the following measures for conserving fish and wildlife and habitat resources that may occur within and adjacent to the project area. Plant community mapping and wildlife surveys for the occurrence of wildlife species listed as Federally Endangered or Threatened, or by the State of Florida as Threatened (ST) or Species of Special Concern (SSC) should be performed, both along the Right-of-way and within sites proposed for equipment staging areas. Based on these survey results, a plan should be developed to address direct, indirect, and cumulative effects of the project on wildlife and habitat resources, including listed species. Avoidance, minimization, and mitigation measures should be formulated and implemented. If gopher tortoises or nests of other ST or SSC species are present within any permanent or temporary construction area, a permit should be obtained from the FWC. Equipment staging areas should be located in previously disturbed sites to avoid habitat destruction or degradation.

Additional Comments (optional):
Coordination with FWCs Imperiled Species Management Section on avoidance measures for the Florida manatee and seaturtles is recommendedbecause the timing of the bridge replacement, the length and duration of the project as well as the specific dredging planisstill unknown. Manatee protection measures may be required and could include Standard Manatee Conditions for In-Water Work, restrictions on blasting, monitoring of turbidity barriers, exclusionary grating on culverts, presence of manatee observers during in-water work, a defined or limited construction window, and no nighttime work. Further consultation will be necessary in order to determine site-specific measures for this project.
The use of bridge rubble for offshore reef construction has been a highly successful program in Florida for providing offshore recreational fishing and diving opportunities. If this is being considered for the Alafia River Bridge, early coordination with our agency and our County partners is essential for required permitting, scheduling, reef site selection and approval process, coordination with potential contractors for transport of rubble, and to ensure that special conditions and standards are defined and adhered to, such as removal of steel rebar from bridge reef material to ensure public safety.
A compensatory mitigation plan should include the replacement of any wetland, upland, or aquatic habitat lost as a result of the project. Replacement habitat for mitigation should be type for type, as productive, and equal to or of higher functional value. FWC supports land acquisition and restoration of appropriate tracts adjacent to existing public lands near the project area such as The Kitchen or the Golden Aster Scrub Nature Preserve, or tracts placed under conservation easement and located adjacent to large areas of jurisdictional wetlands that currently serve as regional core habitat areas. Please notify us immediately if the design, extent, or footprint of the current project is modified, as we may choose to provide additional comments and/or recommendations.
We appreciate the opportunity to provide input on highway design and the conservation of fish and wildlife resources. Please contact FWC biologist Terry Gilbert at (850) 728-1103 or email terry.gilbert@MyFWC.com initiate the process for further overall coordination on this project.

CLC Commitments and Recommendations:

Degree of Effect: 3 *Moderate* assigned 10/29/2012 by Jane Monaghan, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects
Identified Resources and Level of Importance:
Federally listed species and the ecosystems upon which they depend.
Comments on Effects to Resources:
The purpose of the proposed project is to accommodate existing and future traffic demands on US 41 due to growth within the project limits and surrounding areas. US 41 is part of the Florida Intrastate Highway System (FIHS) and plays a significant role in

connecting southern Hillsborough County to the Tampa Bay region. The need for this project stems from projected future traffic, which shows the level of service (LOS) deficiencies in this Corridor. This corridor is projected to operate at LOS F with the 2035 traffic. US 41 is a major north-south regional arterial that parallels I-75 and US 301 and connects south Hillsborough County to the Tampa Bay region. It provides connectivity between the communities of Apollo Beach, Riverview, and Gibsonton.
This project was evaluated on ETDM in 2005 under the project #5180 and again under #9511. The widening of highway 41/45 also known as the S. Tamiami Trail, may be done in three segments. According to the information provided on ETDM, the PD& E study is currently funded by the State but the long range planning and construction will not begin until 2035.
Wood Stork (*Mycteria americana*) The project corridor is approximately 7.7 miles long. The roadway passes through the Core Foraging Areas (CFA) of at least five active nesting colonies of the endangered wood stork. Thousands of acres of salt and brackish water marsh and shrub/scrub occur within 200 feet of the project corridor. Riverine, palustrine and estuarine wetlands are adjacent to the project including mangroves and tidal creeks. FNAI managed land, known as The Kitchen is within 200 feet of the corridor. The Service has determined that the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork and other wetland dependent species, we recommend that impacts to suitable foraging habitat be avoided. The Service encourages the utilization of the Wood Stork Effect Determination Key developed with the Army COE. Please refer to the North Florida Field Office website for WOST colony locations. http://www.fws.gov/northflorida
Eastern Indigo Snakes *(Drymarchon corais couperi)*
Twenty percent of the land within 200 feet of the corridor is classified as active and unique agricultural land. These agricultural lands are within the geographic range of the threatened eastern indigo snake (EIS). Sightings of this snake have been documented on several wildlife conservation areas and on private lands within the action area (Florida Fish and Wildlife Conservation Commission, unpublished data, 2010). It is very likely that this species occurs in the agricultural lands, ditches, wetlands, and rural areas within the action area. Implementing the current standard construction conditions and protection measures for EIS will reduce the direct risks to snakes during the construction phase. These guidelines can be found on the North Florida Ecological Services website: http://www.fws.gov/northflorida. Surveys for gopher tortoise burrows will also facilitate the use of the EIS Effect determination keys utilized by the Army COE. The gopher tortoise is a federal candidate species at this point in time but may be federally listed before construction of this project begins.

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Wildlife and Habitat issue for this alternative:
Federal Highway Administration

ETAT Reviews and Coordinator Summary: Cultural

Historic and Archaeological Sites

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 03/14/2013 by FDOT District 7

Comments:
The Florida Department of Transportation (FDOT) has evaluated comments from the Southwest Florida Water Management District (SWFWMD) and Florida Department of State (SHPO) and recommends a Degree of Effect of Moderate.
Geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates that numerous cultural resource assessment surveys (CRAS) have been conducted within the 100-foot buffer of the project; however, none were conducted specifically for this section of US 41. One Florida Site File Historic Bridge is located within the 200-foot buffer, the Alafia River Swing Span Bridge (HI01007). There are three, thirteen, and eighteen Florida Site File Historic Standing Structures within the 100-foot, 200-foot, and 500-foot buffers, respectively. There are five, seven, and twelve Florida Site File Archaeological or Historic Sites within the 100-foot, 200-foot, and 500-foot buffers, respectively.
The SHPO identified several surveys which have been completed within 100 feet of the project corridor; however, none were found to be specific to this project. There were no identified National Register properties, historic cemeteries, or identified Indian lands within a half-mile of the project area. There are three "sets" of bridges which are historic within the project's area of potential effect. They are the Fred's Creek bridge, the Bullfrog Creek bridge and the Archie Creek bridge. There is also the Alafia river bridge. HI1022 (B&C), which were part of The Giants Motel and HI1058, the Kep-rite Tourist Court Office are within the 100-foot buffer. HI1059, the East Tampa Depot is located within the 200 ft. buffer and is likely eligible for listing in the NR and should be included within the survey. HI1375-1379 are located within the 500-foot buffer. There are numerous archaeological sites within the project's 500-foot buffer, most of which have not been evaluated. These identified sites include: HI71, HI 73, HI6747, HI215, HI16, HI17-22, HI26, HI31, HI35, HI36, HI87. Continued coordination with the SHPO office relating to this project will help to avoid or minimize any adverse impacts to significant historic properties eligible or listed in the National Register of Historic Places. SHPO requested that a good descriptive narrative of the history of Gibsonton be included. Considering the project area's history, careful consideration

The project has the potential to attract new development by providing better access to the land uses along the projects length on US 41. Also, since this roadway is an arterial roadway that provides access to the Port of Tampa, this project will enhance the Ports ability to transport/ship more products.The project could generate jobs by providing better transportation access to this area, including the Port of Tampa, allowing increased commerce and more jobs to the area.The project is notin a Rural Area of Critical Economic Concern.

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Economic issue for this alternative: Federal Highway Administration

Land Use

Project Effects

Coordinator Summary Degree of Effect: 0 *None* assigned 03/14/2013 by FDOT District 7

Comments:
The Florida Department of Transportation (FDOT) has evaluated comments from the FDOT Community Liaison Coordinator (CLC) and Florida Department of Economic Opportunity (DEO) and recommends a Degree of Effect of None.
Geographic information system (GIS) data from the Environmental Screening Tool (EST) indicates the following land uses are prominent along the project corridor within the 200-foot buffer: Transportation (33.43%), Commercial and Services (15.26%), Extractive (9.36%), Residential Medium Density (6.26%), Industrial (5.7%), Saltwater Marshes (5.76%), Pine Flatwoods (4.81%), Hardwood Confifer Mixed (4.11%) and Bays and Estuaries (3.34%).
The FDOT CLC identified the land uses within the 200-foot buffer as identified above in the GIS analysis. Open Land, Freshwater Marshes, Reservoirs, Residential High Density, Residential Low Density, Utilities, Streams and Waterways, Mangrove Swamps, Emergent Aquatic Vegetation, and Wetland Forested Mix are the majority of the remaining land uses. According to the Adopted 2025 Future Land Use Map for Unincorporated Hillsborough County (effective March 12, 2012) the future land use for the project area is mainly heavy and light industrial use north of the Alafia River and residential, suburban mixed use, neighborhood mixed use, and office commercial use south of the Alafia River. This project is consistent with the Future of Hillsborough Transportation Element, which is the Comprehensive Plan for Unincorporated Hillsborough County. The comprehensive plan and the Hillsborough County 2035 LRTP, adopted in December 2009, both indicate the need to improve US 41 to 6-lanes from 19th Avenue NE to Madison Avenue. The FDOT CLC recommends coordinating with the County during Project Development to make sure this project is consistent with the LRTP and Comprehensive Plans for future phases.
The DEO stated the project is compatible with the communitys development goals and is compatible with the County's Comprehensive Plan, and DEO Staff contacted Hillsborough County (John Patrick) to inform them of the project. The project is depicted on the Hillsborough County Comprehensive Plan, Map 25-Corridor Preservation Plan (Future Transportation Map) as a future six-lane facility. The Future Land Use Map categories that surround the project are Suburban Mixed Use-6, Residential Planned-2, Residential-2, Office-Commercial-20, Natural Preservation, Heavy Industrial, Residential-6, and Light Industrial. Several portions of the roadway project are within the coastal high hazard area. The project does not encroach a military base and is not located in an area of critical state concern.
The FDOT will evaluate potential land use changes during the PD&E study.

Degree of Effect: 1 *Enhanced* assigned 11/01/2012 by Wendy Lasher, FDOT District 7

Coordination Document: No Selection

Direct Effects

Identified Resources and Level of Importance:
Identified Resources:
Hillsborough County Metropolitan Planning Organization's (MPO's) 2035 Long Range Transportation Plan (LRTP)
Adopted 2025 Future Land Use Map for Unincorporated Hillsborough County (effective March 12, 2012)

Comments on Effects to Resources:
Comments on Effects to Resources:
Existing Land Uses within the 200-ft. buffer area include:

Description Acres Percentage
Transportation 111.8 33.43%
Commercial and Services 51.0 15.26%
Extractive 31.3 9.36%
Residential Medium Density 20.9 6.26%
Saltwater Marshes 19.3 5.76%

Industrial 19.1 5.7%
Pine Flatwoods 16.1 4.81%
Hardwood Conifer Mixed 13.8 4.11%
Bays and Estuaries 11.2 3.34%

Open Land, Freshwater Marshes, Reservoirs, Residential High Density, Residential Low Density, Utilities, Streams and Waterways, Mangrove Swamps, Emergent Aquatic Vegetation, and Wetland Forested Mix are the majority of the remaining land uses. Source: 2009 SWFWMD Florida Land Use and Land Cover

According to the Adopted 2025 Future Land Use Map for Unincorporated Hillsborough County (effective March 12, 2012) the future land use for the project area is mainly heavy and light industrial use north of the Alafia River and residential, suburban mixed use, neighborhood mixed use, and office commercial use south of the Alafia River.

This project is consistent with the Future of Hillsborough Transportation Element, which is the Comprehensive Plan for Unincorporated Hillsborough County. The plan was originally adopted in July 1989 and last amended in June 2008. The comprehensive plan and the Hillsborough County 2035 LRTP, adopted in December 2009, both indicate the need to improve US 41 to 6-lanes from 19th Avenue NE to Madison Avenue.

The project identified in the Hillsborough County 2035 LRTP, as part of the Cost Affordable Highway, Bicycle, and Pedestrian Projects is the widening of US 41 between 19th Avenue NE and Madison Avenue. The project overlaps with the boundaries of US 41 from Kracker Avenue to south of Causeway Boulevard for approximately 6.2 miles. US 41 between 19th Avenue NE and Madison Avenue is listed in the 2035 LRTP as expected to be constructed after 2035 as the project is funded for design but unfunded for right-of-way and construction in the LRTP. The remaining portion of the corridor, from Madison Avenue to Causeway Boulevard is not listed in the 2035 LRTP.

Recommendations:

Coordinate with the County during Project Development to make sure this project is consistent with the LRTP and Comprehensive Plans for future phases.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 0 *None* assigned 10/19/2012 by Chris Wiglesworth, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

The Hillsborough County Comprehensive Plan, effective date August 26, 2008.

Comments on Effects to Resources:

The project is compatible with the communitys development goals and is compatible with the County's Comprehensive Plan and DEO Staff contacted Hillsborough County (John Patrick) to inform them of the project.The project is depicted on the Hillsborough County Comprehensive Plan, Map 25- Corridor Preservation Plan (Future Transportation Map) as a future six-lane facility.The Future Land Use Map categories that surround the project are Suburban Mixed Use-6, Residential Planned-2, Residential-2, Office-Commercial-20, Natural Preservation, Heavy Industrial, Residential-6, and Light Industrial.There are several County regional parks that are located within a mile of the project, which could be considered a NEPA 4(f) resource, it is recommended that the impacts to these resources be analyzed.The project is located adjacent to the Port of Tampa (Port Sutton) and near Port Redwing to the south. This project would enhance the operations of the Port once it is completed, by providing improved roadway transportation access to the Port facilities.Also, the project is located proximal to the Cargill Fertilizer Facility DRI, which would also benefit from the increased capacity on US 41 as a result of the project.Several portions of the roadway project are within the coastal high hazard area.Several portions of the roadway project are within the coastal high hazard area. The project does not encroach a military base and is not located in an area of critical state concren (ACSC).

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Land Use issue for this alternative: Federal Highway Administration

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Mobility

Comments on Effects to Resources:

Comments on Effects to Resources:

In the project area (500-ft. buffer area) there are 524 people (6.4 percent) who speak English "not well" and 326 people (4 percent) that speak English "not at all." Therefore, written translation obligations under "safe harbor" are expected for this project since the eligible Limited English Proficiency (LEP) language group threshold did constitute 5 percent.

Within the 100-ft. project buffer area there are 13 Census Block Groups with a minority population greater than 40% (mainly Hispanic or Latino), 505 households that in the past 12 months were below poverty level and 90 households with public assistance income. Within the 200-ft. project buffer area there are 15 Census Block Groups with a minority population greater than 40%, 558 households that in the past 12 months were below poverty level, and 152 households with public assistance income.

A Degree of Effect of Moderate has been assigned because the US 41 corridor already exists and no splitting of neighborhoods or isolated areas is expected to occur as a result of this project. Mobility in the area will be enhanced. There are numerous low income, minority, and limited English and minority populations that need to be considered and included in the public involvement process.

Recommendations:

This project should be developed in accordance with the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1968, along with Title VI of the Civil Rights Act, Executive Order 12898 (Environmental Justice), which ensures that minority and/or low-income households are neither disproportionably adversely impacted by major transportation projects, nor denied reasonable access to them by excessive costs or physical barriers (Environmental Protection Agency [EPA], 1994).

Social facilities listed above should be avoided whenever possible. Trail connections and marine facility access should be maintained.

Conduct public outreach to residents and businesses in the area to solicit input. Public involvement efforts should include information in Spanish and consider populations that are illiterate. An Environmental Justice analysis including LEP should also be conducted to verify that written translation obligations under "safe harbor" are required.

Additional Comments (optional):

CLC Commitments and Recommendations:

The following organization(s) were expected to but did not submit a review of the Social issue for this alternative: Federal Highway Administration, US Environmental Protection Agency

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ETAT Reviews and Coordinator Summary: Secondary and Cumulative

Secondary and Cumulative Effects

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 03/14/2013 by FDOT District 7

Comments:

The Florida Department of Transportation (FDOT) has evaluated comments from the Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect of Moderate.

The SWFWMD stated that the uplands located within the 200-foot buffer to the 5,280-foot buffer have the potential to provide habitat to Bald eagles, Florida Sandhill Cranes, gopher frogs, brown pelicans, black bears and the American Oystercatcher. While the proposed road widening is more than 660 feet away from a documented eagle nest, coordination with Florida Fish and Wildlife Conservation Commission (FFWCC) may be required to be in compliance with the current Eagle Management Plan. Coordination with FFWCC for potential sandhill crane nesting sites may also be required after a wildlife survey of the proposed site is completed at the time of design. Compliance with existing permit requirements, the successful use of erosion and sediment control BMPs, and compliance with applicable TMDL and BMAP requirements will help assure that minimum water quality standards are met. For surface water resources, reduce pollutant loads to the drainage features in the project area by treating stormwater runoff from currently untreated areas, by controlling erosion from the project site, by limiting activities in surface water, by protecting surface water from the introduction of oils, greases and fuel spillage from equipment, and by considering restoration strategies at construction sites. Low impact development strategies may help to limit secondary and cumulative impacts. It is reasonable to assume that roadway improvements will result in increased traffic, which without the proper wetland buffer has a higher risk of unanticipated wetland impacts. The project description states that bridges located within the project area will be replaced which can have secondary impact to the water bodies associated with these bridges, specifically fish passage and habitat, wildlife habitat and migration routes, vegetation, and wetlands. Maintaining the 25 foot average wetland buffer can greatly reduce the secondary impacts to the wetlands located within the project area. If the minimum 15 foot wetland buffer cannot be maintained throughout the project, a buffer planting plan, including shrubbery and other transitional species, can be utilized to discourage these secondary impacts.

Permitting will be conducted with the appropriate regulatory agencies during any future design phase and prior to construction. The FDOT will take measures to minimize and/or avoid impacts to wetlands. The FDOT will create a stormwater pollution prevention plan

(SWPPP) and erosion and sediment control plan during the design phase of this project. Proper BMPs will be used during construction. Analyses of wetland impacts, including potential secondary impacts will be addressed as part of the PD&E study.

Degree of Effect: 3 *Moderate* assigned 11/01/2012 by Hank Higginbotham, Southwest Florida Water Management District

Coordination Document: Permit Required
At-Risk Resource: Wildlife and Habitat
Comments on Effects: The uplands located within the 200 foot buffer to the 5,280 foot buffer have the potential to provide habitat to Bald eagles, Florida Sandhill Cranes, gopher frogs, brown pelicans, black bears and the American Oystercatcher. Review of the SWFWMD ArcMap GIS indicates there is one active eagles' nest within the 5,280 buffer; however, since the upland habitats have a potential for bald eagles nest, coordination with FFWCC may be required during the design phase to ensure no bald eagles nests have been reported.
Recommended Avoidance, Minimization, and Mitigation Measures: While the proposed road widening is more than 660 feet away from the eagle nests, coordination with Florida Fish and Wildlife Conservation Commission may be required to be in compliance with the current Eagle Management Plan. Coordination with FFWCC for potential sandhill crane nesting sites may also be required after a wildlife survey of the proposed site is completed at the time of design.
Recommended Actions to Improve At-Risk Resources: No additional comments.

At-Risk Resource: Water Quality and Quantity
Comments on Effects: In the absence of stormwater treatment & attenuation for new impervious areas, the project has the potential to contribute to water quality & quantity impacts to down-gradient receiving systems.
Recommended Avoidance, Minimization, and Mitigation Measures: Compliance with existing permit requirements, the successful use of erosion and sediment control BMPs, and compliance with applicable TMDL and BMAP requirements will help assure that minimum water quality standards are met. Water quantity concerns will also be addressed during the ERP process. In general, limiting or otherwise offsetting encroachment on the ditches, channels, floodplains and floodways in the area can reduce quantity concerns. For groundwater resources, ensure that spillages of petroleum products and other chemicals do not occur during construction, and that stormwater treatment ponds do not intrude into the limerock or penetrate confining material of the aquifer system, either directly or by sinkhole formation. Low impact development strategies may help with water quality treatment as well as water quantity management.
Recommended Actions to Improve At-Risk Resources: For surface water resources, reduce pollutant loads to the drainage features in the project area by treating stormwater runoff from currently untreated areas, by controlling erosion from the project site, by limiting activities in surface water, by protecting surface water from the introduction of oils, greases and fuel spillage from equipment, and by considering restoration strategies at construction sites. Low impact development strategies may help to limit secondary and cumulative impacts.

At-Risk Resource: Wetlands
Comments on Effects: The proposed US-41 widening from Kracker Avenue to Causeway Boulevard project has the potential to impact the 25 foot defined wetland buffer as they relate to the wetlands adjacent to the Right Of Way (ROW). The removal of the wetland buffer increases the possibility for secondary impacts to occur to the wetlands during and post-construction. It is reasonable to assume that roadway improvements will result in increased traffic, which without the proper wetland buffer has a higher risk of unanticipated wetland impacts

The project description states that bridges located within the project area will be replaced which can have secondary impact to the water bodies associated with these bridges, specifically fish passage and habitat, wildlife habitat and migration routes, vegetation, and wetlands.

Recommended Avoidance, Minimization, and Mitigation Measures: SWFWMD's jurisdiction is limited to construction impacts, both secondary and direct, as they relate to wetlands and surface waters. Maintaining the 25 foot average wetland buffer can greatly reduce the secondary impacts to the wetlands located within the project area. If the minimum 15 foot wetland buffer cannot be maintained throughout the project, a buffer planting plan, including shrubbery and other transitional species, can be utilized to discourage these secondary impacts.
Recommended Actions to Improve At-Risk Resources: No additional comments.

Eliminated Alternatives

Alternative #1 - Eliminated

- **Date Updated:** 07/11/2012
- **Updated By:** FDOT District 7
- **Justification for Elimination:**
  Alternative 1 is being eliminated because the limits have been modified since the Planning Screen. Alternative 1 is from SR 674 to Madison Avenue. This stretch of US 41 has been segmented and evaluated as follows:
  -The portion from SR 674 to 12th Street is no longer being considered for further review at this time because it is a constrained corridor.
  -The portion from 12th Street to Kracker Road has already had a Programming Screen (ETDM #9511) and State Environmental Impact Report (SEIR) completed in an effort to support Port of Tampa development and Developer projects planned for the area.
  -The portion from Kracker Road to Causeway Boulevard are the new limits to be evaluated in the current Programming Screen (ETDM #5180).

Project Scope

General Project Commitments

Date	Description
05/27/2005	US 41 FROM SR 674 (COLLEGE AVE.) TO MADISON AVE. Hillsborough County Response to Florida Department of State: Additional right-of-way will be required for this project. It is anticipated that a rural typical section will be used.

Required Permits

Permit	Type	Conditions	Review Org	Review Date
Environmental Resource Permit	State		FDOT District 7	07/02/12
U.S. Coast Guard Bridge Permit	Federal		FDOT District 7	09/13/12
FDEP NPDES General Permit	Other		FDOT District 7	07/02/12
Dredge and Fill Permit	USACE		FDOT District 7	07/02/12
U.S Coast Guard Bridge Permit	Other		FDOT District 7	07/02/12
Environmental Resource Permit	Water		FDOT District 7	07/02/12
Section 404 Water Quality Certification	USACE		FDOT District 7	07/02/12
Consent of Use, Lease, or Easement to use Sovereign Submerged Lands	State		FDOT District 7	09/13/12

Required Technical Studies

Technical Study Name	Type	Conditions	Review Org	Review Date
Location Hydraulics Report	ENGINEERING		FDOT District 7	07/02/2012
Drainage/Pond Siting Report	ENGINEERING		FDOT District 7	09/13/2012
Bridge Hydraulic Report	ENGINEERING		FDOT District 7	07/02/2012
Public Involvement Plan	ENVIRONMENTAL		FDOT District 7	07/02/2012
Noise Study Report	ENVIRONMENTAL		FDOT District 7	07/02/2012
Contamination Screening Evaluation Report	ENVIRONMENTAL		FDOT District 7	07/02/2012
Public Hearing Transcript	ENVIRONMENTAL		FDOT District 7	07/02/2012
Traffic Analysis	ENGINEERING		FDOT District 7	07/02/2012
State Environmental Impact Report (SEIR)	ENVIRONMENTAL		FDOT District 7	09/13/2012
Public Hearing Scrapbook	ENVIRONMENTAL		FDOT District 7	07/02/2012
USCG Bridge Questionnaire	Other		FDOT District 7	07/02/2012
Essential Fish Habitat Assessment	ENVIRONMENTAL		FDOT District 7	07/02/2012
Comments and Coordination Report	ENVIRONMENTAL		FDOT District 7	07/02/2012
Preliminary Engineering Report	ENGINEERING		FDOT District 7	07/02/2012
Water Quality Impact Evaluation (WQIE)	ENVIRONMENTAL		FDOT District 7	07/02/2012
Cultural Resource Assessment Survey	ENVIRONMENTAL		FDOT District 7	07/02/2012

Wetlands Evaluation and Biological Assessment Report	ENVIRONMENTAL		FDOT District 7	09/13/2012

Class of Action

Class of Action Determination

Class of Action	Other Actions	Lead Agency	Cooperating Agencies	Participating Agencies
State Environmental Impact Report	None	FL Department of Transportation	No Cooperating Agencies have been identified.	No Participating Agencies have been identified.

Class of Action Signatures

Name	Agency	Review Status	Date	ETDM Role
Theresa Farmer	FDOT District 7	ACCEPTED	04/10/2013	FDOT ETDM Coordinator

Comments:
The Class of Action was signed by FDOT as a SEIR.

Dispute Resolution Activity Log

There are no dispute actions identified for this project in the EST.

Appendices

PED Comments

Advanced Notification Comments

There are no comments for this project.

GIS Analyses

Since there are so many GIS Analyses available for Project #5180 - US HWY 41, they have not been included in this ETDM Summary Report. GIS Analyses, however, are always available for this project on the Public ETDM Website. Please click on the link below (or copy this link into your Web Browser) in order to view detailed GIS tabular information for this project:

http://etdmpub.fla-etat.org/est/index.jsp?tpID=5180&startPageName=GIS%20Analysis%20Results

Special Note: Please be sure that when the GIS Analysis Results page loads, the **Programming Screen Summary Report Re-published on 04/10/2013 by Theresa Farmer Milestone** is selected. GIS Analyses snapshots have been taken for Project #5180 at various points throughout the project's life-cycle, so it is important that you view the correct snapshot.

Project Attachments

Note: Attachments are not included in this Summary Report, but can be accessed by clicking on the links below:

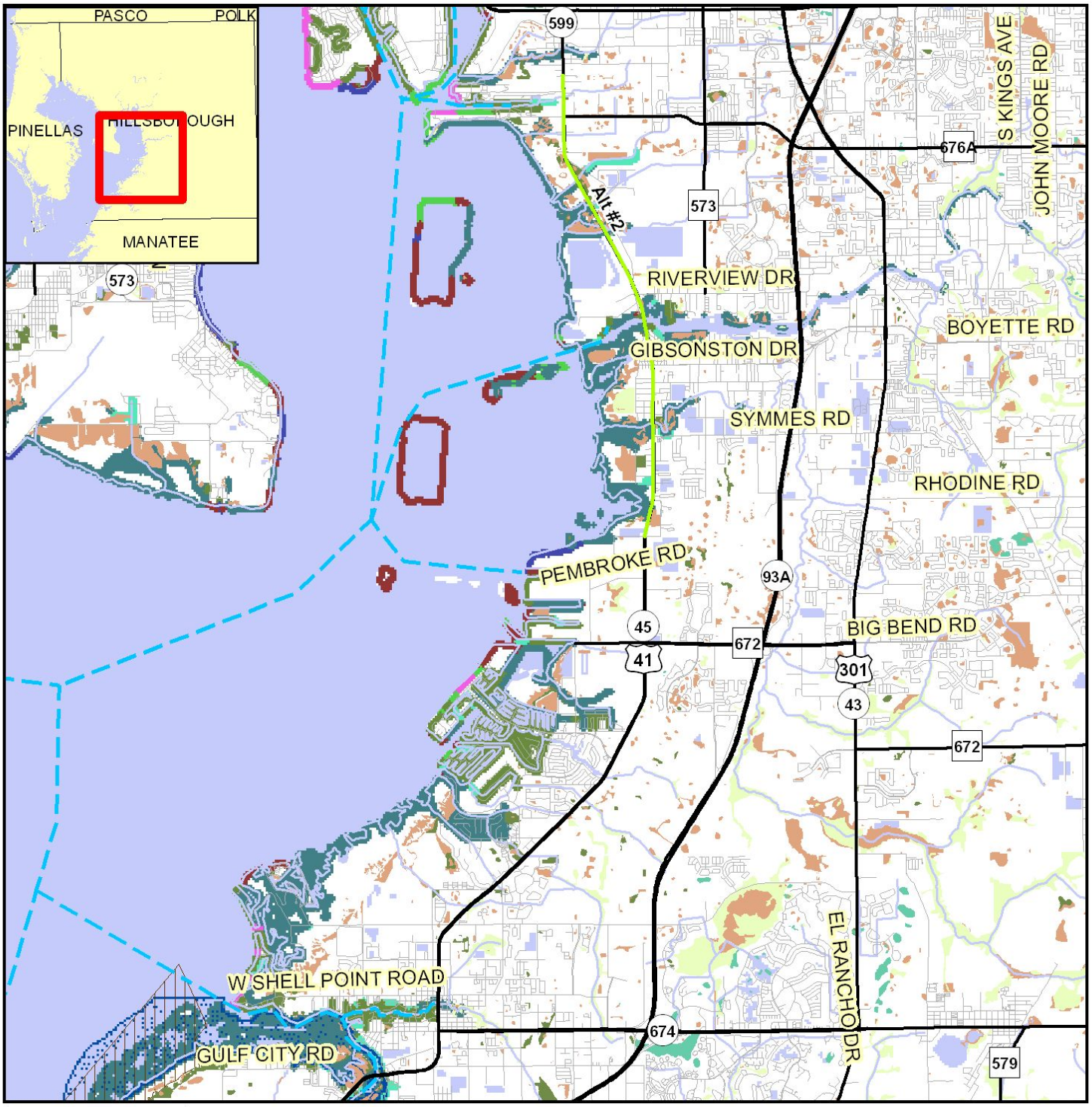
Date	Type	Size	Link / Description
	Form SF-424: Application for Federal Assistance	631 KB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=13253
	Hardcopy Map (from Attach Document Tool)	1.96 MB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=13247
	Traffic Analysis	92 KB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=13230

Degree of Effect Legend

Color Code	Meaning	ETAT	Public Involvement
N/A	Not Applicable / No Involvement	There is no presence of the issue in relationship to the project, or the issue is irrelevant in relationship to the proposed transportation action.	
0	None (after 12/5/2005)	The issue is present, but the project will have no impact on the issue; project has no adverse effect on ETAT resources; permit issuance or consultation involves routine interaction with the agency. The *None* degree of effect is new as of 12/5/2005.	No community opposition to the planned project. No adverse effect on the community.
1	Enhanced	Project has positive effect on the ETAT resource or can reverse a previous adverse effect leading to environmental improvement.	Affected community supports the proposed project. Project has positive effect.
2	Minimal	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
2	Minimal to None (assigned prior to 12/5/2005)	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
3	Moderate	Agency resources are affected by the proposed project, but avoidance and minimization options are available and can be addressed during development with a moderated amount of agency involvement and moderate cost impact.	Project has adverse effect on elements of the affected community. Public Involvement is needed to seek alternatives more acceptable to the community. Moderate community interaction will be required during project development.
4	Substantial	The project has substantial adverse effects but ETAT understands the project need and will be able to seek avoidance and minimization or mitigation options during project development. Substantial interaction will be required during project development and permitting.	Project has substantial adverse effects on the community and faces substantial community opposition. Intensive community interaction with focused Public Involvement will be required during project development to address community concerns.
5	Potential Dispute (Planning Screen)	Project may not conform to agency statutory requirements and may not be permitted. Project modification or evaluation of alternatives is required before advancing to the LRTP Programming Screen.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.
5	Dispute Resolution (Programming Screen)	Project does not conform to agency statutory requirements and will not be permitted. Dispute resolution is required before the project proceeds to programming.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.
	No ETAT Consensus	ETAT members from different agencies assigned a different degree of effect to this project, and the ETDM coordinator has not assigned a summary degree of effect.	
	No ETAT Reviews	No ETAT members have reviewed the corresponding issue for this project, and the ETDM coordinator has not assigned a summary degree of effect.	

Project-Level Hardcopy Maps

5180 US HWY 41
Kracker Avenue to South of Causeway Boulevard



0 2.5 Miles

N W E S

Coastal and Marine Resource Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- River, Stream or Canal
- Water Body
- Aquatic Preserve
- Navigable Water Way
- Continuous Seagrass
- Discontinuous Seagrass
- Coastal Barrier Resource Area
- Swamp or Marsh
- Exposed Rocky Platform
- Sand Beach
- Gravel Beach/Riprap
- Exposed Tidal Flat
- Sheltered Tidal Flat
- Mixed Sand And Gravel Beach
- Sheltered Rock/Seawall/Vegetated
- Exposed Vertical Rocky Shore/Seawall

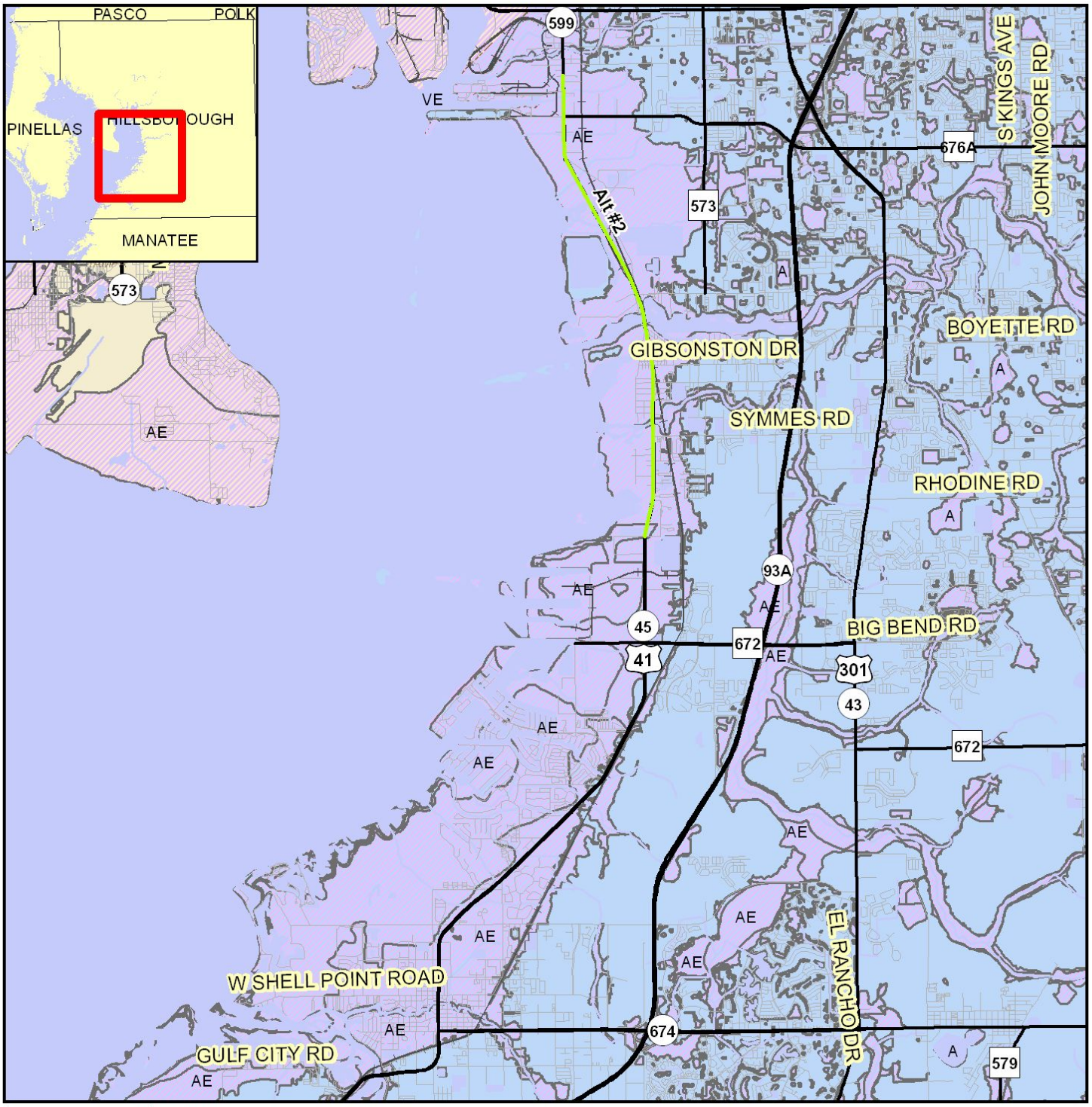
Data Sources: NAVTEQ; US Geological Survey; Florida Marine Research Institute; Florida Department of Transportation; Florida Department of Environmental Protection; National Oceanic and Atmospheric Association; Florida Water Management Districts

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



0 2 Miles

N W E S

Floodplain Resource Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body
- City Limits
- County Boundaries
- Special Flood Hazard Area

Data Sources:
NAVTEQ
US Geological Survey
Federal Emergency Management Agency

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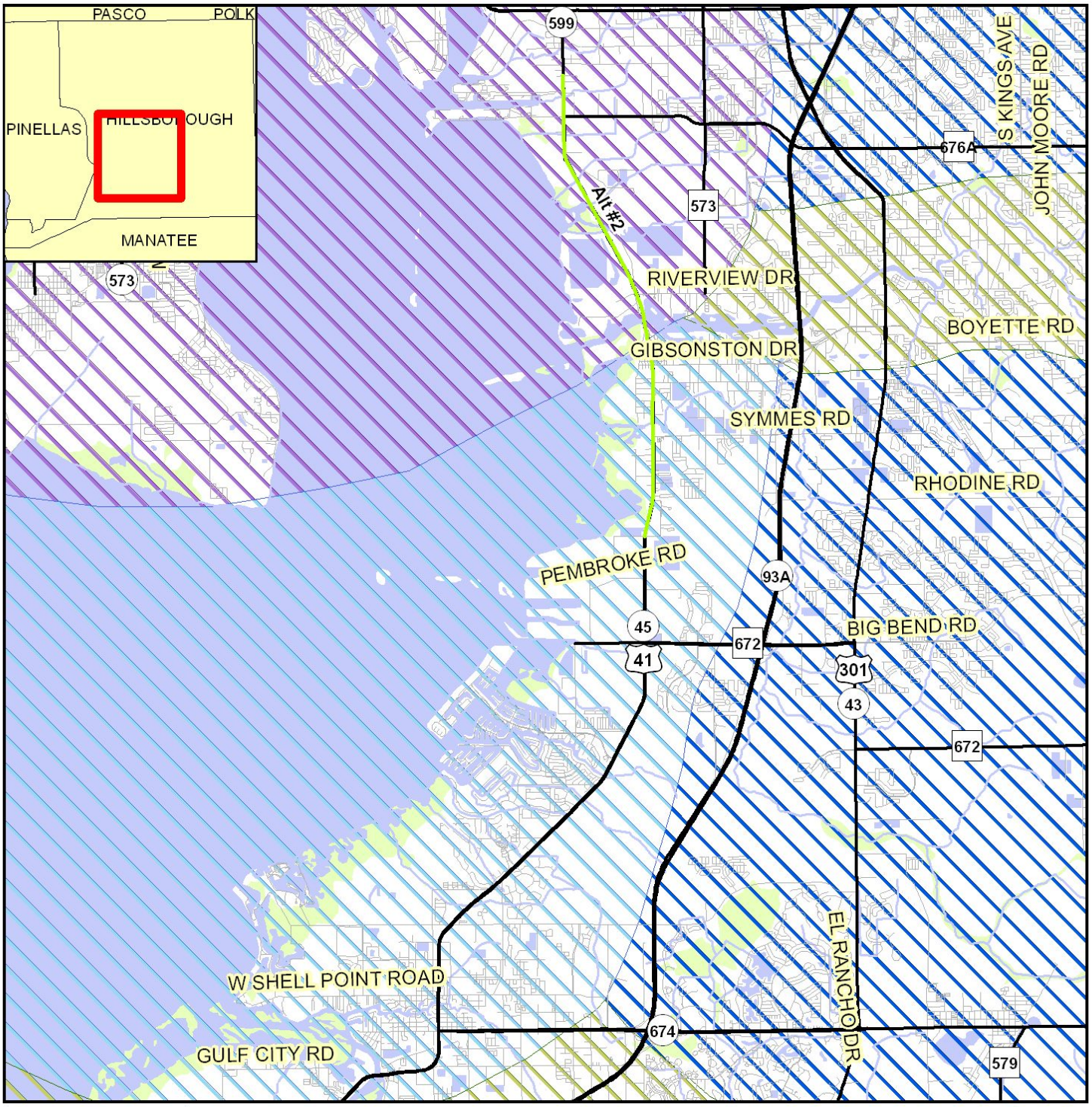
Map Generated on: 9/18/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



Hydrogeology Resource Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- River, Stream or Canal
- Water Body
- Swamp/Marsh

Recharge Areas of the Floridan Aquifer

- Discharge 1 TO 5
- Discharge > 5
- Disharge < 1
- Recharge 1 TO 10
- Recharge > 10
- Recharge < 1

Geological Epoch

- Eocene
- Holocene
- Miocene
- Miocene/Pliocene
- Oligocene
- Oligocene/Miocene
- Pleistocene
- Pleistocene & Holocene
- Pliocene
- Pliocene/Pleistocene

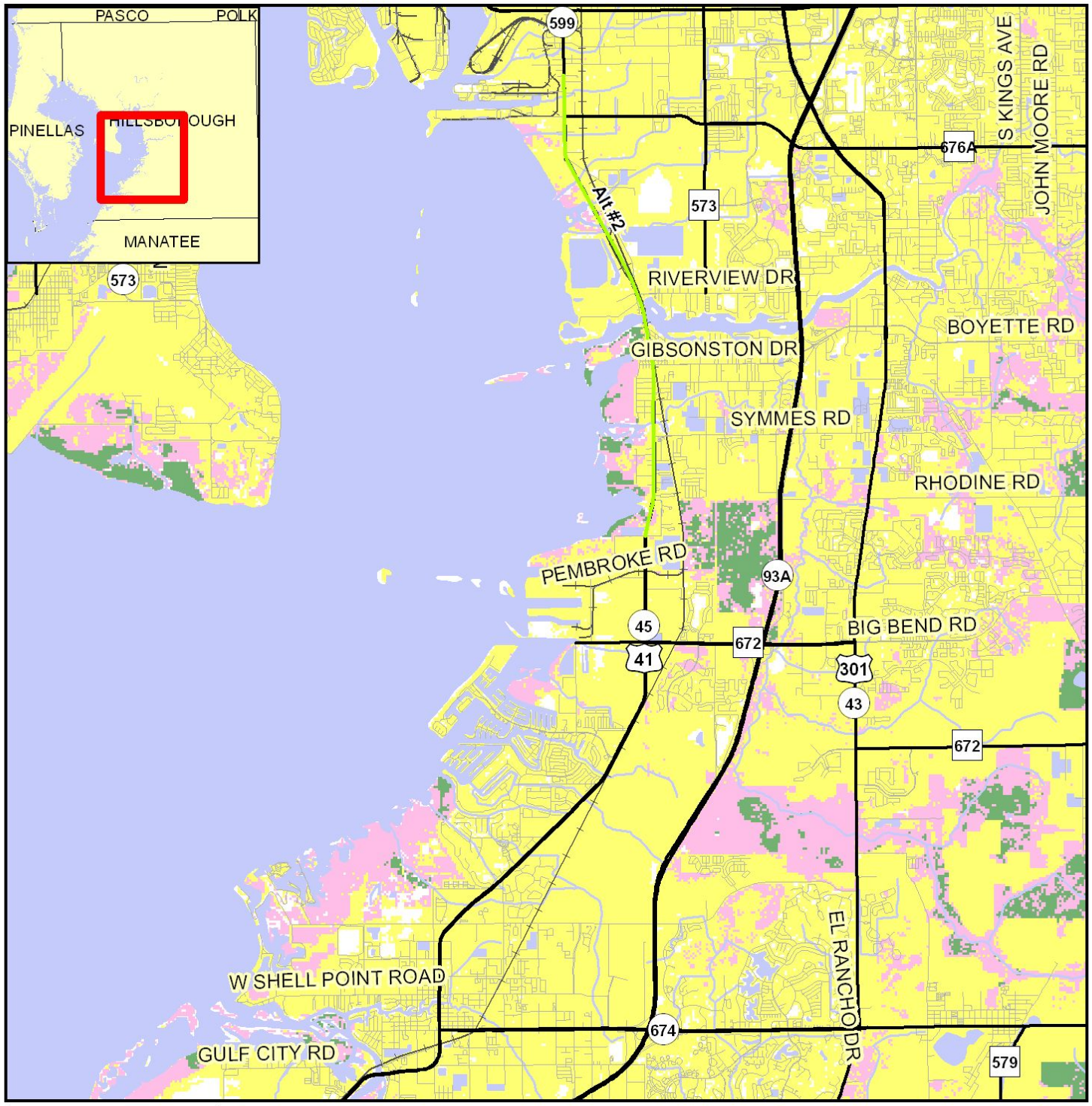
Data Sources: NAVTEQ; US Geological Survey; Florida Department of Transportation; South West Florida Water Management District; Florida Geological Survey

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



0 3 Miles

N W E S

Data Sources:
NAVTEQ
US Geological Survey
Florida Department of Transportation
Florida Fish & Wildlife Conservation Commission

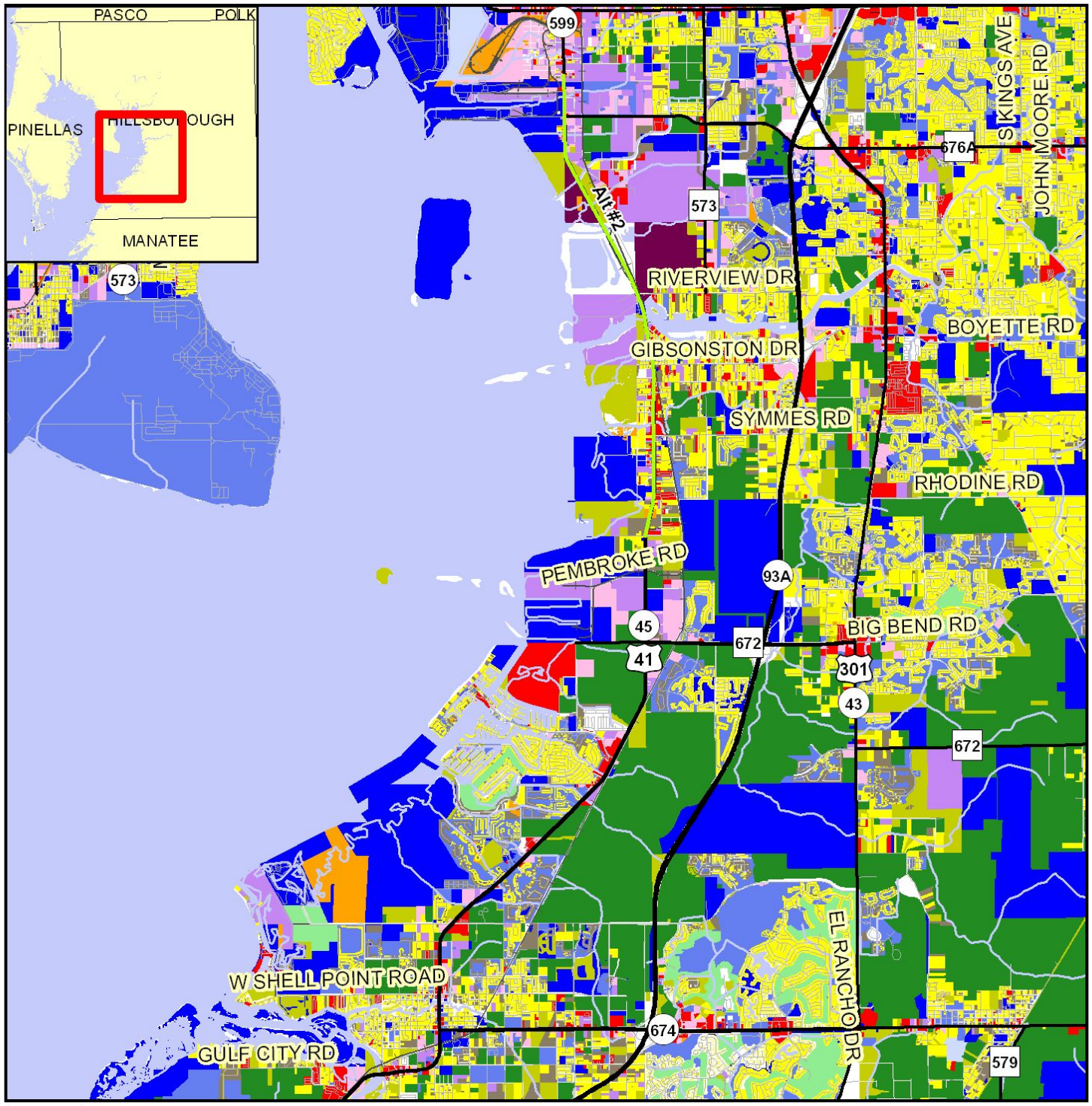
Integrated Wildlife Habitat Ranking System Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body
- Low Habitat Quality
- Medium Habitat Quality
- High Habitat Quality

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41
Kracker Avenue to South of Causeway Boulevard



Land Use Map

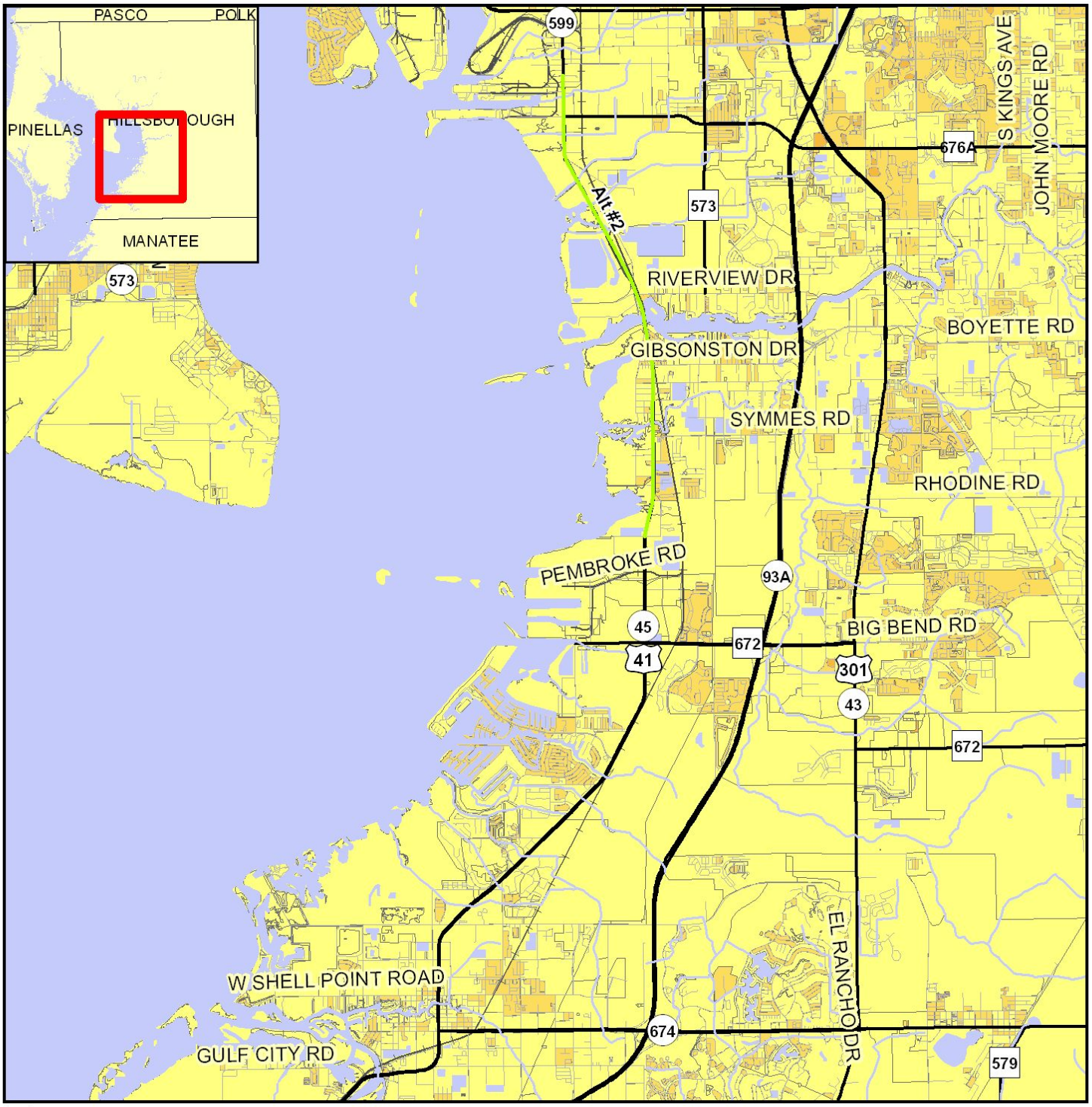
- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Agricultural
- Industrial
- Institutional
- Mining
- Open (Not Agricultural)
- Other
- Public
- Right-of-Way
- Recreational
- Residential
- Retail/Office
- Vacant (Residential)
- Vacant (Nonresidential)
- Water
- No Data

Data Sources:
NAVTEQ
US Geological Survey
Florida Department of Revenue
Florida Department of Transportation
Florida County Property Appraiser Offices

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41
Kracker Avenue to South of Causeway Boulevard



0 0.25 Miles

N W E S

Data Sources:
US Geological Survey
FL Department of Transportation
NAVTEQ
US Census Bureau (2010)

Population Density Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body

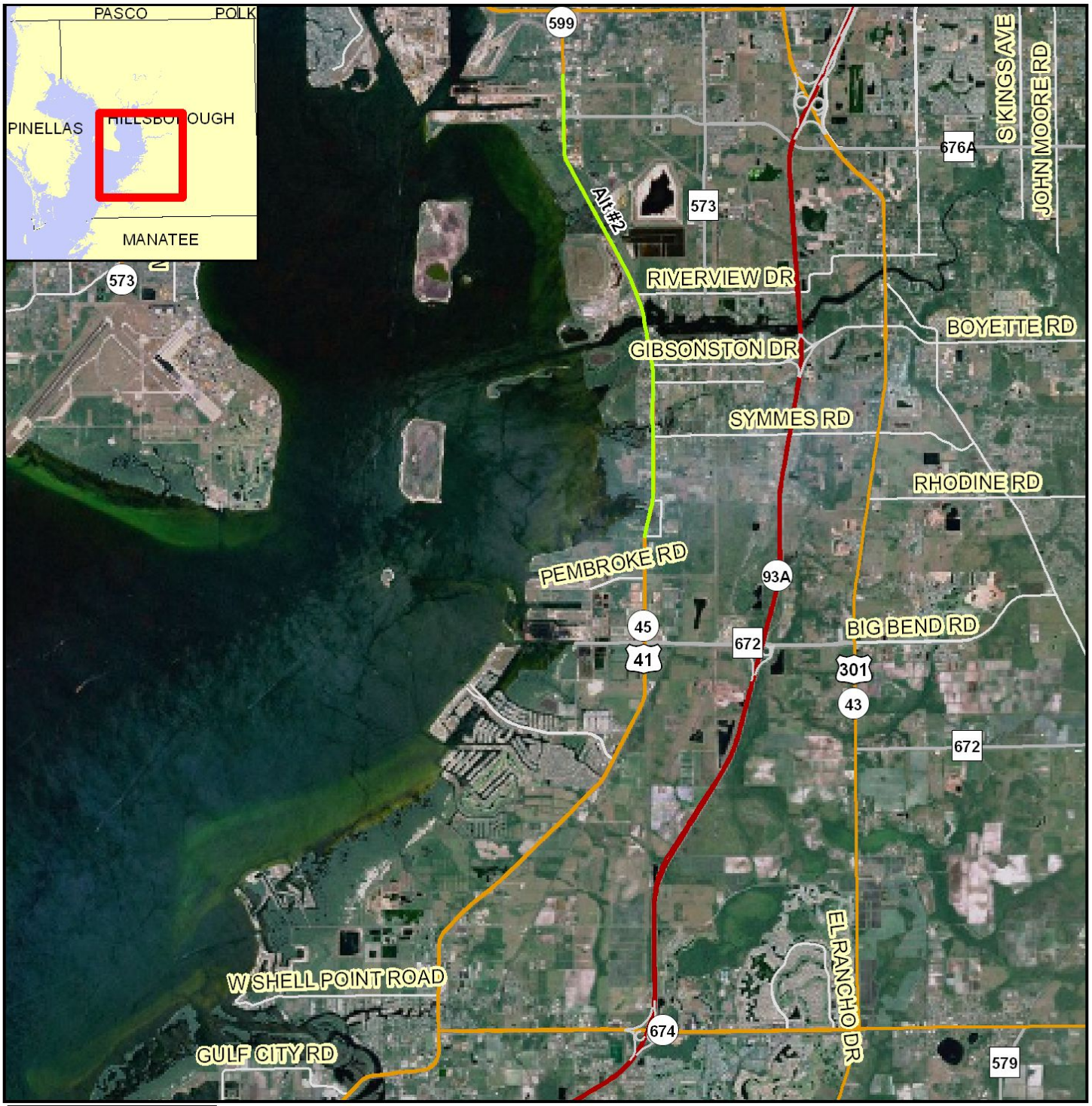
Population per Acre (2010)

0 - 4.9 | 5 - 29.9 | 30 - 99.9 | 100 - 349.9 | 350 - 800 | > 800

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41
Kracker Avenue to South of Causeway Boulevard



Project Aerial Map

N
W E
S

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Primary and Limited Access Highway
- Secondary, Unlimited Access Highway
- Other Highway Feature
- Local Road

Data Sources:
Highways - NAVTEQ
Digital Orthophotograph - US Geological Survey

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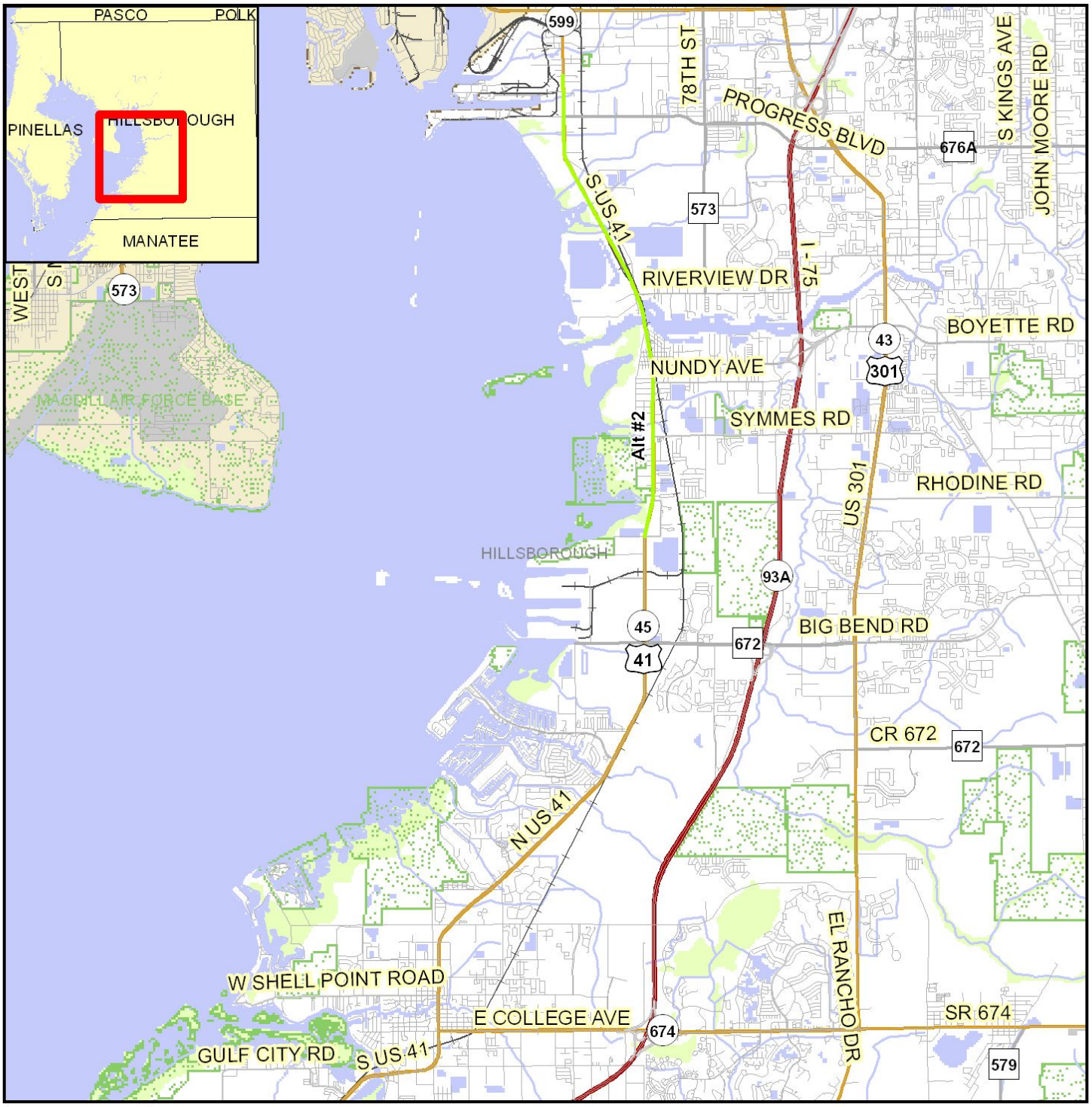
Map Generated on: 9/18/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



Project Location Map

Data Sources:
NAVTEQ
US Geological Survey
US Census Bureau
County Property Appraisers
Florida Natural Areas Inventory

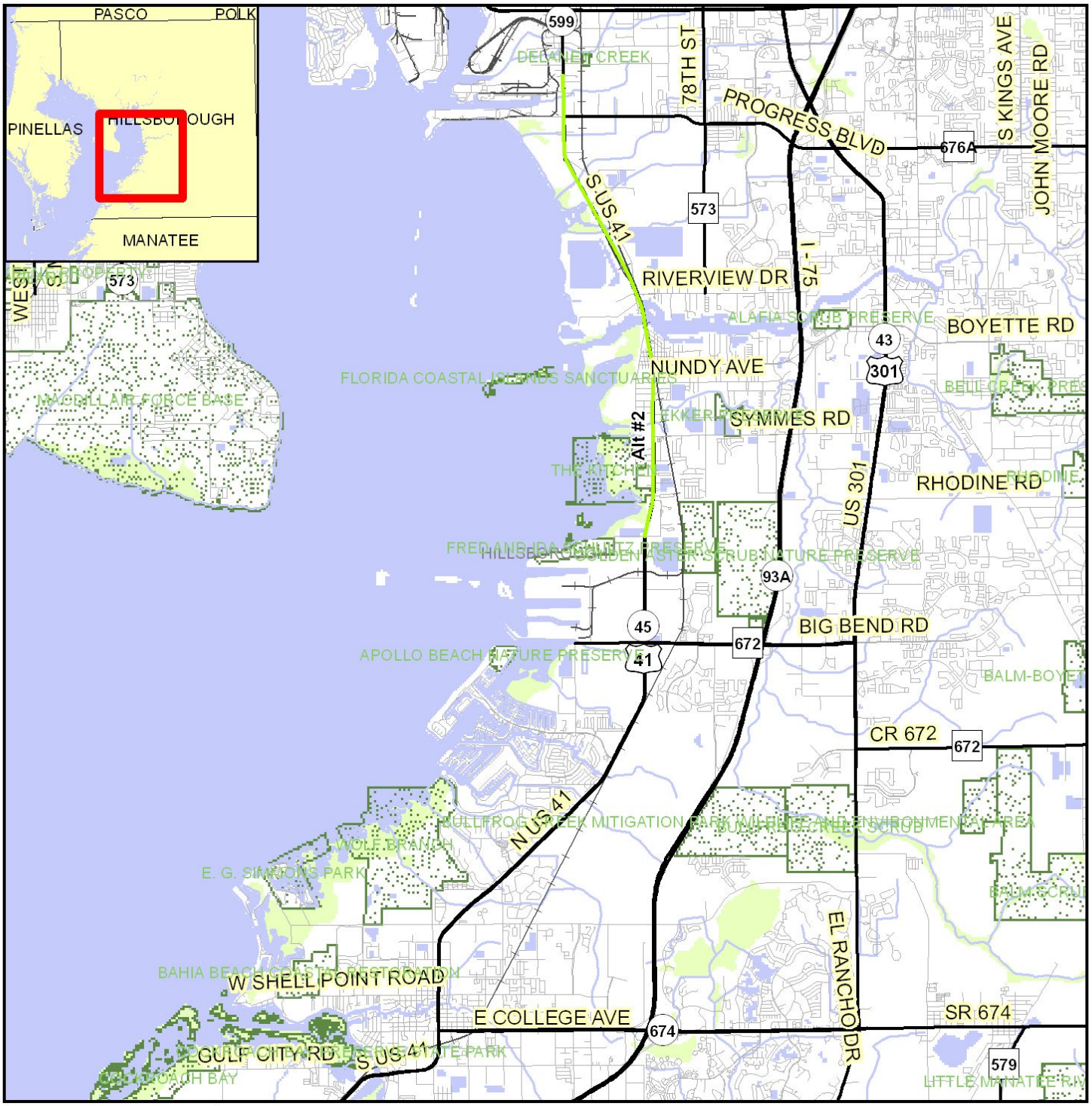
- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- River, Stream or Canal
- Water Body
- Swamp/Marsh
- Managed Conservation Lands
- Toll Road
- Railroad
- Airport
- City Limits
- County Boundaries

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/19/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



0 3 Miles

N W E S

Data Sources:
NAVTEQ
US Geological Survey
Florida Natural Areas Inventory

Conservation and Recreation Area Map

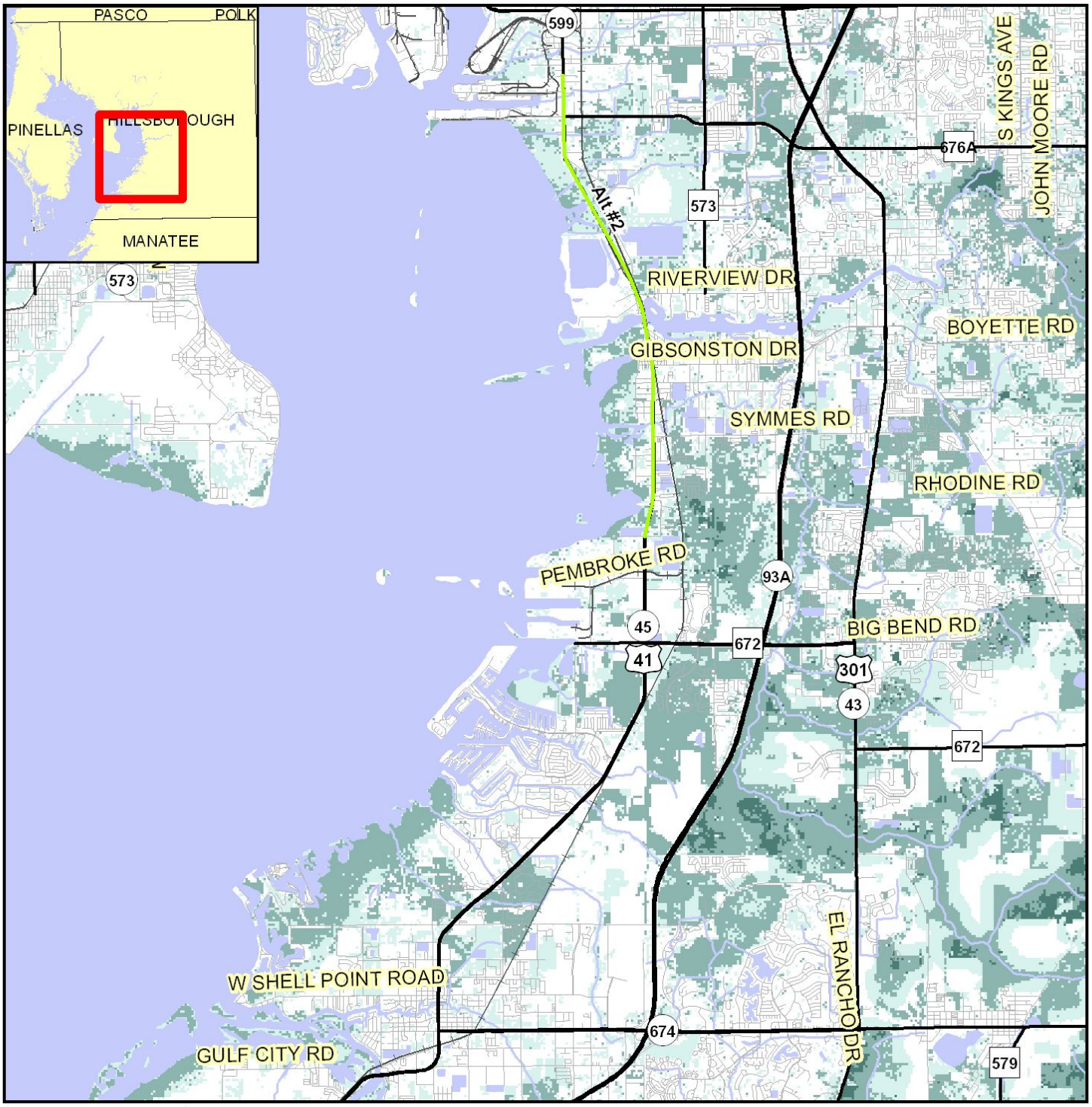
- ETDM Alternative Point
- ETDM Alternative Segment
- ETDM Alternative Polygon
- ETDM Alternative Terminus
- Major Road
- Local Road or Trail
- River, Stream or Canal
- Water Body
- Swamp/Marsh
- Conservation or Recreation Area
- Railroad
- County Boundary

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/19/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



0 2.5 Miles

N W E S

Data Sources:
NAVTEQ
US Geological Survey
Florida Department of Transportation
Florida Fish & Wildlife Conservation Commission

Species Potential Habitat Model Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body

Potential Habitat Richness

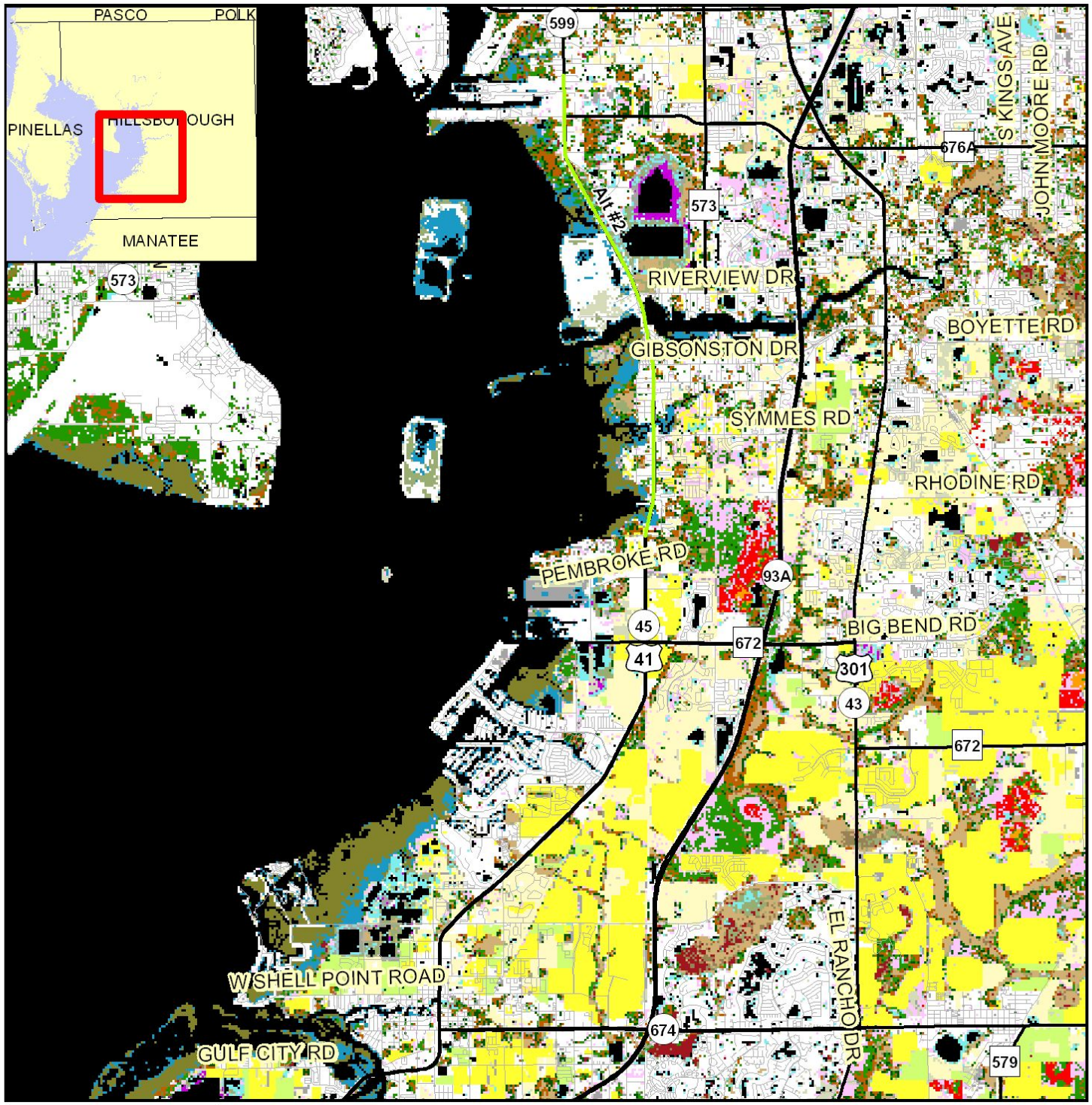
- 1 - 2 Species
- 3 - 5 Species
- 6 - 8 Species
- 9 - 10 Species
- 11 - 13 Species

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



Vegetation and Land Cover Map

ETDM Alternative Polygon
ETDM Alternative Segment
ETDM Alternative Terminus
ETDM Alternative Point
Major Road
Local Road or Trail

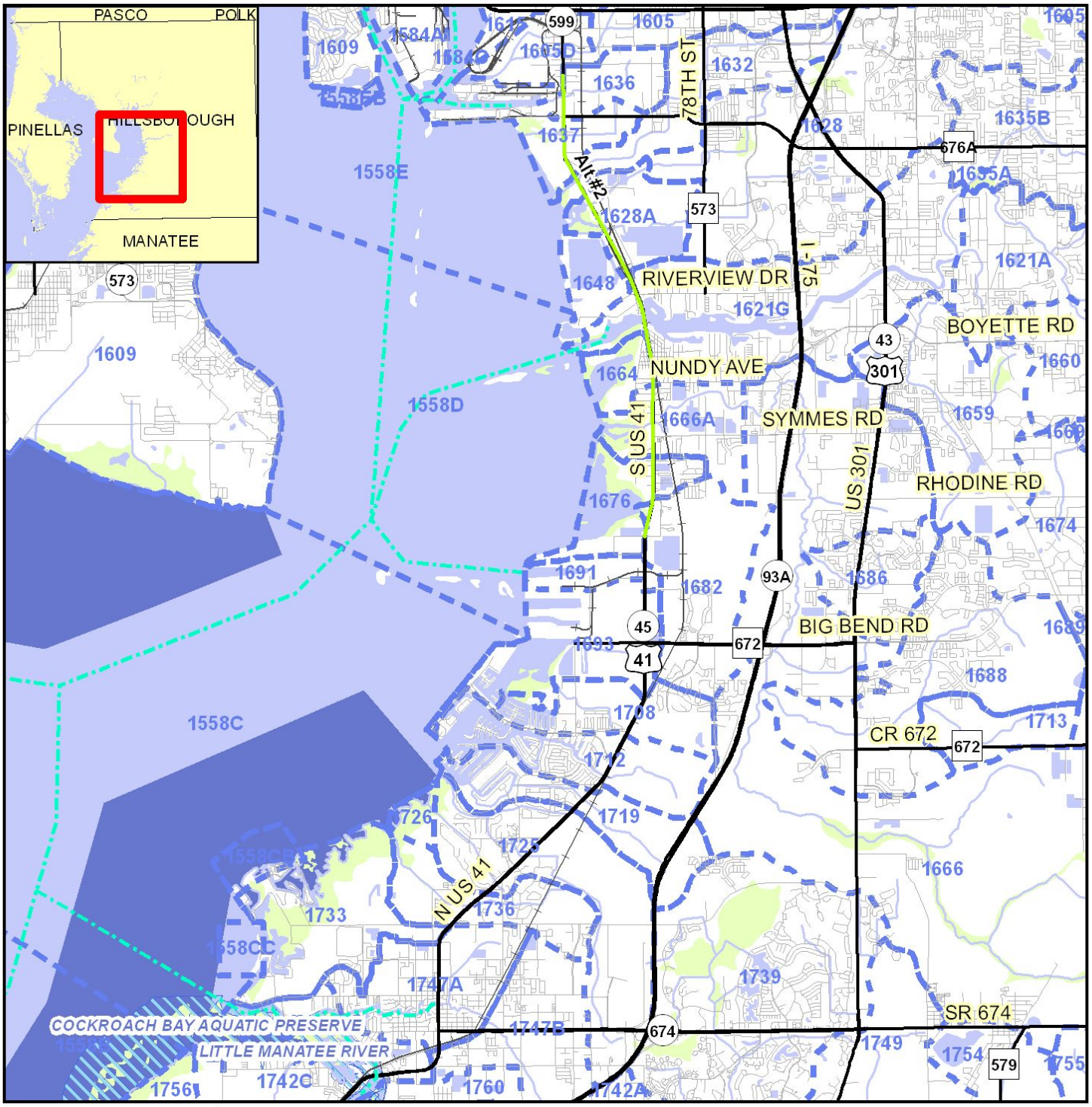
Not Classified
Coastal Strand
Sand/Beach
Xeric Oak Scrub
Sand Pine Scrub
Sandhill
Dry Prairie
Mixed Hardwood-pine Forest
Hardwood Hammocks and Forests
Pinelands
Cabbage Palm-live Oak Hammock
Tropical Hardwood Hammock
Freshwater Marsh and Wet Prairie
Sawgrass Marsh
Cattail Marsh
Shrub Swamp
Bay Swamp
Cypress Swamp
Cypress/Pine/Cabbage Palm
Mixed Wetland Forest
Hardwood Swamp
Hydric Hammock
Bottomland Hardwood Forest
Salt Marsh
Mangrove Swamp
Scrub Mangrove
Tidal Flats
Open Water
Shrub and Brushland
Grassland
Bare Soil/Clearcut
Improved Pasture
Unimproved Pasture
Sugarcane
Citrus
Row and Field Crops
Other Agriculture
Exotic Plants
Australian Pine
Melaleuca
Brazilian Pepper
High Impact Urban
Low Impact Urban
Extractive

Data Sources:
NAVTEQ; Florida Department of Transportation; Florida Fish and Wildlife Conservation Commission

etdm Efficient Transportation Decision Making
Environmental Screening Tool est

Map Generated on: 9/18/2012

5180 US HWY 41
Kracker Avenue to South of Causeway Boulevard



0 3 Miles

N W E S

Water Resources Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Railroad
- 1st Magnitude Spring
- River, Stream or Canal
- Navigable Water Way
- SFWMD Canals
- Drainage Basin
- Outstanding Florida Water
- Surface Water Class I
- Surface Water Class II
- Water Body
- Swamp/Marsh
- Major Road
- Local Road or Trail

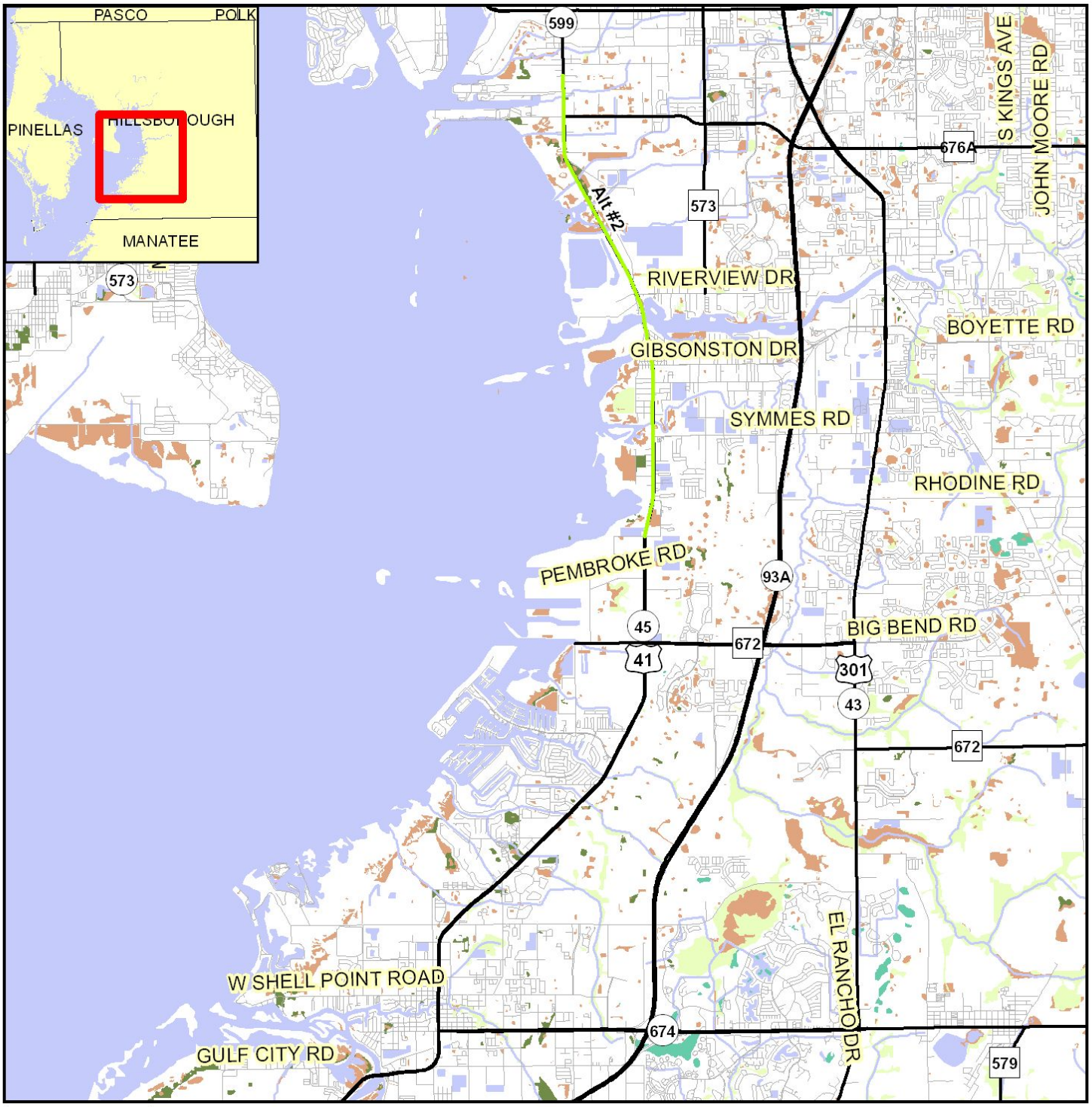
Data Sources:
NAVTEQ
US Geological Survey
Florida Department of Transportation
Florida Department of Environmental Protection
Florida Geological Survey
US Bureau of Transportation Statistics

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/19/2012

5180 US HWY 41

Kracker Avenue to South of Causeway Boulevard



Wetland Resource Map

N
W E
S

- ETDM Alternative Polygon
- ETDM Alternative Segment
- ETDM Alternative Terminus
- ETDM Alternative Point
- Major Road
- Local Road or Trail
- River, Stream or Canal
- Water Body
- Non-vegetated Wetland
- Vegetated Non-forested Wetland
- Wetland Forested Mixed
- Wetland Coniferous Forest
- Wetland Hardwood Forest

Data Sources: NAVTEQ; Florida Water Management Districts; US Geological Survey

etdm Efficient Transportation Decision Making — Environmental Screening Tool est

Map Generated on: 9/18/2012

Appendix E
Representative Site Photos

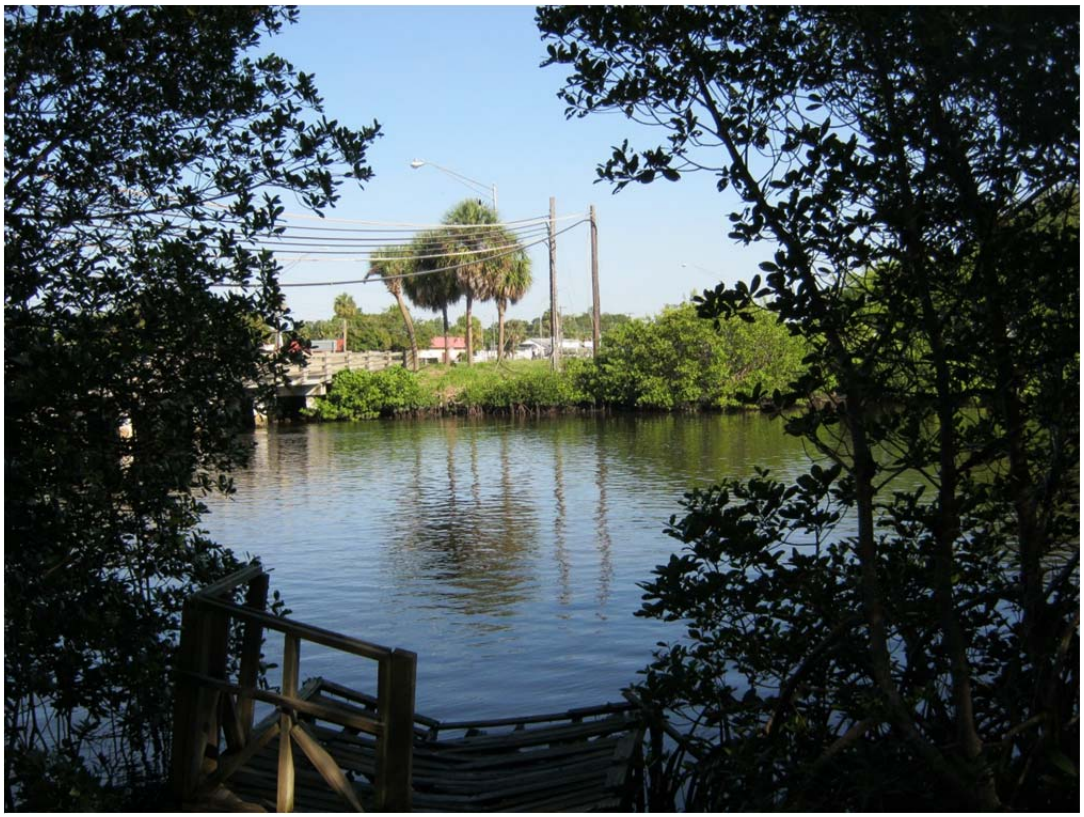
(1) Mangrove wetland (FLUCCS 612) – Approx. STA 846 E. of US 41

(2) Part of mangrove wetland in Photo 1, Brazilian pepper near ROW – Approx. STA 848 E. of US 41

(3) Kitchen Branch E. of US 41 – Approx. STA 849

(4) Dug Creek E. of US 41 – Approx. STA 874

(5) Bullfrog Creek W. of US 41 – Approx. STA 917



(6) Bullfrog Creek E. of US 41 – Approx. STA 917

(7) Alafia River W. of US 41 – Approx. STA

(8) Saltwater marsh (FLUCCS 642) W. of US 41 surrounded by mangroves – Approx. STA 126

(9) Freshwater marsh (FLUCCS 641) E. of US 41 – Approx. STA 149

(10) Freshwater marsh (FLUCCS 641) W. of US 41 – Approx. STA 155

(11) Saltwater marsh (FLUCCS 642) & mangroves w/Brazilian pepper W. of US 41 – Approx. STA 164

(12) Representative roadside ditch (FLUCCS 510) – Approx. STA 187

Appendix F
UMAM Assessments

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS codes 510

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510		Impact	2.12 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Bullfrog Creek, Alafia River, Delaney/Archie/NorthArchie Creek Watershed	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Located throughout the project area with connection to Hillsborough Bay and adjacent estuarine wetlands within some areas. Mostly channelized crossing near US 41, with the exception of Alafia River and Bullfrog Creek.

Assessment area description

Numerous tidally infuence creeks, streams and rivers within the project area.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Pass under US 41 along project corridor via bridges, bridge/box culverts and culverts.	Found throughout this part of US 41 and Hillsborough County

Functions	Mitigation for previous permit/other historic use
Provide habitat for fish, wading birds and numerous other wetland dependent species.	

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Bottom feeding fish such as redfish, flounder, spot, and sheepshead, shorebirds, wading birds, and invertebrates	Gulf sturgeon (T), Smalltooth sawfish (E), alligator (SSC), Roseate spoonbill (SSC), Little blue heron (SSC), wood stork (E), Reddish egret (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Brown pelican (SSC), West Indian manatee (E)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Brown pelican, osprey and wood storks observed along corridor

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Chris Salicco	November 2014

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South o fSR 676		Streams and Waterways
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Chris Salicco	November 2014

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	Surface waters are located within the project limits are tidally influenced by Hillsborough and Tampa Bay. US 41 crosses the surface waters by means of bridges and box culverts. Wetlands are located adjacent to some of the surface waters.	7	0
.500(6)(b)Water Environment (n/a for uplands)	Surface waters within the project limits are rivers, creeks, and manmade canals. They are all tidally influenced by Hillsborough and Tampa Bay. Surface waters within in the project limits are Kitchen Branch, Dug Creek, Alafia River, Bullfrog Creek, Archie Creek, Archie Creek North, and Delaney Canal.	8	0
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	The banks of the surface waters are lined with various types of vegetation, including but not limited to white and black mangroves, oaks, pines, cabbage palms and Brazilian pepper. No seagrasses are present within the project area. Minimal foraging habitat is present within the surface waters within the project area.	5	0

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.67	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 1.41

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 612

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
612		Impact	0.63 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Bullfrog Creek, Alafia River, Delaney/Archie/NorthArchie Creek Watershed	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

The project is located in an suburban area of Hillsborough County. Along the project corridor there are multiple natural surface waters, man-made canals, natural wetlands, and mitigated wetlands. Many of these wetlands are assoicated with nearby surface waterbodies.

Assessment area description

Wetland areas with the potential for impacts fall into the right of way areas along the project corridor.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetlands classified as FLUCCS code 612 are located near US 41. Many of the wetlands are located adjacent to tidally influcenced streams and rivers along the project corridor.	Dominant species located in FLUCCS code 612 wetlands are common in the region.

Functions	Mitigation for previous permit/other historic use
Functions of mangrove swamps include providing habitat for some aquatic species, protect against soil erosion along shorelines, and provide a source of food.	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Estuarine birds, fish, mollusks, crustaceans, snakes and other reptiles, and marine invertebrates	Gulf sturgeon (T), Smalltooth sawfish (E), Roseate spoonbill (SSC), Little blue heron (SSC), wood stork (E), Reddish egret (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Brown pelican (SSC), West Indian manatee (E)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Brown pelican, osprey and wood storks observed along corridor

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Chris Salicco	November 2014

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 612
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Chris Salicco	November 2014

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current: 7 with: 0	Location and landscape supoort is moderate Mangrove Swamps. The wetland systems are connected to tidally influced surface waters, either directly adjacent or by flushing channels. The areas assessed for this project are near US 41.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 7 with: 0	The mangrove swamps are located adjacent to or connected by flushing channels to tidal creeks, rivers, and canals. Some are located within mitigation/conservation lands located outside of right of way. Many of the areas along the roadway receive discharges from the impervious pavement of US 41.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 7 with: 0	The dominant species in the mangrove swamps are white mangroves, with some areas of black mangroves and red mangroves along some of the rivers, streams and creeks. There is Brazilian pepper encroachment in areas adjacent to US 41.

Score = sum of above scores/30 (if uplands, divide by 20)	If preservation as mitigation,	For impact assessment areas
current or w/o pres: 0.70 with: 0.00	Preservation adjustment factor =	FL = delta x acres = 0.44
	Adjusted mitigation delta =	

Delta = [with-current]	If mitigation	For mitigation assessment areas
0.70	Time lag (t-factor) =	RFG = delta/(t-factor x risk) =
	Risk factor =	

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 640

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
640		Impact	0.03 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Bullfrog Creek, Alafia River, Delaney/Archie/NorthArchie Creek Watershed	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

The wetlands classifed as FLUCCS code 640 are all isolated and surrounded by upland and develped areas.

Assessment area description

Wetland areas with the potential for impacts fall into the right of way areas along the project corridor.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The wetlands are located near US 41 along the project corridor.	The species present in the wetlands being evaluated are common for the region.

Functions	Mitigation for previous permit/other historic use
The wetland may provide some habitat and foraging areas for small mammals, amphibians, and reptiles. The wetlands fragmented and provide less of a function than larger systems.	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Frogs, lizards, turtles, snakes, armadillos, rodents, raccoons, small avian species, and other reptiles, amphibians, and mammals	Alligator (SSC), Roseate spoonbill (SSC), Little blue heron (SSC), wood stork (E), Reddish egret (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Wood storks observed within project area

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Chris Salicco	November 2014

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 640
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Chris Salicco	November 2014

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	6	0	These vegetated non-forested system are isolated between US 41 and the existing railroad tracks. They are also located in an area that is further surround by extractive areas of the Mosaic properties.
.500(6)(b)Water Environment (n/a for uplands)	5	0	These assessment areas are mostly hydrated due to water being trapped between US 41 and the existing railroad tracks. There is minimal to no other connection to hydrologic resources. Most water would result from direct rainfall in the area.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	0	These wetlands are described as mixed wetland hardwoods. The community strucutres are poor and many systems contain the invasive Brazilian pepper. Other noted vegetation in the wetlands are ludwigia, saw palmetto,oak and cabbage palm.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.50	0.00

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.02

Delta = [with-current]
0.50

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 641

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641		Impact	0.32 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Bullfrog Creek, Alafia River, Delaney/Archie/NorthArchie Creek Watershed	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

The project is located in an suburban area of Hillsborough County. Along the project corridor there are multiple natural surface waters, man-made canals, natural wetlands, and mitigated wetlands. Many of these wetlands are assoicated with nearby surface waterbodies.

Assessment area description

Wetland areas with the potential for impacts fall into the right of way areas along the project corridor.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland areas are adjacent to US 41 and surrounded by upland areas.	Wetlands labeled as FLUCCS code 641 are common through the region.

Functions	Mitigation for previous permit/other historic use
The wetland may provide some habitat and foraging areas for small mammals, amphibians, and reptiles. The wetlands fragmented and provide less of a function than larger systems.	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Frogs, lizards, turtles, snakes, armadillos, rodents, raccoons, small avian species, and other reptiles, amphibians, and mammals	Alligator (SSC), Roseate spoonbill (SSC), Little blue heron (SSC), wood stork (E), Reddish egret (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Wood stork observed within project area

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Chris Salicco	November 2014

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 641
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Chris Salicco	November 2014

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	The freshwater marsh wetland systems are mostly surrounded by uplands within the project area. The areas assessed for this project are located along US 41. These wetlands have the potential to provide wildlife habitat for amphibian and reptile species as well as foraging habitat for wading birds, waterfowl, and mammals.	6	0
.500(6)(b)Water Environment (n/a for uplands)	These wetland systems may be temporarily inundated during periods of heavy rains. There are no connections to surface waters, but are low-lying areas that take sheet flow from rain events.	7	0
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	The freshwater marshes within the project area contain freshwater herbacous marsh vegetation. Some species observed are spike rush, duck potato, bullrush, pickerel weed, cattails and lizard's tail.	7	0

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.67	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.21

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 642

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
642		Impact	0.31 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Bullfrog Creek, Alafia River, Delaney/Archie/NorthArchie Creek Watershed	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Located near mangrove systems and tidal waters within project area. Most of the systems are linked to mangroves but some are surrounded by Brazilian pepper

Assessment area description

The project is located in an suburban area of Hillsborough County. Along the project corridor there are multiple natural surface waters, man-made canals, natural wetlands, and mitigated wetlands. Many of these wetlands are assoicated with nearby surface waterbodies.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The saltwater marsh systems are located adjacent to US 41. Notable surface water features located near the wetland systems are Archie Creek, Bullfrog Creek, and Kitchen Branch.	

Functions	Mitigation for previous permit/other historic use
Functions of saltwater marshes include providing habitat for some aquatic species, protect against soil erosion along shorelines, and provide a source of food.	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Estuarine birds, fish, mollusks, crustaceans, snakes and other reptiles, and marine invertebrates	Alligator (SSC), Roseate spoonbill (SSC), Little blue heron (SSC), wood stork (E), Reddish egret (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Brown pelican (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Wood stork, osprey and brown pelican observed within project area.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Chris Salicco	November 2014

PART II – Quantification of Assessment Area (Impact or Mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 from Kracker Ave to South of SR 676		FLUCCS Codes 642
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Chris Salicco	November 2014

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	The wetlands are adjacent to tidally influcened surface waters such as Kitchen Branch, Alafia River, Archie Creek, North Archie Creek, and Delaney Canal. These wetlands provide wildlife habitat for wading birds, mammals, fish, mollusks, crustaceans, and snakes.	7	0
.500(6)(b)Water Environment (n/a for uplands)	The saltwater marshes are located adjacent to tidal creeks, rivers, and canals. Tidally influenced flushing channels bring water into and out of the wetland systems.	8	0
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	These wetlands generally contain black needle rush and with some white mangroves. There is some Brazilian pepper near US 41 within the project area.	9	0

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.80	0.00

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.25

Delta = [with-current]
0.80

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

Appendix G
Wood Stork Key

WOOD STORK KEY

Although designed primarily for use by Corps Project Managers in the Regulatory and Planning Divisions, and State Regulatory agencies or their designees, project permit applicants and co-sponsors of civil works projects may find this key and its supporting documents useful in identifying potential project impacts to wood storks, and planning how best to avoid, minimize, or compensate for any identified adverse effects.

A. Project within 2,500 feet of an active colony site[1]……*May affect*

Project more than 2,500 feet from a colony site……go to B

B. Project does not affect suitable foraging habitat[2] (SFH)…….*no effect*

Project impacts SFH[2]……go to C

C. Project impacts to SFH are less than or equal to 0.5 acre[3]…….....*NLAA*[4]

Project impacts to SFH are greater than or equal to 0.5 acre..……..go to D

D. Project impacts to SFH not within a Core Foraging Area[5] (see attached map) of a colony site, and no wood storks have been documented foraging on site…….....NLAA[4]

Project impacts to SFH are within the CFA of a colony site, or wood storks have been documented foraging on a project site outside the CFA ……..….go to E

E. Project provides SFH compensation within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank preferably within the CFA, or consists of SFH compensation within the CFA consisting of enhancement, restoration or creation in a project phased approach that provides an amount of habitat and foraging function equivalent to that of impacted SFH (see *Wood Stork Foraging Habitat Assessment Procedure*[6] for guidance), is not contrary to the Service's *Habitat Management Guidelines For The Wood Stork In The Southeast Region* and in accordance with the CWA section 404(b)(1) guidelines……*NLAA*[4]

Project does not satisfy these elements.……....……...*May affect*

[1] An active nesting site is defined as a site currently supporting breeding pairs of wood storks, or has supported breeding wood storks at least once during the preceding 10-year period.

[2] Suitable foraging habitat (SFH) is described as any area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2 and 15 inches (5 to 38 cm). SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to, freshwater marshes and stock ponds, shallow, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs. See above *Summary of General Wood Stork Nesting and Foraging Habitat Information*.

[3] On an individual basis, projects that impact less than 0.5 acre of SFH generally will not have a measurable effect on wood storks, although we request the Corps to require mitigation for these losses when appropriate. Wood Storks are a wide ranging species, and individually, habitat change from impacts to less than 0.5 acre of SFH is not likely to adversely affect wood storks. However, collectively they may have an effect and therefore regular monitoring and reporting of these effects are important.

[4] Upon Corps receipt of a general concurrence issued by the JAFL through the Programmatic Concurrence on this key, "NLAA" determinations for projects made pursuant to this key require no further consultation with the JAFL.

[5] The U.S. Fish and Wildlife Service (Service) has identified core foraging area (CFA) around all known wood stork nesting colonies that is important for reproductive success. In Central Florida, CFAs include suitable foraging habitat (SFH) within a 15-mile radius of the nest colony; CFAs in North Florida include SFH within a 13-mile radius of a colony. The referenced map provides locations of known colonies and their CFAs throughout Florida documented as active within the last 10 years. The Service believes loss of suitable foraging wetlands within these CFAs may reduce foraging opportunities for the wood stork.

[6]This draft document, *Wood Stork Foraging Habitat Assessment Procedure*, by Passarella and Associates, Incorporated, may serve as further guidance in ascertaining wetland foraging value to wood storks and compensating for impacts to wood stork foraging habitat.

Monitoring and Reporting Effects

For the Service to monitor cumulative effects, it is important for the Corps to monitor the number of permits and provide information to the Service regarding the number of permits issued that were determined "may affect, not likely to adversely affect." It is requested that information on date, Corps identification number, project acreage, project wetland acreage, and latitude and longitude in decimal degrees be sent to the Service quarterly.

Literature Cited

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U.S. Fish and Wildlife Service. 1999. South Florida multi-species recovery plan. Fish and Wildlife Service; Atlanta, Georgia. Available from: http://verobeach.fws.gov/Programs/Recovery/vbms5.html.

Appendix H

Standard Manatee Conditions for In-Water Work (2011)

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or in Vero Beach (1-772-562-3909) for south Florida, and emailed to FWC at ImperiledSpecies@myFWC.com.

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8½ " by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at http://www.myfwc.com/WILDLIFEHABITATS/manatee_sign_vendors.htm. Questions concerning these signs can be forwarded to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:

Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

Appendix I

Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or "approval" from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or "approval" from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11" x 17" or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A <u>LIVE</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A <u>DEAD</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.

2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.

3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

Appendix J

Eastern Indigo Snake Programmatic Effect Determination Key

Eastern Indigo Snake Programmatic Effect Determination Key

Scope of the key

This key should be used only in the review of permit applications for effects determinations within the North and South Florida Ecological Services Field Offices Geographic Areas of Responsibility (GAR), and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH). Counties within the **North** Florida GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

Counties in the **South** Florida GAR include Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, St. Lucie.

Habitat

Over most of its range, the eastern indigo snake frequents several habitat types, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats (Service 1999). Eastern indigo snakes appear to need a mosaic of habitats to complete their life cycle. Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with the gopher tortoise *(Gopherus polyphemus),* the burrows of which provide shelter from winter cold and summer desiccation (Speake et al. 1978; Layne and Steiner 1996). Interspersion of tortoise-inhabited uplands and wetlands improves habitat quality for this species (Landers and Speake 1980; Auffenberg and Franz 1982).

In south Florida, agricultural sites, such as sugar cane fields, created in former wetland areas are occupied by eastern indigo snakes (Enge pers. comm. 2007). Formerly, indigo snakes would have only occupied higher elevation sites within the wetlands. The introduction of agriculture and its associated canal systems has resulted in an increase in rodents and other species of snakes that are prey for eastern indigo snakes. The result is that indigos occur at higher densities in these areas than they did historically.

Even though thermal stress may not be a limiting factor throughout the year in south Florida, indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigos use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Service 2006). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges. In extreme south Florida (the Everglades and Florida Keys), indigo snakes are found in tropical

hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats (Steiner et al. 1983). It is suspected that they prefer hammocks and pine forests, because most observations occur in these habitats disproportionately to their presence in the landscape (Steiner et al. 1983). Hammocks may be important breeding areas as juveniles are typically found there. The eastern indigo snake is a snake-eater so the presence of other snake species may be a good indicator of habitat quality.

Conservation Measures

The Service routinely concurs with the Corps' "not likely to adversely affect" (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004) located at: http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing an Eastern Indigo Snake Effect Determination Key, similar in utility to the West Indian Manatee Effect Determination Key and the Wood Stork Effect Determination Keys presently being utilized by the Corps. If the use of this key results in a Corps' determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination and no additional correspondence will be necessary[1]. This key is subject to revisitation as the Corps and Service deem necessary.

A. Project is not located in open water or salt marsh.....*go to* B

Project is located solely in open water or salt marsh.....*"no effect"*

B. Permit will be conditioned for use of the Service's *Standard Protection Measures For The Eastern Indigo Snake* during site preparation and project construction.....*go to* C

Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested[2] .....*"may affect"*

C. There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....*go to* D

There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....*"NLAA"*

D. The project will impact less than 25 acres of xeric habitat supporting less than 25 active and inactive gopher tortoise burrows.....*go to* E

The project will impact more than 25 acres of xeric habitat or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested[2]..... *"may affect"*

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow[3]. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work..... *"NLAA"*

Permit will not be conditioned as outlined above and consultation with the Service is requested[2] ..... *"may affect"*

---

[1]With an outcome of "no effect" or "NLAA" as outlined in this key, the requirements of section 7 of the Act are fulfilled for the eastern indigo snake and no further action is required.

[2]Consultation may be concluded informally or formally depending on project impacts.

[3] If burrow excavation is utilized, it should be performed by experienced personnel. The method used should minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the Florida Fish and Wildlife Conservation Commission's revised April 2009 Gopher Tortoise Permitting Guidelines located at **http://myfwc.com/License/Permits_ProtectedWildlife.htm#gophertortoise**. A member of the excavation team should be authorized for Incidental Take during excavation through an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission.

Appendix K

Construction Special Conditions for the Protection of the Gulf Sturgeon

CONSTRUCTION SPECIAL PROVISIONS
STURGEON PROTECTION GUIDELINES

The shortnose sturgeon (Acipenser brevirostrum) and the gulf sturgeon (A. oxyrinchus desotoi) are listed under the Endangered Species Act as endangered and threatened, respectively. These species are under the jurisdiction of the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS). In Florida, the lower St Johns River is habitat for shortnose sturgeon. Major portions of the Suwannee and Withlacoochee Rivers are designated as critical habitat for the gulf sturgeon.

The following special provisions will be incorporated into any construction contract where involvement with sturgeon may occur:

The FDOT will coordinate with the NMFS and USFWS early in the project development stage of new bridge projects. All efforts should be made to avoid known spawning habitats, nursery areas, feeding areas and thermal refuges.

1. Advise construction personnel of the potential presence of these species, of their endangered status and federal protection, and of the need to avoid any actions that would jeopardize these species.

2. The Florida Department of Transportation (FDOT) shall advise all FDOT project personnel and Contractor personnel on the project that there are civil and criminal penalties for harming, harassing or killing sturgeon, which are protected under the Endangered Species Act of 1973. The FDOT and the Contractor will be held responsible for any sturgeon harmed, harassed, or killed as a result of the project activity.

3. The FDOT shall provide information to all FDOT and Contract personnel for identification of sturgeon.

4. Appropriate work shift personnel will be instructed in the appearance, habits, biology, migratory patterns, and preservation of sturgeon. At least one of these trained personnel will be on site during construction activities to maintain a constant surveillance for these species, assure the cessation of activities (such as dredging, excess turbidity, and construction barge activity), which may endanger these species, and assure that uninhibited passage for the animals is provided.

5. Post signs on site warning of the presence of sturgeon, of their endangered status, and precautions needed.

6. Turbidity from construction activity will be adequately controlled to prevent degradation of the quality and transparency of the water. When sturgeon are present, turbidity curtains of appropriate dimension will be used to restrict the

animals access to the work area. Pollution booms or turbidity curtains should use tangle resistant or hemp rope when anchoring, or employ surface anchors to prevent entangling sturgeon. Continuous surveillance will be maintained in order to free animals which may become trapped in silt or turbidity barriers.

7. No dredging of the river bottom will be conducted for barge access.

8. Drilled shaft pile construction will be used whenever prudent and feasible as determined by FDOT.

9. Care shall be taken in lowering equipment or material below the water surface and into the stream bed. These precautions will be taken to ensure no harm occurs to any sturgeon which may have entered the construction area undetected.

10. Construction debris shall not be discarded into the water.

11. If the use of explosives is necessary, no blasting will occur during sturgeon spawning season or in known spawning, staging, feeding, or vital nursery areas.

    The following protection measures will be employed for blasting:

    A. For each explosive charge, detonation will **not** occur if a sturgeon is known to be within a circular area ("the danger zone") encompassing the detonation site defined by the following radius:

    $$r = 560(\sqrt[3]{W})$$

    Where: r = radius of danger zone in feet
    W = weight of explosive charge in pounds (tetryl or TNT)

    B. In the event that a sturgeon is killed during blasting, the NMFS and/or the USFWS will be notified immediately.

12. Any dead sturgeon will be secured on site for carcass analysis by notified agency representative.

13. Following completion of the project, a report summarizing any involvement with sturgeon will be prepared for NMFS and/or USFWS.

Appendix L

Sea Turtle and Smalltooth Sawfish Construction Conditions

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc