ADMINISTRATIVE ACTION
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation
In cooperation with the US Coast Guard

SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)

District: FDOT District 1

County: Lee County

ETDM Number: 14359

Financial Management Number: 441942-1-22-01

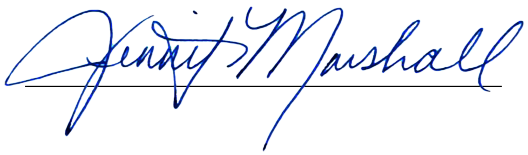
Federal-Aid Project Number: N/A

Project Manager: Patrick Bateman

The Environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

This action has been determined to be a Categorical Exclusion, which meets the definition contained in 40 CFR 1508.4, and based on past experience with similar actions and supported by this analysis, does not involve significant environmental impacts.

Signature below constitutes Location and Design Concept Acceptance:



February 11, 2025

Director Office of Environmental Management
Florida Department of Transportation

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This document was prepared in accordance with the FDOT PD&E Manual.

This project has been developed without regard to race, color or national origin, age, sex, religion, disability or family status (Title VI of the Civil Rights Act of 1964, as amended).

On 11/02/2018 the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Program.

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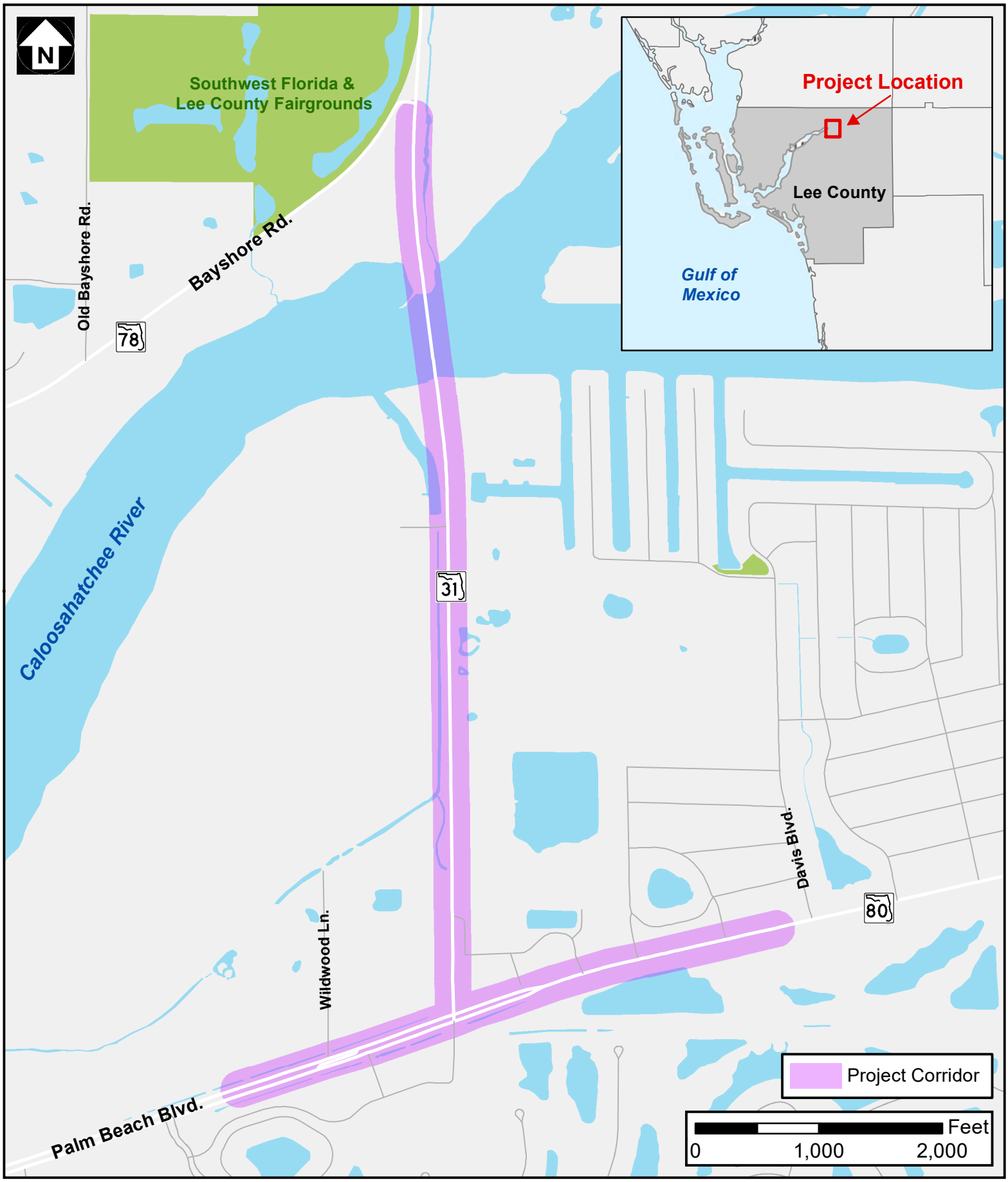


FDOT

State Road 31 from
State Road 80 to State Road 78
FPID: 441942-1-22-01
Lee County, FL

Project Location

DATA SOURCE:
Aerial Map - ESRI 2023

May 2023

Figure
1

1. Project Information

1.1 Project Description

The FDOT, District One (Department) is conducting a Project Development and Environment (PD&E) Study in accordance with the National Environmental Policy Act (NEPA) to evaluate capacity, operational, structural, and modal improvements to about 1.4 miles of State Road (SR) 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) in an unincorporated area of northeastern Lee County (see **Figure 1**). The study includes the evaluation of capacity improvements to its current two-lane configuration, as well as pedestrian and bicycle accommodations. The study also includes evaluating repair/rehabilitation and replacement options for the Wilson Pigott Bridge over the Caloosahatchee River and improvement alternatives for the SR 31/SR 80 intersection.

Existing Facility and Conditions

SR 31 in the project study area is classified by the Department as an Urban Minor Arterial. SR 31 is considered an Emerging Strategic Intermodal System (SIS) Corridor. The existing typical section is a two-lane, undivided rural roadway with two 12-foot travel lanes and 5-foot paved outside shoulders centered within a 100-foot right-of-way. The existing bridge is a 14-span low-level bascule structure with two 10-foot lanes, 4-foot outside shoulders, and 3.5-foot raised sidewalks on both sides with no separation from motor vehicles. There are no existing bike lanes along this segment of SR 31 and no existing sidewalks beyond those currently on the bridge. The existing vertical clearance over the channel is 26 feet. The SR 31/SR 80 intersection is currently an at-grade intersection.

The posted speed limit in this section of SR 31 is 40 mph. The surrounding land uses are a mixture of rural residential, commercial, and undeveloped land. The Lee County Future Land Use map (as of October 2023) reveals that most of the study area is zoned as "Future Urban Areas-Suburban". "Sub-Outlying Suburban", "Non-Urban Areas-Rural", and "Environmentally Critical Areas-Wetlands" designations are also in the project vicinity.

Stormwater runoff is collected in open drainage swales adjacent to the roadway with ultimate outfall to the Caloosahatchee River. SR 31 has no existing stormwater management facilities. The project is located within Waterbody ID (WBID) 3240C, which is impaired for Nutrients. There are four existing cross drains within the project limits.

Description of the Preferred Alternative

The Preferred Alternative consists of the following:

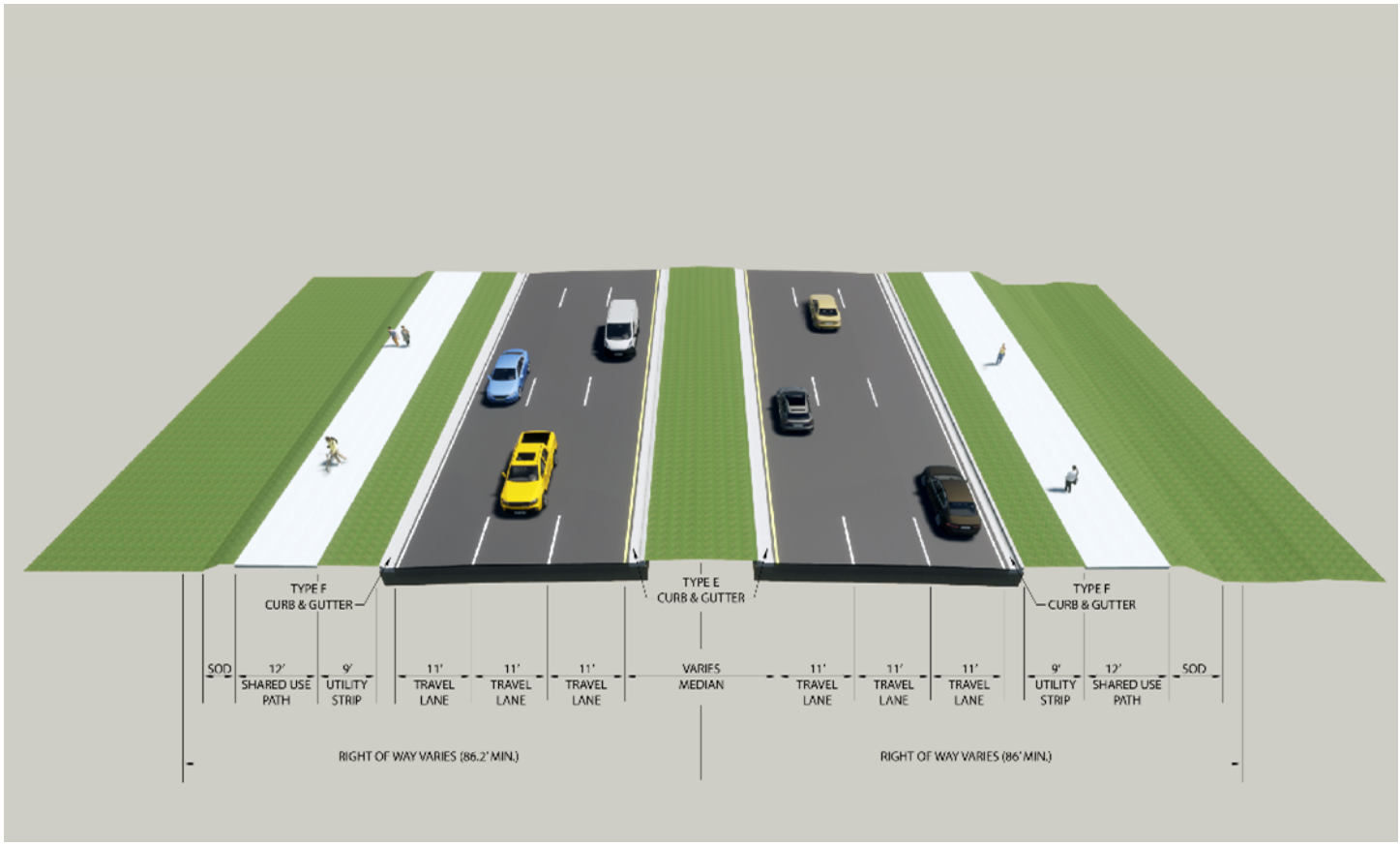
- Widening the existing two-lane undivided roadway to a six-lane divided roadway from SR 80 to SR 78
- Replacing the Wilson Pigott Bridge over the Caloosahatchee River
- Improvements to the SR 31/SR 80 intersection

As shown in **Figure 2**, the proposed SR 31 roadway typical section from SR 80 to SR 78 will include three, 11-foot travel lanes in each direction separated by a 22-foot raised median with Type E and F curb along the inside and outside lanes, respectively. A 12-foot wide shared-use path is proposed on each side of SR 31 (northbound and southbound) with a 9-foot utility strip between the back of curb and path. This typical section will require approximately 40 acres of new right-of-way.

The Preferred Alternative is a combination of widening existing SR 31 from SR 80 for about 0.7 miles, then shifting 300 feet east prior to the Wilson Pigott Bridge to minimize impacts to the existing Florida Gas Transmission (FGT) line. This portion of the alignment will be located east of the existing two-lane roadway and the 50-foot FGT easement.

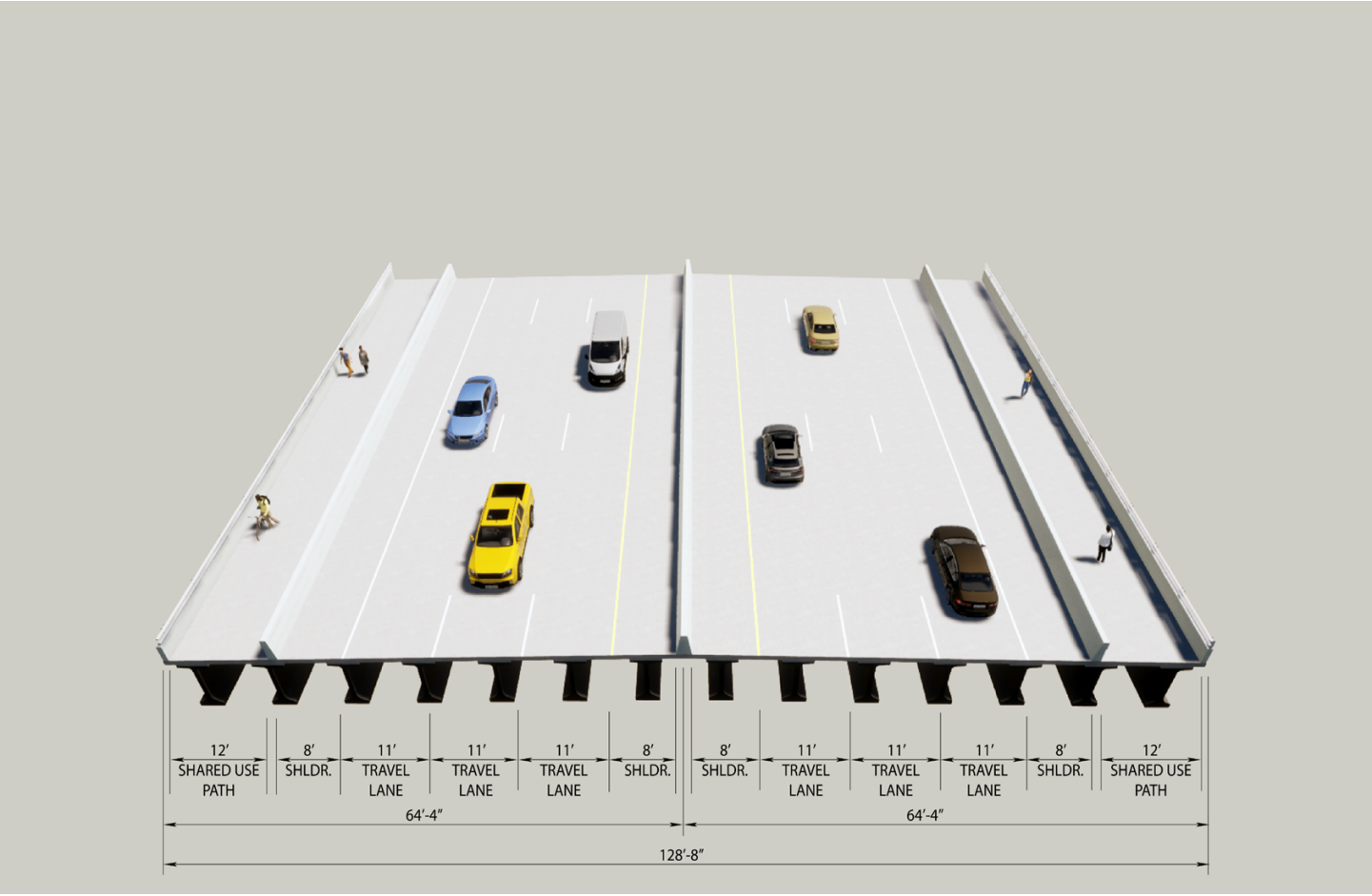
The proposed design speed for the project is 45 miles per hour. The Preferred Alternative raises the profile above the current 100-year floodplain. The profile will be raised approximately three feet above existing SR 31 due to the updated 100-year floodplain elevation (from seven feet to ten feet) in the project corridor.

Figure 2. Proposed SR 31 Roadway Typical Section



A new high-level fixed bridge will be constructed to replace the existing Wilson Pigott Bridge (Bridge No. 120064). The proposed bridge will meet United States Coast Guard (USCG) vertical clearance requirements of 55 feet for a high-level fixed bridge. As shown in **Figure 3**, the bridge will have three, 11-foot travel lanes in each direction, and 8-foot shoulders and 12-foot shared-use path on each side. Pedestrians and bicyclists will be protected via a raised barrier and railing. The minimum vertical clearance over the channel for this bridge is 55 feet, which is 29 feet higher than the existing bridge, and will not disrupt traffic from drawbridge openings. Through coordination with the United States Army Corps of Engineers (USACE) and USCG, it was determined that the channel will keep the existing alignment.

Figure 3. Proposed Bridge Typical Section



The Preferred Alternative also includes reconfiguring the existing intersection of SR 31/SR 80 to a grade-separated intersection. The grade-separation will introduce two new flyover bridges for SR 31 and SR 80 movements and will also include a new signal at a crossover intersection on SR 31. The SR 31/SR 80 intersection improvements will accommodate the future widening of SR 80.

From north to south beginning near the Caloosahatchee River, the SR 31 roadway typical section (**Figure 2**) includes 11-foot travel lanes. As SR 31 approaches the crossover intersection just north of Merchandise Way, the lanes transition to 14-foot to accommodate design vehicle off-tracking through the crossover. South of the crossover intersection and through the flyover ramps, the lanes transition back to the required 12-foot width (24-foot total) and maintain this width as they connect with SR 80, which also has 12-foot lanes.

Figure 4 depicts how travelers will use the flyovers. Southbound SR 31 travelers such as those coming from Lee Civic Center or Babcock Ranch, who want to go eastbound on SR 80, will use the flyover bridge and cross over at a new signal on SR 31. Similarly, eastbound SR 80 travelers, including those coming from Fort Myers who want to go northbound on SR 31, will use the flyover bridge and cross over at a new signal on SR 31. A signal on SR 31 northbound at Merchandise Way would allow a left turn movement onto the eastbound flyover ramp.

Figure 4. SR 31/SR 80 Proposed Flyover Traffic Movements

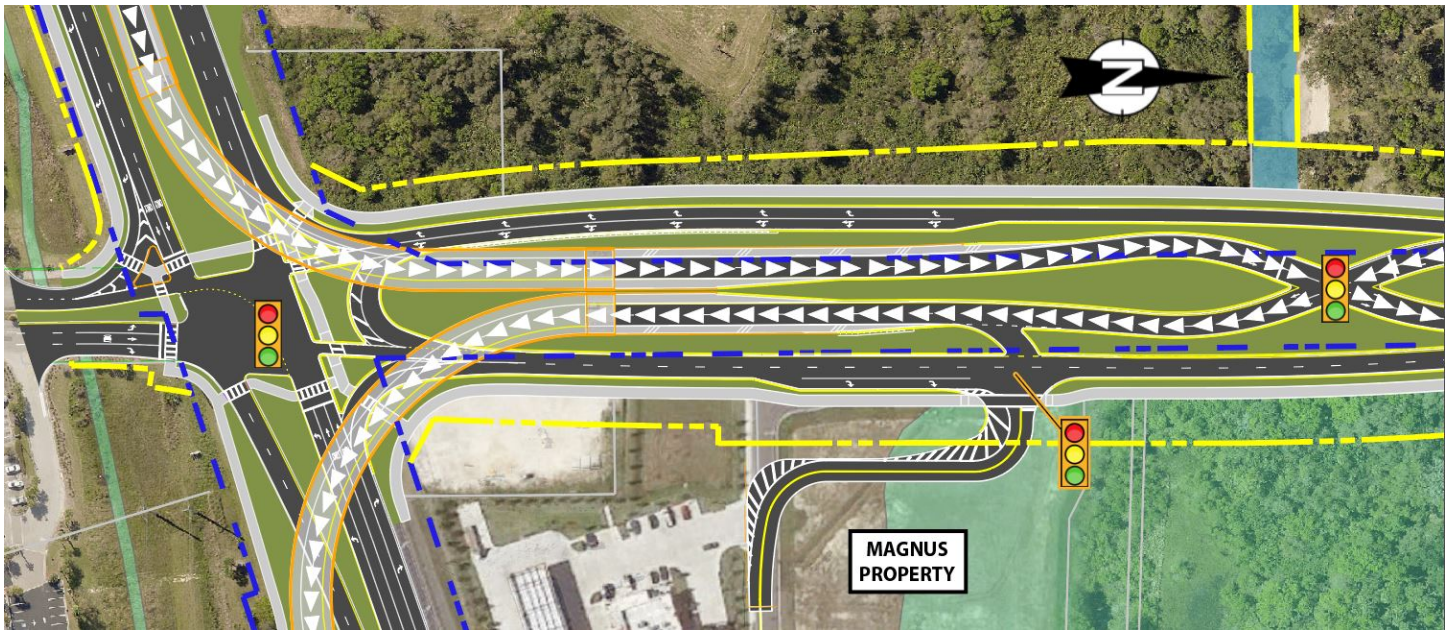


Figure 5 depicts the typical section for the SR 31 widening associated with the proposed flyovers.

Figure 6 and **Figure 7** depict the northbound and southbound typical sections for the flyover.

Figure 8 and **Figure 9** depict the proposed typical sections along SR 80 west and east of the intersection. **Figure 8** depicts the eastbound SR 80 to northbound SR 31 flyover ramp typical section, and **Figure 9** depicts the southbound SR 31 to eastbound SR 80 flyover ramp typical section.

Figure 5. Proposed SR 31 Typical Section (at Flyovers)

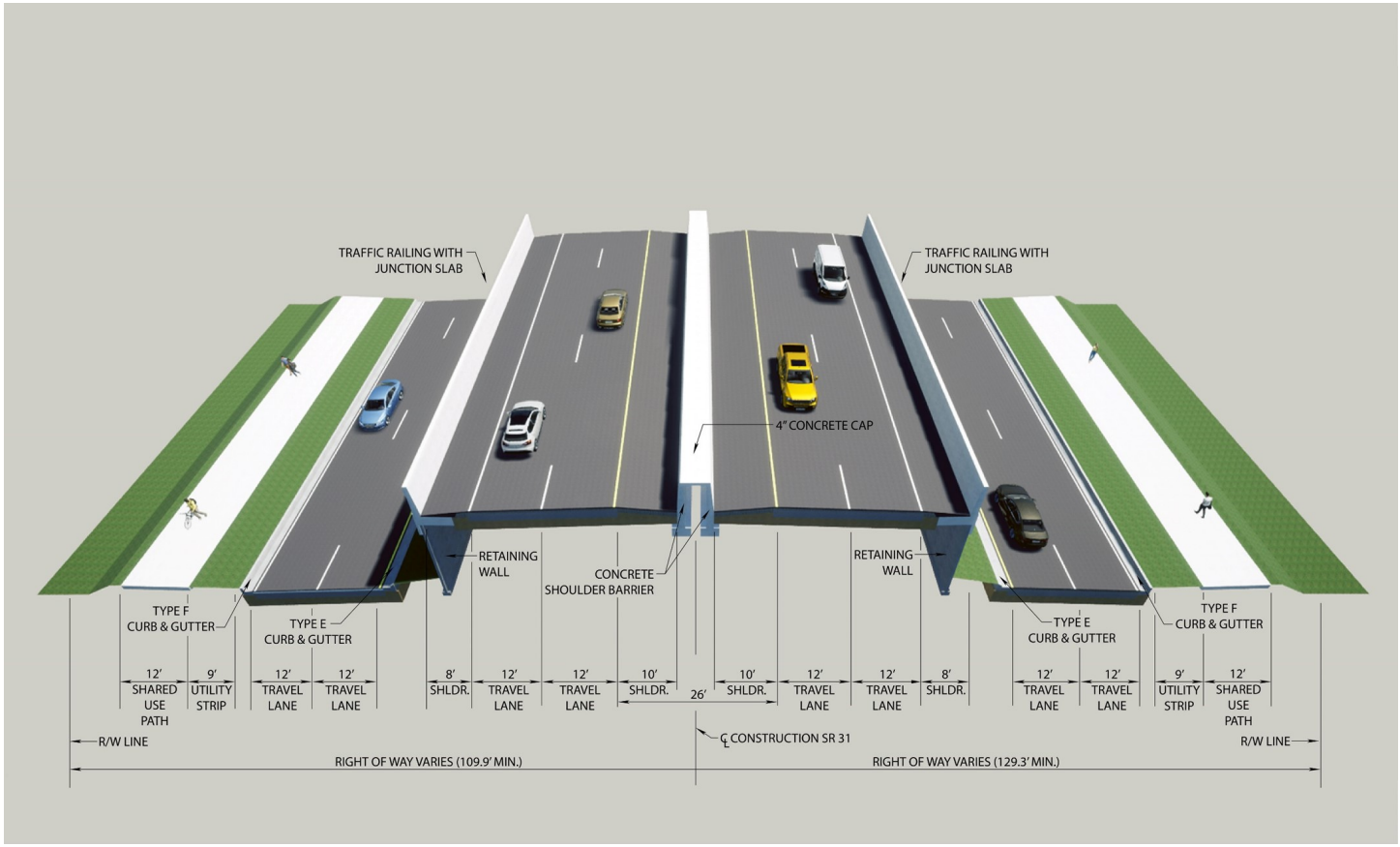


Figure 6. Proposed NB Flyover Typical Section

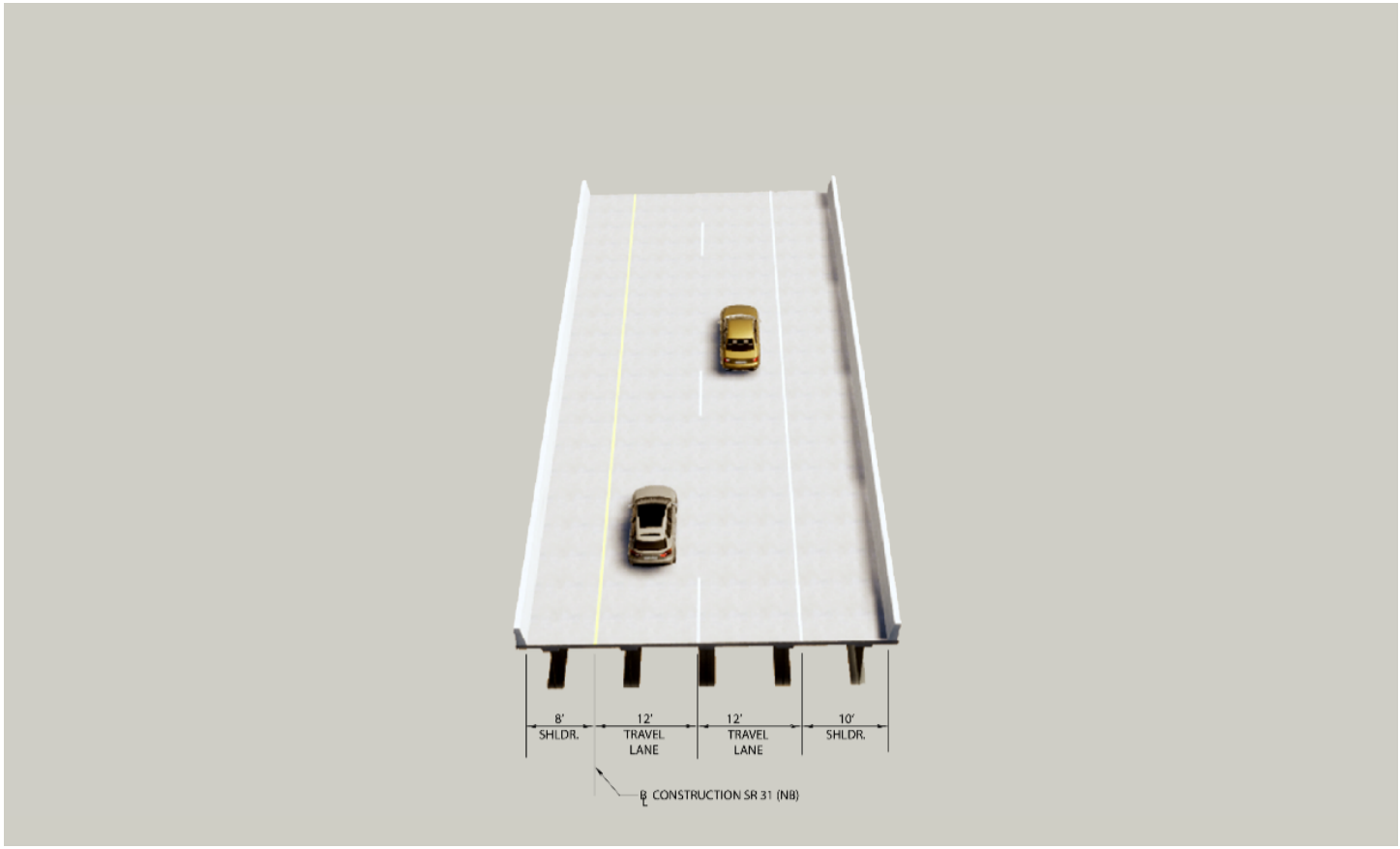


Figure 7. Proposed SB Flyover Typical Section

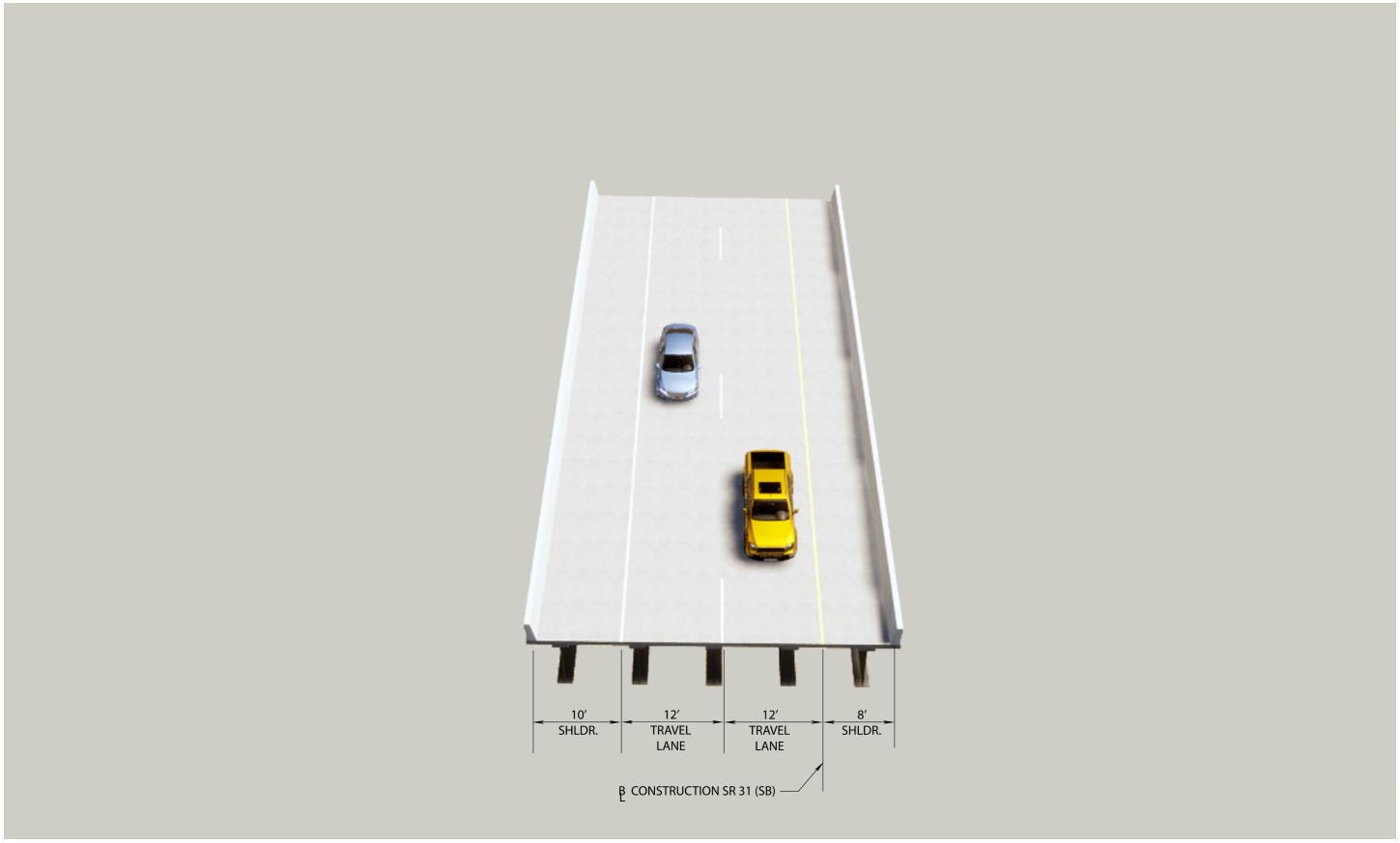


Figure 8. Proposed SR 80 Roadway Typical Section (West of SR 31)

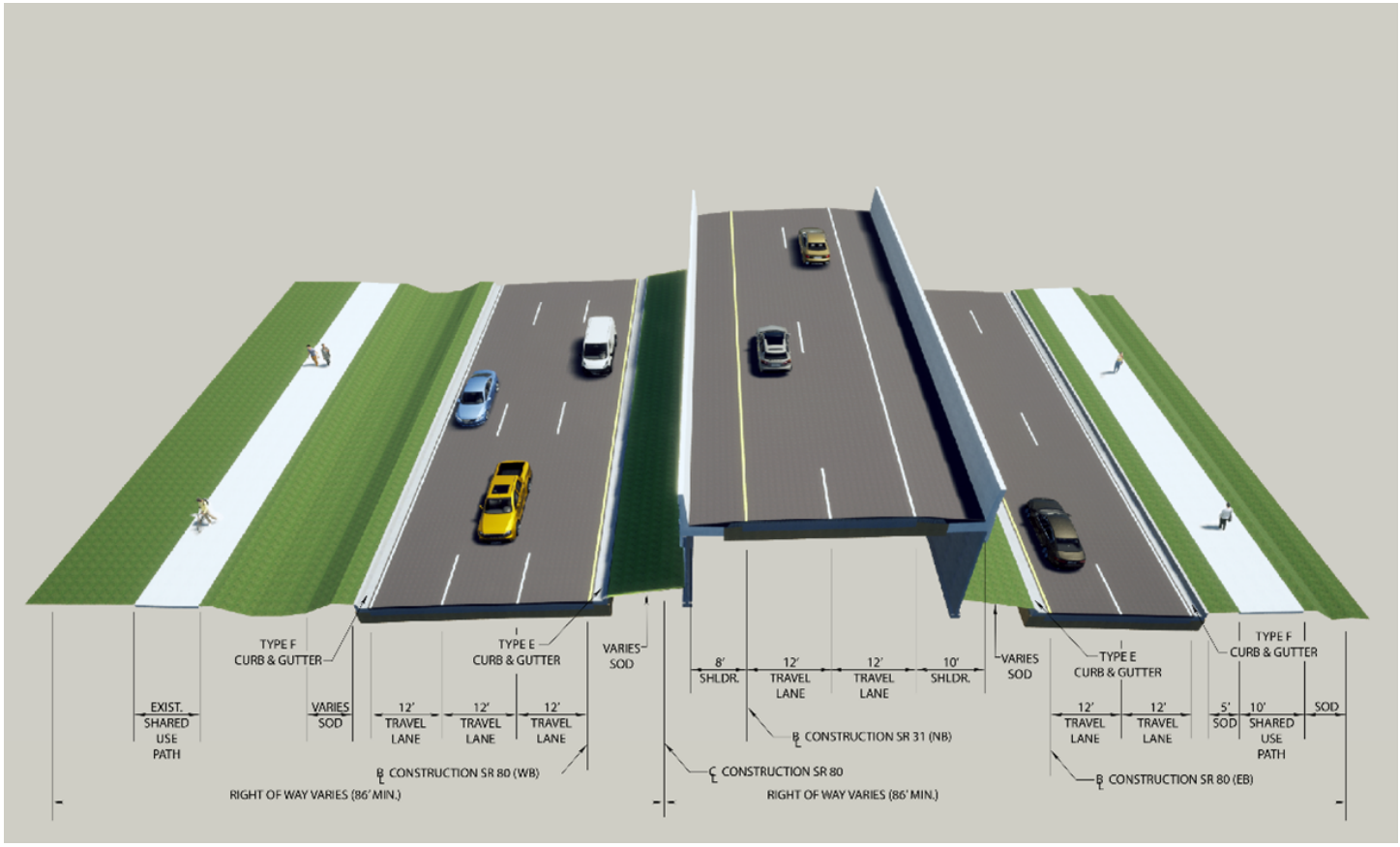
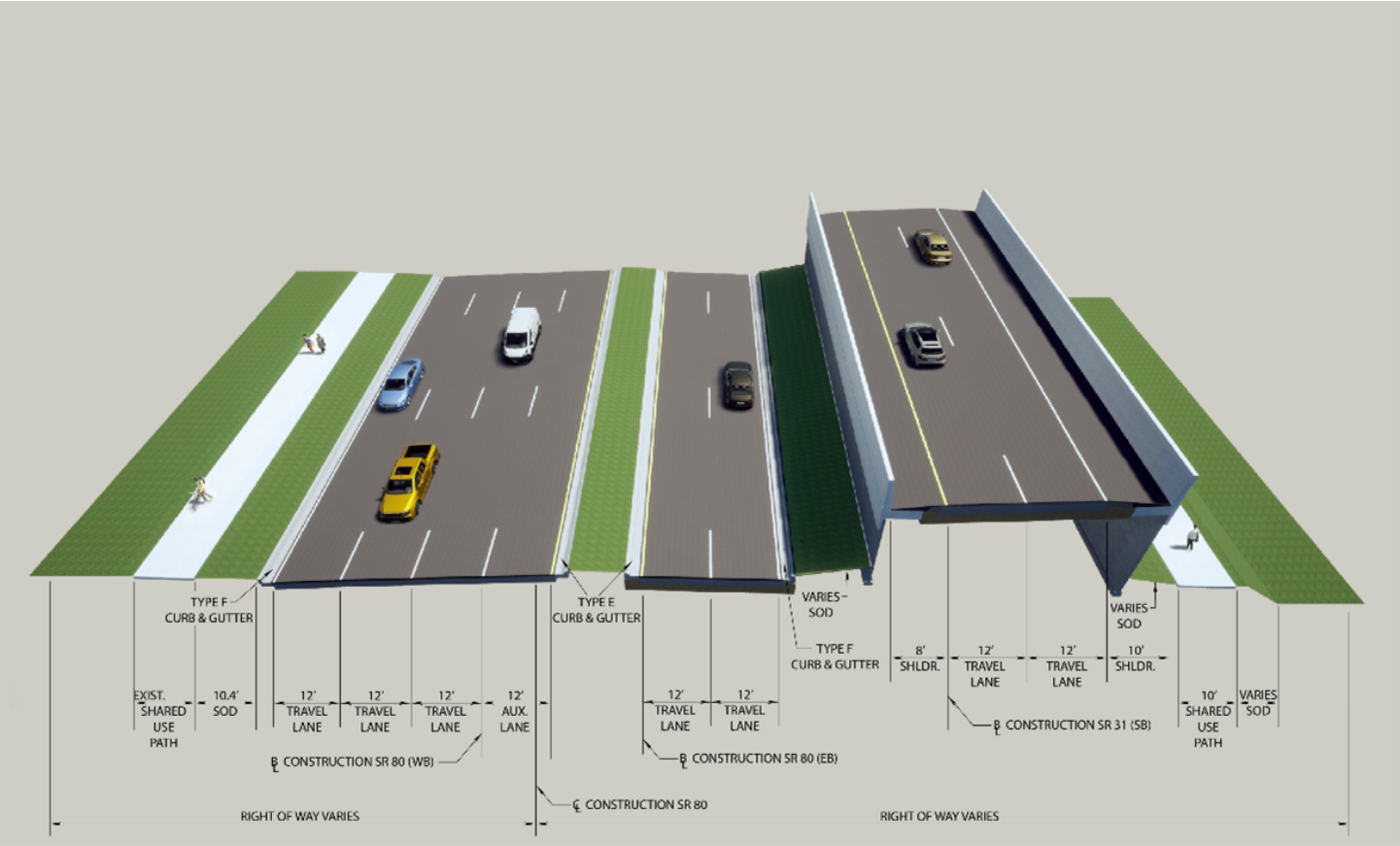


Figure 9. Proposed SR 80 Roadway Typical Section (East of SR 31)



Stormwater runoff from the project will be collected and conveyed in closed drainage systems to one proposed offsite pond for water quality treatment and attenuation per state and federal requirements. The pond will discharge at or near the same outfall ditch that carries the roadway runoff in the existing condition. An additional 13.5 acres of right-of-way will be required for the proposed pond and associated access easements.

1.2 Purpose and Need

The purpose of the project is to address capacity, operational, and structural deficiencies of SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) in northeastern Lee County. In order to address future travel demand, the study evaluated the potential widening improvements to its current two-lane configuration, including paved shoulders, sidewalks, bike lanes, and/or shared-use path. Repair/rehabilitation and replacement options for the Wilson Pigott Bridge were evaluated as part of the project, as design elements of the bridge are substandard.

The need for the project is based on the following primary and secondary criteria:

PRIMARY CRITERIA

CAPACITY/TRANSPORTATION DEMAND: Improve Operational Conditions

The existing year [2022] Annual Average Daily Traffic (AADT) volume for the SR 31 project corridor is 16,600 vehicles per day (vpd), operating at Level of Service (LOS) C. As SR 31 is a designated highway corridor of Florida's Emerging SIS

and a Tier I Freight Corridor of Lee County, approximately 25% of existing traffic along the roadway is composed of trucks. The SIS network includes the state's most significant transportation facilities, as these facilities carry the highest volume of freight and commuter traffic. The projected demand along the corridor exceeds the maximum threshold of 20,000 AADT for a two-lane facility. As an Emerging SIS facility, LOS D is the minimum acceptable LOS for SR 31. Without capacity improvements, the corridor is projected to operate at LOS F.

Much of the growth contributing to the increase in traffic comes from the Babcock Ranch Development of Regional Impact (DRI) located to the north of the SR 31 project segment. Although the Babcock Ranch DRI is in Charlotte County, some development is expected to occur in Lee County, such as the Babcock Ranch Mixed-use Planned Development (MPD) and a marina to be sited northeast of the project corridor. The Babcock Ranch DRI and MPD is approved for 19,500 residential dwelling units, almost 5 million square feet of office and retail space, and 600 hotel rooms. In addition, the DRI is approved for 650,000 square feet of industrial space, which will further increase the volume of trucks moving freight along the corridor. Also, eight Planned Unit Developments exist or are proposed along the SR 31 project segment, including a mixed-use development southeast of SR 31 and SR 80. The Sweetwater Landing Marina, located along the corridor, has expanded operations.

Increased congestion along SR 31 between SR 80 and SR 78 is anticipated due to this noted growth. Conditions along the roadway are anticipated to be exacerbated if no improvements occur, as the roadway lacks the operational capacity to accommodate future travel demand. In addition, freight traffic and multimodal activity are expected to increase along the corridor due to projected growth in the area.

SUBSTANDARD BRIDGE ELEMENTS: Address Mechanical Malfunctions & Design Deficiencies

The Wilson Pigott Bridge was constructed in 1960 and has exceeded its fifty-year design life. Based on a FDOT bridge inspection report conducted in October 2021, the Wilson Pigott Bridge received a sufficiency rating of 52.0 (on a scale of 0-100). Sufficiency rating is essentially an overall rating of a bridge's fitness to remain in service. A sufficiency rating below 50.0 qualifies a bridge for replacement funds. The bridge inspection report also revealed a health index of 95.52 for the Wilson Pigott Bridge. The health index uses the condition rating of several important bridge components to develop a number from 1 to 100. The lower the number, the more work is required to improve the bridge's overall condition. Below 85 generally means repairs are needed. A low health index may also indicate that it would be more economical to replace the bridge than to repair it.

Although the current bridge inspection report indicates a health index over 90 due to the most recent bridge repairs, the bridge has substandard design elements, such as:

- Narrow roadway widths [ten-foot travel lanes and four-foot shoulders]
- Narrow pedestrian facilities [three-foot six-inch sidewalks on both sides with no guardrail separating pedestrians and motor vehicles]
- Substandard bridge rails

As the Caloosahatchee River is a navigable waterway, the USCG regulates the horizontal and vertical clearance requirements for bridges constructed over navigable waters. The following minimum movable bridge clearance guidelines for the Caloosahatchee River at the project location are: Horizontal Clearance = 90 feet; Vertical Clearance (closed) = 21 feet. While the vertical clearance for the Wilson Pigott Bridge (closed) is 26 feet at the center and 23 feet at the fenders, the horizontal clearance is 86.6 feet. Based on this condition, the Wilson Pigott Bridge does not meet the current USCG guide for horizontal clearances.

SECONDARY CRITERIA

AREA WIDE NETWORK/SYSTEM LINKAGE: Enhance Regional Connectivity

Planned immediately north of the SR 31 project segment is the widening of SR 31 from SR 78 in Lee County to North of Cook Brown Road in Charlotte County. The proposed widening of SR 31 from SR 80 to SR 78 will provide a continuous connection from Lee County into Charlotte County and a viable north-south alternate route to I-75.

SAFETY: Improve Emergency Evacuation and Response Times

Serving as part of the emergency evacuation route network designated by the Florida Division of Emergency Management and Lee County, SR 31 [including the Wilson Pigott Bridge] plays a critical role in facilitating traffic during emergency evacuation periods as one of seven crossings over the Caloosahatchee River within Lee County. The project is in Lee County's Evacuation Zone "A", and all the neighborhoods in proximity to the project corridor are within the 100-year floodplain. Improving the operational capacity of the roadway and maintaining the functionality of the Wilson Pigott Bridge will further enhance emergency evacuation efficiency leading to improved evacuation and response times.

1.3 Planning Consistency

Currently Adopted LRTP-CFP	COMMENTS
Yes	*The Lee Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP) was adopted in December 2020. This project is included in Chapter 5; Table 5-9: Cost Feasible Projects: State/Other Arterial/ Federal SU Funded Road Projects ($1,000)* *The LRTP does not show PE funding, and so it is supplemented by inclusion of the SIS Plan to show PE funding in FY 24.* *The Lee MPO Transportation Improvement Program (TIP) Roll Forward Report dated 7/05/2023 is used for planning consistency.* *The project uses state funds only for Design. This project uses specialty funding (State earmark) instead of MPO funds for ROW.*

	Currently Approved	$	FY	COMMENTS
PE (Final Design)				
TIP	Y	$1,436,163 $50,000	Less Than 2024 2024	Project shows in Lee MPO's TIP Roll Forward document. Cost estimates between the Roll Forward TIP and Current STIP are consistent.
STIP	Y	$1,460,810 $50,000	<2024 2024	Cost estimates between the Roll Forward TIP and Current STIP are consistent.
R/W				
TIP	Y	$30,050,000	2024	Project shows in Lee MPO's TIP Roll Forward document. Cost estimates between the Roll Forward TIP and Current STIP are consistent.
STIP	Y	$30,050,000	2024	Cost estimates between the Roll Forward TIP and Current STIP are consistent.
Construction				
TIP	N		All years	
STIP	N		All years	

2. Environmental Analysis Summary

Issues/Resources	Significant Impacts?* Yes	No	Enhance	NoInv
3. Social and Economic				
1. Social	☐	☒	☐	☐
2. Economic	☐	☒	☐	☐
3. Land Use Changes	☐	☒	☐	☐
4. Mobility	☐	☐	☒	☐
5. Aesthetic Effects	☐	☒	☐	☐
6. Relocation Potential	☐	☐	☐	☒
7. Farmland Resources	☐	☒	☐	☐
4. Cultural Resources				
1. Section 106 of the National Historic Preservation Act	☐	☒	☐	☐
2. Section 4(f) of the USDOT Act of 1966, as amended	☐	☒	☐	☐
3. Section 6(f) of the Land and Water Conservation Fund	☐	☐	☐	☒
4. Recreational Areas and Protected Lands	☐	☒	☐	☐
5. Natural Resources				
1. Protected Species and Habitat	☐	☒	☐	☐
2. Wetlands and Other Surface Waters	☐	☒	☐	☐
3. Essential Fish Habitat (EFH)	☐	☒	☐	☐
4. Floodplains	☐	☒	☐	☐
5. Sole Source Aquifer	☐	☐	☐	☒
6. Water Resources	☐	☒	☐	☐
7. Aquatic Preserves	☐	☐	☐	☒
8. Outstanding Florida Waters	☐	☐	☐	☒
9. Wild and Scenic Rivers	☐	☐	☐	☒
10. Coastal Barrier Resources	☐	☐	☐	☒
6. Physical Resources				
1. Highway Traffic Noise	☐	☒	☐	☐
2. Air Quality	☐	☒	☐	☐
3. Contamination	☐	☒	☐	☐
4. Utilities and Railroads	☐	☒	☐	☐
5. Construction	☐	☒	☐	☐

USCG Permit

☐ A USCG Permit IS NOT required.

☒ A USCG Permit IS required.

*** Impact Determination:** Yes = Significant; No = No Significant Impact; Enhance = Enhancement; NoInv = Issue absent, no involvement. Basis of decision is documented in the following sections.

3. Social and Economic

The project will not have significant social and economic impacts. Below is a summary of the evaluation performed.

3.1 Social

Community Demographics

Demographic data was obtained through the FDOT's Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) Sociocultural Data Report (SDR) (May 2024). The SDR, which uses the most recent American Community Survey (ACS) 2018-2022 Census Data, is included in the project file and summarized below. Please note that ACS Census Data are estimates and may be subject to sampling variability.

Within a 500-feet buffer of the study area, there are an estimated 332 individuals residing in 170 households. The median household income is about $73,152, with about 8.4 percent of the population living below the poverty line. Comparatively, Lee County has a lower median household income of $69,368, and about 11.7 percent of the population living below the poverty line.

The minority population (estimated at 18.1 percent) within the project area is lower than the county average of 25.7 percent. About 12.4 percent of households fall below the poverty line, although none receive public assistance. The median age is 61, with about 34.9 percent of the population over the age of 65, which is higher than the county average of about 28.9 percent.

About five percent of the population ages 20-64 years old have a disability and just over 11 percent of occupied housing units in the project area are zero vehicle households. The majority, around 60 percent, of housing units are owner-occupied. The project area and county averages are shown in **Table 1**.

Table 1. Project Area and County Comparison

	Project Area Average	**County Average**
Median Age	61	49.1
Over 65	34.94%	28.89%
Disability 20-64	5.33%	9.93%
Median Household Income	$73,152	$69,368

Lastly, 2022 ACS data indicates that for individuals aged 5 and over, about 7.6 percent speak English Less than "very well". This includes people who speak Spanish, Indo-European languages, Asian and Pacific Island languages, and "Other" languages. This is lower than the county average of 10.0 percent. Based on an evaluation of the four Limited English Proficiency (LEP) factors outlined in EO 13166 Improving Access to Services for Persons with Limited English Proficiency, it was determined that bilingual translation and distribution of materials was not required.

Implementing the Preferred Alternative does not result in any disproportionate adverse impacts to any distinct communities within the project area.

Community Cohesion

Permanent negative impacts to community cohesion are not anticipated from the Preferred Alternative. Although right-of-way (ROW) will be required for the proposed widening, no neighborhoods or communities in the project study area will be bisected. Minor direct impacts will be limited to parcels immediately adjacent to the corridor and will include minor to moderate ROW acquisition and access modifications to/from existing businesses.

The Preferred Alternative will not impact any important resources (i.e., churches or other gathering places) that contribute to community cohesion. The Preferred Alternative will have beneficial impacts on community cohesion by providing improved mobility and connectivity for pedestrians and bicyclists. Sidewalks and/or shared-use paths are proposed along the project corridor.

Community Facilities and Services

Community facilities within the project study area include the Fort Myers Shores Fire Department Station 811. The Lee Civic Center is in the project vicinity. Although it is an entertainment destination, it is also a critical community resource due to its function as a post hurricane response staging center. Access will be maintained to these facilities during and after construction, as required by FDOT's *Standard Specifications for Road and Bridge Construction*.

The proposed improvements, including eliminating the frequent mechanical malfunctions on the Wilson Pigott Bridge, are anticipated to improve overall travel reliability to community resources and services within and outside of the project study area. With the added capacity, emergency response and evacuation times will improve for SR 31 and SR 80, which are designated hurricane evacuation routes.

The proposed grade-separated flyovers will improve accessibility to area destinations such as community facilities and commercial centers along SR 31 and SR 80. The proposed reconfiguration of the SR 31/SR 80 intersection from at-grade to an urban grade-separated intersection will modify the driver experience by introducing a new travel pattern and new signals on SR 31.

3.2 Economic

SR 31 provides north-south travel between Palm Beach Boulevard and Bayshore Avenue, serving as a commuter route, and serves regional truck traffic as an Emerging SIS highway corridor. Access to these businesses will be maintained throughout and after construction of the proposed capacity improvements. There will be no adverse impacts to businesses, or the tax base within the project area. As such, the Preferred Alternative is expected to have minimal economic impacts along the project corridor.

3.3 Land Use Changes

Due to its proximity to I-75 and other major highways, the overall SR 31 corridor has continued to transition from more rural uses to suburban areas, including Babcock Ranch. While there are prime farmland soils present along the southern portion of the project corridor, soils associated with agricultural activities do not exist within the study area. Additional information regarding farmland is in **Section 3.7**.

Retail and commercial market activity has followed the area's growth, and the corridor is used to access services and activity centers within and surrounding the project corridor such as nearby commercial and shopping areas, the Sweetwater Landing Marina, the Lee Civic Center, and the Southwest Florida Lee County Fairgrounds. Growing activity centers have become notable traffic generators for commuters living in the area. As described in **Section 1.2**, development trends in the surrounding area include conversion of adjacent vacant or underutilized properties, with several projects in the early stages of planning or under construction. The most notable growth pressure within the project limits is generally east of SR 31 and at the intersection with SR 80.

Development pressure in the area and associated changes in land use for parcels along the corridor are not necessarily dependent upon construction of the Preferred Alternative; development in the area is more dependent upon market conditions. The project will change the character of the existing facility, but it will not solely contribute to changes in land use. Land use will continue to be guided by adopted zoning and land use plans, such as the *Lee Plan* (as amended through January 2023).

The project will require additional ROW from immediately adjacent parcels, converting land from its existing use to a transportation use. The direct conversion of some land to roadway ROW will be compatible with the remaining lands, which will benefit from having access to a more efficient roadway. The proposed project is within an area that is mostly identified as "Future Urban Areas-Suburban" in the Lee County Future Land Use Map (*The Lee Plan*, as amended January 2023). The Existing Land Use Map and the Future Land Use Map are attached.

3.4 Mobility

The Preferred Alternative includes a 12-foot-wide shared-use path on both sides of SR 31 from SR 80 to SR 78 and along both sides of SR 80. The Wilson Pigott Bridge will include a 12-foot shared-use path on each side, with a raised barrier and railing along the edges of the deck. Overall, the proposed project is expected to enhance mobility for all modes along the corridor by:

- Providing additional capacity to meet the future travel demand
- Addressing operational deficiencies in the study area
- Better facilitating the movement of freight to local activity centers
- Providing separated bicycle/pedestrian facilities along developed portions of the study area

Proposed improvements within the project study area will enhance mobility and connectivity locally and for the surrounding area, allowing SR 31 to function as a regional corridor and providing a viable north-south alternative to I-75. Also, the added capacity will enhance mobility along the overall corridor due to its connection with the SR 31 North Design-Build project (428917-1). SR 31 is designated as a "Rural Minor Arterial" within the study limits and provides north-south travel through predominantly suburban and rural areas of Lee and Charlotte Counties.

Since SR 31 also plays a critical role as a designated evacuation route, improving the capacity and operations of the corridor and replacing the bridge will enhance emergency evacuation efforts and lead to improved evacuation and response times.

Sidewalk is present within the project study area, including in a limited area of SR 31 near the improved Racetrac entrance north of the SR 80 intersection on the eastern side. This 435-foot section of sidewalk does not provide

connectivity to SR 80 shared-use path or sidewalk. A new 10-foot shared-use path is present on the northern side of SR 80.

There are no continuous bike lanes on SR 31 or SR 80 within the project study area. Cyclists currently have use of the shoulder on SR 31 and markings are provided both north and south of the Wilson Pigott Bridge. There is a bicycle keyhole lane provided north of the SR 78 intersection that was adding during construction of turn lanes.

There are no bus services along SR 31 within the study area. However, Route 100 (Rosa Parks/Riverdale) of Lee County Transit (LeeTran) runs along SR 80 within the study area. Bus stops are present along SR 80 on either side of the intersection with SR 31.

3.5 Aesthetic Effects

The visual landscape for most of the project corridor consists of rural views with vacant fields and wooded areas. There are short sections of suburban transition areas with commercial and retail nodes at major intersections. The view of the Caloosahatchee River can be considered a unique visual resource in the project corridor.

The proposed project will widen an existing roadway, so the properties along the corridor that currently have views of the roadway will continue to have views of the roadway following construction of the Preferred Alternative. Similarly, travelers that currently have views to adjacent uses will continue to experience these uses. Notable community features that may be sensitive to aesthetic effects of the project include the Sweetwater Landing Marina and recreational users (i.e., boaters).

The proposed bridge replacement will alter the viewshed of the area due to the increased height of the high-level fixed bridge. However, visual resources and the overall character are not anticipated to be substantially altered as a result of the proposed project. The proposed typical section is similar to existing roadways in the area.

3.6 Relocation Potential

The study area primarily consists of suburban residential and commercial properties with some agricultural land uses. Existing ROW along the project corridor is 100-feet along SR 31 and varies from 200-feet to 225-feet along SR 80. Proposed ROW is only required for intersection improvements at SR 80 and SR 31, the SR 31 alignment shift to the east to avoid FGT impacts, and for offsite drainage facilities sited on undeveloped lands. No residential or business relocations are anticipated for the proposed project.

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, a Right of Way and Relocation Assistance Program will be carried out in accordance with Section 421.55, Florida Statutes, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

3.7 Farmland Resources

A Farmlands Evaluation was conducted in April 2024 through coordination with the Natural Resources Conservation Service (NRCS). The evaluation assessed impacts to farming operations and soils classified as Prime and Unique

Farmlands. The resulting Farmlands Evaluation (NRCS-CPA-106 form) is attached.

The evaluation identified 15.4 acres of Prime or Unique Farmlands within the study area, with 8.1 acres potentially converted by the project. The NRCS Farmlands Conversion Impact Rating of 59.8 is less than the 160 points required for further consideration of protection of farmlands. Therefore, the Preferred Alternative is anticipated to have no significant impact on farmlands within the study area.

4. Cultural Resources

The project will not have significant impacts to cultural resources. Below is a summary of the evaluation performed.

4.1 Section 106 of the National Historic Preservation Act

A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that some of these resources meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and State Historic Preservation Officer (SHPO) has concurred with this determination. After application of the Criteria of Adverse Effect, and in consultation with SHPO, FDOT has determined that the proposed project will have No Adverse Effect on these resources.

The CRAS (September 2023) prepared for the project is included with technical materials in the project file. The concurrence from the SHPO was received for the CRAS Report on July 24, 2023. An updated concurrence letter, correcting a numbering error from the original letter, was received on April 22, 2024. The 2024 concurrence letter and a map of the cultural resources are attached.

Much of the APE is within areas of existing and proposed ROW that have been previously surveyed for archaeological resources. The archaeological APE was defined as the footprint of the existing and proposed ROW containing the proposed improvements. It also included a stormwater management facility, Pond 1E, and its two associated outfalls, as well as several small areas where the proposed roadway improvements extend outside of the existing/proposed ROW.

Where the improvements were minor or limited (i.e., improvements like milling and resurfacing, pavement marking, etc. within existing ROW), the historic resources APE consisted of the existing ROW containing the proposed improvements and the small areas where the improvements extended outside of the existing/proposed ROW. The historic resources APE expanded in areas of proposed ROW and roadway widening to the footprint of the existing and proposed ROW containing the proposed improvements, as well as adjacent parcels/resources within a distance of up to 150 feet from the edge of the existing/proposed ROW. The historic resources APE also expanded to encompass the proposed roadway alignment to the footprint of the existing and proposed ROW containing the proposed improvements, as well as a 250-foot buffer from the edge of the associated existing/proposed ROW. In addition, the historic resources APE expanded out 250 feet from the footprint of the proposed flyovers and 500 feet from the footprint of the proposed high-level bridge. The APE for Pond 1E included the footprint of the pond and a buffer of 150 feet. The APE for the outfalls was limited to their footprints. The archaeological and historic resources APEs are shown on aerial mapping in the CRAS.

No archaeological sites were recorded within or adjacent to the current APE during prior survey efforts. No archaeological sites or archaeological occurrences were identified during the current survey. Subsurface testing was conducted within the APE where feasible and focused on areas of proposed ROW not included in previous surveys. Based on the results of the current and previous survey efforts, the archaeological APE exhibits a low potential for encountering intact archaeological deposits or significant archaeological sites.

Six historic resources were identified within the APE. Four of these were previously recorded (8LL2586, 8LL1898, 8LL2615, and 8LL2845) and two were newly recorded (8LL2948 and 8LL2949). The Caloosahatchee River Canal (8LL2586) was determined eligible for the National Register by the SHPO in 2012 under Criterion A for its association with

late-19th-Century efforts to drain the Everglades and the agricultural development of South Florida. It was recorded within the current APE as part of the CRAS of State Road 31 from State Road 80 (Palm Beach Boulevard) to North of County Road 78 (North River Road). As part of the current survey, the canal still conveys its significance and is considered eligible.

The Seaboard Air Line Railroad Grade (8LL1898) and Wilson Pigott Bridge (8LL2615) have been determined ineligible by the SHPO. SR 31 (8LL2845) was previously determined ineligible outside of the APE and the section within the current APE exhibits modern improvements and lacks historic associations, making it ineligible for the National Register. The FMSF form for SR 31 (8LL2845) was updated since the roadway had not been previously recorded within the current APE. FMSF forms were not updated for the other previously recorded resources, as they did not exhibit alterations or changes in their National Register eligibility since they were last recorded. The two newly recorded structures, 16400 SR 31 (8LL2948) and the Sweetwater Landing Marina (8LL2949), exhibit common architectural styles in South Florida and lack historical associations. Therefore, they are considered ineligible for the National Register. FMSF forms were completed for the two newly identified resources. All FMSF forms are included as part of the CRAS located in the project file.

Based on the background research and results of the field investigations, the Preferred Alternative is not expected to result in significant impacts to sites protected under Section 106 National Historic Preservation Act. In a letter signed on April 22, 2024, SHPO concurred that there will be no adverse effects on the Caloosahatchee River Canal, and that the linear resource will remain eligible for inclusion in the National Register due to its importance to drainage of the Everglades. The letter also stated the improvements will not involve changes that would compromise the integrity of the canal such as rerouting, cutting of or filling in, widening, severing from other waterways, change of function, or removal of ancillary structures or features that contribute to its significance.

4.2 Section 4(f) of the USDOT Act of 1966, as amended

The following evaluation was conducted pursuant to Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended, and 23 CFR Part 774.

Section 4(f) resources were analyzed within a 500-foot buffer around the project study area. Based upon review of existing field conditions within the project study area, review of the Efficient Transportation Decision Making (ETDM) Final Programming Screen Summary Report published on May 17, 2023, Florida Department of Environmental Protection Greenways and Trails map, and local planning documents, there are three potential Section 4(f) resources located within the project study area.

The first resource identified is the Great Calusa Blueway, a paddling trail that passes through the coastal waters of Lee County, spanning from the Pine Island Sound to Estero Bay, up the Caloosahatchee River and through its tributaries. This 190-mile trail supports outdoor recreation, guiding canoeists and kayakers through clearly marked brown-and-white signs located along the course of the trail. The trail is accessible to the general public at no cost. The Caloosahatchee segment of the blueway can be accessed in Lee County through a series of 20 launch sites, located on both public and private properties.

The proposed improvement of SR 31 includes replacement of the existing Bridge #120064 over the Caloosahatchee River. No physical improvement made as part of the blueway is present within the bounds of the project. The project will maintain vessel traffic on the Caloosahatchee in the future condition and during construction. No effects to the attributes,

features, or activities that qualify the Great Calusa Blueway for protection under Section 4(f) are anticipated. OEM concurred with the no use determination of the blueway on April 18, 2024.

The second resource identified is a single 10-foot multi-use trail that exists on the north side of SR 80. The trail is designated as part of the Florida Shared-Use Nonmotorized Trail Network (Florida SUN Trail Network). This section of Florida SUN Trail is identified as the Caloosahatchee Trail and extends 22 miles in Lee County from US 41 to the Hendry County Line. The same trail alignment is listed as part of the Pine Island - Hendry Trail and is included in the Lee County Greenways Master Plan. The trail consists of a combination of existing and planned trail segments along portions of SR 78, SR 31, and SR 80. Within the project limits, the Caloosahatchee Trail/Pine Island - Hendry Trail is listed as an unfunded need on SR 31. The proposed improvement of SR 31 (as part of this project) includes a 12-foot multi-use trail to support the planned/existing trail system.

The Florida SUN Trail Network consists of multi-use trails and shared-use paths physically separated from motor vehicle traffic which, by virtue of design, location, and extent of connectivity, provide nonmotorized transportation opportunities for bicyclists and pedestrians statewide. The Florida SUN Trail Network is intended to support a range of use by the public ranging from transportation-based use to recreational activities such as walking, biking, or jogging. The Caloosahatchee Trail meets the qualifications for an exception under 23 CFR 774.13(f)(4) trails, paths, bikeways, and sidewalks that are part of the local transportation system and which function primarily for transportation. OEM provided concurrence for this determination on April 18, 2024.

Due to its eligibility for the National Register of Historic Places, the Caloosahatchee River Canal (8LL2586) qualifies for protection under Section 4(f). As part of the project improvements, the construction of the new bridge includes new supports/concrete piers within the Caloosahatchee River Canal and rip rap will be installed immediately adjacent to the bridge ends at the shoreline. On July 24, 2023, the SHPO concurred with the Section 106 finding that there will be no adverse effects on the Caloosahatchee River Canal and the linear resource will remain eligible for inclusion in the National Register due to its importance to drainage of the Everglades. The improvements will not involve changes that would compromise the integrity of the canal, such as rerouting, cutting off or filling in, widening, severing from other waterways, change of function, or removal of ancillary structures or features that contribute to its significance.

The improvements do not require the direct use or conversion of the Caloosahatchee River Canal to permanent ROW and there is no change in ownership or impairments to the Section 4(f) linear resource. Under Section 4(f), the improvements within the Caloosahatchee River Canal meet the requirements for a temporary occupancy exception: they are temporary, they are minor, there are no permanent adverse physical impacts and no adverse effects under Section 106; and any changes that occur during construction of the new bridge in the Caloosahatchee River Canal will be restored back to their pre-construction condition following construction. OEM provided concurrence for this determination on October 11, 2023. The Section 4(f) Report is attached.

4.3 Section 6(f) of the Land and Water Conservation Fund Act of 1965

There are no properties in the project area that are protected pursuant to Section 6(f) of the Land and Water Conservation Fund of 1965.

4.4 Recreational Areas and Protected Lands

A discussion regarding the recreational areas within and adjacent to the project is included in **Section 4.2**. There are no other protected public lands or protected state lands in the project area.

5. Natural Resources

The project will not have significant impacts to natural resources. Below is a summary of the evaluation performed:

5.1 Protected Species and Habitat

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

A Natural Resources Evaluation (NRE) (October 2023) was completed for the project to document and summarize the potential impacts to natural resources, including federal and state protected species. The NRE also documented commitments and implementation measures considered to avoid, minimize, and mitigate for potential impacts. The NRE is included in the project file and concurrence letters are attached to this document.

Analysis for the presence of federal and state protected species and their suitable habitat was performed to comply with the above listed federal regulation and in accordance with 68A-27 Florida Administrative Code (FAC) Rules Relating to Endangered or Threatened Species.

Literature reviews, agency database searches, and field reviews (between June 2020 and April 2023) for protected species and their suitable habitat were conducted within and adjacent to the project corridor. Based on this evaluation, a list of potential species were identified as potentially occurring within the project study area. Pursuant to the Endangered Species Act (ESA), federally listed species with potential to occur within the study area are summarized in **Table 2** and state listed species with potential to occur within the study area are summarized in **Table 3**. The study area occurs within critical habitat for the west Indian manatee (*Trichechus manatus*) and smalltooth sawfish (*Pristis pectinata*); it is anticipated that the Preferred Alternative will result in no destruction or adverse modification of both species' critical habitat. The Bald Eagle (*Haliaeetus leucocephalus*), Florida Black Bear (*Ursus americanus floridanus*), and non-listed bats were included in the analysis due to the regulatory protections associated with the species. All federally listed species are also considered state listed species. FDOT initiated Section 7 informal consultation for smalltooth sawfish (*Pristis pectinata*) critical habitat impacts.

Based on National Marine Fisheries Service (NMFS) coordination, NMFS determined that only smalltooth sawfish and its designated critical habitat should be included in the Section 7 formal consultation. While sea turtles are found in estuarine bay systems and perhaps near river mouths in those bay systems, it is highly unlikely that a sea turtle would travel 23 miles upriver to the project location. Guidance from NMFS includes a project commitment to only conduct in-water pile driving during daylight hours and a "ramp-up" procedure will be used for all in-water impact driving.

Table 2. Federally Listed Species and Effect Determinations

Federally Listed Species			
Common Name	**Scientific Name**	**Federal Status**	**Effect Determination**
FISH			
Smalltooth sawfish	*Pristis pectinata*	**E**	May affect, not likely to adversely affect

REPTILES			
American crocodile	*Crocodylus acutus*	**E**	May affect, not likely to adversely affect
Eastern indigo snake	*Drymarchon couperi*	**T**	May affect, not likely to adversely affect
Green sea turtle	*Chelonia mydas*	**E**	May affect, not likely to adversely affect
Kemp's ridley sea turtle	*Lepidochelys kempii*	**E**	May affect, not likely to adversely affect
Loggerhead sea turtle	*Caretta caretta*	**T**	May affect, not likely to adversely affect
BIRDS			
Audubon's crested caracara	*Polyborus plancus audubonii*	**E**	May affect, not likely to adversely affect
Florida grasshopper sparrow	*Ammodramus savannarum floridanus*	**E**	No effect
Florida scrub-jay	*Aphelocoma coerulescens*	**T**	May affect, not likely to adversely affect
Red-cockaded woodpecker	*Picoides borealis*	**T**	No effect
Wood stork	*Mycteria americana*	**T**	May affect, not likely to adversely affect
MAMMALS			
Florida bonneted bat	*Eumops floridanus*	**E**	May affect + further coordination
Florida panther	*Puma concolor coryi*	**E**	No effect
West Indian manatee	*Trichechus manatus*	**T**	May affect, not likely to adversely affect
PLANTS			
Aboriginal pricklyapple	*Harrisia aboriginum*	**E**	No effect
Beautiful pawpaw	*Deeringothamnus pulchellus*	**E**	No effect

E = Endangered, T = Threatened

A summary of the findings for the federally listed species is provided below:

- **Smalltooth sawfish**: The study area occurs within designated critical habitat for the smalltooth sawfish and provides suitable habitat for juveniles with the Caloosahatchee River mangrove habitats. The species has been documented west of the study area within the Charlotte Harbor Estuary Unit. No smalltooth sawfish were observed within or adjacent to the study area during wetland delineation or seagrass and mangrove surveys. The Protected Species Construction Conditions will be adhered to during construction of the project. Formal Section 7 Consultation was conducted for smalltooth sawfish. NMFS concurred that the proposed action is not likely to adversely affect smalltooth sawfish. While the action is likely to adversely affect designated critical habitat (Charlotte Harbor Estuary Unit) for smalltooth sawfish, it is not likely to result in the destruction or adverse modification for this habitat.
- **American crocodile**:The study area is within the United States Fish and Wildlife Service (USFWS) consultation area for the American crocodile but is not within designated critical habitat. The study area contains limited suitable nesting and foraging habitat for this species. However, the nearest known nesting locations occur on Marco Island, which is

located approximately 50 miles south of the study area. No American crocodiles or their nests were observed during field surveys.

- **Eastern indigo snake**: The Department is committed to implementing the USFWS's *Standard Protection Measures for Eastern Indigo Snake*. Additionally, no gopher tortoise borrows were observed within the study area during field surveys. The USFWS *Programmatic Effect Determination Key for the Eastern Indigo Snake* was used to support the effect determination for this species and is included in Appendix B in the NRE.
- **Sea turtles**: There is no suitable nesting habitat within the study area, but foraging habitat is available within the Caloosahatchee River. No sea turtles were observed during the field reviews and no seagrasses were observed within the study area. Additionally, the review of the Florida Fish and Wildlife Conservation Commission (FWC) Sea Turtle Stranding Data (2021) indicated that the nearest sea turtle stranding is approximately 8.50 miles southwest of the study area. Due to their potential of occurrence within the study area, the NOAA Protected Species Construction Conditions will be implemented during construction. Due to their potential of occurrence within the study area, the NOAA *Protected Species Construction Conditions* and the NMFS *Vessel Strike Avoidance Measures, NOAA Fisheries Southeast Regional Office* will be implemented during construction.
- **Audubon's crested caracara**: The study area is located within the USFWS consultation area for the caracara. A formal survey was conducted in 2020 and 2023. The study area for the 2023 caracara survey was modified to encompass a pond outfall near the southwest portion of the project. However, based on the existing habitat and land use, no additional suitable caracara habitat occurs within the updated study area and no updated species surveys were required.
- **Florida grasshopper sparrow**: The study area is located within the USFWS consultation area for the Florida grasshopper sparrow. Pasture and shrub and brushlands are present north and south of the Caloosahatchee River; however, the area has been disturbed by historic cattle ranching practices or lack the vegetation structure needed to support this species. No suitable habitat is present within the study area to support foraging or nesting for this species. No nests or observations have been documented within the study area.
- **Florida scrub-jay**: The study area is wholly within the Florida scrub-jay USFWS consultation area. Scrub-jays have been documented approximately 1.5 miles north of the study area; however, no suitable habitat exists within or adjacent to the study area. Additionally, no scrub-jay were observed during field reviews.
- **Red-cockaded woodpecker**: The study area is within the USFWS consultation area for Red-cockaded woodpecker; however, the closest Red-cockaded woodpecker observation is documented approximately nine miles to the northwest. The study area lacks old growth pines and a Florida bonneted bat roost survey that was conducted on January 26, 2023 concluded that no trees, powerline poles, or structures within the Preferred Alternative exhibited cavities or other potential roosting features.
- **Wood stork**: The Preferred Alternative is within two designated wood stork Core Foraging Areas (CFAs): Caloosahatchee River East and West. The nearest wood stork colony, Caloosahatchee River East, is located approximately 2.1 miles west of the study area. The study area contains wood stork suitable foraging habitat within other surface waters (OSW), herbaceous wetlands, and riparian areas along the Caloosahatchee River. During field assessments, wood storks were observed foraging in a roadside swale near the intersection of SR 31 and SR 80 and in a small agricultural pond just north of the study area. The USFWS *Wood Stork Effect Determination Key* was used to support the effect determination for this species and is included as Appendix E in the NRE. FDOT will provide mitigation for impacts to wood stork suitable foraging habitat within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank.
- **Florida bonneted bat**: The study area is not within the proposed critical habitat for the Florida bonneted bat, but is located within the USFWS consultation area, and suitable foraging habitat is present throughout the study area. According to the PD&E Study conducted to the north of the proposed project, *SR 31 from SR 78 to Cook Brown Road*, acoustic surveys performed in Spring 2020 confirmed the Florida bonneted bats were present and foraging in the project area. Following the acoustic survey, a roosting survey was conducted, and no potential roosting locations were

observed. During a meeting held with USFWS and Department staff on August 18, 2021, USFWS determined that the proposed project (SR 31 from SR 80 to SR 78) could assume presence of the species, the study area contains foraging habitat for the Florida bonneted bat, and that a limited roosting survey would be required. A roost survey conducted on January 26, 2023, in accordance with the USFWS *Florida Bonneted Bat Consultation Guidelines* (2019) found no suitable roosting features for the bats. Results of the survey are included in the project file. The USFWS *South Ecological Services Field Office Consultation Key for the Florida Bonneted Bat* was used to support the effect determination for this species and is included as Appendix G in the NRE. Consultation with USFWS determine that the proposed action is not likely to adversely affect any federally listed species protected by the ESA, and no further action is required.

- **Florida panther**: The southern portion of the study area is located over a USFWS designated secondary panther focus area; however, the Preferred Alternative contains a limited amount of suitable habitat for the panther and is not within the panther focus area. The nearest Panther Focus Area is located south of the SR 31 and SR 80 intersection and neighboring land use (a commercial shopping center) does not provide suitable habitat that would be utilized by Florida panther. Additionally, no Florida panthers were observed during the field surveys and the remaining suitable habitat for this species has either been disturbed or developed.
- **West Indian manatee**: Manatee observations are documented within and adjacent to the study area in the Caloosahatchee River and associated canals. The study area occurs within the USFWS designated critical habitat for the manatee and State Manatee Protection Zone. A nearby manatee aggregation area exists approximately two miles downstream of the Wilson Pigott Bridge; the Florida Power and Light (FPL) Orange River Power Plant generates warm water discharges that attract manatees to the southern shore of the Caloosahatchee River. A manatee was observed in the Caloosahatchee River during wetland and mangrove surveys. The USACE *Effect Determination Key for the Manatee in Florida* was used to support the effect determination for this species and is included as Appendix H in the NRE. Due to their potential of occurrence within the project, the Department is committed to implementing USFWS's *Standard Manatee Conditions for In-Water Work* during construction.
- **Aboriginal pricklyapple**: During field reviews, no aboriginal pricklyapple were observed within the study area. Areas to be impacted by the Preferred Alternative will be re-evaluated for the presence of any federally protected plant species during permitting in the design phase of the project.

No individuals or habitat for federally protected plant species were observed within the study area during field surveys. If any federally protected plant species are observed within the proposed impact limit during the design phase, consultation with the USFWS will be initiated, and efforts will be made prior to construction to allow for seed collection and/or relocation to adjacent habitat or other suitable protected lands.

The tricolored bat is a candidate for listing under the jurisdiction of the USFWS. As of September 14, 2022, the USFWS proposed to list the tricolored bat as an endangered species under the ESA. Designated critical habitat is not proposed for the tricolored bat at this time. The study area contains suitable roosting and foraging habitat for the tricolored bat. The Department will continue coordination with USFWS to determine the potential effect to the tricolored bat once a final listing decision has been made.

The study area occurs within areas of critical habitat for the west Indian manatee and smalltooth sawfish. The USFWS concurred that the proposed action is not likely to adversely affect designated critical habitat protected by the ESA. The proposed project will include the replacement of an existing overwater structure and minor impacts to EFH. Impacts to critical habitat will be minor given the small size of impact to EFH relative to the available habitat in the region.

Table 3. State Listed Species and Effect Determinations

State Listed Species			
Common Name	**Scientific Name**	**State Status**	**Effect Determination**
REPTILES			
Gopher tortoise	*Gopherus polyphemus*	**T**	No adverse effect anticipated
BIRDS			
Florida sandhill crane	*Antigone canadensis pratensis*	**T**	No adverse effect anticipated
Least tern	*Sternula antillarum*	**T**	No adverse effect anticipated
Little blue heron	*Egretta caerulea*	**T**	No adverse effect anticipated
Reddish egret	*Egretta rufescens*	**T**	No adverse effect anticipated
Roseate spoonbill	*Platalea ajaja*	**T**	No adverse effect anticipated
Tri-colored heron	*Egretta tricolor*	**T**	No adverse effect anticipated
Southeastern American kestrel	*Falco sparverius paulus*	**T**	No adverse effect anticipated
PLANTS			
American bird's nest fern	*Asplenium serratum*	**E**	No effect anticipated
Banded wild-pine	*Tillandsia flexuosa*	**T**	No effect anticipated
Florida beargrass	*Nolina atopocarpa*	**T**	No effect anticipated
Giant leather fern	*Acrostichum aureum*	**T**	Potential for adverse effect
Giant orchis	*Dendrophylax lindenii*	**E**	No effect anticipated
Hand fern	*Ophioglossum palmatum*	**E**	No effect anticipated
Redmargin zephyrlily	*Zephyranthes simpsonii*	**T**	No effect anticipated
Sanibel lovegrass	*Eragrostis pectinacean var tracyi*	**E**	No adverse effect anticipated

E = Endangered, T = Threatened

A summary of the findings for the state listed species is provided below:

- **Gopher tortoise**: There are portions of the study area that contain suitable xeric habitat. However, no gopher tortoises or their burrows were observed within the study area during the gopher tortoise survey conducted in April 2023. The Department will conduct a gopher tortoise survey for all suitable habitat within the project footprint prior to construction, in accordance with FWC's Gopher Tortoise Permitting Guidelines. If gopher tortoise burrows are identified within the project footprint, a gopher tortoise relocation permit will be obtained from the FWC.
- **Florida sandhill crane**: It is anticipated that the Florida sandhill crane may utilize habitat within the study area for foraging, particularly the freshwater wetlands, but no suitable nesting habitat was observed.
- **Least tern**: Suitable foraging habitat for the least tern occurs within the study area, and suitable nesting habitat exists in areas along the Caloosahatchee River, but it is anticipated that there will be minimal loss of suitable habitat.
- **Wading birds**: Wetlands and surface waters within the study area contain foraging habitat for four state listed wading bird species: little blue heron, reddish egret, roseate spoonbill, and tri-colored heron. During the field review, no nesting activity for wading birds was observed within or adjacent to the study area. Additionally, the Preferred Alternative will not cause a significant loss of foraging or nesting habitat in the region or impact nest sites.
- **Southeastern American kestrel**: During the preliminary field surveys, southeastern American kestrel habitat was observed throughout the study area in open lands and woodland edges. Due to the presence of suitable habitat, a

species-specific survey was conducted in March and April 2023 in accordance with the FWC's *Species Conservation Measures and Permitting Guidelines for the Southeastern American Kestrel*. Based on the results of the 2023 species-specific survey, southeastern American kestrels do not appear to be actively using the habitat within the study area for nesting or foraging and no active or inactive nest cavities were observed during the survey. Survey results are included in the project file.

- **American bird's nest fern**: During field reviews, this species was not observed within the study area.
- **Banded wild-pine and Hand fern**: These species are discussed collectively due to similarity of habitat types. Neither of these species were observed during field assessments.
- **Florida beargrass and Redmargin zephyrlily**: These species are discussed collectively due to similarity of habitat types. Neither of these species were observed during field assessments.
- **Giant leather fern**: This species was observed within the wetland habitats during field assessments. A survey for giant leather fern will be performed prior to construction and coordination with FDACS will occur if impacts to the species are anticipated. The Department will notify the Florida Department of Agriculture and Consumer Services (FDACS) of the observed locations of the giant leather fern in order to provide opportunity to conduct conservation measures for the species or pursue a plant rescue effort.
- **Giant orchid**: Little to no suitable habitat is present within the study area and no observations of this species were made during field assessments.
- **Sanibel lovegrass**: Potential habitat for Sanibel lovegrass exists within the study area along the Caloosahatchee River. No observations of this species was observed during the field assessments.

Other Protected Species

Bald Eagle

The bald eagle is protected under the U.S. Migratory Bird Act, the Bald and Golden Eagle Protection Act, and under the state bald eagle rule 68A-16.002, FAC. According to the FWC and EagleWatch data, the closest documented bald eagle nest is located approximately 1.34 miles east of the Preferred Alternative, which is well beyond the 660-ft protection zone. The study area contains suitable foraging and nesting habitat for the bald eagle, but no individual or nests were observed during field investigations.

Florida Black Bear

The Florida Black Bear is not listed by the USFWS and was removed from FWC's list of threatened species in 2012, but is still protected under the Bear Conservation Rule (68A-4.009, FAC) and the FWC Florida Black Bear Management Plan. Suitable habitat exists within the study area, but movement is restricted due to the river, large roadways, and residential development. There is one documented bear related call within the study area near the Sweetwater Landing Marina and several surrounding the study area, near the SR 80 intersection and Fort Myers Shores residential neighborhood. Additionally, one bear mortality occurred in 2009 east of the study area near proposed Pond Site 1-E. The study area falls within the FWC South Bear Management Unit. To avoid potential conflicts with bears during construction, the Department will require contractors to remove garbage daily from the project work are to prevent these items from becoming an attractant for the Florida black bear. Any interaction with nuisance bears will be reported to the FWC Wildlife Alert hotline.

Non-Listed Bats

In Florida, there are 13 resident bat species that reside in the state year-round or are seasonal visitors. All Florida non-listed bats are protected in accordance with FAC rule 68A-4.001 General Prohibitions and FAC rule 68A-9.010 Taking

Nuisance Wildlife. During field investigations, evidence of roosting bats were observed in the Wilson Pigott Bridge. The Department will follow the FDOT Guidance on Bat Exclusion Practices (July 2023) prior to construction to ensure adverse impacts to bats are avoided. Bat exclusion measures can only be conducted outside of the maternity season, which lasts from April 15th through August 15th, and the exclusion should take place when the low temperature is forecasted by the US National Weather Service to remain above 50 degrees F for four consecutive nights.

Potential Impacts and Mitigation

Potential impacts to listed species and their habitats are described in more detail in the NRE. The NRE was submitted to the USFWS, NMFS, and FWC for review and to initiate consultation for the project. In addition, the NRE was shared with the SFWMD, Florida Department of Environmental Protection (FDEP), USCG, FDACS, and USACE for informational purposes. The resulting coordination and/or concurrence is documented in the final NRE and can be found in the project file.

The USFWS South Florida Ecological Field Office concurred with the findings for potential impacts to federally protected species per Section 7 of the ESA on November 30, 2023, and no further action is required. The FWC provided concurrence on the findings detailed in the NRE on December 18, 2023.

On June 7, 2024, NMFS provided concurrence regarding EFH issues. NMFS indicated that the project commitments and purchase of 1.23 estuarine mangrove credits from the Little Pine Island Mitigation Bank, as compensatory mitigation to offset the loss of ecological functions due to project-related mangrove losses, satisfies the consultation procedures under regulations (50 CFR Section 600.920) implementing the EFH provisions of the Magnuson-Stevens Fishery Conservation and Management Act.

On October 23, 2024, NMFS issued a Biological Opinion that concluded that the proposed action is not likely to adversely affect smalltooth sawfish. While the action is likely to adversely affect designated critical habitat (Charlotte Harbor Estuary Unit) for smalltooth sawfish, it is not likely to result in the destruction or adverse modification of this habitat. If FDOT becomes aware of any take of an ESA-listed species under NMFS's purview during the proposed action, it must report the take to NMFS Southeast Regional Office Protected Resources Division (SERO PRD) using the NMFS SERO Endangered Species Take Report Form and reinitiate consultation, if warranted. Additionally, FDOT must immediately notify the Office of Protected Resources (within 24 hours, if communication is possible) if a take of a listed marine mammal occurs.

To ensure the project will not adversely affect protected species or contribute to water quality degradation, the Department will perform or adhere to the following implementation measures.

- Conduct surveys for listed plants in suitable habitat prior to construction. If listed plant species are observed in the project footprint, the Department will coordinate with the appropriate agency to receive the necessary authorizations prior to construction.
- Conduct a pre-construction survey for gopher tortoises. If gopher tortoise burrows are located within 25 feet of the project footprint, a relocation permit will be obtained from the FWC prior to construction for burrows that cannot be avoided or excluded from project construction.
- Apply best management practices (BMPs) (e.g., erosion and sediment controls) prior to and throughout construction to avoid adverse impacts to wetland and aquatic resources adjacent to the project area.
- Provide compensatory mitigation for wetland impacts resulting from the Preferred Alternative, per 373.4137, FS, and 33 USC 1344.

To ensure the project will not adversely affect protected species or their habitats, the Department will perform or adhere to the following commitments.

- The NMFS *Protected Species Construction Conditions*, NOAA Fisheries Southeast Regional Office will be utilized during construction.
- The most recent version of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* will be utilized during construction.
- The USFWS and FWC *Standard Manatee Conditions for In-Water Work* will be utilized during construction.
- FDOT will require contractors to remove garbage daily from the construction site or use bear proof containers for securing food and other debris from the project work area to prevent these items from becoming an attractant for the Florida black bear. Any interaction with nuisance bears will be reported to the FWC Wildlife Alert hotline.
- FDOT will provide mitigation for impacts to wood stork Suitable Foraging Habitat within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank.
- Prior to demolition of Wilson Pigott Bridge, bat exclusion must be completed to comply with FAC rule 88A-4.001 General Prohibitions; and rule 68A-9.010 Taking Nuisance Wildlife. Per regulations, exclusion is not permitted during bat maternity season of April 15 through August 15. Exclusion devices must be left up for a minimum of four nights and the low temperature must be forecasted to remain above 50 degrees Fahrenheit during that time period.
- Should the listing status of the tricolored bat be elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area during design and permitting phase of the proposed project, FDOT commits to re-initiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tricolored bat.
- The NMFS *Vessel Strike Avoidance Measures*, NOAA Fisheries Southeast Regional Office will be utilized during construction.
- A survey for giant leather fern will be performed during the design phase and coordination with FDACS will occur if impacts to the species are anticipated.
- In-water pile driving will only be conducted during the daylight hours and a "ramp-up" procedure will be used for all in-water impact driving.
- If FDOT becomes aware of any take of an ESA-listed species under NMFS's purview that occurs during the proposed action, FDOT shall report the take to NMFS SERO PRD via the NMFS SERO Endangered Species Take Report Form and reinitiate consultation, if warranted.
- FDOT must immediately notify (within 24 hours, if communication is possible) the Office of Protected Resources if a take of a listed marine mammal occurs.

5.2 Wetlands and Other Surface Waters

The following evaluation was conducted pursuant to Presidential Executive Order 11990 of 1977 as amended, Protection of Wetlands and the USDOT Order 5660.1A, Preservation of the Nation's Wetlands.

An NRE (October 2023) was prepared under separate cover to document and summarize the potential impacts to natural resources, including wetlands and other surface waters. The NRE also documents commitments and implementation measures considered to avoid, minimize, and mitigate potential impacts.

The presence of wetlands and surface waters associated with the Preferred Alternative fall under the jurisdiction of the USACE, which regulates the discharge of dredged or fill material into water of the United States under the Clean Water

Act and SFWMD, which regulates activities in surface waters and wetlands in this region. A variety of resources including the National Wetlands Inventory (NWI) maps, Soil Surveys for Lee County, SFWMD Florida Land Use, Cover, and Forms Classifications System (FLUCFCS) land cover and land use data, and current and historical aerial photographs were utilized to identify any wetlands and surface waters that occur within the study area.

Professional wetland scientists delineated the extent of wetlands and surface waters within the study area on various field visits between August 2019 and April 2021, in accordance with federal and state guidelines. A seagrass survey was conducted, but no seagrass was observed. The study area for this assessment includes all areas within the existing and proposed FDOT ROW as well as areas located directly adjacent.

Direct Impacts

The Preferred Alternative will result in direct wetland and surface water impacts. Wetland and surface water impacts for the Preferred Alternative were calculated based on the estimated project footprint, accounting for the proposed typical section, new bridge, and intersection improvements. Accounting for the proposed typical section, drainage improvements, and floodplain compensation areas, the estimated project footprint will result in about 15.32 acres of direct wetland impacts and 7.28 acres of surface water (i.e., ditches and reservoirs) impacts. The Department will provide compensation for direct wetland impacts.

Indirect Impacts

Potential indirect (i.e., secondary) wetland impacts for the Preferred Alternative were calculated 25-feet beyond the limits of the direct wetland impacts. Indirect impacts were not calculated for OSW impacts because these areas are routinely maintained to prevent flooding, and edge effects will be negligible. It is anticipated that the Preferred Alternative will result in 5.16 acres of indirect wetland impacts. The Department will provide compensation for indirect wetland impacts.

Cumulative Impacts

Compensatory mitigation for direct and indirect wetland and surface water impacts resulting from the Preferred Alternative will be mitigated through the purchase of credits from Little Pine Island Mitigation Bank (LPIMB). The purchase of credits from LPIMB will require completion of a Cumulative Impact Assessment during the permitting phase that provides reasonable assurance the proposed impacts will not have unacceptable cumulative impact on similar wetland types within the same basin.

Impacts to federal and state jurisdictional wetlands and other surface water resulting from the Preferred Alternative are summarized in **Table 4**.

A wetland assessment was conducted for wetlands and surface waters within the footprint of the Preferred Alternative using the Uniform Mitigation Assessment Method (UMAM). Based on the UMAM, the 20.48 acres of direct and indirect wetland impacts may require 1.23 estuarine mangrove credits and 7.86 freshwater forested credits from an approved wetland mitigation bank or equivalent regional mitigation area. These values may be refined through coordination and review by the regulatory agencies during project design and permitting. The anticipated mitigation credits required to offset impacts to wetlands are summarized below in **Table 4**.

Table 4. Anticipated Wetland and Surface Water Impacts for the Preferred Alternative

Impact Type	Direct Impacts		Indirect Impacts	
	Acre(s)	Functional Loss	Acre(s)	Functional Loss
Wetland Impacts and Functional Loss	15.32	8.49	5.16	0.60
OSW Impacts*	7.28	-	-	-
Total Wetland and OSW Impacts	22.60	-	5.16	-
*Shading impacts. No functional loss or mitigation anticipated.				

Avoidance and minimization of potential wetland and surface water impacts were incorporated throughout the development of the Preferred Alternative. As the project advances through subsequent phases, avoidance and minimization of wetland impacts will continue to be considered to the maximum extent practicable. Unavoidable direct and indirect impacts to wetlands will be mitigated through the purchase of credits from LPIMB to satisfy all mitigation requirements of Part IV, Chapter 373 FS and 33 USC 1344.

LPIMB currently has type-for-type state and federal credits available, including mangrove swamp habitat. LPIMB is located within the Charlotte Harbor Aquatic Preserve and Matlacha Pass Aquatic Preserve and has a direct hydrologic connection to the Caloosahatchee River. LPIMB is a 4,670-acre island that provides habitat for many of the same protected species that may utilize habitat within the study area. It is anticipated that no mitigation will be required for the direct and shading impacts anticipated to surface waters. Final credit amounts will be determined through coordination with the SFWMD and USACE during project design and permitting.

The Preferred Alternative has been evaluated in accordance with Federal Executive Order 11990 - "Protection of Wetlands." Given the location of the existing infrastructure, location and landscape of the existing alignment, the purpose and need for the project, these factors preclude any practical alternatives that avoid wetland impacts. Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. Therefore, the proposed project is expected to result in no significant short-term or long-term adverse impacts to wetlands.

Potential impacts to wetlands and other surface waters are described in more detail in the NRE, which is included in the project file.

5.3 Essential Fish Habitat (EFH)

An Essential Fish Habitat (EFH) Assessment has been prepared and consultation has been completed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). It has been determined that this project will not have adverse effects to EFH.

Estuarine habitats within the project area have been identified as EFH for coastal migratory pelagics, stone crab *(Menippe mercenaria*), reef fish, shrimp (*Penaeus spp.*), red drum (*Sciaenops ocellatus*), black tip shark (*Carcharhinus limbatus*), bonnethead shark (*Sphyrna tiburo*), bull shark (*Carcharhinus leucas*), and tiger shark (*Galeocerdo cuvier*). The project may indirectly affect mangroves, seagrasses, and salt marshes located downstream at the mouth of the Caloosahatchee River and in San Carlos Bay.

The Preferred Alternative will directly impact 1.43 acres of mangrove wetlands considered EFH. The Preferred Alternative will indirectly impact 0.34 acres of mangrove wetlands considered EFH. Indirect impacts were calculated in EFH areas 25-feet beyond the limits of the direct wetland impacts.

Erosion control measures and the use of BMPs during construction will be implemented to provide reasonable assurance that the Preferred Alternative will not contribute to violations of water quality standards. Compensatory mitigation for direct and indirect EFH impacts resulting from the Preferred Alternative will be provided from an approved mitigation bank.

In accordance with state and federal regulations, avoidance and minimization of wetland impacts were considered in developing the Preferred Alternative. These measures include using the existing ROW when practical; proposing a typical section to meet needs of the project and the minimum requirements of the FDOT standard design criteria; collecting stormwater runoff efficiently; evaluating best fit options; reducing the footprint as much as possible, particularly near sensitive habitats along the Caloosahatchee River; and implementing FDOT's *Standard Specifications for Road and Bridge Construction*.

Based on the UMAM, the 1.77 acres of direct and indirect wetland impacts to wetlands considered EFH may require 1.13 estuarine mangrove credits. The Department will purchase mitigation credits from the LPIMB to compensate for unavoidable wetland impacts. The LPIMB provides estuarine habitat and long-term protection for many of the same managed fisheries within the study area.

Given the minor impact to EFH compared to the available habitat in the region and the provision of agency-approved mitigation for unavoidable impacts, it is anticipated the Preferred Alternative has "more than minimal but less than substantial" potential for adverse effect to EFH. NMFS provided the EFH Letter of Concurrence on June 7, 2024 and it is attached. Any changes to impact values or mitigation credit availability will be coordinated with the NMFS during project design and permitting.

5.4 Floodplains

Floodplain impacts resulting from the project were evaluated pursuant to Executive Order 11988 of 1977, Floodplain Management.

A Location Hydraulics Report (LHR) (June 2022) was prepared for the project and is included in the project file. The purpose of the LHR is to address base floodplain encroachments resulting from the roadway improvements evaluated in the PD&E study. The intent is to avoid or minimize highway encroachments within the 100-year (base) floodplains and to avoid supporting land use development incompatible with floodplain values.

A Bridge Hydraulic Report (BHR) (March 2023) was also prepared for this project to evaluate the existing and proposed hydraulic conditions at Wilson Pigott Bridge (Bridge No. 120064). The BHR is included in the project file.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the project study area include panel numbers 12071C0282F and 12071C0284F, for Lee County, Florida dated August 28, 2008, with a revision dated June 28, 2019. These maps are included in the project file. Most of the project is designated Zone AE with the 100-year flood stage at elevation 10 NAVD 88. The FEMA FIRM are attached.

Per coordination with the SFWMD on September 13, 2019, floodplain compensation (FPC) sites will not be required because the floodplain is in the Tidal Caloosahatchee River Basin and the Franklin Lock further east is considered the tidal limits. Existing SFWMD permits were researched within the project vicinity and no floodplain compensation has been required for adjacent development. Meeting minutes are appended in the Water Quality Impact Evaluation (WQIE) Checklist (April 2023) in the project file.

There are four existing cross drains and one bridge within the study limits. Two cross drains along SR 31 will be upsized due to the widening. One new cross drain will be required to maintain conveyance under the proposed alignment. The bridge is not within a FEMA floodway and a FEMA no-rise study associated with the new bridge is not required.

The project will impact the 100-year floodplain in three different ways:

- Impacts from filling the floodplain areas associated with the proposed roadway widening, isolated wetlands, wetlands systems, and depressional areas
- Transverse impacts resulting from the extension and replacement of the existing cross drain culverts
- Transverse impacts resulting from widening the bridge.

While impacts are unavoidable since the floodplains associated with the water bodies extend both north and south of the proposed alignment, impacts are anticipated to be minimal. During the final design phase, every necessary action will be taken to minimize upstream impacts. To minimize upstream impacts, FDOT design criteria for conveyance system (e.g., culvert) allow no significant increase in flood stages at the upstream end of the structures. During the design phase, each cross drain will be analyzed for existing and proposed conditions with more defined data and designed to ensure no conflicts with the proposed roadway and no significant increase in headwater elevations. Also, a more detailed inspection of the cross drains will be necessary to verify their structural integrity and assess the need for complete reconstruction.

Impacts resulting from the widening and construction of the bridge at the Caloosahatchee River are considered minimal. As a minimum, the designer will maintain the horizontal and vertical openings at the bridges similar to the existing condition.

Floodplain Finding: Modifications to existing drainage structures included in this project will result in an insignificant change in their capacity to carry floodwater. This change will not increase flood heights or flood limits. The proposed structures will perform hydraulically in a manner equal to or greater than the existing condition, and backwater surface elevations are not expected to increase. As a result, there will be no significant adverse impacts on the natural and beneficial floodplain values or any significant change in flood risks or damage. There will not be a significant change in the potential for interruption or termination of emergency service or in emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

5.5 Sole Source Aquifer

There is no Sole Source Aquifer associated with this project.

5.6 Water Resources

A Pond Siting Report (PSR) (May 2023) and WQIE checklist (April 2023) were each prepared under separate cover and are included in the project file. As documented in the PSR, stormwater management for water quality treatment and runoff attenuation will be provided using a combination of dry retention/ wet detention systems to meet the SFWMD Environmental Resource Permit (ERP) requirements.

The project is located within the Tidal Caloosahatchee sub-basin of the Caloosahatchee River Watershed. The tidal portion of the Caloosahatchee River extends upstream (33.2 miles) from the Gulf of Mexico to the Franklin Lock. The Caloosahatchee River traverses the project limits and serves as the primary outfall for the project area. This segment of SR 31 is located within Waterbody ID (WBID) 3240C - Caloosahatchee Estuary (Tidal Segment 3 - per the current 303(d) list) and is listed as impaired for Nutrients and Dissolved Oxygen. Therefore, a pre versus post pollutant loading analysis is required as part of the ERP permitting process. The pre versus post pollutant loading analysis will need to comply with the guidelines set forth by FDOT's Memorandum, "Nutrient Loading Calculations for FDOT Projects" dated July 7, 2011, and FDEP's March 2010 draft Stormwater Quality Applicant's Handbook (SQAH), or any subsequent updates or revisions. A Total Maximum Daily Load (TMDL) has been adopted for this WBID and a water quality nutrient loading analysis has been performed for ERP purposes. In accordance with the SFWMD coordination meeting on September 2019, pre vs. post discharge rate attenuation will not be required for those basins that discharge directly to the Caloosahatchee River.

There are four existing cross drains and one existing bridge (movable) within the project limits. The cross drains provide conveyance of offsite and onsite runoff through the roadway corridor with eventual discharge into the Caloosahatchee River. In the proposed conditions, the cross drains have been designed to accommodate offsite flows and maintain current drainage patterns.

Roadway runoff sheet flows to the adjacent natural wetlands and undeveloped properties, which then outfall to the Caloosahatchee River without providing formal water quality treatment or attenuation. The roadway project corridor is divided into two roadway basins: Basin 1 south of the river (between SR 80 and the profile high point over the Caloosahatchee River), and Basin 2 north of the river (between the profile high point over the Caloosahatchee River and SR 78). Although the project corridor is comprised of two roadway drainage basins, only Basin 1 was evaluated for pond siting. The Basin 2 (from the proposed bridge high point to north of the Caloosahatchee River to the End Project at SR 78) stowmwater management facility (SMF) (named Pond 2) recommended alternative was determined under the adjacent SR 31 North Design-Build project to the north.

The proposed stormwater management system will consist of an off-site SMF designed to treat and attenuate the stormwater runoff from the improved project corridor. The analysis estimates pond ROW needs using a volumetric analysis approach that accounts for water quality treatment (presumptive and net improvement) and water quantity for peak discharge attenuation where required. Potential SMF alternatives were identified along the project limits and were designed as a combination dry retention/wet detention system to meet ERP permit requirements. For SMF discharges directly to the Caloosahatchee River (tidally influenced), peak discharge attenuation is not required, otherwise post development peak discharge attenuation is based on the 25-year/72-hour design storm event. The PSR evaluated five SMF site alternatives for Basin 1 and recommended Alternative 1-E based on the parameters identified in the SMF Site Evaluation Matrix and on the Pond Alternatives Map.

Since the original PSR, flyovers were introduced along SR 80, impacting the existing permitted linear treatment systems. The additional treatment required by the addition of the flyovers is accounted for by the proposed stormwater facility. These calculations can be found in the PSR.

The location of the existing FGT gas transmission line (in the vicinity of the river) is a major constraint impacting the ability to locate an efficient and economically suited stormwater pond site. A National Pollutant Discharge Elimination System (NPDES) construction permit will be required, and a Stormwater Runoff Control Concept (SRCC) will be developed during design.

The SMF recommendations are based on sizes and locations determined from preliminary data calculations, best available data, reasonable engineering judgement, and assumptions. SMF sizes and configurations may change during final design as specific site information (seasonal high ground water table (SHGWT), actual topographic elevation data, wetland hydrologic information, and final roadway geometry) is obtained.

5.7 Aquatic Preserves

There are no aquatic preserves in the project area.

5.8 Outstanding Florida Waters

There are no Outstanding Florida Waters (OFW) in the project area.

5.9 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers or other protected rivers in the project area.

5.10 Coastal Barrier Resources

It has been determined that this project is neither in the vicinity of, nor leads directly to a designated coastal barrier resource unit pursuant to the Coastal Barrier Resources Act of 1982 (CBRA) and the Coastal Barrier Improvement Act of 1990 (CBIA).

6. Physical Resources

The project will not have significant impacts to physical resources. Below is a summary of the evaluation performed for these resources.

6.1 Highway Traffic Noise

The following evaluation was conducted pursuant to 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and Section 335.17, F.S., State highway construction; means of noise abatement.

A Noise Study Report (NSR) (April 2024) was completed for the project and is included in the project file. This project qualifies as a Type I project pursuant to 23 CFR 772 and Section 335.17, F.S.

A total of 33 receptors (discrete/representative locations of a noise sensitive area) were evaluated. The receptors represented 45 residences, three outdoor dining areas, an active sports area (a golf course), a medical facility (dental office), and a fire station for a total of 51 properties. A map and description of the locations of the noise sensitive receptors are appended in the NSR. The residences were evaluated as an Activity Category B land use (an exterior Noise Abatement Criteria (NAC) of 66 decibels on the "A"-weighted scale (dB(A)). The outdoor dining areas were evaluated as Activity Category E (an exterior NAC of 71 dB(A)). The golf course was evaluated as an Activity Category C land use (an exterior NAC of 66 dB(A)). Because there are no exterior areas of frequent human use, the medical facility and the fire station were evaluated as Activity Category D (an interior NAC of 51 dB(A)).

The results of the analysis indicate that the existing (year 2019) exterior traffic noise levels range from 44.6 to 66.1 dB(A), and the interior traffic noise levels at the medical facility and the fire station are predicted to be 34.6 and 43.5 dB(A), respectively. In the future (year 2045) without the proposed project improvements (the No-Build Alternative), exterior traffic noise levels are predicted to range from 46.9 to 66.1 dB(A), and the interior levels at the medical facility and the fire station are predicted to be 35.5 and 43.5 dB(A), respectively. With the proposed Preferred Alternative, future conditions for exterior traffic noise levels are predicted to range from 53.3 to 65.8 dB(A), and the interior levels at the medical facility and the fire station are predicted to be 36.4 and 42.6 dB(A), respectively.

Based on these results, highway traffic noise levels do not approach, meet, or exceed the NAC in the future with the proposed project improvements at any of the evaluated receptors. The results of the analysis also indicate that when compared to existing conditions, traffic noise levels with the proposed improvements will not increase more than 9.5 dB(A) at any receptor. As such, the project will not substantially increase highway traffic noise (i.e., an increase of 15 dB(A) or more).

Based on the results, there are no highway traffic noise impacted land uses within the project area that require abatement consideration. Should the proposed improvements change during the project's final design phase such that a re-analysis of highway traffic noise is warranted, and impacts are identified in the analysis, an evaluation of noise abatement measures would be performed. Land use will be reevaluated in design and any noise receptor permitted prior to LDCA will be evaluated in design.

- Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement

- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved

The residences and the medical facility within the project limits are considered construction noise and vibration sensitive sites. Implementing the proposed project is not expected to have a significant noise or vibration impact on these sites because it is anticipated that application of the FDOT *Standard Specifications for Road and Bridge Construction* will minimize or eliminate the potential for such impacts. Should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

Land uses such as residences, motels, medical facilities, schools, churches, recreation areas, and parks are considered incompatible with highway traffic noise levels that approach, meet, or exceed the NAC. To reduce the possibility of noise-related impacts on land uses that may be approved for construction in the future, noise level contours were developed for the future improved roadway facility. Local officials will be provided a copy of the NSR that delineates/illustrates the contours to promote compatibility between land development and the proposed improvements.

6.2 Air Quality

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.
Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

6.3 Contamination

A Contamination Screening Evaluation Report (CSER) (September 2023) was prepared for the project and is included in the project file. As seen in **Table 5**, 21 sites were considered to have potential for contamination. Two sites were rated as "High" risk, four sites were rated as "Medium" risk, 12 sites were rated as "Low" risk, and three sites were rated as "No" risk for contamination. Additionally, one SMF site (Pond 1-E) was evaluated and assigned a "Medium" risk rating for the project (**Table 6**). Following the Final CSER, further assessments were conducted, and Pond 1-E was removed as the selected SMF.

Table 5. Potential Contamination Site Risk Ratings

Site No.	Name/Address	ROW (ft.)	Database/ Facility ID/ or Other Source	Contaminants of Concern	Site Rating
3	**First Bank** 11741 Palm Beach Blvd.	Adjacent south of SR 80	Site reconnaissance, Aerials photos	Petroleum	No

5	**Tire Recycling Services of Florida, LLC** 11821 Palm Beach Blvd.	380 ft. south of SR 80	SLDWST_NLF	Waste Tires	No
1	**Tire Services of Florida** 11480 Palm Beach Blvd.	1,000 ft. west of SR 80 project limit	WACS 96352 (formerly SLDWST_LF 99249)	Waste Tires, Petroleum, Solvents	Low
2	**Pole Barn/ Green House/ Tree Farm** 2950-2990 Wildwood Lane	100 ft. north of SR 80	Site reconnaissance, Aerial photos	Petroleum, Herbicides, Pesticides	Low
4	**Verandah Cleaners** 11821 Palm Beach Blvd.	480 ft. south of SR 80	Site reconnaissance, Aerial photos	Dry Cleaning solvents	Low
10	**Superior Auto Care** 12238 Palm Beach Blvd.	Adjoining north of SR 80 ROW	N/A	Petroleum, solvents	Low
12	**Veranda Club Golf Course** 12355 Palm Beach Blvd.	Adjoining south SR 80 ROW	9805918	Petroleum, solvents, pesticides, herbicides, arsenic	Low
13	**Fort Myers Shores Fire Department Station 81** 12345 Palm Beach Blvd.	Adjoining south of SR 80 ROW	8627451	Petroleum	Low
14	**Fox Plumbing and Pool Supplies** 12338 Palm Beach Blvd.	Adjacent north of SR 80 ROW	Site reconnaissance, Aerial photos	Hazardous Substances	Low
15	**Carrillo's Tires/ Former Turn Key Tire and Auto** 12370 Palm Beach Blvd.	350 ft. east of the SR 80 east project limit	SWNLF 101004	Petroleum, solvents	Low
16	**7-Eleven/ Mobil** 12516 Palm Beach Blvd.	490 ft. east of SR 80 project limit	9804195	Petroleum	Low
6	**7-Eleven** 11891 Palm Beach Blvd.	Adjacent south of a SR 80 ROW	9807804	Petroleum	**Medium**
8	**RaceTrac #2571** 12050 Palm Beach Blvd.	Adjoining north of SR 80 ROW	9817743	Petroleum	**Medium**
9	**Accident SR 31 & Palm Beach Blvd** 11741 Palm Beach Blvd.	Adjacent north of SR 80 ROW	FDEP OHMIT #2019-3I-63060 ERIC 11334	Petroleum	**Medium**

11	**Former Circle K #2707335 / Redbone Spirits** 12255 Palm Beach Blvd. (Formerly 7033)	Adjoining north of SR 80 ROW	8518912	Petroleum	**Medium**
7	**Former Gas Station** 12002-12010 Palm Beach Blvd.	Within proposed and adjoining SR 31 ROW	Aerial photographs	Petroleum	**High**
SR 31 (Babcock Ranch Road)					
20	**David C. Brown Farms** Hwy 31	Adjacent east	TANKS 9401433	Petroleum	No
17	**Johns Farm** 16361 SR 31	Adjoining west of SR 31	Site reconnaissance, Aerial photos	Petroleum	Low
18	**LJ's Lounge** 16500 SR 31	Within ROW	Site reconnaissance, Aerial photos	Asbestos, LBP	Low
19	**Sweetwater Landing** 16691 Hwy 31 **Former Marina 31** 17281 Hwy 31	Adjoining west	9804415 9102602 ERIC_11236	Petroleum	Low
21	**Wilson Pigott Bridge / FDOT Bridge No. 120064**	Within existing SR 31 ROW	Site reconnaissance, Aerial photographs	Asbestos, Metals-Based Coatings	**High**

Table 6. Drainage Sites

Site Name & Address	Databases/ Facility ID/ or Other Source	Contaminants of Concern	Risk Rating
Pond 1-E 2600 Wildwood Lane (N 1/2) and Folio 10239222 (S 1/2)	N/A	Petroleum, Herbicides, Pesticides	**Medium**

A total of six sites were assigned a risk rating of "Medium" or "High". Four of these six sites will require further evaluation and Level II testing at the District's discretion based on proposed construction activities. Although Sites 9 and 21 were rated "Medium" and "High," no testing is recommended. For Site 9 - Accident SR 31 & Palm Beach Boulevard, additional file review is recommended to determine if testing is warranted in consideration of NPDES permitting. No further testing is warranted for Site 21 - Wilson Pigott Bridge (FDOT No. 120064) since an asbestos survey and screening for Metals-Based Coatings was already performed.

Once final design plans are available, additional review will be conducted in consideration of dewatering operations that may be necessary under the *National Pollutant Discharge Elimination System Generic Permit for Stormwater Discharges from Large and Small Construction Activities*. Verification testing may be warranted for contamination issues within 500 feet of the dewatering area. For areas where a structure is located within proposed ROW, an asbestos survey may be warranted.

6.4 Utilities and Railroads

A Utility Assessment Package (UAP) was prepared in April 2024 for this project and is included in the project file. A design ticket was obtained from the Sunshine One Call of Florida. Based on the information received and coordination with the Area Utility Manager, a utility contact list was created of participating members in the study area. The responding Utility Agency Owners (UAOs) are summarized in **Table 7**.

Utility owners were contacted and asked to verify ownership or operation of any facilities, existing or proposed, within the project study area. The UAOs were also provided a copy of the preliminary project concept plans and were asked to reply with a narrative of major utilities that may require relocation.

Table 7. Utility Owners and Facility Type

Utility Agency/Owner	Type of Facility
CenturyLink Local	Buried telephone (BT) lines Fiber optic cables (FOC) Overhead telephone facilities
City of Fort Myers	Concrete reinforced pressure water main
Comcast	Overhead facilities on FP&L Distribution poles Underground facilities
Crown Castle	FOC Aerial fiber
Florida Gas Transmission (FGT)	Natural Gas pipeline
Florida Power & Light - Distribution	Overhead facilities
Florida Power & Light - Transmission	Transmission lines
Lee County Electric	Power lines Overhead street lighting circuits
Lee County Traffic	FDOT buried FOC Street lighting
Lee County Utilities	Force mains Water main Water service line Six hydrants
Summit Broadband	Underground FOC
TECO Peoples Gas	PE Gas Main Steel Gas Main

Twelve UAOs have potential conflicts between their facilities and the proposed project, depending on what improvements are made. Potential conflicts include buried fiber, buried copper, water mains, wastewater mains, gas mains, and power poles. If Florida Power & Light or Lee County Electric is in conflict, then the joint users on their poles will be in conflict as well.

Most of the UAOs have the capability to adjust their services without causing major inconvenience to their customers. Mitigation measures should include minimizing service disruptions, allowing service disruptions only during periods of minimum usage, and installing alternative or new services before disconnecting the existing service.

There are no active or inactive railroad facilities or crossings within or adjacent to the project limits.

6.5 Construction

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. Construction activities for the proposed project will have temporary air, noise, water quality, traffic flow, and visual effects for residents and travelers within the immediate vicinity of the project. These effects will be minimized through the application of the FDOT Standard Specifications for Road and Bridge Construction.

During construction, the contractor will utilize BMPs to minimize any sedimentation and erosion impacts to areas outside of the limits of construction. This project will require a NPDES permit that will be developed during design. The contractor is responsible for their methods of controlling pollution on haul roads, borrow pits, other material pits, and areas used for disposal of materials from the project. Temporary erosion (water quality) control features as specified in Section 104 of FDOT *Standard Specifications for Road and Bridge Construction* will consist of measures such as temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

The residences and the medical facility within the project limits are construction noise and vibration sensitive sites. Construction of the proposed roadway improvements is not expected to have any significant noise or vibration impacts on these properties. If sensitive land uses develop adjacent to the roadway prior to construction, increased potential for noise or vibration impacts could result. It is anticipated that the application of the FDOT Standard Specifications for Road and Bridge Construction will minimize or eliminate potential construction noise and vibration impacts. The FDOT Standard Specifications contain the following requirements for construction noise and vibration control:

- The contractor shall operate only factory recommended exhaust muffles on internal combustion engines
- Back up alarm noise from heavy equipment and trucks shall be minimized by requiring the contractor to operate forward passes or in a figure eight pattern when dumping, spreading, or compacting material
- Adequate equipment maintenance procedures shall be used to ensure the elimination of unnecessary noise caused by loose body parts on all construction equipment
- Excessive tailgate banging by haul trucks shall be prohibited
- All stationary equipment shall be screened from noise-sensitive receptor sites if the equipment is to operate beyond normal working hours. If feasible, the equipment shall be screened during normal working hours to reduce noise impacts
- When feasible, the contractor shall establish haul routes to direct vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.

Should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

Temporary impacts to travelers along SR 31 and SR 80 are anticipated during construction of the flyover. A Maintenance of Traffic (MOT) plan will be developed during final design for the implementation of the Preferred Alternative.

7. Engineering Analysis Support

The engineering analysis supporting this environmental document is contained within the Preliminary Engineering Report.

8. Permits

The following environmental permits are anticipated for this project:

Federal Permit(s)	Status
USACE Section 10 or Section 404 Permit	To be acquired
USCG Bridge Permit	To be acquired

State Permit(s)	Status
DEP or WMD Environmental Resource Permit (ERP)	To be acquired
DEP National Pollutant Discharge Elimination System Permit	To be acquired
WMD Right of Way Permit	To be acquired

9. Public Involvement

The following is a summary of public involvement activities conducted for this project:

Summary of Activities Other than the Public Hearing
A Public Involvement Plan (PIP) was approved in February 2019 and is included in the project file, and implemented for this project in accordance with the Florida Statutes (F.S.) 286.105, and 339.115; Executive Orders 11990 and 11988; Council on Environmental Quality regulations for implementing the procedural provisions of the NEPA; U.S. Department of Transportation Order 5610.1C; and the CFR Parts 23 and 40. The purpose of this plan is to outline the public involvement approach for the project and identify stakeholders and communities informed throughout the project's lifetime.

Advance Notification and Program Screen Summary Report

An Advance Notification (AN) package was completed for this project and mailed to the Florida State Clearinghouse and local and federal agencies on June 22, 2018, in accordance with Governor's Executive Order 95-359 - Florida State Clearing House and President's Executive Order 12372 - Intergovernmental Review of Federal Programs.

Project Kick-Off Newsletter

Project kickoff emails were sent to elected officials by the FDOT District One Secretary and sent to appointed officials by FDOT District Environmental Administrator, on April 25, 2019. The emails are included in the Comments and Coordination Report (February 2024), located in the project file. These emails provided an overview of the project and public involvement program and included the first project newsletter.

The project kickoff newsletter, published in English, was mailed on April 20, 2019, to introduce the project to the public and provide information on the study process and schedule. The newsletter also provided project contact information and encouraged public input.

The newsletter mailing list was developed from property owner information obtained from the Lee County Property Appraiser's website, and also included interested parties that requested to be included on the project mailing list.

Alternatives Public Meeting

The FDOT conducted an in-person Alternatives Public Meeting on Tuesday, January 31, 2023, at the Field House at Babcock Ranch. Subsequently, a live virtual Alternatives Public Meeting was held on Tuesday, February 7, 2023, at 6 p.m. FDOT held the public meetings to present the Build Alternatives and the No-Build Alternative for the project.

A joint in-person Alternatives Public Meeting was initially planned for both this SR 31 PD&E and the SR 78 (I-75 to SR 31) PD&E studies for Tuesday, December 6, 2022, as the studies are in proximity to each other. The meeting was advertised, and notifications were sent the week of November 8, 2022, to elected and appointed officials, ETAT members, and stakeholders for both studies. FDOT also prepared and mailed a newsletter announcing the public meetings to property owners along the corridor, advertised the public meetings in the Florida Administrative Register and the News-Press, prepared and disseminated a press release to local media partners, and announced the in-person and online meetings on the project webpage and on the FDOT public meeting notice site. However, on November 22, 2022, the Lee County Civic Center, the intended venue for the meeting, informed the project team that their venue was no longer available because

their facility was needed for Hurricane Ian relief efforts. FDOT distributed cancellation notices/advertisements shortly thereafter and the public meeting was able to be rescheduled for just the SR 31 PD&E Study. Due to uncertainty surrounding hurricane relief efforts at the civic center, FDOT made the decision to host the public at The Field House at Babcock Ranch in January 2023.

Approximately 108 citizens and one elected official signed in at the in-person public meeting and approximately 35 citizens attended the live online public meeting. Public comments were encouraged, and FDOT provided various outlets to share their comments on the four Build Alternatives and No-Build Alternative at the meeting with FDOT/consultant staff, or through other methods. A continuous project video presentation as well as mapping and displays provided project information.

Attendees were provided a project handout that included an overview of the PD&E study process, project purpose, alternatives evaluation results, project schedule and a comment form. Approximately 37 comments were received during the comment period. The comments were generally in favor of the project, in favor of the flyover, and in favor of the fixed bridge. Multiple comments were concerned with the impacts to businesses, noise, and others had questions about the duration of construction. All comments received were considered prior to advancing the Preferred Alternative to final design. Comments and responses are documented in the Comments and Coordination Report, located in the project file.

Stakeholder and Agency Coordination

FDOT coordinated with and presented project updates to the Lee County Department of Transportation (DOT) on November 3, 2022, and May 5, 2023. Attendees for the November presentation included representatives from Lee County DOT, FDOT, and consultants for both the SR 31 and SR 78 PD&E studies.

Two additional presentations were made to the Lee County MPO Bike and Pedestrian Advisory Committee (BPAC) and Traffic Management and Operations Committee (TMOC) in June and July 2023.

The public involvement process, including meeting summaries, comments/responses, and materials, are documented in the Comments and Coordination Report, located in the project file.

Date of Public Hearing: 11/02/2023

Summary of Public Hearing

The public hearing was held on Tuesday, November 2, 2023 at the Field House at Babcock Ranch, 43281 Cypress Parkway, Babcock Ranch, Florida 33982. The formal hearing portion was live streamed online through GoToWebinar. The public hearing was advertised through multiple channels, including emails sent to elected and appointed officials, interested parties, and ETAT members; a newsletter mailed to property owners; postings in the Florida Administrative Register and on the FDOT Public Notice Website; legal advertisements in the News Press; and two press releases. Meeting materials were posted to the project website on October 26, 2023. The Draft Type 2 Categorical Exclusion and supporting technical reports were made available for public review at the Riverdale Public Library and the FDOT SWIFT SunGuide Center from October 11 through November 12, 2023.

A total of 85 attendees participated in person and 36 joined virtually. Attendees were provided with a handout and the project team explained the comment process. The in-person event included an open house from 5 - 6 p.m., followed by the formal portion of the hearing at 6 p.m. for both the in-person and online attendees. A project presentation was played, and the public had the opportunity to provide verbal comments. Two verbal comments were provided at the in-person event and there were no verbal comments from virtual attendees.

In addition to the verbal comments, other comments were submitted either by email, website, or by mail. In-person attendees were able to leave written comments. Two comment forms were received at the in-person hearing and two were received during the 10-day comment period following the meeting, ending November 12, 2023. A total of 11 comments were received with the majority submitted prior to the in-person hearing. The comments were generally in support of the project, with some comments concerned with intersection changes at SR 31/SR 80, property impacts, and noise. The Public Hearing Transcript and Public Hearing Certification are attached.

10. Commitments Summary

1. The NMFS *Protected Species Construction Conditions*, NOAA Fisheries Southeast Regional Office will be utilized during construction.
2. The most recent version of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* will be utilized during construction.
3. The USFWS and FWC *Standard Manatee Conditions for In-Water Work* will be utilized during construction.
4. FDOT will require contractors to remove garbage daily from the construction site or use bear proof containers for securing food and other debris from the project work area to prevent these items from becoming an attractant for the Florida black bear. Any interaction with nuisance bears will be reported to the FWC Wildlife Alert hotline.
5. FDOT will provide mitigation for impacts to wood stork Suitable Foraging Habitat within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank.
6. Prior to demolition of Wilson Pigott Bridge, bat exclusion must be completed to comply with FAC rule 88A-4.001 General Prohibitions; and rule 68A-9.010 Taking Nuisance Wildlife. Per regulations, exclusion is not permitted during bat maternity season of April 15 through August 15. Exclusion devices must be left up for a minimum of four nights and the low temperature must be forecasted to remain above 50 degrees Fahrenheit during that time period.
7. Should the listing status of the tricolored bat be elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area during design and permitting phase of the proposed project, FDOT commits to re-initiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tricolored bat.
8. The NMFS *Vessel Strike Avoidance Measures*, NOAA Fisheries Southeast Regional Office will be utilized during construction.
9. A survey for giant leather fern will be performed during the design phase and coordination with FDACS will occur if impacts to the species are anticipated.
10. In-water pile driving will only be conducted during the daylight hours and a "ramp-up" procedure will be used for all in-water impact driving.
11. If FDOT becomes aware of any take on an ESA-listed species under NMFS's purview that occurs during the proposed action, FDOT shall report the take to NMFS SERO PRD via the NMFS SERO Endangered Species Take Report Form and reinitiate consultation, if warranted.
12. FDOT must immediately notify (within 24 hours, if communication is possible) the Office of Protected Resources if a take of a listed marine mammal occurs.

11. Technical Materials

The following technical materials have been prepared to support this Environmental Document and are included in the Project File.

Sociocultural Data Report
Cultural Resources Assessment Survey
Natural Resources Evaluation Report
Location Hydraulics Report
Bridge Hydraulic Report
WQIE Checklist
Pond Siting Report
Contamination Screening Evaluation Report
Utilities Assessment Package
Noise Study Report
Preliminary Engineering Report
Bridge Development Report
Project Traffic Analysis Report
Project Traffic Analysis Report Addendum
Public Involvement Plan
Comments and Coordination Report

Attachments

Planning Consistency
Planning Consistency Documentation

Social and Economic
Farmland Conversion Impact Rating Form (NRCS-CPA-106)
Lee County Future Land Use Map
Land Use Map

Cultural Resources
Section 106 Resource Map
SHPO Concurrence Letter
Section 4(f) Report

Natural Resources
EFH Concurrence Letter
Species Concurrence Letter - FWC
NMFS Correspondence
Floodplains Map
Species and Habitat Map
Wetlands Map
Species Concurrence Letter - USFWS
NMFS Biological Opinion

Physical Resources
Potential Contamination Site Map
Noise Map

Public Involvement
Public Hearing Certification
Public Hearing Transcript

Planning Consistency Appendix

Contents:

LEE COUNTY MPO
METROPOLITAN PLANNING ORGANIZATION

Lee County Metropolitan Planning Organization

Long Range Transportation Plan

Adoption December 18, 2020

Table 5-9: Cost Feasible Projects: State/Other Arterial/ Federal SU Funded Road Projects ($1,000)

Road Name	From	To	Improvement	Phase	2021-2025	2026-2030	2031-2035	2036-2045	Total Cost (YOE)	Total Cost (PDC)	Funding Sources
Countywide Signal System Updates, Final Phase			ITS	PE		$1,500	$0	$0	$1,500	$1,200	SU, SA, DDR
Countywide Signal System Updates, Final Phase			ITS	CST		$10,730	$0	$0	$10,730	$8,000	SU, SA, DDR
Metro Parkway	South of Daniels Parkway	Winkler Avenue	Widen 4L to 6L/CFI	ROW	$18,070	$0	$0	$0	$18,070	$18,070	DDR, DS,DIH
Metro Parkway	South of Colonial Blvd	Winkler Avenue	Widen 4L to 6L/CFI	CST		$49,620	0	$0	$49,620	$37,700	OA
Metro Parkway	South of Daniels Parkway	North of Daniels Parkway	CFI	CST		$27,620	0	$0	$27,620	$20,900	OA
Metro Parkway	North of Daniels Parkway	South of Colonial Blvd.	Widen 4L to 6L	CST		$37,820	0	$0	$37,820	$28,650	OA
Big Carlos Bridge Replacement Repayment			Reconstruct Bridge	CST	$8,500	$16,500	$0	$0	$25,000	$21,000	SU/SA
San Carlos Boulevard	Estero Blvd	Summerlin Road	Intersection Improvements	CST	$5,990	$0	$0	$0	$5,990	$5,990	SU/TALU
Old US 41	Collier County Line	Bonita Beach Road	Add Lanes & Reconstruct	PE		$2,640	$0	$0	$2,640	$2,110	SU
Old US 41	Collier County Line	Bonita Beach Road	Add Lanes & Reconstruct	ROW		$5,800	$0	$0	$5,800	$4,880	SU
Old US 41	Collier County Line	Bonita Beach Road	Add Lanes & Reconstruct	CST		$0	$22,170	$0	$22,170	$14,300	SU
US 41 at Six Mile Cypress			Intersection Improvements	PE		$4,690	$0	$0	$4,690	$3,553	OA
US 41 at Six Mile Cypress			Intersection Improvements	ROW		$0	$7,560	$0	$7,560	$4,880	OA
US 41 at Six Mile Cypress			Intersection Improvements	CST		$0	$39,430	$0	$39,430	$29,870	OA
SR78	W. of Santa Barbara	24th Avenue	Widen 4L to 6L	PD&E		$0	$3,090	$0	$3,090	$2,190	OA
SR 78	W. of Santa Barbara	24th Avenue	Widen 4L to 6L	PE		$0	$9,270	$0	$9,270	$6,000	OA
SR 78	W. of Santa Barbara	24th Avenue	Widen 4L to 6L	CST		$0	$0	$81,080	$81,080	$43,710	OA
SR 78	I-75	SR 31	Widen 2L to 4L	PE		$3,080	$0	$0	$3,080	$2,330	OA
SR 78	I-75	SR 31	Widen 2L to 4L	ROW		$0	$6,770	$0	$6,770	$4,370	OA
SR 78	I-75	SR 31	Widen 2L to 4L	CST		$0	$25,860	$0	$25,860	$16,700	OA
SR 78	Old US 41	Slater Road	Widen 4L to 6L	PD&E		$0	$1,920	$0	$1,920	$1,360	OA
SR 78	Old US 41	Slater Road	Widen 4L to 6L	PE		$0	$0	$8,360	$8,360	$4,080	OA
SR 78	Old US 41	Slater Road	Widen 4L to 6L	CST		$0	$0	$50,400	$50,400	$27,200	OA

Road Name	From	To	Improvement	Phase	2021-2025	2026-2030	2031-2035	2036-2045	Total Cost (YOE)	Total Cost (PDC)	Funding Sources
Fowler Street	Metro/Fowler Cross over	Dr Martin Luther King Jr Blvd	Reconstruction	PD&E/PE/ROW/CST		$5,500	$28,700	$0	$34,200	$22,670	OA
Burnt Store Road	Van Buren Parkway	Charlotte County Line	Widen 2L to 4L	PE		$8,090	$0	$0	$8,090	$6,130	SU
Burnt Store Road	Van Buren Parkway	Charlotte County Line	Widen 2L to 4L	ROW		$15,680	$0	$0	$15,680	$13,514	SU
Burnt Store Road	Van Buren Parkway	Janis Road	Widen 2L to 4L	CST		$0	$12,535	$0	$12,535	$7,950	SU, LF
Burnt Store Road	Janis Road	Durden Parkway	Widen 2L to 4L	CST		$0	$14,700	$0	$14,700	$9,300	SU, LF
Burnt Store Road	Durden Parkway	Charlotte Co/Line	Widen 2L to 4L	CST		$0	$15,900	$0	$15,900	$10,100	SU, LF
SR 31	SR 80	SR 78	Widen 2L to 6L	ROW		$0	$23,780	$0	$23,780	$16,400	OA
SR 31	SR 80	SR 78	Widen 2L to 6L	CST		$0	$0	$164,000	$164,000	$80,000	OA
Cape Coral Evacuation Study			Access	Planning	$300	$0	$0	$0	$300	$300	SU, LF
US 41/Bonita Beach Road	Intersection		Intersection	PE		$3,190	$0	$0	3,190	2,400	OA
US 41/Bonita Beach Road	Intersection		Intersection	ROW		$5,940	$0	$0	5,940	4,500	OA, LF, SU
US 41/Bonita Beach Road	Intersection		Intersection	CST		$0	$26,800	$0	26800	17,300	OA, LF, SU
US 41/SR 78	Intersection		Intersection	PE		$750	$0	$0	750	570	OA
US 41/SR 78	Intersection		Intersection	CST		$8,050	$0	$0	8050	6,100	OA
ACES Technology Support				Capital		$5,000	$9,000	$50,000	$64,000	$33,900	OA, SU
Transit Operations Congestion Management				OPS							OA
Major Intersections/Interchanges			Operational & Safety Improvements	P/R/CST		$10,000	$10,000	$150,000	$170,000	$88,300	OA, SU
				Total Cost:	**$32,860**	**$222,200**	**$257,485**	**$503,840**	**$1,016,385**	**$628,477**	
				Revenues:	**$32,860**	**$226,600**	**$258,020**	**$538,910**	**$1,056,390**		

Project Phases - PD&E: Project Development and Environment; PE: Project Engineering and Design; ROW: Right-of-Way; CST: Construction
Funding Sources - SU: Federal Surface Transportation Program Urban Area funds >200,00; SA: Federal Surface Transportation Program any area; OA: State Other Arterial funding; DDR: State District Dedicated Revenue; LF: Local Funding; DIH: State District In-house
Other - ACES: Automated, Connected, Electric & Shared Vehicle Technology

ITEM NUMBER:441900 1 PROJECT DESCRIPTION:MARSH AVENUE FROM MICHIGAN AVE TO SR 80 (PALM BEACH) BLVD *NON-SIS*
DISTRICT:01 COUNTY:LEE TYPE OF WORK:SIDEWALK
ROADWAY ID:12000000 PROJECT LENGTH: 4.737MI LANES EXIST/IMPROVED/ADDED: 0/ 0/ 0

FUND CODE	LESS THAN 2024	2024	2025	2026	2027	2028	GREATER THAN 2028	ALL YEARS
PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY CITY OF FORT MYERS								
GFSU	96,544	500	0	0	0	0	0	97,044
PHASE: CONSTRUCTION / RESPONSIBLE AGENCY: MANAGED BY CITY OF FORT MYERS								
SU	0	0	733,453	0	0	0	0	733,453
TALU	0	0	280,757	0	0	0	0	280,757
TOTAL 441900 1	**96,544**	**500**	**1,014,210**	**0**	**0**	**0**	**0**	**1,111,254**
TOTAL PROJECT:	**96,544**	**500**	**1,014,210**	**0**	**0**	**0**	**0**	**1,111,254**

ITEM NUMBER:441901 2 PROJECT DESCRIPTION:BELL BLVD FROM SUNRISE BLVD TO JOEL BLVD *NON-SIS*
DISTRICT:01 COUNTY:LEE TYPE OF WORK:SIDEWALK
ROADWAY ID: PROJECT LENGTH: .000 LANES EXIST/IMPROVED/ADDED: 0/ 0/ 0

FUND CODE	LESS THAN 2024	2024	2025	2026	2027	2028	GREATER THAN 2028	ALL YEARS
PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY FDOT								
CARU	397,321	1,367	0	0	0	0	0	398,688
PHASE: CONSTRUCTION / RESPONSIBLE AGENCY: MANAGED BY FDOT								
SU	0	0	298,641	0	0	0	0	298,641
TOTAL 441901 2	**397,321**	**1,367**	**298,641**	**0**	**0**	**0**	**0**	**697,329**
TOTAL PROJECT:	**397,321**	**1,367**	**298,641**	**0**	**0**	**0**	**0**	**697,329**

ITEM NUMBER:441942 2 PROJECT DESCRIPTION:SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)BRIDGE#120064 *SIS*
DISTRICT:01 COUNTY:LEE TYPE OF WORK:BRIDGE REPLACEMENT
ROADWAY ID:12090000 PROJECT LENGTH: 1.407MI LANES EXIST/IMPROVED/ADDED: 2/ 0/ 0

FUND CODE	LESS THAN 2024	2024	2025	2026	2027	2028	GREATER THAN 2028	ALL YEARS
PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY FDOT								
DI	1,436,163	0	0	0	0	0	0	1,436,163
DIH	0	50,000	0	0	0	0	0	50,000
PHASE: RAILROAD & UTILITIES / RESPONSIBLE AGENCY: MANAGED BY FDOT								
DI	0	600,000	0	0	0	0	0	600,000
LF	0	300,000	0	0	0	0	0	300,000
TOTAL 441942 2	**1,436,163**	**950,000**	**0**	**0**	**0**	**0**	**0**	**2,386,163**

ITEM NUMBER:441942 3 PROJECT DESCRIPTION:SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD) *SIS*
DISTRICT:01 COUNTY:LEE TYPE OF WORK:ADD LANES & RECONSTRUCT
ROADWAY ID:12090000 PROJECT LENGTH: .148MI LANES EXIST/IMPROVED/ADDED: 2/ 0/ 0

FUND CODE	LESS THAN 2024	2024	2025	2026	2027	2028	GREATER THAN 2028	ALL YEARS
PHASE: RIGHT OF WAY / RESPONSIBLE AGENCY: MANAGED BY FDOT								
DIH	0	50,000	0	0	0	0	0	50,000
GR23	0	30,000,000	0	0	0	0	0	30,000,000
TOTAL 441942 3	**0**	**30,050,000**	**0**	**0**	**0**	**0**	**0**	**30,050,000**
TOTAL PROJECT:	**1,436,163**	**31,000,000**	**0**	**0**	**0**	**0**	**0**	**32,436,163**

Florida Department of

TRANSPORTATION

Web Application

Federal Aid Management David Williams - Manager

STIP Project Detail and Summaries Online Report

**** Repayment Phases are not included in the Totals ****

Selection Criteria	
Current STIP	**Detail**
Financial Project: 441942 _	**Related Items Shown**
County/MPO Area: Lee	**As Of:** 2/27/2024

HIGHWAYS

Item Number: 441942 1 **Project Description:** SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD) *SIS*

District: 01 **County:** LEE **Type of Work:** PD&E/EMO STUDY **Project Length:** 1.407MI

		Fiscal Year						
Phase / Responsible Agency		**<2024**	**2024**	**2025**	**2026**	**2027**	**>2027**	**All Years**
P D & E / MANAGED BY FDOT								
Fund Code:	DDR-DISTRICT DEDICATED REVENUE	2,383,011						**2,383,011**
	DIH-STATE IN-HOUSE PRODUCT SUPPORT	68,230	28,271					**96,501**
	DS-STATE PRIMARY HIGHWAYS & PTO	223,224						**223,224**
Phase: P D & E Totals		**2,674,465**	**28,271**					**2,702,736**
Item: 441942 1 Totals		**2,674,465**	**28,271**					**2,702,736**

Item Number: 441942 2 **Project Description:** SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)BRIDGE#120064 *SIS*

District: 01 **County:** LEE **Type of Work:** BRIDGE REPLACEMENT **Project Length:** 1.407MI

	Fiscal Year						
Phase / Responsible Agency	**<2024**	**2024**	**2025**	**2026**	**2027**	**>2027**	**All Years**
PRELIMINARY ENGINEERING / MANAGED BY FDOT							

Fund Code:	DDR-DISTRICT DEDICATED REVENUE	273						**273**
	DI-ST. - S/W INTER/INTRASTATE HWY	1,436,163						**1,436,163**
	DIH-STATE IN-HOUSE PRODUCT SUPPORT		50,000					**50,000**
	DS-STATE PRIMARY HIGHWAYS & PTO	24,374						**24,374**
Phase: PRELIMINARY ENGINEERING Totals		**1,460,810**	**50,000**					**1,510,810**
RAILROAD & UTILITIES / MANAGED BY FDOT								
Fund Code:	DI-ST. - S/W INTER/INTRASTATE HWY		600,000					**600,000**
	LF-LOCAL FUNDS		300,000					**300,000**
Phase: RAILROAD & UTILITIES Totals			**900,000**					**900,000**
Item: 441942 2 Totals		**1,460,810**	**950,000**					**2,410,810**

Item Number: 441942 3 **Project Description:** SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD) *SIS*

District: 01 **County:** LEE **Type of Work:** ADD LANES & RECONSTRUCT **Project Length:** 0.148MI

		Fiscal Year						
Phase / Responsible Agency		**<2024**	**2024**	**2025**	**2026**	**2027**	**>2027**	**All Years**
RIGHT OF WAY / MANAGED BY FDOT								
Fund Code:	DIH-STATE IN-HOUSE PRODUCT SUPPORT		50,000					**50,000**
	GR23-GAA EARMARKS FY2023		30,000,000					**30,000,000**
Phase: RIGHT OF WAY Totals			**30,050,000**					**30,050,000**
Item: 441942 3 Totals			**30,050,000**					**30,050,000**
Project Totals		**4,135,275**	**31,028,271**					**35,163,546**
Grand Total		**4,135,275**	**31,028,271**					**35,163,546**

This site is maintained by the Office of Work Program and Budget, located at 605 Suwannee Street, MS 21, Tallahassee, Florida 32399.

For additional information please e-mail questions or comments to:
Federal Aid Management
David Williams: David.Williams@dot.state.fl.us Or call 850-414-4449
Or
Denise Strickland: Denise.Strickland@dot.state.fl.us Or call 850-414-4491

Reload STIP Selection Page

Office Home: Office of Work Program

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- Performance
- Statement of Agency
- Web Policies & Notices

Florida Department of Transportation

Consistent, Predictable, Repeatable

FDOT

STRATEGIC INTERMODAL SYSTEM FUNDING STRATEGY

SIS

FIRST FIVE YEAR PLAN

Multi-Modal

FY 2022/2023 through FY 2026/2027

Capacity Projects on the Strategic Intermodal System
State of Florida Department of Transportation

2022/2023 2026/2027

SIS Adopted 1st 5 Year Program
District 1 Non-Interstate Plan

MAP ID	FACILITY	DESCRIPTION	2023	2024	2025	2026	2027	TOTAL STATE MANAGED	TOTAL DISTRICT MANAGED	TOTAL LOCAL FUNDS	PD&E	PE	ENV	ROW	CON
2012105	I-4 AT US 27 (SR 25)	M-INCH: Modify Interchange	$35	$0	$1,652	$3,474	$152,662	**$157,822**	**$0**	**$0**	●	●	●	●	●
4495041	REGIONAL PLANNING STUDY	PDE: Project Dev. & Env.	$5,000	$0	$0	$0	$0	**$0**	**$5,000**	**$0**	●				
4449581	SR 15 (US 441) AT CR 68 (NW 160TH ST)	TURN: Add Turn Lane	$0	$41	$0	$0	$0	**$0**	**$41**	**$0**		●			
4448861	SR 15 (US 441) AT POTTER RD (NE 144TH ST)	TURN: Add Turn Lane	$0	$55	$0	$0	$0	**$0**	**$55**	**$0**		●			
4192433	SR 25 (US 27) FROM CR 630A TO PRESIDENTS DRIVE	A2-6: Add 2 To Build 6 Lanes	$6,700	$20	$50	$0	$0	**$6,596**	**$74**	**$100**		●	●	●	
4192432	SR 25 (US 27) FROM HIGHLANDS COUNTY LINE TO CR 630A	A2-6: Add 2 To Build 6 Lanes	$4,860	$50	$100	$0	$0	**$3,784**	**$926**	**$300**		●	●	●	
4424031	SR 25 (US 27) FROM SOUTH OF SUN 'N LAKE TO NORTH OF SUN 'N LAKE	TURN: Add Turn Lane	$200	$0	$0	$0	$0	**$0**	**$200**	**$0**		●			
4178788	SR 29 FROM CR 80A (COWBOY WAY) TO CR 731 (WHIDDEN RD)	A2-4: Add 2 To Build 4 Lanes	$216	$3,314	$6,165	$0	$0	**$9,566**	**$4**	**$125**		●	●	●	
4175405	SR 29 FROM CR 846 E TO N OF NEW MARKET ROAD W	NR: New Road	$2	$1,106	$5,768	$0	$0	**$6,564**	**$312**	**$0**		●	●	●	
4344901	SR 29 FROM I-75 TO OIL WELL RD	PDE: Project Dev. & Env.	$17	$0	$0	$0	$0	**$0**	**$17**	**$0**	●				
4175406	SR 29 FROM N OF NEW MARKET RD TO SR 82	A2-4: Add 2 To Build 4 Lanes	$576	$0	$0	$300	$33,752	**$33,910**	**$718**	**$0**		●	●	●	●
4175401	SR 29 FROM OIL WELL ROAD TO SR 82	PDE: Project Dev. & Env.	$156	$0	$0	$0	$0	**$0**	**$156**	**$0**	●				
4175402	SR 29 FROM OIL WELL ROAD TO SUNNILAND NURSERY ROAD	A2-4: Add 2 To Build 4 Lanes	$0	$7,440	$0	$0	$0	**$7,440**	**$0**	**$0**		●			
4178784	SR 29 FROM SR 82 TO HENDRY C/L	A2-4: Add 2 To Build 4 Lanes	$51	$0	$0	$0	$0	**$50**	**$1**	**$0**		●	●		
4419501	SR 31 FROM CR 74 TO CR 74	M-INT: Modify Intersection	$1,012	$0	$7,034	$0	$0	**$7,033**	**$1,013**	**$0**		●	●	●	●
4289171	SR 31 FROM SR 78 TO CR 78	PDE: Project Dev. & Env.	$23	$0	$0	$0	$0	**$0**	**$23**	**$0**	●				
4419421	SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)	PDE: Project Dev. & Env.	$21	$0	$0	$0	$0	**$0**	**$21**	**$0**	●				
4419422	SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)	A4-6: Add 4 To Build 6 Lanes	$0	$9,950	$0	$0	$0	**$9,600**	**$50**	**$300**		●			
4338562	SR 60 FROM CR 630 TO GRAPE HAMMOCK RD	A2-4: Add 2 To Build 4 Lanes	$110	$0	$0	$0	$0	**$110**	**$0**	**$0**		●			
4145065	SR 70 FROM CR 29 TO LONESOME ISLAND ROAD	PDE: Project Dev. & Env.	$29	$0	$0	$0	$0	**$0**	**$29**	**$0**	●				
4503341	SR 70 FROM CR 721 S TO CR 559/128 AVE	PDE: Project Dev. & Env.	$4,000	$0	$0	$0	$0	**$4,000**	**$0**	**$0**	●	●			
4498511	SR 70 FROM LONESOME ISLAND RD TO SOUTHERN LEG OF CR 721	PDE: Project Dev. & Env.	$2,000	$0	$0	$0	$0	**$2,000**	**$0**	**$0**	●				
4145062	SR 70 FROM LORRAINE RD TO CR 675/WATERBURY ROAD	PDE: Project Dev. & Env.	$16,264	$0	$0	$0	$0	**$0**	**$16,164**	**$100**		●	●	●	
4145067	SR 70 FROM LORRAINE ROAD TO BOURNSIDE BLVD	A2-4: Add 2 To Build 4 Lanes	$79,849	$0	$0	$0	$0	**$77,564**	**$958**	**$1,327**					●
4193445	SR 710 FROM SHERMAN WOOD RANCHES TO CR 714 (MARTIN C/L)	A2-4: Add 2 To Build 4 Lanes	$84	$0	$0	$0	$0	**$84**	**$0**	**$0**		●			
4193443	SR 710 FROM US 441 TO L-63 CANAL	NR: New Road	$51	$0	$5,966	$0	$0	**$5,957**	**$60**	**$0**		●		●	
4308481	SR 82 FROM HENDRY COUNTY LINE TO GATOR SLOUGH LANE	A2-4: Add 2 To Build 4 Lanes	$51,212	$0	$0	$0	$0	**$49,308**	**$1,905**	**$0**		●	●	●	●
4420273	STATE SIB LOAN FOR SR 31 (BABCOCK RANCH)	A4-6: Add 4 To Build 6 Lanes	$4,482	$0	$0	$0	$0	**$0**	**$0**	**$4,482**				●	
4420274	STATE SIB LOAN FOR SR 31 (BABCOCK RANCH) FROM SR 78 (BAYSHORE RD)	A4-6: Add 4 To Build 6 Lanes	$4,543	$0	$0	$0	$0	**$4,541**	**$2**	**$0**		●		●	●
4349861	US 27 AT SR 64	M-INT: Modify Intersection	$93	$0	$0	$0	$0	**$92**	**$1**	**$0**					●
4495031	US 27 CORRIDOR ALTERNATIVE STUDY	PDE: Project Dev. & Env.	$6,500	$0	$0	$0	$0	**$0**	**$6,500**	**$0**	●				
		ANNUAL TOTALS	**$188,086**	**$21,976**	**$26,735**	**$3,774**	**$186,414**	**$386,021**	**$34,230**	**$6,734**					

All Values in Thousands of "As Programmed" Dollars

Project highlighted with gray background is no longer designated as SIS.

PD&E Project Development & Environmental;
PE Preliminary Engineering;
ENV Environmental Mitigation;
ROW Right-of-Way;
CON Construction & Support (may Include Grants);
TOTAL LOCAL FUNDS include all funds that start with LF fund code;

Social and Economic Appendix

Contents:

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **4/10/24**	4. Sheet 1 of _____
1. Name of Project **SR 31 from SR 80 (Palm Beach Blvd) to SR 78**	5. Federal Agency Involved **USDA - NRCS**	
2. Type of Project **Widening/Bridge Replacement/Intersection Imp**	6. County and State **Lee County, Florida**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **4/12/24**	2. Person Completing Form **Josue Aceituno**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated **13,585** / Average Farm Size **103**
5. Major Crop(s) **Citrus; Vegetables**	6. Farmable Land in Government Jurisdiction **Acres: 36,401** **% 7.08**	7. Amount of Farmland As Defined in FPPA **Acres: 21,212** **% 0.04**
8. Name Of Land Evaluation System Used **None**	9. Name of Local Site Assessment System **Soil Potential Rating**	10. Date Land Evaluation Returned by NRCS **5/16/24**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment _____			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly	**8.1**			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	**0**			
C. Total Acres In Corridor	**16.72**			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	15.4			
B. Total Acres Statewide And Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.04			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	25.6			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	39.8			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	**Maximum Points**				
1. Area in Nonurban Use	**15**	**0**			
2. Perimeter in Nonurban Use	**10**	**0**			
3. Percent Of Corridor Being Farmed	**20**	**0**			
4. Protection Provided By State And Local Government	**20**	**0**			
5. Size of Present Farm Unit Compared To Average	**10**	**0**			
6. Creation Of Nonfarmable Farmland	**25**	**5**			
7. Availablility Of Farm Support Services	**5**	**5**			
8. On-Farm Investments	**20**	**10**			
9. Effects Of Conversion On Farm Support Services	**25**	**0**			
10. Compatibility With Existing Agricultural Use	**10**	**0**			
TOTAL CORRIDOR ASSESSMENT POINTS	**160**	**20**	**0**	**0**	**0**
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	**100**	**39.8**	**0**	**0**	**0**
Total Corridor Assessment (From Part VI above or a local site assessment)	**160**	**20**	**0**	**0**	**0**
TOTAL POINTS *(Total of above 2 lines)*	**260**	**59.8**	**0**	**0**	**0**

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
Preferred Alternative	**8.1**		YES ☐ NO ☑

5. Reason For Selection:

Please refer to Categorical Exclusion.

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

NRCS-CPA-106 *(Reverse)*

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

FUTURE LAND USE MAP

Adopting Ordinance	Effective Date	Date of Adoption
89-02	3/1/1989	1/31/1989
90-09	3/14/1990	3/7/1990
90-43	9/17/1990	9/6/1990
91-10	4/10/1991	4/3/1991
91-19	7/18/1991	7/9/1991
92-35	8/18/1992	8/7/1992
92-41	9/21/1992	9/15/1992
92-47	11/9/1992	10/27/1992
92-48	11/9/1992	10/27/1992
92-51	12/21/1992	12/9/1992
93-05	2/26/1993	2/22/1993
93-25	1/24/1994	9/20/1993
94-23	11/14/1994	8/29/1994
94-29	1/9/1995	10/26/1994
94-30	7/25/1996	11/1/1994
95-27	1/20/1996	12/20/1995
96-19	11/2/1996	10/2/1996
97-05	4/23/1997	3/5/1997
97-17	9/30/1997	8/26/1997
97-13	7/25/1997	6/24/1997
97-22	12/26/1997	11/25/1997
98-02	2/13/1998	1/13/1998
98-09	7/30/1998	6/3/1998
99-02	2/4/2000	4/13/1999
98-26	12/25/1998	11/24/1998
99-15	1/19/2000	11/22/1999
99-16	1/19/2000	11/22/1999
99-17	1/19/2000	11/22/1999
99-18	1/19/2000	11/22/1999
99-19	12/23/1999	11/22/1999
00-08	6/26/2000	5/4/2000
00-16	9/8/2000	8/8/2000
00-22	12/26/2000	11/1/2000
01-24	1/13/2002	12/13/2001
02-02, 03, 04, 05, 06	3/27/2002	1/10/2002
02-29	1/9/2003	10/21/2002
03-01, 02, 03, 04, 05, 06, 07	4/1/2003	1/9/2003
03-12	6/6/2003	5/6/2003
03-19, 03-20, 03-21	1/12/2004	10/23/2003
03-26	3/6/2004	12/15/2003
04-14	12/7/2004	9/20/2004
04-15	10/23/2004	9/22/2004
05-19, 05-21	1/9/2006	10/12/2005
05-20	11/15/2006	10/12/2005
07-07	5/24/2007	4/24/2007
07-06	5/24/2007	4/24/2007
07-09 thru 07-18	8/13/2007	5/16/2007
08-04	4/11/2008	3/11/2008
08-05	4/11/2008	3/11/2008
09-06 thru 09-17	5/15/2009	2/25/2009
10-10, 11, 12, 16	6/2/2010	3/3/2010
10-19	10/19/2011 partial	3/3/2010
10-27	7/19/2010	6/16/2010
10-34 thru 10-39	1/5/2011	10/20/2010
10-33	1/11/2011	10/18/2010
10-40	3/14/2011	10/20/2010
11-15, 11-17	11/11/2011	9/28/2011
14-14	7/19/2014	6/18/2014
15-10	11/17/2017	6/3/2015
16-08	4/16/2016	3/16/2016
16-14	11/7/2016	10/5/2016
16-17	11/18/2016	10/5/2016
17-12	10/20/2017	9/6/2017
17-23	1/28/2018	12/20/2017
18-06	4/5/2018	2/7/2018
18-17	7/29/2018	6/20/2018
18-18	7/29/2018	6/20/2018
18-23	11/28/2018	10/17/2018
18-25	12/24/2018	11/7/2018
19-01	3/9/2019	2/6/2019
19-14	9/13/2019	8/7/2019
19-17	9/29/2019	8/21/2019
20-04	6/11/2020	5/6/2020
20-05	6/11/2020	5/6/2020
21-03	5/16/2021	4/7/2021
21-06	7/5/2021	6/2/2021
22-05	3/19/2022	2/16/2022
22-13	6/18/2022	5/4/2022
23-02	02/18/2023	1/18/2023
23-03	03/17/2023	2/8/2023
23-04	04/08/2023	3/8/2023
23-11	06/17/2023	5/17/2023
23-17	07/22/2023	6/21/2023

FUTURE URBAN AREAS
- Intensive Development
- Central Urban
- Urban Community
- Suburban
- Outlying Suburban
- Sub-Outlying Suburban
- Commercial
- Industrial Development
- Public Facilities
- University Community
- Burnt Store Marina Village
- Destination Resort Mixed Use Water Dependent

INTERCHANGE AREAS
- General Interchange
- University Village Interchange
- Industrial Commercial Interchange
- Industrial Interchange
- General Commercial Interchange

NEW COMMUNITY
- New Community

AIRPORT AREAS
- Tradeport
- Airport

NON-URBAN AREAS
- Rural
- Rural Community Preserve
- Coastal Rural
- Outer Island
- Open Lands
- Density Reduction/Groundwater Resource
- Conservation Lands - Upland

ENVIRONMENTALLY CRITICAL AREAS (WETLANDS)
- Wetlands
- Conservation Lands - Wetland

- City Limits

See Chapter XIII and Lee County Administrative Code 13-2 for standards and procedures for administrative interpretations of the Lee Plan.

N W E S

0 1 2 3 4 5
Miles

Map Generated: October 2023
City limits current to date of map generation

Lee Plan Map 1-A

Lee County Southwest Florida

FDOT

Type 2 Categorical Exclusion

State Road 31 from
State Road 80 to State Road 78

FPID: 441942-1-22-01

Lee County, FL

Existing Land Use

DATA SOURCE:
Aerial Map - ESRI 2023
Lee County Florida GIS

August 2023

Figure 1

Cultural Resources Appendix

Contents:

Figure 26a: Identified Historic Resources (Map 1 of 5)

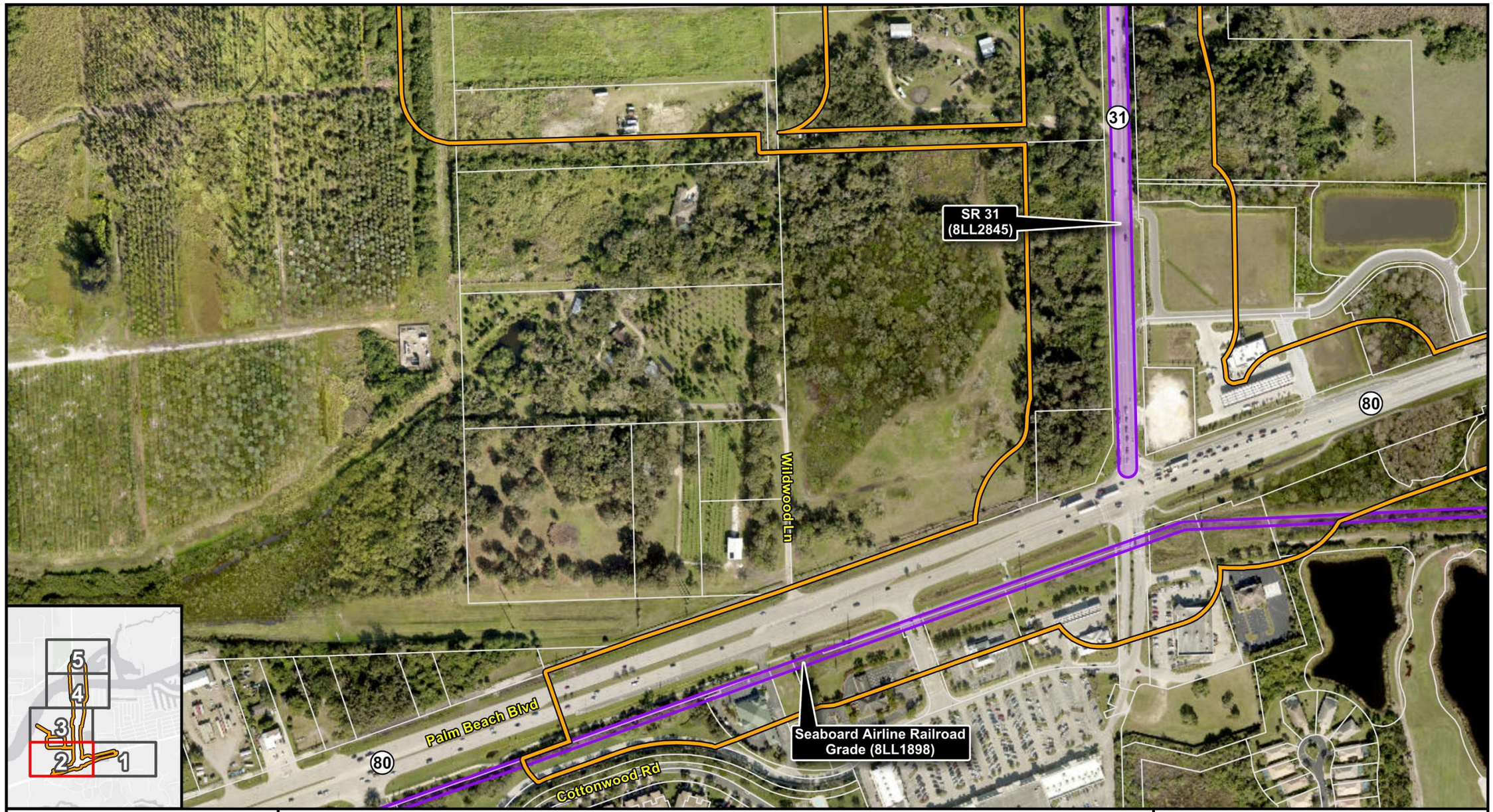


Figure 26b: Identified Historic Resources (Map 2 of 5)

Historic Resources APE
Historic Linear Resource
Historic Canal
8LL00 Newly Recorded Historic Resource
8LL00 Previously Recorded Historic Resource

Lee County

N
0 250 500 Feet

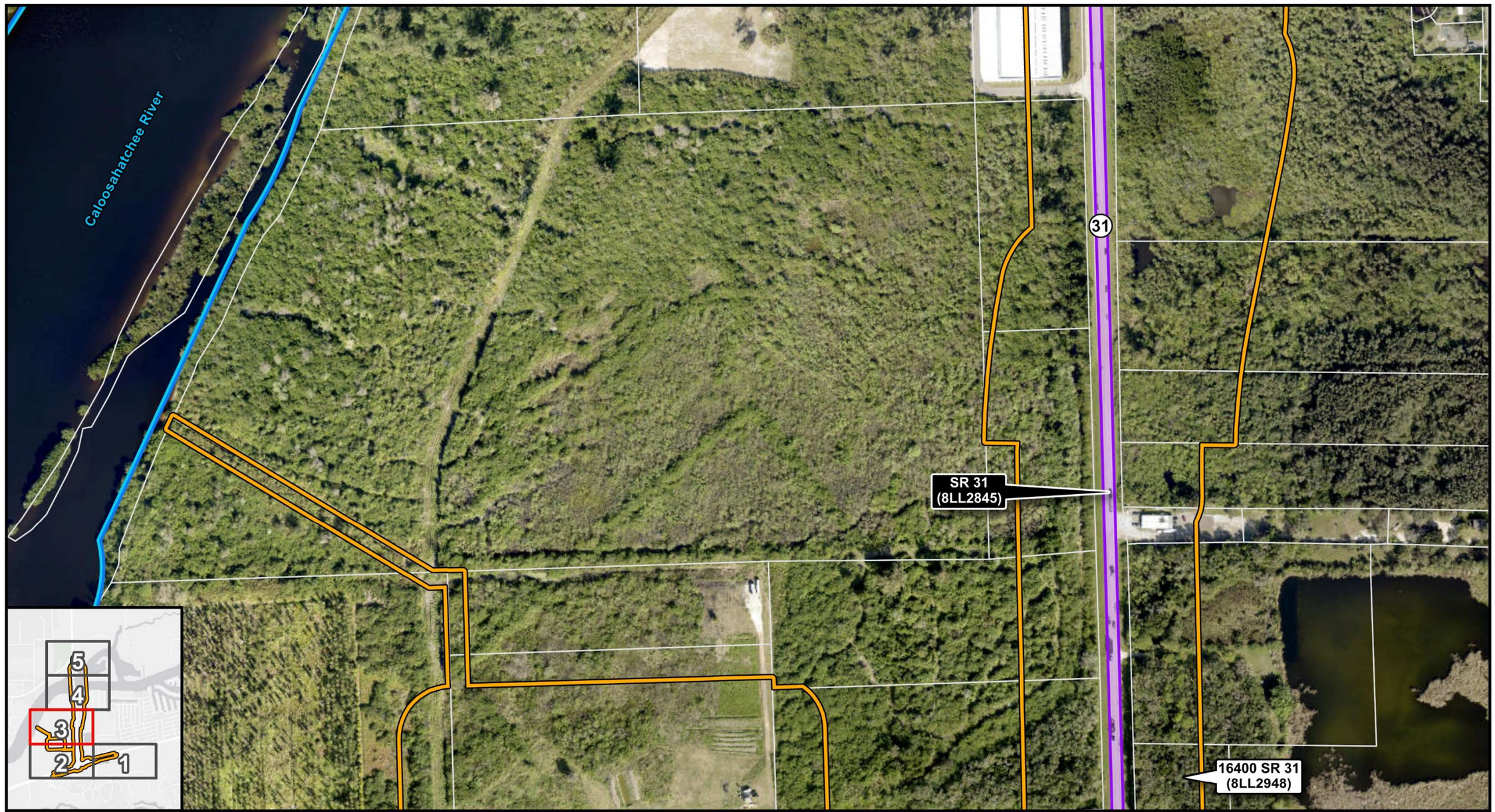


Figure 26c: Identified Historic Resources (Map 3 of 5)

Historic Resources APE
Historic Linear Resource
Historic Canal
8LL00 Newly Recorded Historic Resource
8LL00 Previously Recorded Historic Resource

Lee County

N
0 250 500 Feet

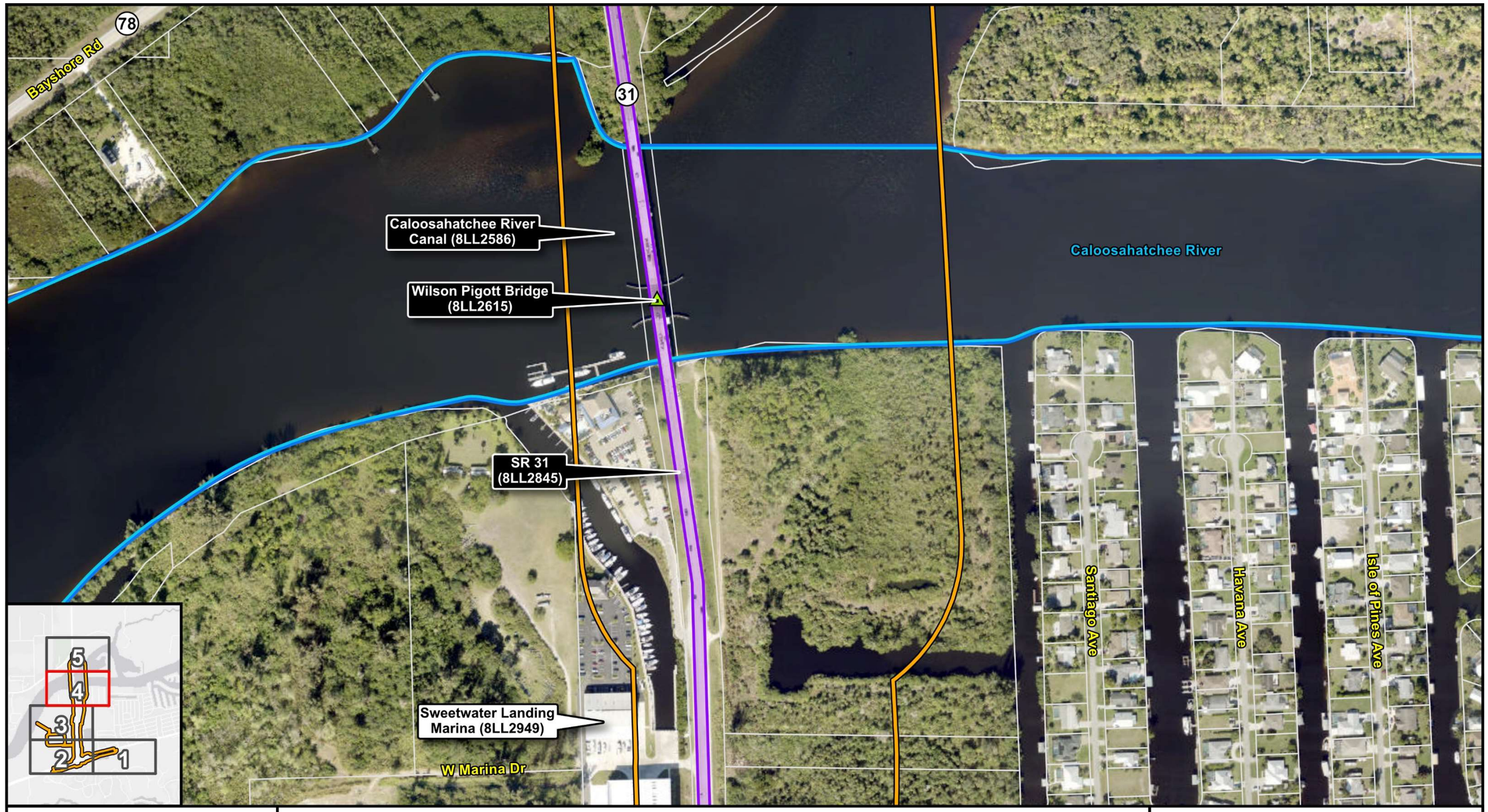


Figure 26d: Identified Historic Resources (Map 4 of 5)

Historic Resources APE
Historic Linear Resource
Historic Canal
8LL00 Newly Recorded Historic Resource
8LL00 Previously Recorded Historic Resource

Lee County

N
0 250 500 Feet

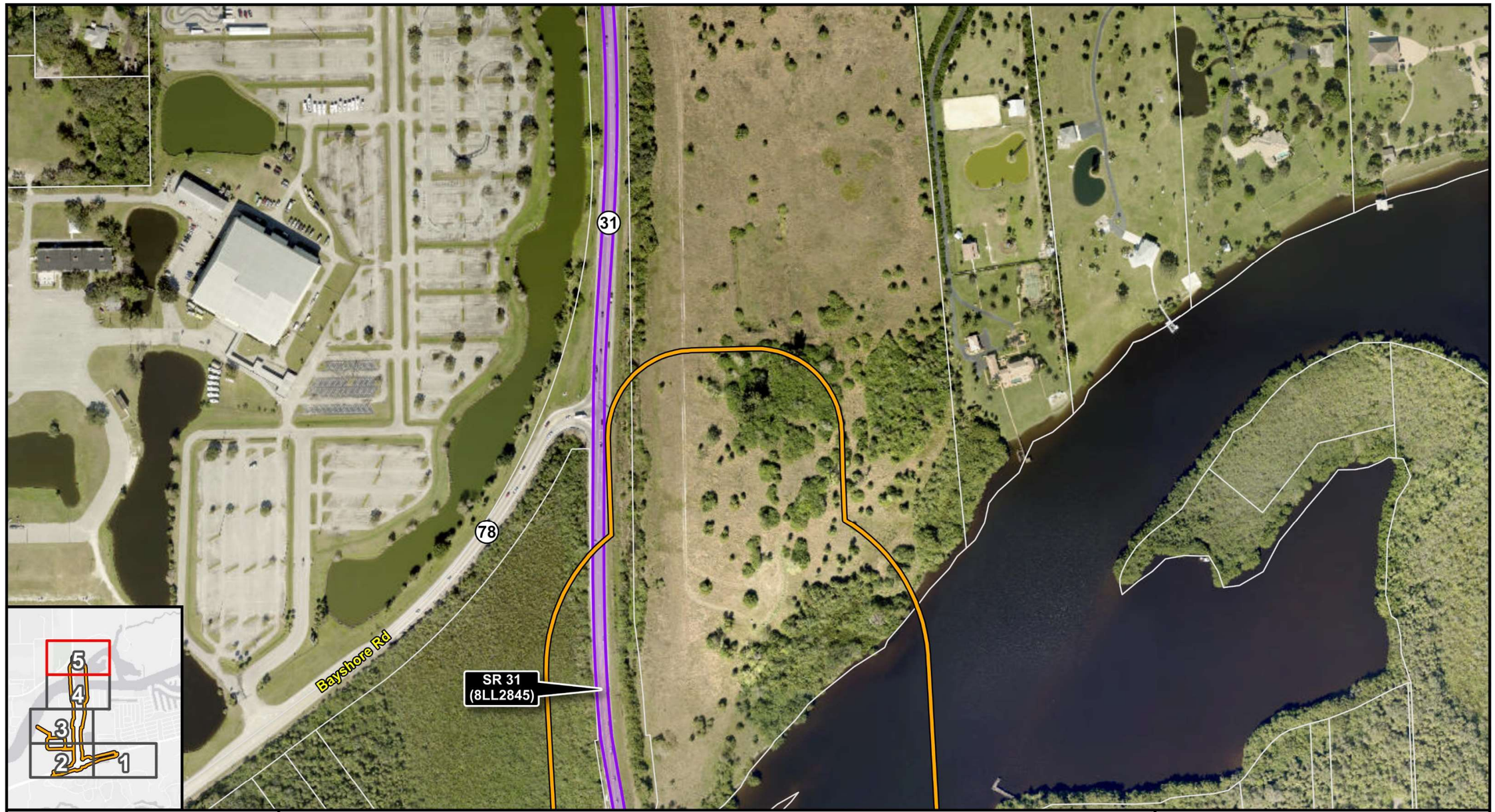


Figure 26e: Identified Historic Resources (Map 5 of 5)

Historic Resources APE
Historic Linear Resource
Historic Canal
8LL00 Newly Recorded Historic Resource
8LL00 Previously Recorded Historic Resource

Lee County

N
0 250 500 Feet

Florida Department of Transportation

RON DESANTIS
GOVERNOR

801 N Broadway Ave
Bartow, FL 33830

JARED W. PERDUE, P.E.
SECRETARY

April 15, 2024

Ms. Alissa S. Lotane, Director
Florida Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Attn: Transportation Compliance Review Program

RE: Cultural Resources Assessment Survey for the State Road (SR) 31 Project Development and Environment (PD&E) Study from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, Florida
Financial Project ID No. 441942-1-22-01
Federal Aid Project No. TBD

Dear Ms. Lotane:

This revised transmittal letter is being sent to revise the transposition of the site identification numbers for the Caloosahatchee River Canal (8LL2586) and the Seaboard Air Line Railroad Grade (8LL1898) within the prior transmittal letter for the subject project. A highlighted version of the original letter, which received concurrence on July 24, 2023, is attached showing where the transposition occurred. Two instances of this transposition were also noted within the associated CRAS report and were also revised accordingly. A copy of the revised CRAS will be sent to your office. As no other changes to the report or findings were made, the District would like to request an updated concurrence letter that reflects the revised site identification numbers.

The Florida Department of Transportation, District One conducted a Cultural Resources Assessment Survey (CRAS) for the State Road (SR) 31 Project Development and Environment (PD&E) Study from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) in Lee County, Florida. The objective of the survey was to identify cultural resources within the project area of potential effects (APE) and assess the resources in terms of their eligibility for listing in the *National Register of Historic Places* (National Register) according to the criteria set forth in 36 CFR Section 60.4.

This assessment complies with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR 800 -- Protection of Historic Properties (incorporating amendments effective August 5, 2004); Stipulation VII of the *Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation (ACHP), the Florida Division of Historical Resources (FDHR), the State Historic Preservation Officer (SHPO), and the FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida* (Section 106 Programmatic Agreement, effective March 2016, amended June 7, 2017); Section 102 of the National Environmental Policy Act (NEPA) of 1969, as amended (42 USC 4321 et seq.), as implemented by the regulations of the Council on Environmental Quality (CEQ) (40 CFR Parts 1500–

1508); Section 4(f) of the Department of Transportation Act of 1966, as amended (49 USC 303 and 23 USC 138); the revised Chapter 267, *Florida Statutes* (*F.S.*); and the standards embodied in the FDHR's *Cultural Resource Management Standards and Operational Manual* (February 2003), and Chapter 1A-46 (*Archaeological and Historical Report Standards and Guidelines*), *Florida Administrative Code*. In addition, this report was prepared in conformity with standards set forth in Part 2, Chapter 8 (*Archaeological and Historical Resources*) of the FDOT *Project Development and Environment Manual* (effective July 1, 2020).

The Preferred Alternative includes a combination of widening existing SR 31 from SR 80 for about 0.7 miles, then shifting 300 feet east prior to the Wilson Pigott Bridge to minimize impacts to the existing Florida Gas Transmission (FGT) line. The project would tie into the proposed SR 31 project at the northern terminus. The Preferred Alternative raises the profile above the current 100-year floodplain. The profile will be raised approximately three feet above existing SR 31 due to the updated 100-year floodplain elevation (from seven feet to ten feet) in the project corridor. A new high-level fixed bridge would be constructed to replace the existing Wilson Pigott Bridge. The proposed bridge will meet United States Coast Guard (USCG) vertical clearance requirements for a high-level fixed bridge. The Preferred Alternative also includes reconfiguring the existing intersection of SR 31/SR 80 to a grade-separated intersection. The grade-separation would introduce two new flyover bridges for SR 31 and SR 80 movements and would also include a new signal on SR 31.

Stormwater runoff from the project would be collected and conveyed in closed drainage systems to one proposed offsite pond for water quality treatment and attenuation per state and federal requirements. The pond would discharge at or near the same outfall ditch that conveys the roadway runoff in the existing condition. An additional 13.5 acres of right-of-way (ROW) would be required for the proposed pond and associated access easements.

The project APE was established in accordance with 36 CFR 800.16(d). The archaeological APE included the footprint of the existing and proposed ROW containing the proposed improvements. It also included a stormwater management facility (Pond 1E) and its two associated outfalls, as well as several small areas where the proposed roadway improvements extend outside of the existing/proposed ROW.

The historic resources APE varied depending on the nature of the improvements. Where the improvements were minor or limited (i.e., improvements like milling and resurfacing, pavement marking, etc. within existing ROW), the historic resources APE consisted of the existing ROW containing the proposed improvements and the small areas where the improvements extended outside of the existing/proposed ROW. The historic resources APE expanded in areas of proposed ROW and roadway widening to the footprint of the existing and proposed ROW containing the proposed improvements, as well as adjacent parcels/resources for a distance of up to 150 feet from the edge of the existing/proposed ROW. The historic resources APE also expanded in the area of the newly proposed roadway alignment to the footprint of the existing and proposed ROW containing the proposed improvements, as well as a buffer of 250 feet from the edge of the associated existing/proposed ROW. In addition, the historic resources APE expanded out 250 feet from the footprint of the proposed flyovers and 500 feet from the footprint of the proposed high-level bridge. The historic resources APE for Pond 1E included the footprint of the pond and a buffer of 150 feet. The APE for the outfalls was limited to their footprints.

Much of the archaeological APE is within areas of existing and proposed ROW that have been previously surveyed for archaeological resources (Florida Master Site File [FMSF] Manuscript Nos. 20161, 27269, 12279, and 2165). No archaeological sites were recorded within or adjacent to the current APE during the prior survey efforts and the SHPO concurred with these findings. The current survey also identified no archaeological sites or archaeological occurrences within the APE.

The CRAS identified six historic resources within the APE. Four of these were previously recorded (8LL1898, 8LL2586, 8LL2615, and 8LL2845) and two were newly recorded (8LL2948 and 8LL2949). The Caloosahatchee River Canal (8LL2586) was determined eligible for the National Register by the SHPO in 2012 under Criterion A for its association with late-19th-Century efforts to drain the Everglades and the agricultural development of South Florida. The Seaboard Air Line Railroad Grade (8LL1898) and Wilson Pigott Bridge (8LL2615) have been determined ineligible by the SHPO. SR 31 (8LL2845) was previously determined ineligible outside of the APE. The section within the current APE exhibits modern improvements and lacks historic associations. It is considered ineligible for the National Register. The two newly recorded structures include 16400 SR 31 (8LL2948) and the Sweetwater Landing Marina (8LL2949). The structures exhibit common architectural styles in South Florida and lack historical associations. Therefore, they are considered ineligible for the National Register.

As noted, a new bridge will be constructed east of the current bridge, which will be removed. The new bridge will cross over the National Register-eligible Caloosahatchee River Canal (8LL2586). As part of these improvements, the new bridge construction will include new supports/concrete piers within the Caloosahatchee River Canal and rip rap will be installed immediately adjacent to the bridge ends at the shoreline. Based on these improvements, there will be no adverse effects on the Caloosahatchee River Canal and the linear resource will remain eligible for inclusion in the National Register due to its importance to drainage of the Everglades. The improvements will not involve changes that would compromise the integrity of the canal, such as rerouting, cutting off or filling in, widening, severing from other waterways, change of function, or removal of ancillary structures or features that contribute to its significance.

This information is being provided in accordance with the provisions of the National Historic Preservation Act of 1966 (as amended), which are implemented by the procedures contained in 36 CFR, Part 800, as well as the provisions contained in the revised Chapter 267, *F.S.*

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the FHWA and FDOT.

The CRAS report is provided for your review and comment. If you have any questions or if I may be of assistance, please contact me at (863) 519-2805 or Emily.Barnett@dot.state.fl.us.

Sincerely,

Emily Barnett
Environmental Project Manager

Ms. Alissa S. Lotane, Director
SR 31 PD&E from SR 78 to SR 80
Lee County, Florida
Financial Project ID: 441942-1-22-01
April 15, 2024

CC: Jeffrey James, FDOT District 1
Patrick Bateman, FDOT District 1
Lindsay Rothrock, FDOT OEM

The Florida State Historic Preservation Officer (SHPO) finds the attached Cultural Resources Assessment Survey Report complete and sufficient and ✓ concurs/ _____ does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number 202304024. Or, the SHPO finds the attached document contains _____ insufficient information.

In accordance with the Programmatic Agreement among the FHWA, ACHP, FDHR, SHPO, and FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida, if providing concurrence with a finding of No Historic Properties Affected for a project as a whole, or to No Adverse Effect on a specific historic property, SHPO shall presume that FHWA will proceed with a de minimis Section 4(f) finding at its discretion for the use of land from the historic property.

SHPO Comments:

Alissa Lotane

Alissa S. Lotane, Director
State Historic Preservation Officer
Florida Division of Historical Resources

Date 4/22/24

Section 4(f) Resources

Florida Department of Transportation

SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)

District: FDOT District 1

County: Lee County

ETDM Number: 14359

Financial Management Number: 441942-1-22-01

Federal-Aid Project Number: N/A

Project Manager: Patrick Bateman

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT. Submitted pursuant 49 U.S.C. § 303.

Table of Contents

Summary and Approval

Resource Name	Facility Type	Property Classification	Owner/Official with Jurisdiction	Recommended Outcome	OEM SME Action
Caloosahatchee Trail	Multi-Use Trail	Park/Rec Area	FDOT / Lee County	Exception/Exemption	Determination 04-18-2024
Great Calusa Blueway	Blueway / Paddling Trail	Park/Rec Area	Lee County	No Use	Determination 04-18-2024
Caloosahatchee River Canal Resource Group (8LL02586)	Canal	Historic Site	SHPO	Exception/Exemption	Determination 10-11-2023

Caloosahatchee Trail

Facility Type: Multi-Use Trail

Property Classification: Park/Rec Area

Address and Coordinates:
Address:
Latitude: 264206.37N Longitude: 814534.10W

Description of Property:
The Caloosahatchee Trail, designated as part of the Florida Shared-Use Nonmotorized Trail Network (Florida SUN Trail Network), extends 22 miles in Lee County from US 41 to the Hendry County Line. The same corridor is listed as part of the Pine Island - Hendry Trail and is included in the Lee County Greenways Master Plan. The trail consists of a combination of existing and planned trail segments along portions of SR 78, SR 31, and SR 80. Within the project study area, SR 80 supports the only existing trail.

The Florida SUN Trail Network consists of multiuse trails or shared-use paths physically separated from motor vehicle traffic which, by virtue of design, location, and extent of connectivity, provide nonmotorized transportation opportunities for bicyclists and pedestrians statewide. The Florida SUN Trail Network is intended to support a range of use by the general public ranging from transportation-based use to recreational activities such as walking, biking, or jogging.

Owner/Official with Jurisdiction: FDOT / Lee County

Recommended Outcome: Exception/Exemption

Exception/Exemption Type: Certain trails, paths, bikeways, and sidewalks that meet one of the circumstances in 23 CFR 774.13(f)(1-4).

Exception/Exemption Justification:
The Caloosahatchee Trail is designated as one segment of the Florida SUN Trail Network. The Florida SUN Trail Network is one part of the statewide multi-modal transportation system. The primary purpose of these networks and systems is to support transportation. Within the project limits, the Caloosahatchee Trail is listed as an unfunded need on SR 31. The FDOT is currently constructing a 10-foot multi-use path on the north side of SR 80 (as part of project 429823-1). The proposed improvement of SR 31 (as part of project 441942-1) includes a 12-foot multi-use trail to support the planned/existing trail system.

Enabling State Statues (Fla. Stat. 339.81) note the SUN Trail System is intended to meet growing transportation system demands by advancing alternative travel modes to meet the needs of residents and visitors. The same State Statues direct the Florida Department of Transportation to develop the SUN Trail Network as a system of trails which allows nonmotorized vehicles and pedestrians to use the system to access a variety of destinations for a variety of trip purposes, including accessing work, school, shopping, and other personal business, as well as social, recreational, and personal fitness purposes.

As such, the Caloosahatchee Trail meets the qualifications for 23 CFR 774.13(f)(4) Trails, paths, bikeways, and sidewalks that are part of the local transportation system and which function primarily for transportation.

OEM SME Determination Date: 04-18-2024

Great Calusa Blueway

Facility Type: Blueway / Paddling Trail

Property Classification: Park/Rec Area

Address and Coordinates:
Address: Caloosahatchee River, FL, USA
Latitude: 2642'58.35 N Longitude: 8145'38.45 W

Description of Property:
The Great Calusa Blueway is a paddling trail that passes through the coastal waters of Lee County from the Pine Island Sound to Estero Bay, up the Caloosahatchee River and through its tributaries. The trail supports outdoor recreation guiding canoeists and kayakers via easy-to-identify brown-and-white signs located along the course of the trail. The 190-mile trail is accessible to the general public at no cost. The Caloosahatchee segment of the blueway can be accessed in Lee County through a series of 20 launch sites located on both public and private properties.

Owner/Official with Jurisdiction: Lee County

Relationship Between the Property and the Project
The Great Calusa Blueway follows the Caloosahatchee River within the project area. The proposed improvement of SR 31 would include replacement of the existing bridge (Bridge#120064) over the Caloosahatchee River. No physical improvement made as part of the blueway is present within the bounds of the project. The project will maintain vessel traffic on the Caloosahatchee in the future condition and during construction. No effects to the attributes, features, or activities that qualify the Great Calusa Blueway for protection under Section 4(f) are anticipated. No use of the blueway will occur.

Yes	No	
☐	☒	Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: 04-18-2024

Caloosahatchee River Canal Resource Group (8LL02586)

Facility Type: Canal

Property Classification: Historic Site

Address and Coordinates:
Address:
Latitude: 26.716559 Longitude: -81.760757

Description of Property:
The Caloosahatchee River Canal Resource Group (8LL02586) runs approximately 65 miles from Lake Okeechobee in southeastern Glades County to the Gulf of Mexico, crossing through Glades, Hendry, and Lee Counties. It is a straight, upland flow-through canal that maintains flow between two open boundaries, with Lake Okeechobee as the eastern boundary and the Gulf of Mexico as the western boundary. It is utilized to facilitate drainage and flood control, navigation, salinity control, irrigation, municipal water supplies, and maintenance of the Lake Okeechobee regulation schedule.

The Caloosahatchee River Canal was originally constructed in the 1880s and 1890s as part of the Disston Drainage Contract-Hamilton Disston's initial attempt to drain the Everglades. The canal has been altered since it was originally constructed, primarily through the deepening and straightening of the canal in the 1930s in response to hurricanes in the 1920s. In the mid-1950s, the canal was enlarged to a width of 250 feet and a depth of 8 feet. The historic route of the canal through the project area has not been disrupted or changed since its original construction.

In 2012, the Caloosahatchee River Canal Resource Group (8LL02586) was evaluated as eligible for listing in the National Register of Historic Places (NRHP) under Criterion A for its direct association with late nineteenth-century efforts to drain the Everglades and develop agricultural pursuits in south Florida. The portion of 8LL02586 within the current APE still conveys its significance and is considered NRHP-eligible. The SHPO concurred with this determination on July 24, 2023.

The Preferred Alternative includes a combination of widening existing SR 31 from SR 80 for about 0.7 miles, then shifting 300 feet east prior to the Wilson Pigott Bridge to minimize impacts to the existing Florida Gas Transmission (FGT) line. The project would tie into the proposed SR 31 project at the northern terminus. A new high-level fixed bridge would be constructed to replace the existing Wilson Pigott Bridge over the Caloosahatchee River Canal Resource Group (8LL02586), and the proposed bridge will meet United States Coast Guard (USCG) vertical clearance requirements for a high-level fixed bridge.

As part of these improvements, the new bridge construction will include new supports/concrete piers within the Caloosahatchee River Canal and rip rap will be installed immediately adjacent to the bridge ends at the shoreline. These improvements will not involve changes that would compromise the integrity of the canal, such as rerouting, cutting off or filling in, widening, severing from other waterways, change of function, or removal of ancillary structures or features that contribute to its significance. FDOT has determined that the project will have no adverse effects on the Caloosahatchee River Canal Resource Group (8LL02586) and the SHPO concurred with this determination on July 24, 2023.

Owner/Official with Jurisdiction: SHPO

Recommended Outcome: Exception/Exemption

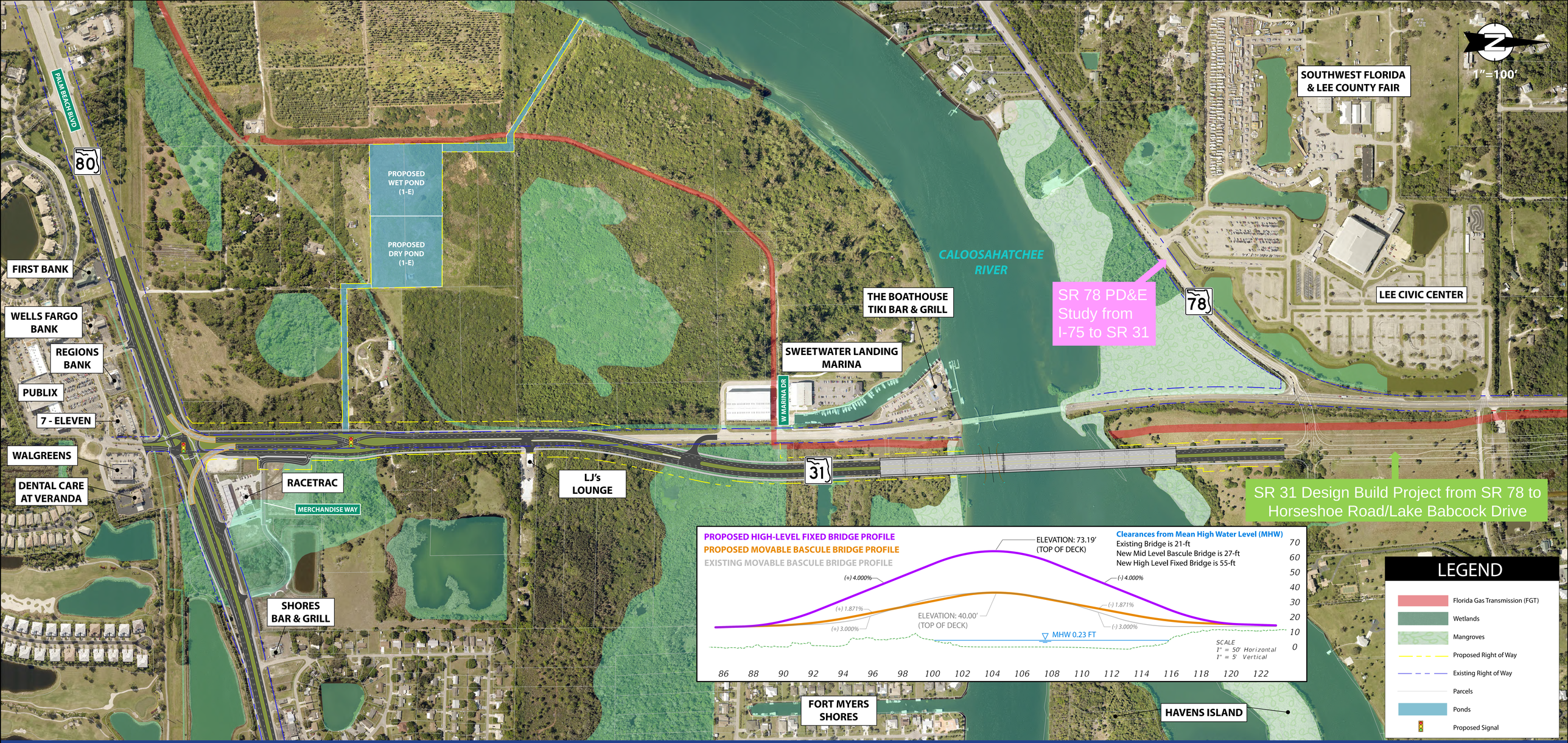
Exception/Exemption Type: Temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f) and that meet all of the conditions in (23 CFR 774.13(d)(1-5).

Exception/Exemption Justification:
The work proposed within the boundary of 8LL02586 work meets the conditions of a temporary occupancy (23 CFR 774.13 (d)). As the overall project proposes to widen and reconstruct SR 31, the duration of the work within 8LL02586 is temporary and will be less than the time needed for construction of the project. There will be no change in ownership of the land, and the scope of work is limited to bridge replacement. No alterations to the canal are proposed, there will be no changes to the Section 4(f) property, no anticipated permanent adverse physical impacts, and no interference with the protected activities, features, or attributes of the property on either a temporary or permanent basis. Similarly, as no work to the canal itself is proposed, the resource will remain in a condition which is at least as good as that which existed prior to the project. Per coordination with OEM, SHPO concurrence with FDOTs determination of no adverse effect serves as the OWJs agreement with the temporary occupancy conditions.

OEM SME Determination Date: 10-11-2023

Project-Level Attachments

44194212201-CE2-D1-SR_31_Design_Concept-2023-0417 (r)



SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Project Development and Environment (PD&E) Study
Lee County, FL
Financial Project Number: 441942-1-22-01

SR 31 ALTERNATIVE 1B/2B (Flyover at SR 80)

FDOT

Resource Attachments

Caloosahatchee Trail
SUN Trail Statewide Map
SR 31 Project and Section 4f Resource Location
SR 31 4f Reference GIS Attribute Table

Great Calusa Blueway
SR31 Project and Section 4f Resource Location - Calusa Blueway 2023-0927
Great_Calusa_Blueway_System_Map

Caloosahatchee River Canal Resource Group (8LL02586)
Caloosahatchee River Canal Section 4(f) Resource map
Concurrence Letter_441942-1 SHPO Transmittal_MKW_AM_KLC

Caloosahatchee Trail

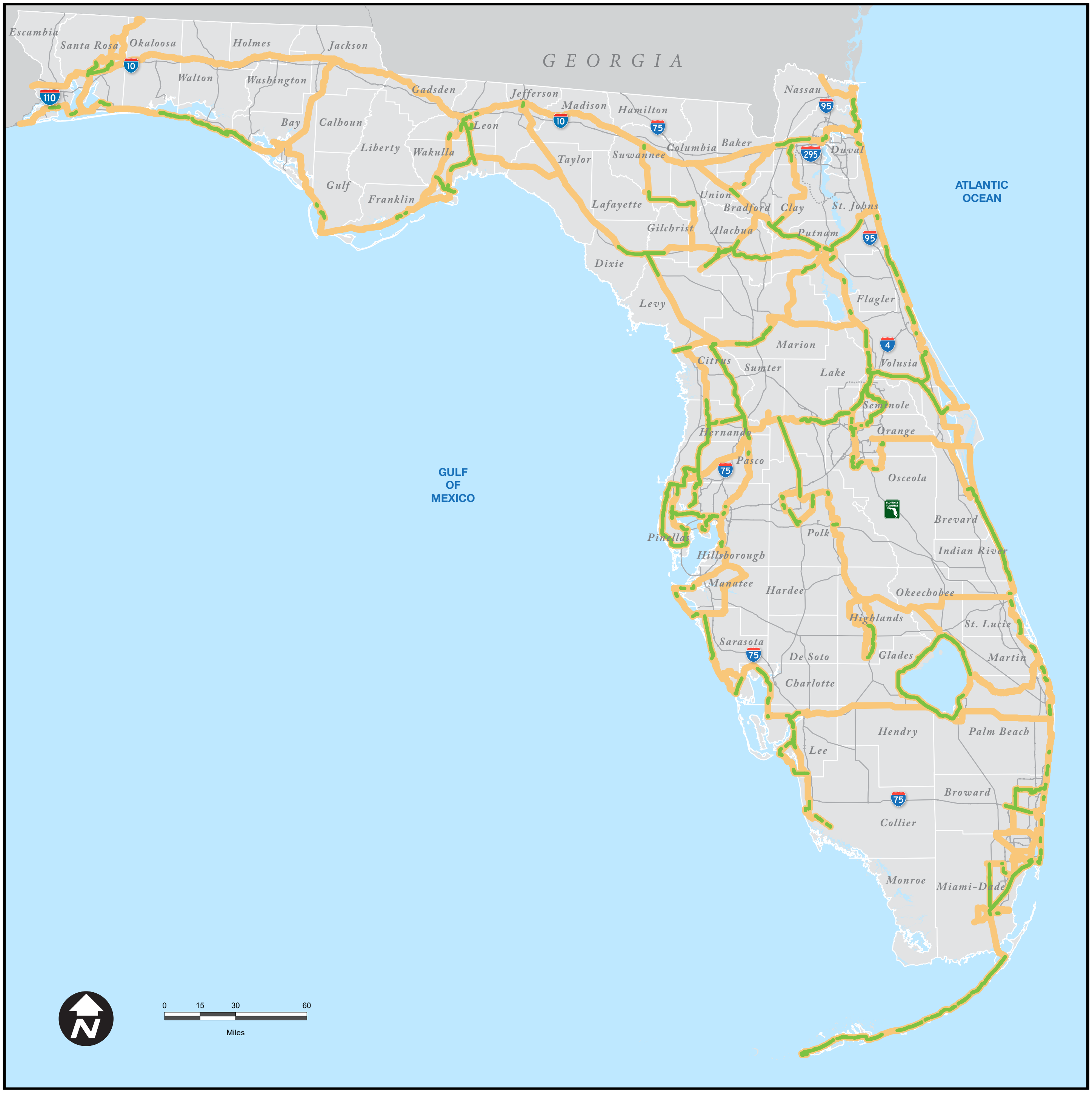
Contents:

SUNTRAIL

Shared-Use Nonmotorized (SUN) Trail Network

Statewide Map

FDOT



LEGEND

- SUN Trail Network
- Existing Trail
- Strategic Intermodal System (SIS) Facilities
- Water

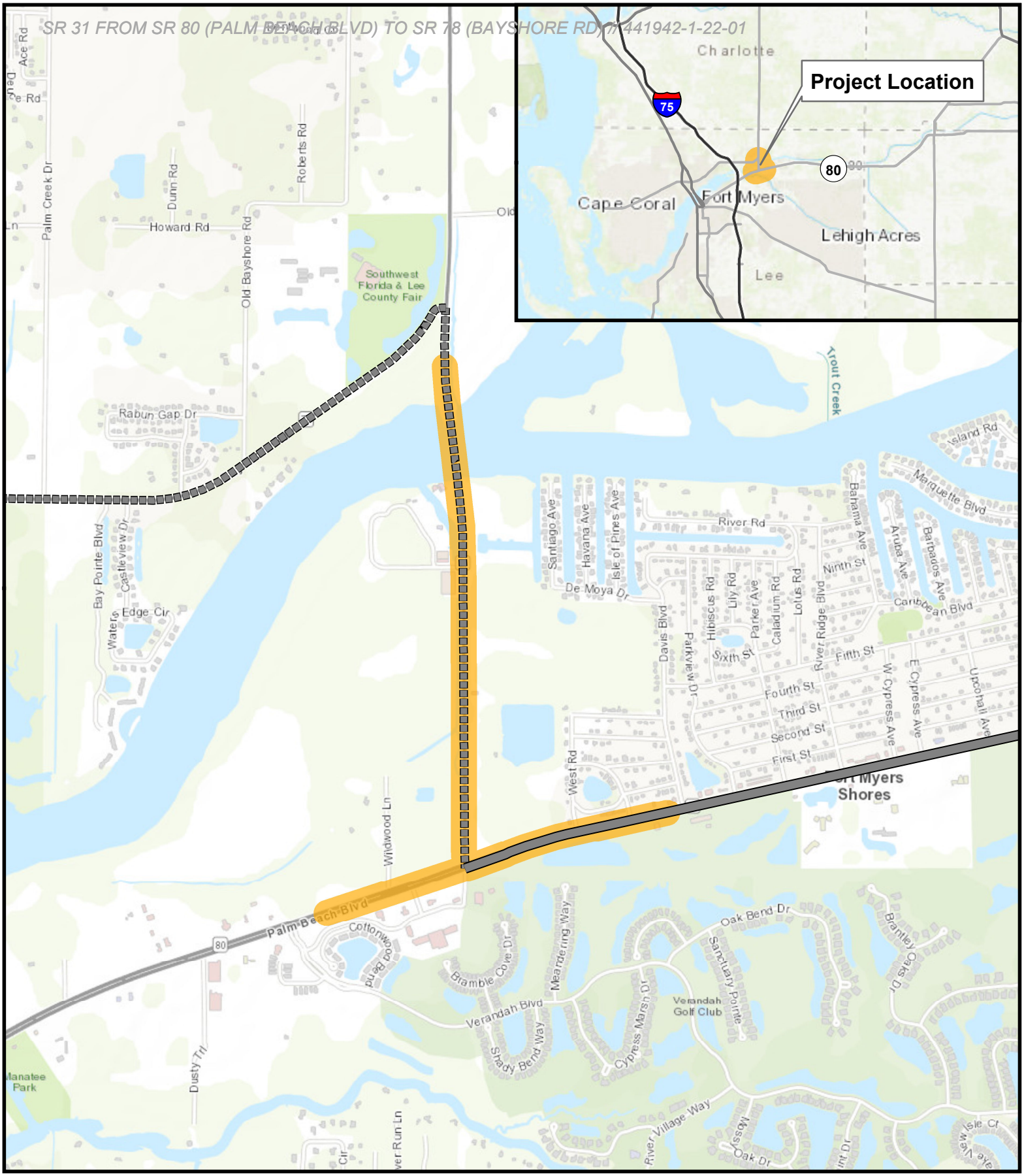
NOTES

No Warranties: This map and its content is made available by the Florida Department of Transportation (FDOT) on an "as is", "as available" basis without warranties of any kind, expressed or implied. This product is for reference purposes only and is not to be construed as a legal document or survey instrument. Information is subject to change.

Disclaimer of Liability: The user of this map and data assumes all responsibility and risk for the use of both. Under no circumstances, including negligence, shall the FDOT or its employees be liable for any direct, indirect, incidental, special, exemplary or consequential damages, or lost profits that result from the use, misuse or inability to use the map and data.

Additional trail information may be obtained by contacting your local government.

Document Path: S:\ProjRecurring\SunTrails\GIS\Mapping\Statewide\2022\SUNTrail_StatewideMap_2022-02-01.pdf



SR 31 - Section 4(f) Reference

FPID: 441942-1

SUN Trail / Caloosahatchee Trail

Resource Location

Existing SUN Trail / Caloosahatchee Trail

Planned SUN Trail / Caloosahatchee Trail

Project Limits

Data Source: FDOT
SUN Trail New Status
March 17, 2023

Attribute Table

SUN Trail Statewide Network Mapping Tools

Updated: March 17, 2023

Caloosahatchee Trail

FID	658
ROADWAY	12931005
SEG_NAME	Caloosahatchee Trail
STATUS	PROGRAMMED/FUNDED
COUNTY	LEE
CST_TO_CST	NO
CAP_TO_SEA	NO
H_OF_FL	NO
SJ_RV_SEA	NO
SW_CST_CON	NO
ECG	NO
FKOHT	NO
MODIFIEDON	7/26/2018
BEGIN_POST	9.988094
END_POST	12.480363
Length	2.49227
MapID	CALT
DOTDIST	1
CORRIDOR	Caloosahatchee Trail
SUNTRTYP	2
CLASS	
ECO_REGION	Southwest

http://floridasuntrail.com/ (Accessed April 17, 2023)

Great Calusa Blueway

Contents:

SR31 Project and Section 4f Resource Location - Calusa Blueway 2023-0927

Great_Calusa_Blueway_System_Map

SR 31 - Section 4(f) Reference

FPID: 441942-1

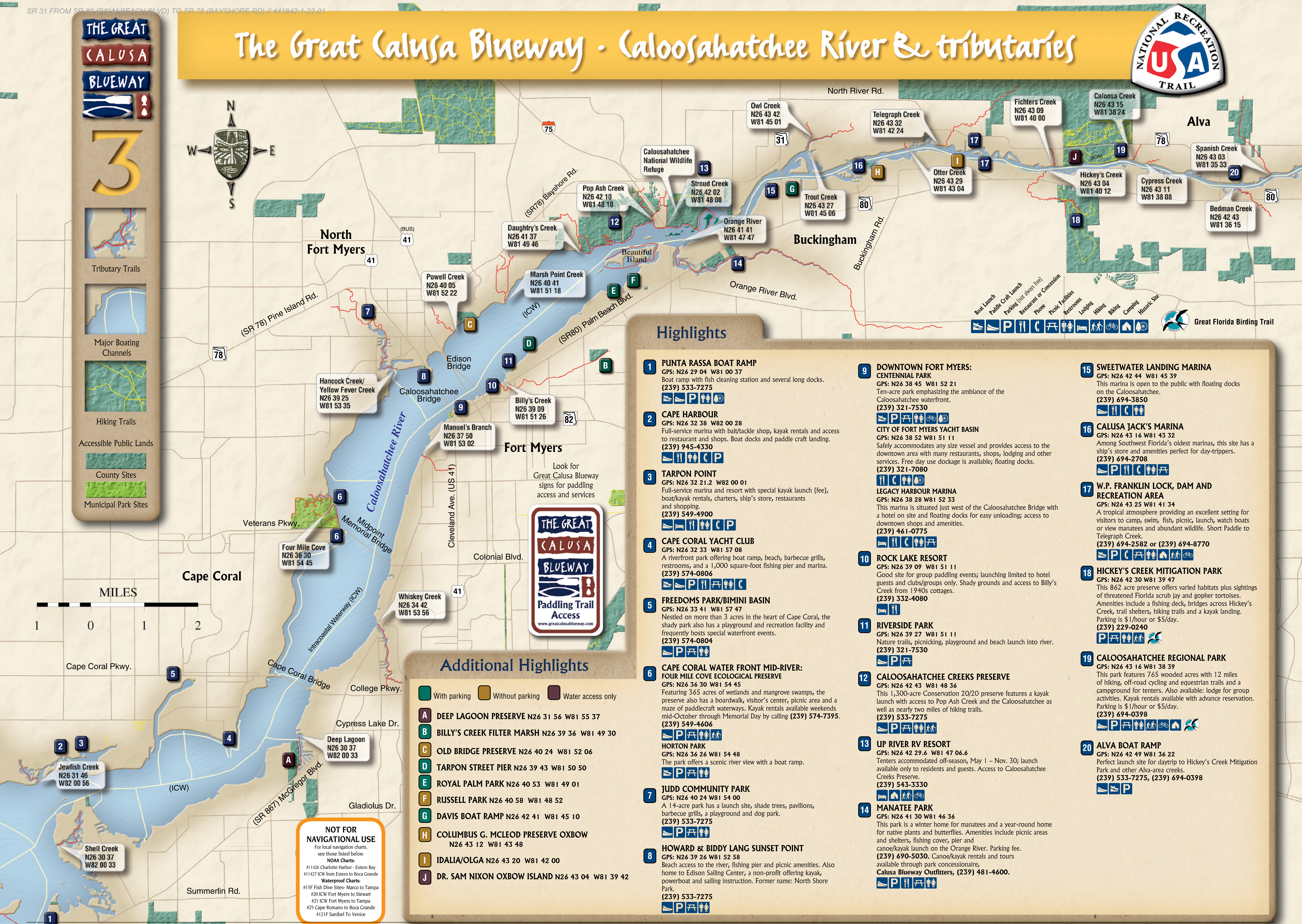
Great Calusa Blueway
Resource Location

Great Calusa Blueway

Project Limits

Data Source:
FDOT roadway
pd_opps_feb18

The Great Calusa Blueway · Caloosahatchee River & tributaries



Highlights

1 PUNTA RASSA BOAT RAMP
GPS: N26 29 04 W81 00 37
Boat ramp with fish cleaning station and several long docks.
(239) 533-7275

2 CAPE HARBOUR
GPS: N26 32 38 W82 00 28
Full-service marina with bait/tackle shop, kayak rentals and access to restaurant and shops. Boat docks and paddle craft landing.
(239) 945-4330

3 TARPON POINT
GPS: N26 32 21.2 W82 00 01
Full-service marina and resort with special kayak launch (fee), boat/kayak rentals, charters, ship's store, restaurants and shopping.
(239) 549-4900

4 CAPE CORAL YACHT CLUB
GPS: N26 32 33 W81 57 08
A riverfront park offering boat ramp, beach, barbecue grills, restrooms, and a 1,000 square-foot fishing pier and marina.
(239) 574-0806

5 FREEDOMS PARK/BIMINI BASIN
GPS: N26 33 41 W81 57 47
Nestled on more than 3 acres in the heart of Cape Coral, the shady park also has a playground and recreation facility and frequently hosts special waterfront events.
(239) 574-0804

6 CAPE CORAL WATER FRONT MID-RIVER:
FOUR MILE COVE ECOLOGICAL PRESERVE
GPS: N26 36 30 W81 54 45
Featuring 365 acres of wetlands and mangrove swamps, the preserve also has a boardwalk, visitor's center, picnic area and a maze of paddlecraft waterways. Kayak rentals available weekends mid-October through Memorial Day by calling **(239) 574-7395**.
(239) 549-4606

HORTON PARK
GPS: N26 36 26 W81 54 48
The park offers a scenic river view with a boat ramp.

7 JUDD COMMUNITY PARK
GPS: N26 40 24 W81 54 00
A 14-acre park has a launch site, shade trees, pavilions, barbecue grills, a playground and dog park.
(239) 533-7275

8 HOWARD & BIDDY LANG SUNSET POINT
GPS: N26 39 26 W81 52 58
Beach access to the river, fishing pier and picnic amenities. Also home to Edison Sailing Center, a non-profit offering kayak, powerboat and sailing instruction. Former name: North Shore Park.
(239) 533-7275

9 DOWNTOWN FORT MYERS:
CENTENNIAL PARK
GPS: N26 38 45 W81 52 21
Ten-acre park emphasizing the ambiance of the Caloosahatchee waterfront.
(239) 321-7530

CITY OF FORT MYERS YACHT BASIN
GPS: N26 38 52 W81 51 11
Safely accommodates any size vessel and provides access to the downtown area with many restaurants, shops, lodging and other services. Free day use dockage is available; floating docks.
(239) 321-7080

LEGACY HARBOUR MARINA
GPS: N26 38 28 W81 52 33
This marina is situated just west of the Caloosahatchee Bridge with a hotel on site and floating docks for easy unloading; access to downtown shops and amenities.
(239) 461-0775

10 ROCK LAKE RESORT
GPS: N26 39 09 W81 51 11
Good site for group paddling events; launching limited to hotel guests and clubs/groups only. Shady grounds and access to Billy's Creek from 1940s cottages.
(239) 332-4080

11 RIVERSIDE PARK
GPS: N26 39 27 W81 51 11
Nature trails, picnicking, playground and beach launch into river.
(239) 321-7530

12 CALOOSAHATCHEE CREEKS PRESERVE
GPS: N26 42 43 W81 48 36
This 1,300-acre Conservation 20/20 preserve features a kayak launch with access to Pop Ash Creek and the Caloosahatchee as well as nearly two miles of hiking trails.
(239) 533-7275

13 UP RIVER RV RESORT
GPS: N26 42 29.6 W81 47 06.6
Tenters accommodated off-season, May 1 – Nov. 30; launch available only to residents and guests. Access to Caloosahatchee Creeks Preserve.
(239) 543-3330

14 MANATEE PARK
GPS: N26 41 30 W81 46 36
This park is a winter home for manatees and a year-round home for native plants and butterflies. Amenities include picnic areas and shelters, fishing cover, pier and canoe/kayak launch on the Orange River. Parking fee.
(239) 690-5030. Canoe/kayak rentals and tours available through park concessionaire,
Calusa Blueway Outfitters, (239) 481-4600.

15 SWEETWATER LANDING MARINA
GPS: N26 42 44 W81 45 39
This marina is open to the public with floating docks on the Caloosahatchee.
(239) 694-3850

16 CALUSA JACK'S MARINA
GPS: N26 43 16 W81 43 32
Among Southwest Florida's oldest marinas, this site has a ship's store and amenities perfect for day-trippers.
(239) 694-2708

17 W.P. FRANKLIN LOCK, DAM AND RECREATION AREA
GPS: N26 43 25 W81 41 34
A tropical atmosphere providing an excellent setting for visitors to camp, swim, fish, picnic, launch, watch boats or view manatees and abundant wildlife. Short Paddle to Telegraph Creek.
(239) 694-2582 or (239) 694-8770

18 HICKEY'S CREEK MITIGATION PARK
GPS: N26 42 30 W81 39 47
This 862 acre preserve offers varied habitats plus sightings of threatened Florida scrub jay and gopher tortoises. Amenities include a fishing deck, bridges across Hickey's Creek, trail shelters, hiking trails and a kayak landing. Parking is $1/hour or $5/day.
(239) 229-0240

19 CALOOSAHATCHEE REGIONAL PARK
GPS: N26 43 16 W81 38 39
This park features 765 wooded acres with 12 miles of hiking, off-road cycling and equestrian trails and a campground for tenters. Also available: lodge for group activities. Kayak rentals available with advance reservation. Parking is $1/hour or $5/day.
(239) 694-0398

20 ALVA BOAT RAMP
GPS: N26 42 49 W81 36 22
Perfect launch site for daytrip to Hickey's Creek Mitigation Park and other Alva-area creeks.
(239) 533-7275, (239) 694-0398

Additional Highlights

With parking · Without parking · Water access only

- **A DEEP LAGOON PRESERVE** N26 31 56 W81 55 37
- **B BILLY'S CREEK FILTER MARSH** N26 39 36 W81 49 30
- **C OLD BRIDGE PRESERVE** N26 40 24 W81 52 06
- **D TARPON STREET PIER** N26 39 43 W81 50 50
- **E ROYAL PALM PARK** N26 40 53 W81 49 01
- **F RUSSELL PARK** N26 40 58 W81 48 52
- **G DAVIS BOAT RAMP** N26 42 41 W81 45 10
- **H COLUMBUS G. MCLEOD PRESERVE OXBOW** N26 43 12 W81 43 48
- **I IDALIA/OLGA** N26 43 20 W81 42 00
- **J DR. SAM NIXON OXBOW ISLAND** N26 43 04 W81 39 42

NOT FOR NAVIGATIONAL USE
For local navigation charts, see those listed below:
NOAA Charts:
#11426 Charlotte Harbor - Estero Bay
#11427 ICW from Estero to Boca Grande
Waterproof Charts:
#15F Fish Dive Sites- Marco to Tampa
#20 ICW Fort Myers to Stewart
#21 ICW Fort Myers to Tampa
#25 Cape Romano to Boca Grande
#121F Sanibel To Venice

THE GREAT CALUSA BLUEWAY

Lee County invites paddlers from around the world to explore the fabled bays, rivers, backwaters and shorelines of Southwest Florida. The Great Calusa Blueway paddling trail has been developed by Lee County Parks & Recreation and funded with tourist development tax dollars specifically dedicated to beach and shoreline enhancement projects.

Inspired by the indigenous Calusas, the Great Calusa Blueway encompasses three distinct regions of the Gulf of Mexico coast. The first portion of the trail meanders through Estero Bay, while the second segment centers on Pine Island Sound and Matlacha (pronounced Mat-la-shay) Pass. A third leg of the trail takes paddlers inland to the Caloosahatchee and its tributaries.

This map shows all three regions, but covers only the Caloosahatchee River and its tributaries in detail. We hope it will serve as your guide to the natural and historic highlights of these protected waterways while also helping you locate amenities along the trail.

3410 Palm Beach Blvd., Fort Myers, FL 33916
239-533-7275

For More Information:
Paddling Trail - www.CalusaBlueway.com
Area Information - www.FortMyers-Sanibel.com
Lee County Parks & Recreation - www.leeparks.org
Statewide Trails - http://www.dep.state.fl.us/gwt/paddling/saltwater.htm

Discover LEE COUNTY Parks & Recreation

Revised 09.17

Observing Wildlife

Along the Great Calusa Blueway, you'll have the opportunity to observe many remarkable species in their natural habitats. You'll have the chance to witness dolphins racing across the horizon and manatees gliding through the backwaters. Bird watching is big here, and best of all, birds can be spotted just about anytime and anywhere. Bald eagles, herons, egrets, ospreys, pelicans, roseate spoonbills and wood storks are just a few of the more than 300 species you can find here.

Unspoiled, Undisturbed, Uninterrupted

During your visit, we hope you will find time to enjoy many of the wonderful experiences there are to be found in our diverse ecosystem. It is an environment that is as beautiful as it is fragile. It is up to all of us – residents and guests alike – to protect it, and leave the same wonders we enjoy today preserved for generations to come.

Help Our Wildlife

- Please dispose of trash and food items properly.
- Observe all wildlife from a safe distance. When on board a vessel, stay at a distance of at least 50 yards (150 feet or 45 meters) and use binoculars or a telephoto lens to get a good view.
- Feeding wildlife is illegal and causes animals to lose their natural fear of humans, and increases their vulnerability to injuries and death.
- Seagrasses are a valuable part of Florida's marine environment. Please use caution at low tide, so as not to impact the fragile sea grass beds and marine life nurseries.
- Pick up fishing line and debris – leave the scene cleaner than you found it.

Recommended Safety Gear

- Flotation gear - Florida law requires a Coast Guard approved, readily accessible and wearable personal flotation device (PFD) for each occupant. PFDs must be worn by all occupants under age 6.
- Potable water – Be careful of dehydration
- Extra paddle
- Bow and stern line
- First aid kit
- Flashlight and whistle
- Insect repellent
- Sunglasses, sunscreen, covering and hats
- Binoculars, GPS system & compass
- Cell phone
- Water shoes, dry bag
- Map or chart

Play It Safe

- Use caution at passes; strong currents exist.
- Watch for motorboats; stay to the right and turn your bow into the wake.
- Secure your car and take keys with you.
- Paddle in a group or with a buddy.
- Let someone know your plans – where you are going and when you plan to be back.
- Be careful with campfires; use cook stoves whenever possible.
- Access to private land should be by invitation only.
- Make mental notes as you pass trail markers – knowing the number of the closest marker will help emergency personnel should you need assistance.

Navigation

THE GREAT CALUSA BLUEWAY Paddling Trail Access www.greatcalusablueway.com

The enlarged map of the Caloosahatchee River shows tributaries that are suggested routes and destinations for canoeists and kayakers. There is no marked trail on the river itself, so explore as you please. But it's advisable for paddlers to avoid the powerboat channel. Also provided here are Global Positioning System (GPS) coordinates for the mouth of each tributary as well as put-in spots and other land-accessible locations of interest to paddlers. For a complete list of GPS coordinates, you can also go online to www.calusablueway.com

Unlike the Estero Bay (Phase 1) and Pine Island Sound (Phase 2) legs of the blueway, on-water markers are not used on the Caloosahatchee (Phase 3). However, you will see Great Calusa Blueway Paddling Trail Access signs at various shore-access points. These signs serve to let paddlers know they are at a location that is also listed on the map and Web site.

Please note that creeks along the trail may be inaccessible during periods of low rainfall and/or extreme low tide. Note that as you traverse the river, you may have to cross the powerboat channel, which is busy and used by recreational and commercial vessels. Please paddle safely.

For a Boater's Guide with additional navigation information follow the online link at http://LeeWaterways.com.

As you explore the Great Calusa Blueway, we remind you to preserve this paddling paradise by leaving nothing behind and taking only photos.

Lee County Paddling Trails

Estero Bay - Pine Island Sound - Matlacha Pass

Eco Parks Guide

Parks with an emphasis on the ecology of Southwest Florida are identified by the numbers below. For detailed information on each of them, and a complete list of parks, visit www.FortMyers-Sanibel.com.

1. Audubon Corkscrew Swamp Sanctuary
2. Bowditch Point Regional Park
3. Caloosahatchee Regional Park
4. Cayo Costa State Park
5. Four Mile Cove Ecological Preserve
6. Hickey's Creek Mitigation Park
7. J.N. "Ding" Darling National Wildlife Refuge
8. Koreshan State Historic Site
9. Lakes Regional Park
10. Lovers Key State Park
11. Manatee Park
12. Matanzas Pass Preserve
13. Rotary Park
14. Six Mile Cypress Slough Preserve
15. Mound House
16. Randell Research Center
17. Sanibel-Captiva Conservation Foundation
18. Jaycee Park
19. Prarie Pines
20. Bob Janes Preserve

The Great Calusa Blueway

Phases 1 & 2:
Miles of marked trail 97

Phase 3:
Miles of tributaries 52
Miles of river 38

For more information, visit www.CalusaBlueway.com

Caloosahatchee River Canal Resource Group (8LL02586)

Contents:

Figure 26d: Identified Historic Resources (Map 4 of 5)

Historic Resources APE
Historic Linear Resource
Historic Canal
8LL00 Newly Recorded Historic Resource
8LL00 Previously Recorded Historic Resource

Lee County

N 0 250 500 Feet

Florida Department of Transportation

RON DESANTIS
GOVERNOR

801 N Broadway Ave
Bartow, FL 33830

JARED W. PERDUE, P.E.
SECRETARY

June 26, 2023

Ms. Alissa S. Lotane, Director
Florida Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Attn: Transportation Compliance Review Program

RE: Cultural Resources Assessment Survey for the State Road (SR) 31 Project Development and Environment (PD&E) Study from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) Lee County, Florida
Financial Project ID No. 441942-1-22-01
Federal Aid Project No. TBD

Dear Ms. Lotane:

The Florida Department of Transportation, District One conducted a Cultural Resources Assessment Survey (CRAS) for the State Road (SR) 31 Project Development and Environment (PD&E) Study from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) in Lee County, Florida. The objective of the survey was to identify cultural resources within the project area of potential effects (APE) and assess the resources in terms of their eligibility for listing in the *National Register of Historic Places* (National Register) according to the criteria set forth in 36 CFR Section 60.4.

This assessment complies with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR 800 -- Protection of Historic Properties (incorporating amendments effective August 5, 2004); Stipulation VII of the *Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation (ACHP), the Florida Division of Historical Resources (FDHR), the State Historic Preservation Officer (SHPO), and the FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida* (Section 106 Programmatic Agreement, effective March 2016, amended June 7, 2017); Section 102 of the National Environmental Policy Act (NEPA) of 1969, as amended (42 USC 4321 et seq.), as implemented by the regulations of the Council on Environmental Quality (CEQ) (40 CFR Parts 1500–1508); Section 4(f) of the Department of Transportation Act of 1966, as amended (49 USC 303 and 23 USC 138); the revised Chapter 267, *Florida Statutes* (*F.S.*); and the standards embodied in the FDHR's *Cultural Resource Management Standards and Operational Manual* (February 2003), and Chapter 1A-46 (*Archaeological and Historical Report Standards and Guidelines*), *Florida Administrative Code*. In addition, this report was prepared in conformity with standards set forth in Part 2, Chapter 8 (*Archaeological and Historical Resources*) of the FDOT *Project Development and Environment Manual* (effective July 1, 2020).

The Preferred Alternative includes a combination of widening existing SR 31 from SR 80 for about 0.7 miles, then shifting 300 feet east prior to the Wilson Pigott Bridge to minimize impacts to the existing Florida Gas Transmission (FGT) line. The project would tie into the proposed SR 31 project at the northern terminus. The Preferred Alternative raises the profile above the current 100-year floodplain. The profile will be raised approximately three feet above existing SR 31 due to the updated 100-year floodplain elevation (from seven feet to ten feet) in the project corridor. A new high-level fixed bridge would be constructed to replace the existing Wilson Pigott Bridge. The proposed bridge will meet United States Coast Guard (USCG) vertical clearance requirements for a high-level fixed bridge. The Preferred Alternative also includes reconfiguring the existing intersection of SR 31/SR 80 to a grade-separated intersection. The grade-separation would introduce two new flyover bridges for SR 31 and SR 80 movements and would also include a new signal on SR 31.

Stormwater runoff from the project would be collected and conveyed in closed drainage systems to one proposed offsite pond for water quality treatment and attenuation per state and federal requirements. The pond would discharge at or near the same outfall ditch that conveys the roadway runoff in the existing condition. An additional 13.5 acres of right-of-way (ROW) would be required for the proposed pond and associated access easements.

The project APE was established in accordance with 36 CFR 800.16(d). The archaeological APE included the footprint of the existing and proposed ROW containing the proposed improvements. It also included a stormwater management facility (Pond 1E) and its two associated outfalls, as well as several small areas where the proposed roadway improvements extend outside of the existing/proposed ROW.

The historic resources APE varied depending on the nature of the improvements. Where the improvements were minor or limited (i.e., improvements like milling and resurfacing, pavement marking, etc. within existing ROW), the historic resources APE consisted of the existing ROW containing the proposed improvements and the small areas where the improvements extended outside of the existing/proposed ROW. The historic resources APE expanded in areas of proposed ROW and roadway widening to the footprint of the existing and proposed ROW containing the proposed improvements, as well as adjacent parcels/resources for a distance of up to 150 feet from the edge of the existing/proposed ROW. The historic resources APE also expanded in the area of the newly proposed roadway alignment to the footprint of the existing and proposed ROW containing the proposed improvements, as well as a buffer of 250 feet from the edge of the associated existing/proposed ROW. In addition, the historic resources APE expanded out 250 feet from the footprint of the proposed flyovers and 500 feet from the footprint of the proposed high-level bridge. The historic resources APE for Pond 1E included the footprint of the pond and a buffer of 150 feet. The APE for the outfalls was limited to their footprints.

Much of the archaeological APE is within areas of existing and proposed ROW that have been previously surveyed for archaeological resources (Florida Master Site File [FMSF] Manuscript Nos. 20161, 27269, 12279, and 2165). No archaeological sites were recorded within or adjacent to the current APE during the prior survey efforts and the SHPO concurred with these findings. The current survey also identified no archaeological sites or archaeological occurrences within the APE.

The CRAS identified six historic resources within the APE. Four of these were previously recorded (8LL1898, 8LL2586, 8LL2615, and 8LL2845) and two were newly recorded (8LL2948 and 8LL2949). The Caloosahatchee River Canal (8LL1898) was determined eligible for the National Register by the SHPO in 2012 under Criterion A for its association with late-19th-Century efforts to drain the Everglades and the

agricultural development of South Florida. The Seaboard Air Line Railroad Grade (8LL2586) and Wilson Pigott Bridge (8LL2615) have been determined ineligible by the SHPO. SR 31 (8LL2845) was previously determined ineligible outside of the APE. The section within the current APE exhibits modern improvements and lacks historic associations. It is considered ineligible for the National Register. The two newly recorded structures include 16400 SR 31 (8LL2948) and the Sweetwater Landing Marina (8LL2949). The structures exhibit common architectural styles in South Florida and lack historical associations. Therefore, they are considered ineligible for the National Register.

As noted, a new bridge will be constructed east of the current bridge, which will be removed. The new bridge will cross over the National Register-eligible Caloosahatchee River Canal (8LL1898). As part of these improvements, the new bridge construction will include new supports/concrete piers within the Caloosahatchee River Canal and rip rap will be installed immediately adjacent to the bridge ends at the shoreline. Based on these improvements, there will be no adverse effects on the Caloosahatchee River Canal and the linear resource will remain eligible for inclusion in the National Register due to its importance to drainage of the Everglades. The improvements will not involve changes that would compromise the integrity of the canal, such as rerouting, cutting off or filling in, widening, severing from other waterways, change of function, or removal of ancillary structures or features that contribute to its significance.

This information is being provided in accordance with the provisions of the National Historic Preservation Act of 1966 (as amended), which are implemented by the procedures contained in 36 CFR, Part 800, as well as the provisions contained in the revised Chapter 267, *F.S.*

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the FHWA and FDOT.

The CRAS report is provided for your review and comment. If you have any questions or if I may be of assistance, please contact me at (954) 336-3625 or matthew.marino@dot.state.fl.us.

Sincerely,

Matt Marino, M.A., RPA
Cultural Resource Coordinator

CC: Jeffrey James, FDOT District 1
Patrick Bateman, FDOT District 1
Lindsay Rothrock, FDOT OEM

Ms. Alissa S. Lotane, Director
SR 31 PD&E from SR 78 to SR 80
Lee County, Florida
Financial Project ID: 441942-1-22-01
June 26, 2023

The Florida State Historic Preservation Officer (SHPO) finds the attached Cultural Resources Assessment Survey Report complete and sufficient and ✓ concurs/ _____ does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number 202304024. Or, the SHPO finds the attached document contains _____ insufficient information.

In accordance with the Programmatic Agreement among the FHWA, ACHP, FDHR, SHPO, and FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida, if providing concurrence with a finding of No Historic Properties Affected for a project as a whole, or to No Adverse Effect on a specific historic property, SHPO shall presume that FHWA will proceed with a de minimis Section 4(f) finding at its discretion for the use of land from the historic property.

SHPO Comments:

Kelly L Chase for

Alissa S. Lotane, Director
State Historic Preservation Officer
Florida Division of Historical Resources

7.24.2023
Date

Natural Resources Appendix

Contents:

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast

June 7, 2024 F/SER46:DR

Katlin Kuhn-Hendricks
Project Delivery Coordinator
Florida Department of Transportation
Office of Environmental Management
605 Suwannee Street
Tallahassee, Florida 32399-6544

Ref.: Florida Department of Transportation Financial Management No. 441942-1-22-01; ETDM 14359, SR 31 Wilson Pigott Bridge replacement, Lee County, Florida

Dear Katlin Kuhn-Hendricks,

NMFS has reviewed the latest proposed compensatory mitigation plan for mangrove impacts due to the project referenced above. You propose the purchase of 1.23 estuarine mangrove credits from the Little Pine Island Mitigation Bank as compensatory mitigation to offset the loss of ecological functions due to project-related mangrove losses (1.88 acres of mangroves).

Based on the commitments described above, NMFS is providing concurrence regarding Essential Fish Habitat issues. This satisfies the consultation procedures outlined in 50 CFR Section 600.920, of the regulation to implement the EFH provisions of the Magnuson-Stevens Fishery Conservation and Management Act. Therefore, no further consultation is required for this action.

We look forward to further cooperation with you on future projects to ensure the conservation of Essential Fish Habitat. If you have any questions regarding this consultation, please contact Dr. Dave Rydene, Consultation Biologist, at (727) 824-5379 or by email at David.Rydene@noaa.gov.

Sincerely,

Virginia M. Croom

Virginia M. Croom

Assistant Regional Administrator for the Habitat Conservation Division

Florida Fish and Wildlife Conservation Commission

Commissioners
Rodney Barreto
Chairman
Coral Gables

Steven Hudson
Vice Chairman
Fort Lauderdale

Preston Farrior
Tampa

Gary Lester
Oxford

Albert Maury
Coral Gables

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Office of the Executive Director
Roger A. Young
Executive Director

Jessica Crawford
Chief of Staff

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

December 18, 2023

Emily Barnett
Environmental Project Manager
Florida Department of Transportation District One
801 North Broadway Avenue
Bartow, Florida 33830
Emily.Barnett@dot.state.fl.us

Re: SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road), Natural Resource Evaluation, Lee County

Dear Ms. Barnett:

Florida Fish and Wildlife Conservation Commission (FWC) staff reviewed the above-referenced Natural Resources Evaluation (NRE) report in accordance with FWC's authorities under Chapter 379, Florida Statutes, and Chapter 68A-27, Florida Administrative Code.

The Florida Department of Transportation District One (FDOT D1) is conducting a Project Development and Environment (PD&E) study (ETDM 14359) to evaluate the potential environmental effects of the proposed roadway improvements for State Road (SR) 31 in Lee County, including the widening of SR 31 from an existing two-lane to a six-lane roadway from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road), replacement of the Wilson Pigott Bridge, and intersection improvements to SR 80, for a project length of approximately 1.4 miles. Additionally, the potential improvements include raising the roadway profile above the current 100-year floodplain and shifting the northern segment of the roadway 300 feet east on the north side of the Wilson Pigott Bridge to minimize impacts to the existing Florida Gas Transmission (FGT) line.

The NRE report was prepared as part of the PD&E study to document wetlands, surface waters, protected species, critical habitat, and Essential Fish Habitat (EFH) within the project's corridor; evaluate potential impacts associated with the proposed project; provide effect determinations for protected species; identify mitigation needs, and coordinate with federal and state regulatory and resource agencies. FWC staff agrees with the effect determinations and supports the project implementation measures and commitments for protected species. Further coordination could be required during future species-specific surveys and project permitting.

For specific technical questions regarding the content of this letter, please contact Kristee Booth at (850) 363-6298 or KristeeBooth@MyFWC.com. All other inquiries may be directed to ConservationPlanningServices@MyFWC.com.

Sincerely,

Laura DiGruttolo
Land Use Planning Supervisor
Office of Conservation Planning Services

ld/kb
SR 31 NRE_57545_12122023

Tanya Thompson

From: Mark Prochak
Sent: Wednesday, November 29, 2023 1:59 PM
To: Bateman, Patrick; Matter, Melody A.; Rachel Schmidt; George McLatchey; Kimberly Bereis; Tanya Thompson
Subject: RE: Document Review Confirmation for 441942-1 SR 31 NRE

Got it

Mark Prochak, PE
Main: 407.896.0594 | Direct: 407.362.1460 | Cell: 407.222.4100
mprochak@drmp.com

DRMP

941 Lake Baldwin Lane, Orlando, FL 32814

From: Bateman, Patrick <Patrick.Bateman@dot.state.fl.us>
Sent: Wednesday, November 29, 2023 12:52 PM
To: Mark Prochak <mprochak@drmp.com>; Matter, Melody A. <MAMatter@mccormicktaylor.com>
Subject: FW: Document Review Confirmation for 441942-1 SR 31 NRE

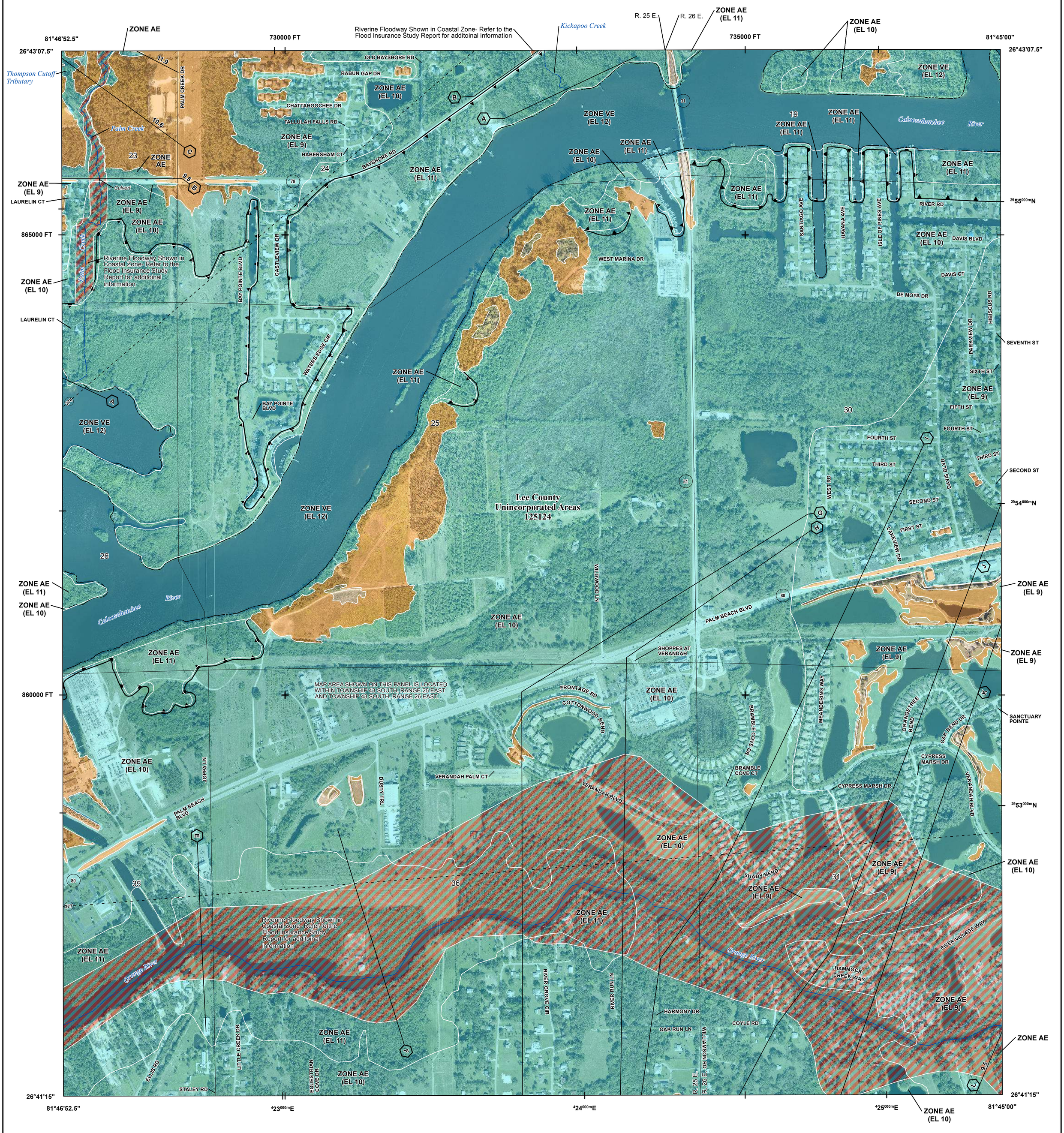
From: admin@fla-etat.org <admin@fla-etat.org>
Sent: Wednesday, November 29, 2023 12:44 PM
To: David.Rydene@noaa.gov
Cc: Barnett, Emily <Emily.Barnett@dot.state.fl.us>; James, Jeffrey W <Jeffrey.James@dot.state.fl.us>; Barnett, Emily <Emily.Barnett@dot.state.fl.us>; Bateman, Patrick <Patrick.Bateman@dot.state.fl.us>; dave.rydene@verizon.net
Subject: Document Review Confirmation for 441942-1 SR 31 NRE

A review was received for the following:

Event: 441942-1 SR 31 NRE
Document: 441942-1 SR 31 NRE
Submitted By: David Rydene
Global: Yes
Comments:

National Marine Fisheries Service (NMFS) staff has reviewed the Natural Resource Evaluation Report (NRE) for the widening of SR 31 from SR 80 to SR 78, including the replacement and widening of the Wilson Pigott Bridge, in Lee County, Florida, as part of the project's Project Development and Environment (PD&E) Study (Financial Management Number 441942-1-22-01; ETDM 14359). NMFS offers the following comments. In general, NMFS finds the NRE to be accurate and complete at this stage in project development. Upon request, NMFS will conduct an Endangered Species Act Section 7 consultation based on the determinations provided in the NRE for ESA-listed species under NMFS's purview. However, NMFS recommends that leatherback and hawksbill sea turtles not be included in the Section 7 consultation request, as they are highly unlikely to occur in the project area due to their respective life history strategies (Leatherback sea turtles have a pelagic, deepwater life history, where they forage primarily on jellyfish. Hawksbill sea turtles typically inhabit inshore reef and hard bottom areas where they forage primarily on encrusting sponges.) NMFS also recommends that Kemp's ridley sea turtles be added to the Section 7 consultation request. In addition, NMFS will complete an Essential Fish Habitat consultation when compensatory mitigation plans for unavoidable impacts to NMFS trust resources have been finalized. In terms of project commitments, NMFS asks that in-water pile driving only be conducted during daylight hours and that a "ramp-up" procedure be used for all in-water impact driving (i.e., The contractor will use a "ramp up" or "slow start" technique at the start of each day's impact pile driving, using low force blows initially and gradually increasing to full force hammer blows. The "ramp up/slow start" technique will be reinitiated after any break in impact pile driving of over an hour).

Thank you for the opportunity to provide comments on this project's NRE.



FLOOD HAZARD INFORMATION

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

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A,V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- E 18.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

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

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

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

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

Base map information shown on this FIRM was provided by Lee County, dated 2008 and 2018; the Florida Department of Transportation, dated 2017 and 2018; the U.S. Department of Transportation, dated 2018; and the U.S. Department of Transportation, dated 2017.

LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LiMWA (or between the shoreline and the LiMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in the Zone VE.

Limit of Moderate Wave Action (LiMWA)

SCALE

N

Map Projection:
State Plane Transverse Mercator, Florida West Zone 0902; North American Datum 1983; Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 250 500 750 1,000 2,000 feet

0 125 250 500 meters

PANEL LOCATOR

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

LEE COUNTY, FLORIDA
and Incorporated Areas

PANEL 284 OF 685

Panel Contains:

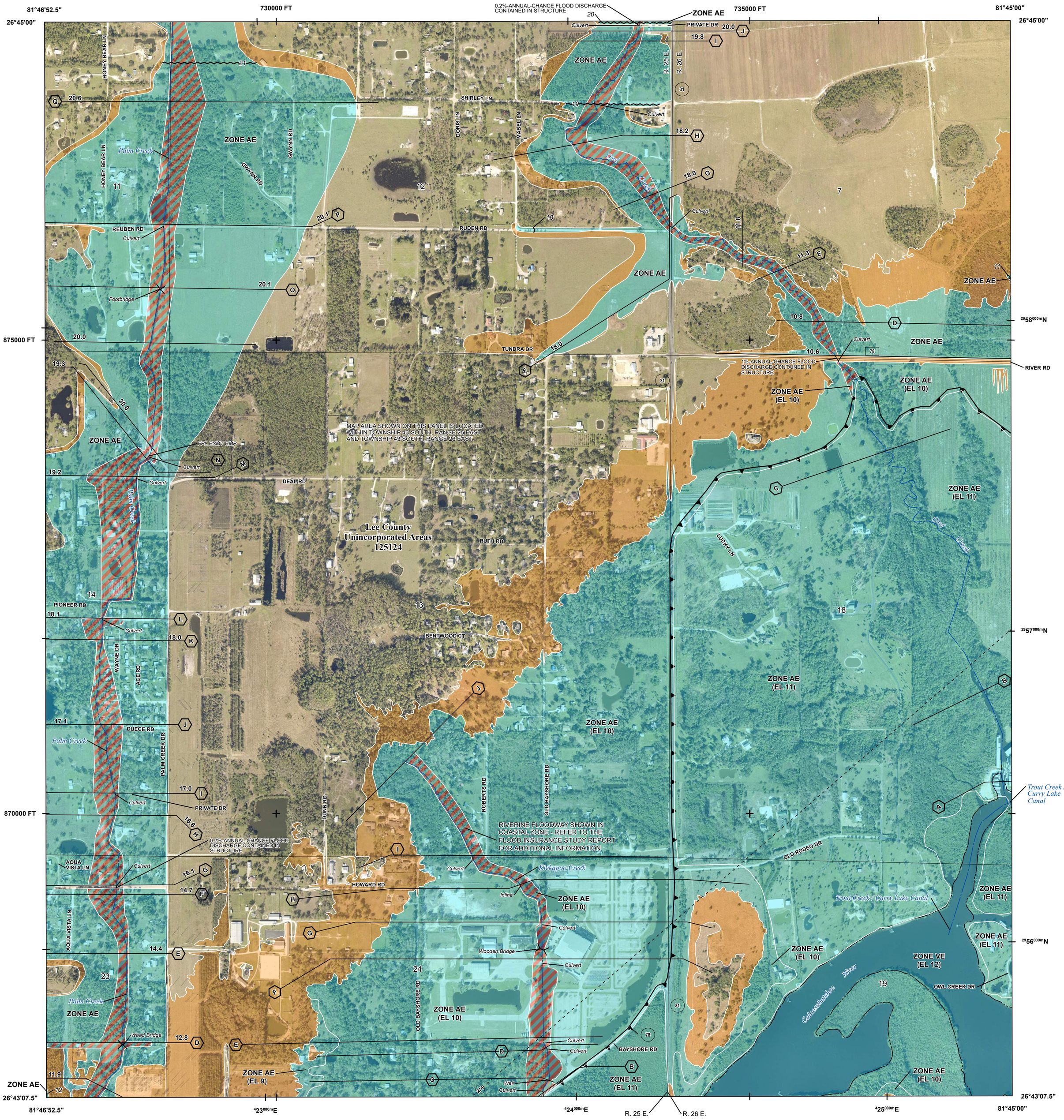
COMMUNITY	NUMBER	PANEL	SUFFIX
LEE COUNTY	125124	0284	G

PRELIMINARY
6/28/2019

VERSION NUMBER
2.4.3.5

MAP NUMBER
12071C0284G

MAP REVISED



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- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- E 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 — Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

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

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

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

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

Base map information shown on this FIRM was provided by Lee County, dated 2008 and 2018; the Florida Department of Transportation, dated 2017 and 2018; the U.S. Department of Agriculture, dated 2018; and the U.S. Department of Transportation, dated 2017.

LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LiMWA (or between the shoreline and the LiMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in the Zone VE.

Limit of Moderate Wave Action (LiMWA)

SCALE

N

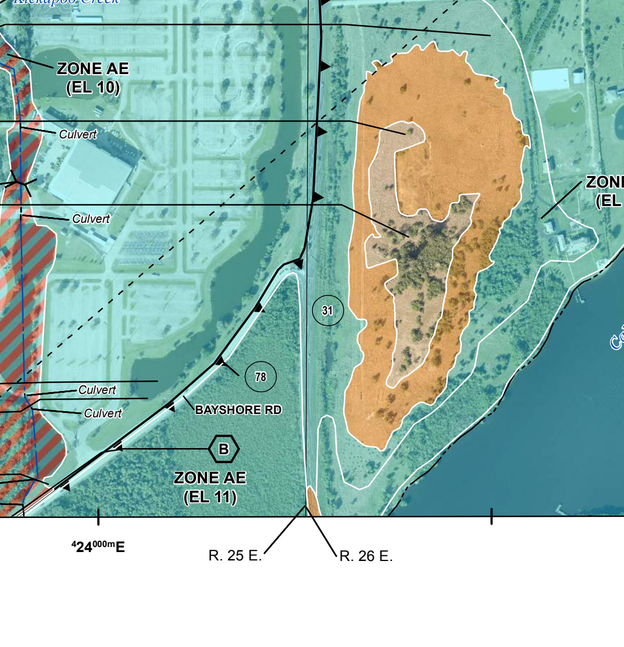
Map Projection:
State Plane Transverse Mercator, Florida West Zone 0902; North American Datum 1983; Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 250 500 750 1,000 2,000 feet

0 125 250 500 meters

PANEL LOCATOR



FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

LEE COUNTY, FLORIDA
and Incorporated Areas

PANEL 282 OF 685

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
LEE COUNTY	125124	0282	G

PRELIMINARY
6/28/2019

VERSION NUMBER
2.4.3.5

MAP NUMBER
12071C0282G

MAP REVISED

Figure 5: Protected Species Map

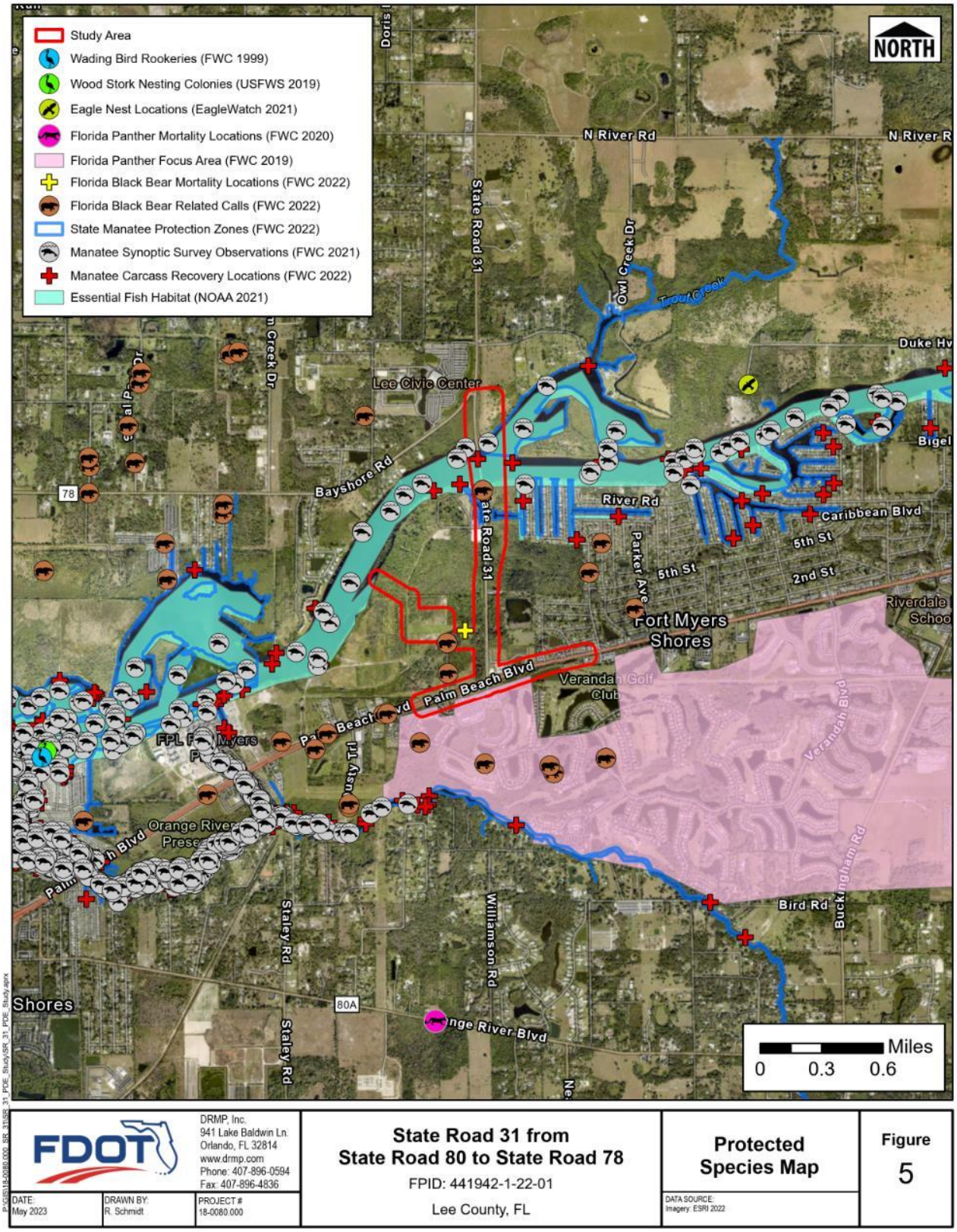


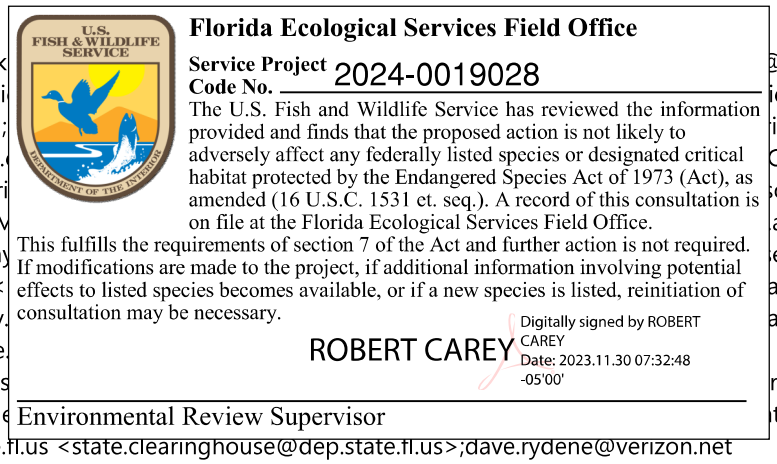
Figure 6: Wetland and Other Surface Waters Map

FDOT DRMP, Inc. 941 Lake Baldwin Ln. Orlando, FL 32814 www.drmp.com Phone: 407-896-0594 Fax: 407-896-4836	State Road 31 from State Road 80 to State Road 78 FPID: 441942-1-22-01 Lee County, FL	Wetland and Other Surface Waters Map	Figure 6
DATE: May 2023 / DRAWN BY: R. Schmidt / PROJECT # 18-0080.000		DATA SOURCE: Imagery: ESRI 2022	

[EXTERNAL] Notice: Document Review has begun for 441942-1 SR 31 NRE

est_update@fla-etat.org <est_update@fla-etat.org>

Tue 11/21/2023 4:49 PM



Florida Ecological Services Field Office

Service Project Code No. 2024-0019028

The U.S. Fish and Wildlife Service has reviewed the information provided and finds that the proposed action is not likely to adversely affect any federally listed species or designated critical habitat protected by the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et. seq.). A record of this consultation is on file at the Florida Ecological Services Field Office.

This fulfills the requirements of section 7 of the Act and further action is not required. If modifications are made to the project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

ROBERT CAREY Digitally signed by ROBERT CAREY Date: 2023.11.30 07:32:48 -05'00'

Environmental Review Supervisor

To:Wrublik, John <john_wrublik @noaa.gov
<David.Rydene@noaa.gov>;mi idaDEP.gov
<Chris.Stahl@FloridaDEP.gov>; ida.com
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<Jason.Hight@MyFWC.com>;M army.mil
<Veronica.C.Beech@usace.army e_rivera@fws.gov>;
laura.digruttolo@myfwc.com < a@myfwc.com>;
Heather.m.mason@usace.army. army.mil
<Lucille.R.Brandenburg@usace.
Cc:emily.barnett@dot.state.fl.us rnett@dot.state.fl.us>;
jeffrey.james@dot.state.fl.us <je teman@dot.state.fl.us>;
state.clearinghouse@dep.state.fl.us <state.clearinghouse@dep.state.fl.us>;dave.rydene@verizon.net
<dave.rydene@verizon.net>;ConservationPlanningServices@MyFWC.com <ConservationPlanningServices@MyFWC.com>

A Document Review event has begun on the Environmental Screening Tool (EST).

Please find enclosed the Natural Resources Evaluation (NRE) report prepared for the above-referenced project. The Florida Department of Transportation (FDOT) District One is conducting a Project Development and Environment (PD&E) to evaluate roadway improvement alternatives for State Road (SR) 31 from Palm Beach Boulevard (SR 80) to Bayshore Road (SR 78) in northeastern Lee County, Florida. The study will evaluate the effects of widening this section of SR 31 from an existing two-lane roadway to a six-lane urban facility, the replacement of the Wilson Pigott Bridge, and intersection improvements to SR 80, for a project length of approximately 1.4 miles. Additionally, the improvements include raising the profile above the current 100-year floodplain and shifting the northern segment of the roadway 300 feet east on the north side of the Wilson Pigott Bridge to minimize impacts to the existing Florida Gas Transmission (FGT) line.

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding (MOU) dated December 14, 2016, and executed by the Federal Highway Administration and FDOT. This review is being coordinated with agencies.

The NRE has been prepared to document and summarize the potential impacts to natural resources including federal and state protected species, wetlands, and protected lands. This report also documents measures considered to avoid, minimize, and mitigate for potential impacts. Details on the study methodologies and results are provided in the NRE.

A total of 23 federally listed species and 46 state listed species were identified as potentially occurring within the project study area. Additionally, three other species were included in the analysis due to the regulatory protections associated with those species.

As a result of the data collection effort, field reviews and agency coordination, the FDOT has determined that the project will have the following effects determinations for federal and state listed species:

No Effect (Federal Species)

- Florida Grasshopper Sparrow (*Ammodramus savannarum floridanus*)
- Red-cockaded woodpecker (*Picoides borealis*)
- Florida panther (*Puma concolor coryi*)
- Federally listed plants

May Affect, Not Likely to Adversely Affect (Federal Species)

- Smalltooth sawfish (Pristis pectinata)
- American crocodile (*Crocodylus acutus*)
- Eastern indigo snake (*Drymarchon couperi*)
- Green sea turtle (*Chelonia mydas*)
- Hawksbill sea turtle (*Eretmochelys imbricata*)
- Leatherback sea turtle (*Demorchelys coriacea*)
- Loggerhead sea turtle (*Caretta caretta*)
- Audubon's crested caracara (*Polyborus plancus audubonii*)
- Florida scrub-jay (*Aphelocoma coerulescens*)
- Wood stork (*Mycteria americana*)
- West Indian manatee (*Trichechus manatus*)

May Affect, + Further Coordination (Federal Species)

- Florida bonneted bat (*Eumops floridanus*)

No Effect Anticipated (State Species)

- American bird's nest fern (*Asplenium serratum*)
- Banded wild-pine (*Tillandsia flexuosa*)
- Hand fern (*Ophioglossum palmatum*)
- Florida beargrass (*Nolina atopocarpa*)
- Redmargin zephyrlily (*Zephyranthes simpsonii*)
- Giant orchid (*Pteroglossaspis ecristata*)
- Non-listed rare plants

No Adverse Effect Anticipated (State Species)

- Gopher tortoise (*Gopherus polyphemus*)
- Florida sandhill crane (*Antigone canadensis pratensis*)
- Least tern (*Sternula antillarum*)
- Little blue heron (*Egretta caerulea*)
- Reddish egret (*Egretta rufescens)*
- Roseate spoonbill (*Platalea ajaja*)
- Tricolored heron (*Egretta tricolor*)
- Southeastern American kestrel (*Falco sparverius paulus*)
- Sanibel lovegrass (*Eragrostis pectinacea var. tracyi*)

Potential for Adverse Effect (State Species)

- Giant leather fern (*Acrostichum aureum*)

No Adverse Effect Anticipated (Other Protected Species)

- Bald Eagle (*Haliaeetus leucocephalus*)
- Florida Black Bear (*Ursus americanus floridanus*)
- Non-listed bats

The proposed project is located within the jurisdiction of the Gulf of Mexico Fishery Management Council. Essential Fish Habitat (EFH) for several managed fisheries is located in the project area and includes mangrove swamps; estuarine water column; and mud sand, shell, and rock substrates. While

the Preferred Alternative will directly and indirectly impact 1.88 acres of EFH, compensatory mitigation will be provided through the purchase of credits from Little Pine Island Mitigation Bank (LPIMB). LPIMB is located within the Charlotte Harbor Aquatic Preserve and Matlacha Pass Aquatic Preserve with a direct hydrologic connection to the Caloosahatchee River and provides habitat for many of the same species that may occur in the project area for this study. In addition, design measures and best management practices during construction will be implemented to prevent runoff and sediment entering estuarine and marine habitats. An EFH assessment is included as part of the NRE to address direct and indirect impacts to EFH. Based on this assessment and proposed mitigation, FDOT has determined the project would have "more than minimal but less than substantial" potential for adverse effects to EFH. Consultation with NMFS for potential EFH impacts is anticipated.

The project study area was also evaluated for the presence of federally designated Critical Habitat as defined by Congress in 50 Code of Federal Regulations (C.F.R.) 17. Based on this evaluation, it was determined that the project study area occurs within Critical Habitat for the west Indian manatee and smalltooth sawfish. FDOT is requesting to initiate informal Section 7 consultation with the USFWS for potential impacts to federally protected species through the review of this NRE.

The project study area was assessed for the presence of wetlands that may be impacted by proposed project activities. Based on this evaluation, four (4) surface waters, 14 wetland systems, and six (6) Other Surface Waters (OSW) were identified within the study area and are under the regulatory authority and jurisdiction of the SFWMD and USACE. Wetland systems located in the northern portion of the study area are tidally influenced and hydrologically connected to the Caloosahatchee River. Freshwater forested wetlands were observed in the central and southern portion of the study area. Surface waters consist of the Caloosahatchee River and excavated channels connected to the Caloosahatchee River. Based on previous coordination with USACE, it was determined that the USACE will retain jurisdiction of all of the impacted wetland systems.

Potential impacts to state federally jurisdictional wetlands and other surface waters resulting from the proposed Preferred Alternative include:

- 15.32 acres of direct wetland impacts
- 5.16 acres of indirect (or secondary) wetland impacts
- 7.28 acres of surface water impacts

Mitigation to compensate for impacts to wetlands will be in accordance with 373.4137, Florida Statutes (F.S.) to satisfy requirements of Part IV, Chapter 373, F.S. and 33 US Code (U.S.C) Section 1344. Unavoidable direct and indirect impacts to wetlands will be mitigated through the purchase of credits from LPIMB to satisfy all mitigation requirements of Part IV, Chapter 373 FS and 33 USC 1344. Anticipated mitigation requirements to offset wetland impacts resulting from the proposed project construction include a total of 9.09 credits (1.23 estuarine mangrove credits and 7.86 freshwater forested credits). LPIMB currently has type-for-type state and federal credits available, including

mangrove swamp habitat. LPIMB is a 4,670-acre island that provides habitat for many of the same protected species, including wood stork foraging area, that may utilize habitat within the study area. The purchase of credits from LPIMB will require a Cumulative Impact Assessment be completed during the permitting phase that provides reasonable assurance the proposed impacts will not have unacceptable cumulative impact on similar wetland types within the same basin.

As this project is using Federal funds and in accordance with the MOU previously discussed, the FDOT requests to initiate informal consultation pursuant to Section 7 of the Endangered Species Act, as amended. The FDOT appreciates your involvement with this project and respectfully requests your review comments or written letter of concurrence with the findings presented in the NRE within 30 days. If you have any questions or require additional information, please contact me.

The review period **starts today, Tuesday, 11/21/2023 and will end in 30 calendar days on Thursday, 12/21/2023.**

Click this link to access the document(s) and begin your review:
https://www.fla-etat.org/est/secure/documentReview/DocReviewTool.do?eventId=2901

EVENT_DETAILS:

Event Name	441942-1 SR 31 NRE
Event Description	NRE Review SR 31
Document(s) to Review	https://www.fla-etat.org/est/secure/documentReview/DocReviewTool.do?eventId=2901
Related Document Review Event(s)	None
Related ETDM Project(s)	SR 31 (Wilson Pigott Bridge)

INSTRUCTIONS FOR REVIEWING AND PROVIDING COMMENTS ON DOCUMENTS:
The link above will take you to an online document review tool which will provide you access to the specific documents and a tool which will capture your comments for consideration. You can provide comments specific to a certain sentence, paragraph or section of the document. Some of the documents have numbered lines which you can use for specifiying a location in the document for the comment. Here is a link that shows you how to use the comment form:
https://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=33960

Additionally, we have a fully staffed Help Desk capable of answering questions regarding the access and use of the document review tool. Email: help@fla-etat.org and phone: 850-414-5334.

Thank you,

Emily Barnett
Environmental Project Manager
FDOT District 1

SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD) // 441942-1-22-01

8635192805

Emily.Barnett@dot.state.fl.us

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast

10/23/2024

F/SER46:DR
SERO-2024-01258

Katlin Kuhn-Hendricks
Project Delivery Coordinator
Florida Department of Transportation
Office of Environmental Management
605 Suwannee Street
Tallahassee, Florida 32399-6544

Ref.: Financial Management Number 441942-1-22-01, State Road 31 (SR 31) widening from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) including the Wilson Pigott Bridge replacement, Fort Myers Shores, Lee County, Florida

Dear Katlin Kuhn-Hendricks,

The enclosed Biological Opinion responds to your request for consultation with us, the National Marine Fisheries Service (NMFS), pursuant to Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.) for the above referenced action. The Opinion has been given the NMFS tracking number SERO-2024-01258. Please use the NMFS tracking number in all future correspondence related to this action. The Florida Department of Transportation (FDOT) has received National Environmental Policy Act assignment authority from the Federal Highway Administration and is acting as their representative for this ESA Section 7 consultation.

The Opinion considers the effects of the FDOT's proposal to carry out the widening of SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road), including the Wilson Pigott Bridge replacement, in Fort Myers Shores, Lee County, Florida on the following listed species and critical habitat: smalltooth sawfish (U.S. DPS) and its designated critical habitat. The Opinion is based on information provided by the FDOT, and the published literature cited within. NMFS concludes that the proposed action is not likely to adversely affect smalltooth sawfish. NMFS concludes that the proposed action is likely to adversely affect, but is not likely to result in the destruction or adverse modification of designated critical habitat (Charlotte Harbor Estuary Unit) for smalltooth sawfish.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and critical habitat. If you have any questions on

this consultation, please contact Dr. Dave Rydene, Consultation Biologist, at (727) 824-5379 or by email at David.Rydene@noaa.gov.

Sincerely,

STRELCHECK.ANDREW.JAMES.1365863152 Digitally signed by STRELCHECK.ANDREW.JAMES.1365863152 Date: 2024.10.23 10:21:47 -04'00'

Andrew J. Strelcheck
Regional Administrator

Enclosure:
Katlin.Kuhn-Hendricks@dot.state.fl.us
NMFS Biological Opinion SERO-2024-01258
nmfs.ser.esa.consultations@noaa.gov
File: 1514-22.l.4

Endangered Species Act - Section 7 Consultation
Biological Opinion

Action Agency:	Florida Department of Transportation on behalf of the Federal Highways Administration Financial Management Number 441942-1-22-01
Applicant:	Florida Department of Transportation
Activity:	State Road 31 (SR 31) widening from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) including the Wilson Pigott Bridge replacement
Location:	Fort Myers Shores, Lee County, Florida
Consulting Agency:	National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division, St. Petersburg, Florida NMFS Tracking Number: SERO-2024-01258
Approved by:	STRELCHECK.ANDREW.JAMES.1365863152 Digitally signed by STRELCHECK.ANDREW.JAMES.1365863152 Date: 2024.10.23 10:22:23 -04'00' Andrew J. Strelcheck, Regional Administrator NMFS, Southeast Regional Office St. Petersburg, Florida
Date Issued:	10/23/2024

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ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE

ac	acre(s)
°C	degrees Celsius
CFR	Code of Federal Regulations
CHEU	Charlotte Harbor Estuary Unit
cm	centimeter(s)
CO_2	Carbon Dioxide
DPS	Distinct Population Segment
ECO	Environmental Consultation Organizer
EFH	Essential Fish Habitat
ESA	Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.)
°F	degrees Fahrenheit
FDEP	Florida Department of Environmental Protection
ft	foot/feet
FR	Federal Register
ft^2	square foot/feet
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	Florida Fish and Wildlife Research Institute
FR	Federal Register

in	inch(es)
IPCC	Intergovernmental Panel on Climate Change
km	kilometer(s)
lin ft	linear foot/feet
m	meter(s)
MHW	Mean High Water
mi	mile(s)
mi^2	square mile(s)
MIT	Massachusetts Institute of Technology
MLLW	Mean Lower Low Water
MMPA	Marine Mammal Protection Act
MMF	Marine Megafauna Foundation
MSA	Magnuson-Stevens Fishery Conservation and Management Act
N/A	not applicable
NAD 83	North American Datum of 1983
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
Opinion	Biological Opinion, Conference Biological Opinion, or Draft Biological Opinion
PK	Peak Pressure injury threshold
PTS	Permanent Threshold Shift
SERO PRD	NMFS Southeast Regional Office, Protected Resources Division
SAV	Submerged Aquatic Vegetation
SELcum	Cumulative Sound Exposure Level injury threshold
SSRIT	Smalltooth Sawfish Recovery Implementation Team
STSSN	Sea Turtle Stranding and Salvage Network
TTIEU	Ten Thousand Islands/Everglades Unit
U.S.	United States of America
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
YOY	young-of-the-year

1 INTRODUCTION

1.1 Overview

Section 7(a)(2) of the ESA, requires that each federal agency ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. Section 7(a)(2) requires federal agencies to consult with the appropriate Secretary in carrying out these responsibilities. The NMFS and the USFWS share responsibilities for administering the ESA. Consultations on most ESA-listed marine species and their critical habitat are conducted between the federal action agency and NMFS (hereafter, may also be referred to as we, us, or our).

Consultation is required when a federal action agency determines that a proposed action "may affect" ESA-listed species or critical habitat and can be conducted informally or formally. Informal consultation is concluded after NMFS issues a Letter of Concurrence that concludes that the action is "not likely to adversely affect" ESA-listed species or critical habitat. Formal consultation is concluded after we issue a Biological Opinion (hereafter, referred to as an/the Opinion) that identifies whether a proposed action is "likely to jeopardize the continued existence of an ESA-listed species" or "destroy or adversely modify critical habitat," in which case Reasonable and Prudent Alternatives to the action as proposed must be identified to avoid these outcomes. An Opinion often states the amount or extent of anticipated incidental take of ESA-listed species that may occur, develops Reasonable and Prudent Measures necessary or appropriate to minimize such impact of incidental take on the species and lists the Terms and Conditions to implement those measures. An Opinion may also develop Conservation Recommendations that help benefit ESA-listed species.

This document represents NMFS's Opinion based on our review of potential effects of the FDOT's proposal to carry out the widening of SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) including the Wilson Pigott Bridge replacement in Fort Myers Shores, Lee County, Florida on the following listed species and critical habitat: smalltooth sawfish (U.S. DPS) and its designated critical habitat. Our Opinion is based on information provided by the FDOT, and the published literature cited within.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 Fed. Reg. 24268). We are applying the updated regulations to this consultation. The 2024 regulatory changes, like those from 2019, were intended to improve and clarify the consultation process, and, with one exception from 2024 (offsetting reasonable and prudent measures), were not intended to result in changes to the Services' existing practice in implementing section 7(a)(2) of the Act. 89 Fed. Reg. at 24268; 84 Fed. Reg. at 45015. We have considered the prior rules and affirm that the substantive analysis and conclusions articulated in this biological opinion and incidental take statement would not have been any different under the 2019 regulations or pre-2019 regulations.

1.2 Consultation History

The following is the consultation history for the NMFS ECO tracking number SERO-2024-01258, SR 31 widening and Wilson Pigott Bridge replacement.

We received a request for formal consultation under Section 7 of the ESA from the FDOT to carry out the State Road 31 (SR 31) widening from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) including the Wilson Pigott Bridge replacement in Fort Myers Shores, Lee County, Florida, in a letter dated June 5, 2024.

We received additional project information from the FDOT on July 10, 2024, and initiated formal consultation that day.

2 PROPOSED ACTION

2.1 Project Details

2.1.1 Project Description

The FDOT proposes widening State Road 31 (SR 31) from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road), including the Wilson Pigott Bridge replacement, in Fort Myers Shores, Lee County, Florida. The road and bridge would be widened from 2 lanes to 6 lanes, and the project includes the replacement of a low-level, 2-lane bascule bridge with a new high-level, 6-lane fixed bridge with 55 feet (ft) of vertical clearance that spans the Caloosahatchee River. The bridge lies within the boundary of designated critical habitat for smalltooth sawfish (Charlotte Harbor Estuary Unit). Construction of the new bridge will result in the loss of 1.88 acres (ac) of mangrove habitat (642 linear feet of red mangrove shoreline). The overall project is expected to take approximately 36 months to complete, starting during 2025 and ending in 2028. The in-water work portion of the project (where the NMFS has concerns) will take about 24 months to complete. The new bridge will be built just south of the existing bridge. Barges and small work boats will be used during construction and demolition activities.

The bridge replacement will require the installation of 266 30-inch (in) square concrete piles by impact hammer. Approximately 5 to 7 piles will be installed each day requiring 1,000 to 1,200 hammer strikes to install each pile (a grand total of 5,000 to 8,400 strikes per day). Bubble curtains will be deployed during in-water concrete pile driving as a noise reduction measure. The new bridge piles will displace 1,306 square feet (sq ft) of river bottom, but none of the piles will be placed in shallow estuarine habitat less than 3 ft deep. All bridge piles should be installed within 38-53 days.

Bridge construction and demolition activities will also require the construction of temporary work trestles. To construct the work trestles, a total of 16 30-in diameter steel pipe piles will be installed by impact hammer. Each day 4 pipe piles will be installed requiring 800 strikes per pile (a grand total of 3,200 strikes per day). Bubble curtains will be deployed during in-water pipe pile driving as a noise reduction measure. The work trestle piles will temporarily displace 78.5 sq ft of river bottom. Installation of the temporary work trestle pipe piles will take 4 days to complete.

The new bridge's fender system will require the installation of 60 18-in diameter Fiber-Reinforced Polymer (FRP) pipe piles by vibratory and impact hammer. These piles would be vibrated into place initially, then impact driven to the desired depth in the sediment. Up to 7 FRP pipe piles may be installed per day with each pile requiring up to 600 strikes to install (a grand total of up to 4,200 strikes per day). The placement of these FRP pipe piles will displace 106 sq ft of river bottom. All of the 18-in FRP pipe piles will be installed in 12 days or less.

In terms of demolition of the existing bridge, the existing bridge piles will be broken off below the mudline. In addition, there are two existing bridge bascule piers with mudline footings, each requiring a cofferdam for removal. The cofferdam would consist of steel sheet piles placed at an offset from the footings. The contractor would dewater the inside of the cofferdams. Once dewatering is complete, the contractor would start the demolition process, which likely would involve saw-cutting or munching of elements to sizes that can be erected out of the cofferdam and hauled either via barges or trucks. Debris would be confined to the cofferdam area. Each cofferdam is expected to temporarily occupy an area of 2,000 square feet. Demolition debris will be removed and disposed of at an off-site location. No blasting is proposed as part of the demolition. Construction of the cofferdams will require the installation of 180 PZ-35 steel sheet piles by side grip vibratory hammer. Up to 30 sheet piles will be installed per day requiring up to 8 hours of vibratory driving. Sheet pile installation may involve some limited impact hammer use, if resistant layers, such as clay layers, are encountered. All sheet piles will be installed in about 6 days.

In-water work will only occur during daylight hours, and best management practices and turbidity controls will be implemented to maintain water quality surrounding the project area. Water depths at the project site will not be altered due to the project. No dredging is proposed.

2.1.2 Mitigation Measures

FDOT agrees to adhere to NMFS Southeast Region's *Protected Species Construction Conditions* and *Vessel Strike Avoidance Measures*. In-water pile driving will only occur during daylight hours. The contractor will use a "ramp up" technique at the onset of each day's pile driving, using low force blows gradually increasing to full force blows. Bubble curtains will be deployed during in-water pile driving as a noise reduction measure for the impact driving of 30-in square concrete piles and 30-in diameter steel pipe piles. Best Management Practices, including turbidity curtains and sediment control devices, will be employed to prevent erosion and contain turbidity. Turbidity curtains will not be removed until turbidity levels have returned to background levels.

2.1.3 Best Practices

The applicant will report all future sightings of smalltooth sawfish at the project site to the FWC via E-mail: Sawfish@MyFWC.com, or telephone: 844-472-9347 (1-844-4SAWFISH).

2.2 Action Area

The bridge project site is located at 26.716233ºN and 81.760653ºW (NAD 83) in Fort Myers Shores, Lee County, Florida. The bridge project site is located within the Caloosahatchee River. The river is tidally-influenced and drains to San Carlos Bay, 23 miles downstream. The bottom type at the project location is sand/silt. Water depths range from 0 ft at the shoreline to 25 ft at the river's deepest point. The project is expected to have direct impacts to 642 lin ft of red mangrove shoreline that lies within the boundaries of smalltooth sawfish designated critical habitat.

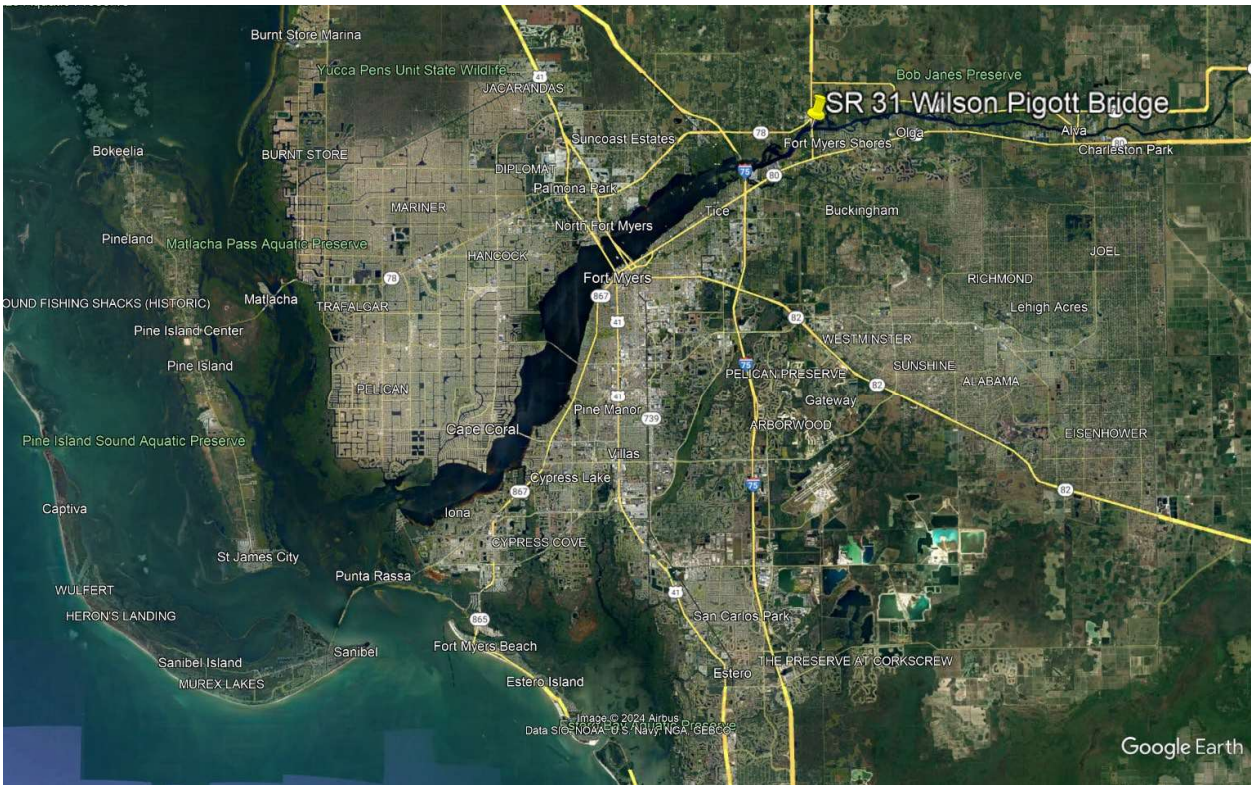

Figure 1. The project site at SR 31 in relation to the Caloosahatchee River and the greater Charlotte Harbor System (©2024 Google).

The action area is defined by regulation as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402.02). For this project, the action area includes a zone extending 15,228.3 ft due to potential behavioral disturbance effects from in-water pile-driving noise. The bridge is located at approximately 26.716233ºN and 81.760653ºW (North American Datum 1983). There are no corals or SAV within the action area. The action area is within the boundary of smalltooth sawfish designated critical habitat (Charlotte Harbor Estuary Unit).

Figure 2. The project site at SR 31, showing the location of the Wilson Pigott Bridge crossing the Caloosahatchee River (©2024 Google).

3 EFFECTS DETERMINATIONS

Please note the following abbreviations are only used in **Table 1** and **Table 2** and are not, therefore, included in the list of acronyms: E = endangered; LAA = likely to adversely affect; NLAA = may affect, not likely to adversely affect.

3.1 Effects Determinations for ESA-Listed Species

3.1.1 Agency Effects Determinations

We have assessed the ESA-listed species that may be present in the action area and our determination of the project's potential effects is shown in **Table 1** below.

Table 1. ESA-listed Species in the Action Area and Effect Determinations

Species (DPS)	ESA Listing Status	Listing Rule/Date	Most Recent Recovery Plan (or Outline) Date	Action Agency Effect Determination	NMFS Effect Determination
Fishes					

Species (DPS)	ESA Listing Status	Listing Rule/Date	Most Recent Recovery Plan (or Outline) Date	Action Agency Effect Determination	NMFS Effect Determination
Smalltooth sawfish (U.S. DPS)	E	68 FR 15674/ April 1, 2003	January 2009	NLAA	NLAA

3.1.2 Effects Analysis for ESA-Listed Species Not Likely to be Adversely Affected by the Proposed Action

Effects to ESA-listed species include the risk of injury from direct impact by construction machinery and associated activities (e.g., heavy equipment operation, pile-driving operations). We believe this will be extremely unlikely to occur because ESA-listed species are likely to exhibit avoidance behavior and move away from the project site. The applicant's compliance with NMFS Southeast Region's *Protected Species Construction Conditions* will provide an additional measure of protection by requiring in-water construction activities to stop if ESA-listed species are spotted within 150 ft of operations. Activities may not resume until the protected species has departed the project area of its own volition or 20 minutes have passed since the animal was last seen in the area. Further, construction would be limited to daylight hours so construction workers are able to see protected species, if present, and avoid interactions with them.

The action area contains shallow-water habitat and mangroves that may be used by smalltooth sawfish for foraging and refuge. These species may be affected if they are temporarily unable to use the site for forage or refuge habitat due to avoidance of construction activities, related noise, and physical exclusion from the use of turbidity curtains. Although species will be temporarily unable to access the construction areas, these effects will be insignificant given the project's limited footprint and availability of similar habitat nearby. Any disturbances to species would be temporary, limited to in-water construction during daylight hours only, after which animals will be able to return to the site. Additionally, smalltooth sawfish (at the sizes that would be found in the action areas) are highly mobile organisms, and because similar habitat is nearby, we expect these adjacent areas could provide short-term refuge or forage habitat.

The project will result in the permanent loss of a total 642 lin ft of red mangrove shoreline within the CHEU of critical habitat for smalltooth sawfish. Smalltooth sawfish may be affected by the permanent removal of these resources, which these species may use as habitat for sheltering and foraging for prey. We believe the effects on smalltooth sawfish caused by this loss of habitat will be insignificant because similar red mangrove habitat is highly abundant in the vicinity of the project area. In addition, the project will result in the permanent loss of 1,412 sq ft of sand/silt river bottom due to bridge and fender pile installations and the temporary loss of 4,078.5 sq ft of river bottom due to work trestle pile and cofferdam installations. We believe the effects on smalltooth sawfish caused by this loss of habitat will be insignificant because similar sand/silt river bottom is also highly abundant

in the vicinity of the project area. Also, the loss of sand/silt bottom will be partially offset when the existing bridge has been removed.

Noise created by pile driving activities can physically injure animals or change animal behavior in the affected areas. Injurious effects can occur in two ways. First, immediate adverse effects can occur if a single noise event exceeds the threshold for direct physical injury. Second, effects can result from prolonged exposure to noise levels that exceed the daily cumulative sound exposure level (SELcum) threshold for the animals, and these can constitute adverse effects if animals are exposed to the noise levels for sufficient periods. Behavioral effects can be adverse if such effects interfere with an animal's behavior such as migrating, feeding, resting, or reproducing. The noise analysis in this consultation evaluates effects to ESA-listed fish, identified by FDOT that may be affected by the proposed action. NMFS uses the U.S. Navy Phase III criteria (U.S. Department of the Navy, 2017) as the thresholds for impact pile driving listed below. Root Mean Square (RMS) sound pressure is referenced to dB 1 µPA. Sound Exposure Level (SEL) and SELcum are referenced to dB 1 μPA^2-second. The impact driving peak pressure injury threshold for ESA-listed fishes is 206 dB. The impact driving SELcum injury threshold for ESA-listed fishes is 187 dB SELcum. The impact driving behavioral disturbance threshold for ESA-listed fishes is 150 dB RMS. For vibratory hammer pile driving, the behavioral disturbance threshold for ESA-listed fishes is 150 dB RMS. Vibratory driving is not expected to cause any injurious effects to ESA-listed fishes.

Of the 6 types of noise-producing pile driving activities proposed (vibratory hammer installation of steel sheet piles, impact hammer installation of steel sheet piles, impact hammer installation of 30-in square concrete piles, impact hammer installation of 30-in steel pipe piles, vibratory hammer installation of FRP pipe piles, impact hammer installation of FRP pipe piles), the impact hammer installation of steel sheet piles for temporary cofferdams creates the greatest amount of in-water noise and has the most potential to impact ESA-listed species under the NMFS's purview. Therefore, the impact hammer installation of steel sheet piles for temporary cofferdams will be analyzed as the scenario with the most potential for extensive in-water noise effects.

According to the NMFS Multi-Species Pile Driving Tool (2021), the installation of 30 steel sheet piles per day requiring limited impact hammer use to penetrate resistant layers such as clay (potentially up to 20 strikes per sheet pile) may cause peak pressure injurious noise effects at a radius of up to 28.1 ft away from the pile-driving operations for ESA-listed fishes. Due to the mobility of smalltooth sawfishes, we expect them to move away from noise disturbances. Because we anticipate that smalltooth sawfishes will move away from the project area during the "ramp-up" period, we believe that an animal's suffering physical injury from peak pressure noise exposure is extremely unlikely to occur. The project has adequate avenues for a sawfish to leave or avoid the project area during pile-driving activities, and there is similar habitat outside of the peak pressure injury zone. In addition, vibratory hammering will be the primary method used to install sheet piles, and impact hammering of sheet piles will only occur on a limited basis. Also, this pile-driving activity will be relatively short-term in duration as all sheet piles will be installed within 6 days. An

animal's movement away from the injurious impact zone is a behavioral response, with the same effects discussed below.

According to the NMFS Multi-Species Pile Driving Tool (2021), the installation of 30 steel sheet piles per day requiring limited impact hammer use to penetrate resistant layers such as clay (potentially up to 20 strikes per sheet pile) may cause SELcum injurious noise effects at a radius of up to 796.9 ft away from pile-driving operations for ESA-listed fishes. Due to the mobility of smalltooth sawfishes, we expect them to move away from noise disturbances. Because we anticipate that sawfishes will move away from the project area during the "ramp-up" period, we believe that an animal's suffering physical injury from SELcum noise exposure is extremely unlikely to occur. The project has adequate avenues for a smalltooth sawfish to leave or avoid the project area during pile-driving activities, and there is similar habitat outside of the SELcum injury zone. In addition, vibratory hammering will be the primary method used to install sheet piles and impact hammering of sheet piles will only occur on a limited basis. Also, this pile-driving activity will be relatively short-term in duration as all sheet piles will be installed within 6 days and smalltooth sawfishes are less prone to noise injuries because they do not have a swim bladder. An animal's movement away from the injurious impact zone is a behavioral response, with the same effects discussed below.

According to the NMFS Multi-Species Pile Driving Tool (2021), the installation of 30 steel sheet piles per day requiring limited impact hammer use to penetrate resistant layers such as clay (potentially up to 20 strikes per sheet pile) could result in behavioral noise effects to ESA-listed fishes at a radius of up to 15,228.3 ft away from pile driving operations. While this zone is quite large, we believe behavioral noise effects will be insignificant for the following reasons. Vibratory hammering will be the primary method used to install sheet piles and impact hammering of sheet piles will only occur on a limited basis, so exposure to this large behavioral disturbance zone will only occur for very short periods of time and intermittently, if at all. If an individual chooses to remain within the behavioral response zone, it could be exposed to behavioral noise effects during sheet pile installations. Since in-water pile installations will occur intermittently during daylight hours only, these species will be able to resume normal activities during quiet periods between sheet pile installations and at night. Also, this pile-driving activity will be relatively short-term in duration as all sheet piles will be installed within 6 days.

3.1.3 ESA-Listed Species Likely to be Adversely Affected by the Proposed Action

We have determined that none of the species that appear in Table 1 are likely to be adversely affected by the proposed action and thus do not require further analysis.

3.2 Effects Determination for Critical Habitat

3.2.1 Agency Effects Determination

We have assessed the critical habitat that overlaps with the action area and our determination of the project's potential effects is shown in **Table 2** below.

Table 2. Critical Habitat in the Action Area and Effect Determinations

Species (DPS)	Critical Habitat Unit in the Action Area	Critical Habitat Rule/Date	Action Agency Effect Determination	NMFS Effect Determination (Critical Habitat)
Fishes				
Smalltooth sawfish (U.S. DPS)	Charlotte Harbor Estuary Unit	74 FR 45353/ September 2, 2009	LAA	LAA

3.2.2 Critical Habitat Likely to be Adversely Affected by the Proposed Action

The project is located within the boundary of smalltooth sawfish critical habitat (CHEU). The following physical or biological features essential for the conservation of the species ("essential features") are present in the CHEU:

1. Red mangroves; and,
2. shallow, euryhaline habitats characterized by water depths between the MHW line and 3 ft (0.9 m) measured at MLLW.

Due to permanent impacts to the red mangrove shoreline essential feature, we have determined that smalltooth sawfish critical habitat (CHEU) is likely to be adversely affected by the proposed action and thus requires further analysis. We provide greater detail on the potential effects to critical habitat from the proposed action in the Effects of the Action (Section 6) and whether those effects, when considered in the context of the Status of the Critical Habitat (Section 4), the Environmental Baseline (Section 5), and the Cumulative Effects (Section 7), are likely to cause destruction or adverse modification of critical habitat.

4 STATUS OF CRITICAL HABITAT CONSIDERED FOR FURTHER ANALYSIS

Smalltooth Sawfish Critical Habitat

The U.S. DPS of smalltooth sawfish was listed as endangered on April 1, 2003; however, at that time, NMFS was unable to determine critical habitat. After funding additional studies necessary for the identification of specific habitats and environmental features important for the conservation of the species, establishing a smalltooth sawfish recovery team, and reviewing the best scientific data available, NMFS issued a Final Rule (74 FR 45353; see also 50 CFR 226.218) to designate critical habitat for the U.S. DPS of smalltooth sawfish on September 2, 2009. Through the additional studies, researchers identified 2 primary nursery areas in southwest Florida and centered the critical habitat designations around these nurseries. The critical habitat consists of 2 units located along the southwestern coast of

Florida: the CHEU, which is comprised of approximately 221,459 ac (346 mi²) of coastal habitat, and the Ten Thousand Islands/Everglades Unit (TTIEU), which is comprised of approximately 619,013 ac (967 mi^2) of coastal habitat.

Critical Habitat Unit Affected by this Action

This consultation focuses on an activity occurring in the CHEU, which encompasses portions of Charlotte and Lee Counties (Figure 3). The CHEU is comprised of Charlotte Harbor, Gasparilla Sound, Matlacha Pass, Pine Island Sound, San Carlos Bay, and Estero Bay. The unit is fed by the Myakka and Peace Rivers to the north and the Caloosahatchee River to the east. A series of passes between barrier islands connect the CHEU with the Gulf of Mexico. The CHEU is a relatively shallow estuary with large areas of submerged aquatic vegetation (SAV), oyster bars, saltwater marsh, freshwater wetlands, and mangroves. Freshwater flows from the Caloosahatchee River are controlled by the Franklin Lock and Dam, which periodically releases water, which thereby affects downstream salinity regimes. The CHEU boundaries are defined in detail in the Final Rule (74 FR 45353; see also 50 CFR 226.218).

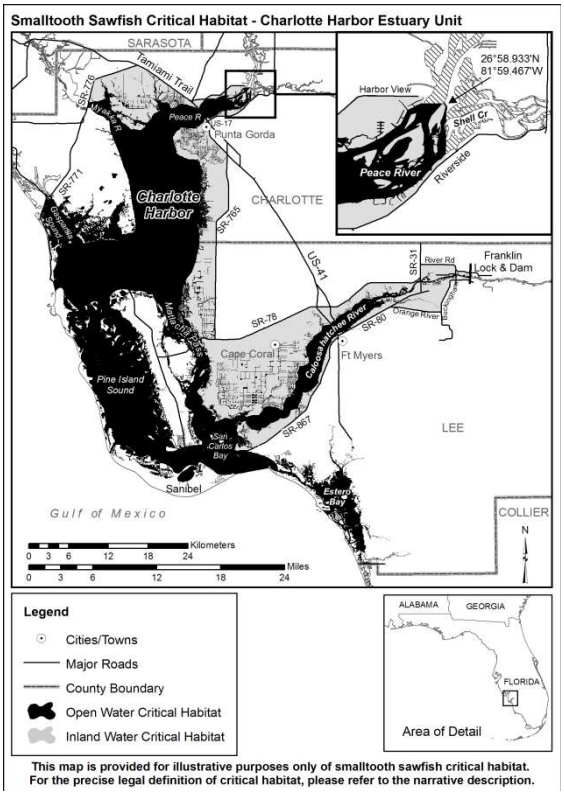

Figure 3.
Map of smalltooth sawfish critical habitat – Charlotte Harbor Estuary Unit

Essential Features of Critical Habitat

The recovery plan developed for the smalltooth sawfish, which represents NMFS's best judgment about the objectives and actions necessary for the species' recovery, identified a need to increase the number of juvenile smalltooth sawfish developing into adulthood by

protecting or restoring nursery habitat (NMFS 2009). NMFS determined that without sufficient habitat, the population was unlikely to increase to a level associated with low extinction risk and de-listing. Therefore, within the 2 critical habitat units NMFS identified 2 habitat features essential for the conservation of this species: (1) red mangroves, and (2) shallow, euryhaline habitats characterized by water depths between the MHW line and 3 ft (0.9 m) measured at MLLW (Final Rule, 74 FR 45353). These essential features of critical habitat provide juveniles refuge from predation and forage opportunities within their nursery habitat. One or both of these essential features must be present in an action area for it to function as critical habitat for smalltooth sawfish.

Habitat Use

Juvenile smalltooth sawfish, identified as those up to 3 years of age or approximately 8 ft (2.4 m) in length (Simpfendorfer et al. 2008), inhabit the shallow waters of estuaries and can be found in sheltered bays, dredged canals, along banks and sandbars, and in rivers (NMFS 2000). Juvenile smalltooth sawfish occur in euryhaline waters (i.e., waters with a wide range of salinities) and are often closely associated with muddy or sandy substrates, and shorelines containing red mangroves (Simpfendorfer 2001; 2003). The structural complexity of red mangrove prop roots creates a unique habitat used by a variety of fish, invertebrates, and birds. Juvenile smalltooth sawfish, particularly YOY (measuring less than 39.4 in [100 cm in length), use these areas as both refuge from predators and forage grounds, taking advantage of the large number of fish and invertebrates found there.

Tracking data from the Caloosahatchee River in Florida indicate very shallow depths and specific salinity ranges are important abiotic factors influencing juvenile smalltooth sawfish movement patterns, habitat use, and distribution (Simpfendorfer et al. 2011). An acoustic tagging study in a developed region of Charlotte Harbor, Florida, identified the importance of mangroves in close proximity to shallow-water habitat for juvenile smalltooth sawfish, stating that juveniles generally occur in shallow water within 328 ft (100 m) of mangrove shorelines (Simpfendorfer et al. 2010). Juvenile smalltooth sawfish spend the majority of their time in waters shallower than 13 ft (4 m) deep (Simpfendorfer et al. 2010) and are seldom found deeper than 32 ft (10 m) (Poulakis and Seitz 2004). Simpfendorfer et al. (2010) also indicated the following developmental differences in habitat use: the smallest YOY juveniles generally used water shallower than 1.6 ft (0.5 m), had small home ranges, and exhibited high levels of site fidelity. Although small juveniles exhibit high levels of site fidelity for specific nursery habitats for periods of time lasting up to 3 months (Wiley and Simpfendorfer 2007), they undergo small movements coinciding with changing tidal stages. These movements often involve moving from shallow sandbars at low tide and among red mangrove prop roots at higher tides (Simpfendorfer et al. 2010), behavior likely to reduce the risk of predation (Simpfendorfer 2006). As juveniles increase in size, they begin to expand their home ranges (Simpfendorfer et al. 2010; Simpfendorfer et al. 2011), eventually moving to more offshore habitats where they likely feed on larger prey and eventually reach sexual maturity.

Researchers have identified several areas within the Charlotte Harbor Estuary that are disproportionately more important to juvenile smalltooth sawfish, based on intra- or inter-

annual capture rates during random sampling events within the estuary (Poulakis 2012; Poulakis et al. 2011). The areas, which were termed "hotspots" in Poulakis et al. (2011), correspond with areas where public encounters are most frequently reported. Use of these "hotspots" can be variable within and among years based on the amount and timing of freshwater inflow. Smalltooth sawfish use "hotspots" further upriver during drought (i.e., high salinity) conditions and areas closer to the mouth of the Caloosahatchee River during times of high freshwater inflow (Poulakis et al. 2011). At this time, researchers are unsure what specific biotic (e.g., presence or absence of predators and prey) or abiotic factors (e.g., flow rate, water temperature, etc.) influence this habitat selection. Still, they believe a variety of conditions in addition to salinity, such as temperature, dissolved oxygen, water depth, shoreline vegetation, and food availability, may influence smalltooth sawfish habitat selection (Poulakis et al. 2011).

Status and Threats to Critical Habitat

Modification and loss of smalltooth sawfish critical habitat is an ongoing threat contributing to the current status of the species. Activities such as agricultural and urban development, commercial activities, dredge-and-fill operations, boating, erosion, and diversions of freshwater runoff contribute to these losses (South Atlantic Fishery Management Council 1998). Large areas of coastal habitat were modified or lost between the mid-1970s and mid-1980s within the United States (Dahl and Johnson 1991; USFWS 1999). Since then, rates of loss have decreased even though habitat loss continues. Between 1998 and 2004, approximately 2,450 ac (3.8 mi^2) of intertidal wetlands consisting of mangroves or other estuarine shrubs were lost along the Atlantic and Gulf coasts of the United States (Stedman and Dahl 2008). In another study, Orlando Jr. et al. (1994) analyzed 18 major southeastern estuaries and recorded over 703 mi (1,131 km) of navigation channels and 9,844 mi (15,842 km) of shoreline with modifications. Additionally, changes to the natural freshwater flows into estuarine and marine waters through construction of canals and other water-control devices have altered the temperature, salinity, and nutrient regimes, reduced both wetlands and SAV coverage, and degraded vast areas of coastal habitat utilized by smalltooth sawfish (Gilmore 1995; Quigley and Flannery 2002; Reddering 1988; Whitfield and Bruton 1989). Juvenile sawfish and their critical habitat are particularly vulnerable to these kinds of habitat losses or alterations due to the juveniles' affinity for (and developmental need of) shallow, estuarine systems. Although many forms of habitat modification are currently regulated, some permitted direct and/or indirect damage to habitat from increased urbanization still occurs and is expected to continue in the future.

In Florida, coastal development often involves the removal of mangroves, the armoring of shorelines through seawall construction, and the dredging of canals. This is especially apparent in master plan communities such as Cape Coral and Punta Gorda, which are located within the Charlotte Harbor Estuary. These communities were created through dredge-and-fill projects to increase the amount of waterfront property available for development, but in doing so, developers removed the majority of red mangrove habitat from the area. The canals created by these communities require periodic dredging for boat access, further affecting the shallow, euryhaline essential feature of critical habitat. Development continues along the

shorelines of Charlotte Harbor in the form of docks, boat ramps, shoreline armoring, utility projects, and navigation channel dredging.

To protect critical habitat, federal agencies must ensure that their activities are not likely to result in the destruction or adverse modification of the physical and biological features that are essential to the conservation of sawfish, or the species' ability to access and use these features (ESA Section 7(a)(2); see also 50 CFR 424.12(b) [discussing essential features]). Therefore, proposed actions that may impact critical habitat require an analysis of potential impacts to each essential feature. As mentioned previously, there are 2 essential features of smalltooth sawfish critical habitat: (1) red mangroves; and (2) shallow, euryhaline habitats characterized by water depths between the MHW line and 3 ft (0.9 m) measured at MLLW. The USACE oversees the permitting process for residential and commercial marine development in the CHEU. The Florida Department of Environmental Protection (FDEP) and their designated authorities also regulate mangrove removal in Florida. All red mangrove removal permit requests within smalltooth sawfish critical habitat necessitate ESA Section 7 consultation. NMFS Protected Resources Division tracks the loss of these essential features of smalltooth sawfish critical habitat.

Threats to Critical Habitat

Dock and Boat Ramp Construction

The USACE recommends that applicants construct docks in accordance with the NMFS-USACE *Dock Construction Guidelines in Florida for Docks or Other Minor Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh, or Mangrove Habitat* ("Dock Construction Guidelines") when possible. The current dock construction guidelines allow for some amount of mangrove removal; however, it is typically restricted to either (1) trimming to facilitate a dock, or (2) complete removal up to the width of the dock extending toward open water, which the guidelines define as a width of 4 ft.

Installation or replacement of boat ramps is often part of larger projects such as marinas, bridge approaches, and causeways where natural and previously created deepwater habitat access channels already exist. Boat ramps can result in the permanent loss of both the red mangrove and the shallow, euryhaline habitat features of critical habitat for smalltooth sawfish.

Marina Construction

Marinas have the potential to adversely affect aquatic habitats. Marinas are typically designed to be deeper than 3 ft MLLW to accommodate vessel traffic; therefore, most existing marinas lacking essential features are unlikely to function as critical habitat for smalltooth sawfish. The expansion of existing marinas and creation of new marinas can result in the permanent loss of large areas of this nursery habitat.

Bulkhead and Seawall Construction

Bulkheads and other shoreline stabilization structures are used to protect adjacent shorelines from wave and current action and to enhance water access. These projects may adversely impact critical habitat for smalltooth sawfish by removal of the essential features through direct filling and dredging to construct vertical or riprap seawalls. Generally, vegetation plantings, sloping riprap, or gabions are environmentally-preferred shoreline stabilization methods instead of vertical seawalls because they provide better quality fish and wildlife habitat. Nevertheless, placement of riprap material removes more of the shallow euryhaline essential feature than a vertical seawall. Also, many seawalls built along unconsolidated shorelines require the removal of red mangroves to accommodate the seawalls.

Cable, Pipeline, and Transmission Line Construction

While not as common as other activities, excavation of submerged lands is sometimes required for installing cables, pipelines, and transmission lines. Construction may also require temporary or permanent filling of submerged habitats. Open-cut trenching and installation of aerial transmission line footers are activities that have the ability to temporarily or permanently impact critical habitat for smalltooth sawfish.

Transportation Infrastructure Construction

Potential adverse effects from federal transportation projects in smalltooth sawfish critical habitat (CHEU) include operations of the Federal Highway Administration, USACE, and the Federal Emergency Management Agency. Construction of road improvement projects typically follow the existing alignments and expand to compensate for the increase in public use. Transportation projects may impact critical habitat for smalltooth sawfish through installation of bridge footers, fenders, piles, and abutment armoring, or through removal of existing bridge materials by blasting or mechanical efforts.

Dredging

Riverine, nearshore, and offshore areas are dredged for navigation, construction of infrastructure, and marine mining. An analysis of 18 major southeastern estuaries conducted in 1993-1994 demonstrated that over 7,000 km of navigation channels have already been dredged (Orlando Jr. et al. 1994). Habitat effects of dredging include the loss of submerged habitats by disposal of excavated materials, turbidity and siltation effects, contaminant release, alteration of hydrodynamic regimes, and fragmentation of physical habitats (Gulf of Mexico Fishery Management Council 1998; Gulf of Mexico Fishery Management Council 2005; South Atlantic Fishery Management Council 1998). In the CHEU, dredging to maintain canals and channels constructed prior to the critical habitat designation, limits the amount of available shallow, euryhaline essential feature to the edges of waterways and these dredging activities can disturb juveniles that are using these areas. At the time of critical habitat designation, many previously dredged channels and canals existed within the boundaries of the critical habitat units; however, we are unsure which of those contained the shallow-water essential feature at that time. It is likely that many of these channels and canals were originally dredged deeper than 3 ft MLLW, but they have since shoaled in and now contain the essential feature of shallow, euryhaline habitat. Therefore, maintenance dredging

impacts are counted as a loss to this essential feature, even though the areas may or may not have contained the essential feature at time of designation (see Figure 4, Diagrams A and B).

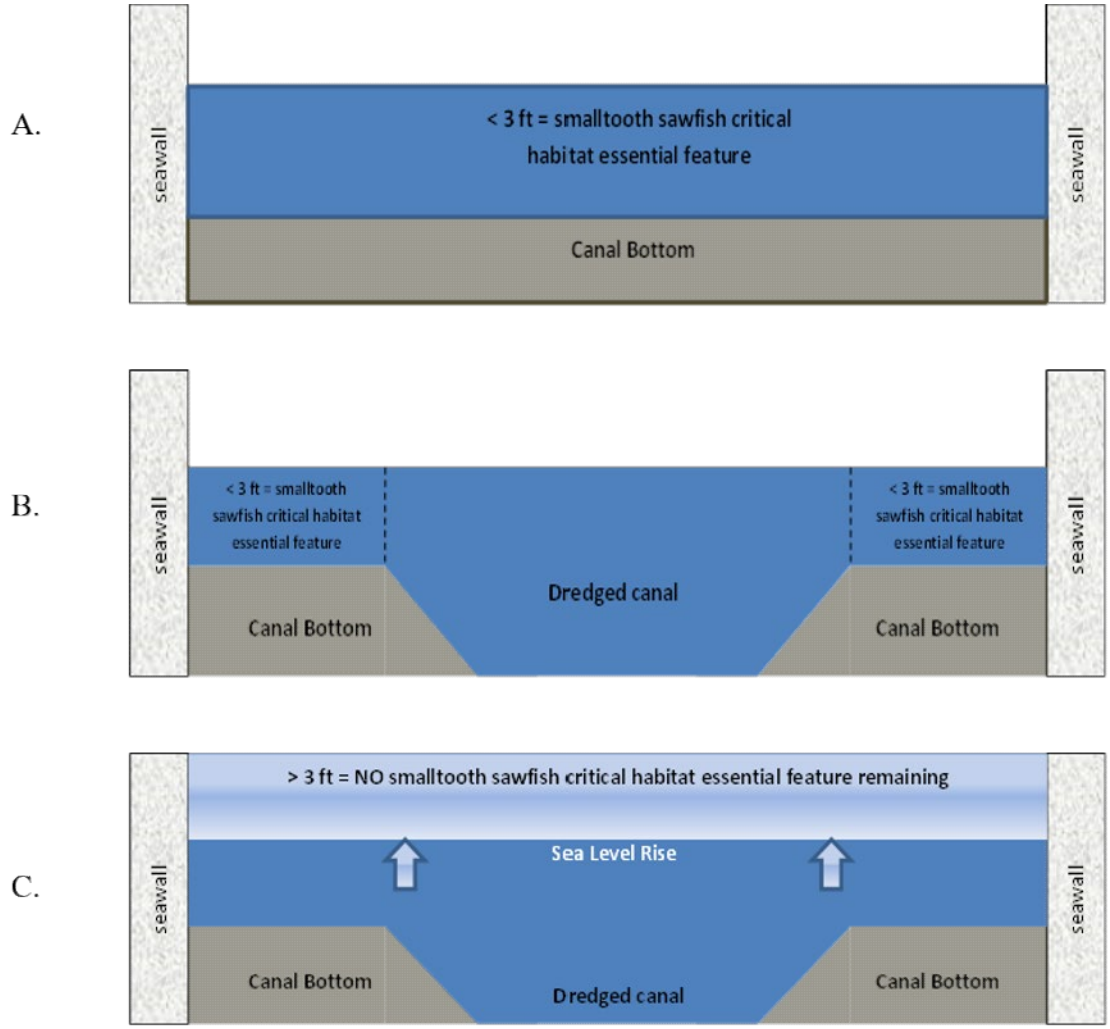

Figure 4. Diagram A depicts a cross section of a historically dredged channel/canal within the boundaries of the critical habitat units that has not been maintained. Diagram B depicts the typical cross section of a maintenance-dredged channel/canal. Diagram C depicts a cross section of a maintained dredged channel/canal after sea level rise of > 1 ft.

Construction, Operations and Maintenance of Impoundments and Other Water Level Controls

Federal agencies such as the USACE have historically been involved in large water control projects in Florida. Agencies sometimes propose impounding rivers and tributaries for such purposes as flood control, salt water intrusion prevention, or creation of industrial, municipal, and agricultural water supplies. Projects to repair or replace water control structures may affect smalltooth sawfish critical habitat by limiting sufficient freshwater discharge, which could alter the salinity of estuaries. The ability of an estuary to function as a nursery depends upon the quantity, timing, and input location of freshwater inflows (Garmestani and Percival

2005; Norton et al. 2012; USEPA 1994). Estuarine ecosystems are vulnerable to the following man-made disturbances: (1) decreases in seasonal inflow caused by the removal of freshwater upstream for agricultural, industrial, and domestic purposes; (2) contamination by industrial and sewage discharges; (3) agricultural runoff carrying pesticides, herbicides, and other toxic pollutants; and (4) eutrophication (e.g., influx of nutrients such as nitrates and phosphates most often from fertilizer runoff and sewage) caused by excessive nutrient inputs from a variety of nonpoint and point sources. Additionally, rivers and their tributaries are susceptible to natural disturbances, such as floods and droughts, whose effects can be exacerbated by these man-made disturbances.

As stated above, smalltooth sawfish show an affinity for a particular salinity range, moving downriver during wetter months and upriver during drier months to remain within that range (Simpfendorfer et al. 2011). Therefore, water management decisions that affect salinity regimes may impact the functionality of critical habitat. This may result in smalltooth sawfish following specific salinity gradients into less advantageous habitats (e.g., areas with less shallow-water or red mangrove habitat). Furthermore, large changes in water flow over short durations would likely escalate movement patterns for smalltooth sawfish, thereby increasing predation risk and energy output. Researchers are currently looking into the effects of large-scale freshwater discharges on smalltooth sawfish and their designated critical habitat. The most vulnerable portion of the juvenile sawfish population to water-management outfall projects appears to be smalltooth sawfish in their first year of life. Newborn smalltooth sawfish remain in smaller areas irrespective of salinity, which potentially exposes them to greater osmotic stress (a sudden change in the solute concentration around a cell, causing a rapid change in the movement of water across its cell membrane), and impacts the nursery functions of sawfish critical habitat (Poulakis et al. 2013; Simpfendorfer et al. 2011).

Climate Change Threats

The IPCC has stated that global climate change is unequivocal and its impacts to coastal resources may be significant (Intergovernmental Panel on Climate Change 2007). There is a large and growing body of literature on past, present, and future impacts of global climate change induced by human activities (i.e., global warming mostly driven by the burning of fossil fuels). The latest report by the Intergovernmental Panel on Climate Change (2013) is more explicit, stating that, “science now shows with 95% certainty that human activity is the dominant cause of observed warming since the mid-twentieth century.” Some of the anticipated outcomes are sea level rise, increased frequency of severe weather events, and changes in air and water temperatures. NOAA’s climate change web portal provides information on the climate-related variability and changes that are exacerbated by human activities (http://www.climate.gov/#understandingClimate).

Though the impacts on smalltooth sawfish cannot, for the most part, be predicted with any degree of certainty, we can project some effects to sawfish critical habitat. We know that both essential features (red mangroves and shallow, euryhaline waters less than 3 ft deep at MLLW will be impacted by climate change. Sea level rise is expected to exceed 3.3 ft (1 m) globally by 2100, according to the most recent publications, exceeding the estimates of the

Fourth Assessment of the IPCC (Meehl et al. 2007; Pfeffer et al. 2008; Rahmstorf et al. 2007). Mean sea level rise projections have increased since the Fourth Assessment because of the improved physical understanding of the components of sea level, the improved agreement of process-based models with observations, and the inclusion of ice-sheet dynamical changes (Intergovernmental Panel on Climate Change 2013). A 1-m sea level rise in the state of Florida is within the range of recent estimates by 2080 (Pfeffer et al. 2008; Rahmstorf et al. 2007).

Sea level increases would affect the shallow-water essential feature of smalltooth sawfish critical habitat within the CHEU. A 2010 climate change study by the Massachusetts Institute of Technology (MIT) forecasted sea level rise in a study area with significant overlap with the CHEU (Vargas-Moreno and Flaxman 2010). The study investigated possible trajectories of future transformation in Florida's Greater Everglades landscape relative to 4 main drivers: climate change, shifts in planning approaches and regulations, population change, and variations in financial resources. MIT used (Intergovernmental Panel on Climate Change 2007) sea level modeling data to forecast a range of sea level rise trajectories from low, to moderate, to high predictions (Figure 5). The effects of sea level rise on available shallow-water habitat for smalltooth sawfish would be exacerbated in areas where there is shoreline armoring (e.g., seawalls). This is especially true in canals where the centerlines are maintenance-dredged deeper than 3 ft (0.9 m) for boat accessibility. In these areas, the areas that currently contain the essential feature depth (less than 3 ft at MLLW) will be reduced along the edges of the canals as sea level rises (see previous Figure 4, Diagram C).

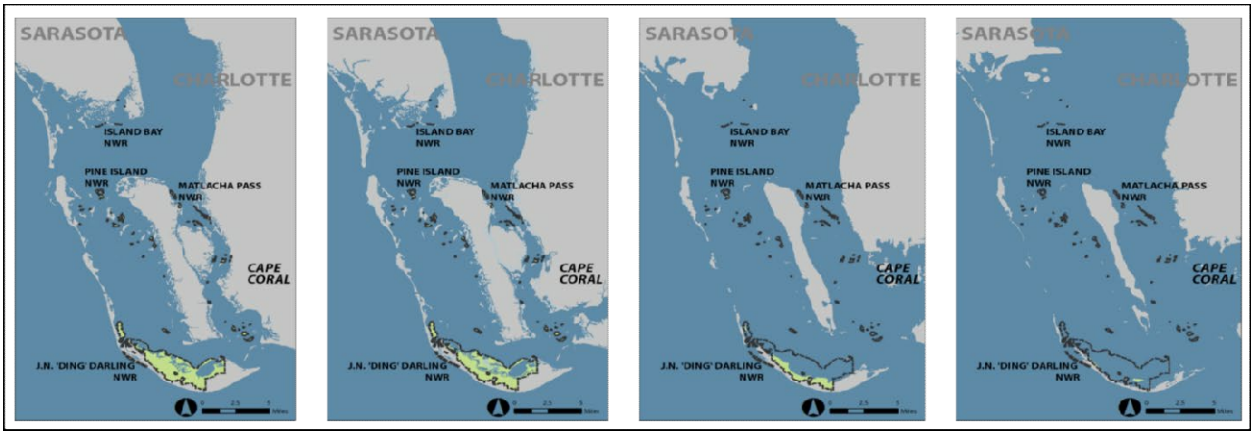

Figure 5. From left to right: current shoreline, + 3.5 in (+ 9 cm); + 18.5 in (+ 47 cm); and + 38.97 in (+ 99 cm) sea level rise by 2060. Adapted from Vargas-Moreno, J. C., and M. Flaxman. 2010. Addressing the challenges of climate change in the greater everglades landscape. Massachusetts Institute of Technology, Deparment of Urban Studies and Planning. Project Sheet November, 2010, Cambridge, MA.

Along the Gulf Coast of Florida, and south Florida in particular, rises in sea level will impact mangrove resources. As sea levels rise, mangroves will be forced landward in order to remain at a preferred water inundation level and sediment surface elevation, which is necessary for successful growth. This retreat landward will not keep pace with conservative projected rates of elevation in sea level (Gilman et al. 2008). This forced landward progression poses the greatest threat to mangroves in areas where there is limited or no room

for landward or lateral migration (Semeniuk 1994). Such is the case in areas of the CHEU where landward mangrove growth is restricted by shoreline armoring and coastal development. This man-made barrier will prohibit mangroves from moving landward and will result in the loss of the mangrove essential feature.

Other threats to mangroves result from climate change: fluctuations in precipitation amounts and distribution, seawater temperature, carbon dioxide (CO_2) levels, and damage to mangroves from increasingly severe storms and hurricanes (McLeod and Salm 2006). A 25% increase in precipitation globally is predicted by 2050 (McLeod and Salm 2006), but the specific geographic distribution will vary, leading to increases and decreases in precipitation at the regional level. Changes in precipitation patterns caused by climate change may adversely affect the growth of mangroves and their distribution (Field 1995; Snedaker 1995). Decreases in precipitation will increase salinity and inhibit mangrove productivity, growth, seedling survival, and spatial coverage (Burchett et al. 1984). Decreases in precipitation may also change mangrove species composition, favoring more salt-tolerant types (Ellison 2010). Increases in precipitation may benefit some species of mangroves, increasing spatial coverage and allowing them to out-compete other salt marsh vegetation (Harty 2004). Even so, potential mangrove expansion requires suitable habitat for mangroves to increase their range, which depends to a great extent on patterns and intensity of coastal development (i.e., bulkhead and seawall construction).

Seawater temperature changes will have potential adverse effects on mangroves as well. Many species of mangroves show an optimal shoot density in sediment temperatures between 59-77 degrees Fahrenheit (°F) (15-25 °C) (Hutchings and Saenger 1987). Yet, at temperatures between 77-95°F (25-35°C), many species begin to show a decline in leaf structure and root and leaf formation rates (Saenger and Moverley 1985). Temperatures above 95°F lead to adverse effects on root structure and survivability of seedlings (UNESCO 1991) and temperatures above 100.4°F (38°C) lead to a cessation of photosynthesis and mangrove mortality (Andrews et al. 1984). Although impossible to forecast precisely, sea surface ocean temperatures are predicted to increase 1.8-3.6°F (1-2°C) by 2060 (Chapter 11 (Intergovernmental Panel on Climate Change 2013)), which will in turn impact underlying sediment temperatures along the coast. If mangroves shift pole-ward in response to temperature increases, they will at some point be limited by temperatures at the lower end of their optimal range and available recruitment area. This is especially true when considering already armored shorelines in residential communities such as those within and surrounding the CHEU of critical habitat for smalltooth sawfish.

As atmospheric CO_2 levels increase, mostly resulting from manmade causes (e.g., burning of fossil fuels), the world's oceans will absorb much of this CO_2, causing potential increases in photosynthesis and mangrove growth rates. This increase in growth rate, however, would be limited by lower salinities expected from CO_2 absorption in the oceans (Ball et al. 1997), and by the availability of undeveloped coastline for mangroves to expand their range. A secondary effect of increased CO_2 concentrations in the oceans is the deleterious effect on coral reefs' ability to absorb calcium carbonate (Hoegh-Guldberg et al. 2007), and subsequent reef erosion. Eroded reefs may not be able to buffer mangrove habitats from waves, especially during storm/hurricane events, causing additional physical effects.

Finally, the anticipated increase in the severity of storms and hurricanes may also impact mangroves. Tropical storms are expected to increase in intensity and/or frequency, which will directly impact existing mangroves that are already adversely impacted by increased seawater temperatures, CO_2, and changes in precipitation (Cahoon et al. 2003; Trenberth 2005). The combination of all of these factors may lead to reduced mangrove height (Ning et al. 2003). Further, intense storms could result in more severe storm surges and lead to potential changes in mangrove community composition, mortality, and recruitment (Gilman et al. 2006). Increased storm surges and flooding events could also affect mangroves' ability to photosynthesize (Gilman et al. 2006) and the oxygen concentrations in the mangrove lenticels (Ellison 2010).

5 ENVIRONMENTAL BASELINE

5.1 Overview

This section describes the effects of past and ongoing human and natural factors contributing to the current status of smalltooth sawfish, their habitats (including designated critical habitat), and ecosystem within the action area without the additional effects of the proposed action. In the case of ongoing actions, this section includes the effects that may contribute to the projected future status of the species, their habitats, and ecosystem. The environmental baseline describes the species' and critical habitat's health based on information available at the time of the consultation.

By regulation, the environmental baseline for an Opinion refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The impacts to listed species or designated critical habitat from Federal agency activities or existing Federalfacilities that are not within the agency's discretion to modify are part of the environmental baseline (50 CFR 402.02).

Focusing on the impacts of the activities in the action area specifically, allows us to assess the prior experience and state (or condition) of the areas of critical habitat that occur in an action area, that will be exposed to effects from the action under consultation. This focus is important because, in some states or life history stages, or areas of their ranges, or critical habitat features will commonly exhibit, or be more susceptible to, adverse responses to stressors than they would be in other states, stages, or areas within their distributions. These localized stress responses or stressed baseline conditions may increase the severity of the adverse effects expected from the proposed action.

5.2 Baseline Status of Critical Habitat Considered for Further Analysis

As stated in Section 2.2 (Action Area), the proposed action is located within the boundaries of the CHEU of smalltooth sawfish designated critical habitat located at 26.716233ºN and 81.760653ºW (NAD 83) in Fort Myers Shores, Lee County, Florida. The project site is an existing bridge that crosses the Calooosahatchee River. Water depths at the project site range from 0-25 ft at MLLW. The action area is void of corals or SAV. The project is expected to have direct impacts to 642 lin ft of red mangrove shoreline that lies within the boundary of smalltooth sawfish designated critical habitat.

The status of this species' critical habitat in the action area is supported by the species' critical habitat account in Section 4.

5.3 Additional Factors Affecting the Baseline Status of Critical Habitat Considered for Further Analysis

5.3.1 Federal Actions

No ESA Section 7 consultation are known to have occurred or have had effects to smalltooth sawfish designated critical habitat within the proposed project's action area, as per a review of our Protected Resources Division's completed consultation database by the consulting biologist on July 10, 2024.

5.3.2 State and Private Actions

Examples of non-federal activities that may adversely affect designated critical habitat for smalltooth sawfish in the action area include residential in-water activities that do not require federal permits or otherwise have a federal nexus. The direct and indirect impacts from these activities are difficult to quantify but may include loss or degradation of red mangroves or shallow, euryhaline habitat from unauthorized mangrove trimming, shoreline stabilization, or in-water construction. NMFS does not have any knowledge of state or private actions occurring in the action area that would not also require a federal permit; the likelihood of a project occurring in the action area that does not require a federal permit for in-water construction work is very small. Where possible, conservation actions in ESA Section 10 permits, ESA Section 6 cooperative agreements, and state permitting programs are being implemented or investigated to monitor or study impacts from these sources.

5.3.3 Habitat Modification and Degradation

Smalltooth sawfish habitat, in general, and designated critical habitat, specifically, have been degraded or modified throughout the southeastern U.S. from agriculture, urban development, commercial activities, channel dredging, boating activities, and the diversion of freshwater runoff. The habitat within the CHEU will likely continue to experience the same types of actions described in Section 4 (Status of Critical Habitat Considered for Further Analysis).

5.3.4 Stochastic Events

Seasonal stochastic events, such as hurricanes, are common throughout the range of smalltooth sawfish, especially in the current core of its range (i.e., south and southwest Florida). These events are by nature unpredictable and their effect on the survival and recovery of the species and on critical habitat are unknown; however, they have the potential to impede the survival and recovery directly if animals die as a result of them, or indirectly if habitat, especially critical habitat, is damaged as a result of these disturbances. Hurricane Ian likely damaged habitat, including mangroves, in and around the action area in 2022.

5.3.5 Climate Change

Many threats to smalltooth sawfish critical habitat are expected to be exacerbated by the effects of global climate change. Potential increases in sea level may impact the availability of nursery habitat, particularly shallow, euryhaline habitat and red mangrove lined, low-lying coastal shorelines (Intergovernmental Panel on Climate Change 2014; Wanless et al. 2005). For example, nursery habitat could be negatively affected by increased temperatures, salinities, and acidification of coastal waters (Snedaker 1995), (Wanless et al. 2005), (Scavia et al. 2002), as well as increased runoff and erosion due to the expected increase in extreme storm events (Intergovernmental Panel on Climate Change 2014; Wanless et al. 2005). These alterations of the marine environment due to global climate change could affect the distribution of shallow, euryhaline habitat, which would ultimately affect the distribution, physiology, and growth rates of red mangroves. These alterations could potentially eliminate red mangroves from particular areas. The magnitude of the effects of global climate change on smalltooth sawfish critical habitat are difficult to predict, yet, when combined with the cyclical loss of habitat from extreme storm events, a decrease in the red mangrove essential feature of smalltooth sawfish critical habitat is likely (Norton et al. 2012; Scavia et al. 2002). However, the proposed action is of such a small scale, scope, and limited period that it is not very likely to contribute to, or be affected cumulatively by, climate change.

5.3.6 Conservation and Recovery Actions Shaping the Environmental Baseline

Federal EFH consultation requirements pursuant to the MSA can minimize and mitigate for losses of wetland and preserve valuable foraging and developmental habitat that is used by juvenile smalltooth sawfish, including areas that have been designated as smalltooth sawfish critical habitat. NMFS has designated mangrove and estuarine habitats as EFH as recommended by the Gulf of Mexico Fishery Management Council. Both essential features are critical components of areas designated as EFH and receive a basic level of protection under the MSA to the extent that the MSA requires minimization of impacts to EFH resources.

6 EFFECTS OF THE ACTION

6.1 Overview

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the

proposed action but that are not part of the action. A consequence is caused by the proposed action if the effect would not occur but for the proposed action and the effect is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR 402.02).

In this section of our Opinion, we assess the effects of the action on critical habitat that are likely to be adversely affected. The analysis in this section forms the foundation for our destruction or adverse modification analysis in Section 8. The quantitative and qualitative analyses in this section are based upon the best available commercial and scientific data on species biology and the effects of the action. Data are limited, so we are often forced to make assumptions to overcome the limits in our knowledge. Sometimes, the best available information may include a range of values for a particular aspect under consideration, or different analytical approaches may be applied to the same data set. In those cases, the uncertainty is resolved in favor of the species. NMFS generally selects the value that would lead to conclusions of higher, rather than lower risk to endangered or threatened species.

6.2 Effects of the Proposed Action on Critical Habitat Considered for Further Analysis

The proposed action area is within the boundary of the CHEU of critical habitat for smalltooth sawfish. The following essential features are present in the CHEU: (1) red mangroves, and (2) shallow, euryhaline habitats characterized by water depths between the MHW line and 3 ft (0.9 m) measured at MLLW (Final Rule, 74 FR 45353).

We believe the proposed action may affect the red mangrove essential feature of smalltooth sawfish critical habitat as outlined below. Some of those pathways are not likely to adversely affect the critical habitat and some are likely to result in adverse effects. We describe these routes of effect and the consequences to the red mangrove essential feature of smalltooth sawfish critical habitat in the following sections.

We believe that the project will have no effect on the shallow, euryhaline habitats essential feature (characterized by water depths between MHW line and 3 ft (0.9 m) measured at MLLW). None of the project effects will alter water depths or change the salinity regime within the project area.

6.2.1 Routes of Effect that Are Likely to Adversely Affect Critical Habitat

We believe the proposed action is likely to adversely affect smalltooth sawfish designated critical habitat due to the permanent removal of 642 lin ft of the red mangrove essential feature, which provides forage, shelter, or other nursery habitat functions for juvenile smalltooth sawfish. Typically, USACE reports project effects to red mangroves in both linear feet (denoting the amount of shoreline) and square feet (denoting the magnitude of the area). We use linear feet when calculating and tracking losses to the red mangrove essential feature of critical habitat. During the development of the smalltooth sawfish recovery plan (NMFS 2009), we estimated the amount of red mangrove shoreline in linear feet because we assumed

that juvenile smalltooth sawfish were typically only able to access the waterward edges of red mangrove stands. Therefore, in the analyses below, losses to red mangroves will be reported in linear feet only. Using remote sensing data acquired from the FWC FWRI, we were able to compile information relating to the total area of this essential feature within smalltooth sawfish critical habitat. Based on that information, we estimated that the total amount of red mangrove shoreline in the CHEU at the effective date of species listing (May 1, 2003) was approximately 5,512,320 lin ft. While the available red mangrove essential feature in the CHEU will be diminished, the proposed action is not severing or preventing juvenile smalltooth sawfish access to alternate habitat with this essential feature in the surrounding area. Still, some ecological function provided to juvenile smalltooth sawfish in terms of the red mangrove essential feature will be lost; therefore, we believe the project is likely to adversely affect critical habitat in the CHEU.

7 CUMULATIVE EFFECTS

ESA Section 7 regulations require NMFS to consider cumulative effects in formulating its Opinions (50 CFR 402.14). Cumulative effects include the effects of future state or private actions, not involving federal activities, that are reasonably certain to occur within the action area considered in this Opinion (50 CFR 402.02). NMFS is not aware of any future projects that may contribute to cumulative effects. Within the action area, the ongoing activities and processes described in the environmental baseline are expected to continue and NMFS did not identify any additional sources of potential cumulative effect. Although the present human uses of the action area are expected to continue, some may occur at increased levels, frequency, or intensity in the near future as described in the environmental baseline.

8 DESTRUCTION OR ADVERSE MODIFICATION ANALYSIS

NMFS's regulations define *destruction or adverse modification* to mean "a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species" (50 CFR 402.02). Alterations that may destroy or adversely modify critical habitat may include impacts to the area itself, such as those that would impede access to or use of the essential features. NMFS will generally conclude that a federal action is likely to "destroy or adversely modify" critical habitat if the action results in an alteration of the quantity or quality of the essential physical or biological features of critical habitat and if the effect of the alteration is to appreciably diminish the value of critical habitat as a whole for the conservation of the species.

This analysis takes into account the geographic and temporal scope of the proposed action, recognizing that "functionality" of critical habitat necessarily means that the critical habitat must now and must continue in the future to support the conservation of the species and progress toward recovery. The analysis takes into account any changes in amount, distribution, or characteristics of the critical habitat that will be required over time to support the successful recovery of the species. Destruction or adverse modification does not depend strictly on the size or proportion of the area adversely affected, but rather on the role the action area and the affected critical habitat serves with regard to the function of the overall critical habitat designation, and how that role is affected by the action.

8.1 Protect and Restore Smalltooth Sawfish Habitat (Recovery Objective #2)

In establishing Recovery Objective #2, we recognized that recovery and conservation of smalltooth sawfish depends on the availability and quality of nursery habitats. Historically, juvenile sawfish were documented in mangrove and non-mangrove habitat in the southeastern United States. Due to the protections provided by the Ten Thousand Islands National Wildlife Refuge, Everglades National Park, and the Florida Keys National Marine Sanctuary, much of the historic juvenile smalltooth sawfish habitat in southwest Florida has remained high-quality juvenile habitat. Recovery Regions G, H, and I in southwest Florida extend from the Manatee River on the west coast of Florida, south through Everglades National Park and the Florida Keys to Caesar Creek on the southeast coast of Florida. The CHEU is in Recovery Region G. While much of the CHEU is protected by the CHPSP system and the Estero Bay Aquatic Preserve, it is also highly anthropomorphically influenced.

The recovery plan states that for the 3 recovery regions with remaining high-quality habitats (i.e., Recovery Regions G, H, and I), juvenile habitats "must be maintained over the long term at or above 95% of the acreage available at the time of listing" (NMFS, 2009). To ensure that a proposed action will not impede Recovery Objective #2, we determine whether the critical habitat unit will be able to maintain 95% of the areas containing each essential feature after taking into account project impacts in the context of the status of the critical habitat, the environmental baseline, and cumulative effects. While the CHEU is only a part of the larger Recovery Region G, and the 95% protection threshold applies across not just Recovery Region G, but also Recovery Regions H and I, the threshold is still useful for evaluating the impacts at the individual recovery region level and for sub-units of the recovery regions. The CHEU contains the only known nursery areas within Recovery Region G; thus, we believe it is appropriate to evaluate impacts at the level of the unit. In addition, functioning critical habitat contains either one or both of the essential features, and the essential features were selected based on their role in facilitating recruitment of juvenile animals into the adult population, which the recovery plan likewise seeks to conserve and protect. Consequently, we also believe it is appropriate to consider whether 95% of each of the essential features of critical habitat in the CHEU is maintained. Therefore, below we estimate the percent impact the proposed action will have on the red mangrove habitat essential feature in the CHEU. As stated above, the proposed action will not affect the shallow, euryhaline essential feature of smalltooth sawfish critical habitat.

8.1.1 Red Mangrove Essential Feature Impacts

Remote sensing data from FWC FWRI indicated that approximately 5,512,320 lin feet of red mangrove shoreline (abbreviated RM throughout this section) was available in the CHEU at the effective date of species listing (i.e., May 1, 2003) (**Table 4**, Line 1). As described above, we must determine whether project impacts will interfere with long-term maintenance of this essential feature at or above 95% of the linear feet of habitat available at the time of listing; however, loss of critical habitat was not formally monitored until the effective date of critical

habitat designation (i.e., October 2, 2009). Therefore, we must estimate habitat loss that occurred during the period between the effective date of species listing and the effective date of critical habitat designation (i.e., May 1, 2003 – October 2, 2009).

To do this, we use an 84-month dataset of our completed Section 7 consultations (October 3, 2009 – September 30, 2016), including yearly losses due to programmatic consultations, to generate a rate of loss that can then be used to back-calculate the loss of RM between the effective date of species listing and the effective date of critical habitat designation. We rely on this dataset because using approximately 7 years of information helps avoid over- or under-estimating the rate of habitat loss due to any potential inter-annual variability associated with economic growth and contraction that may have occurred in that time. Our consultations completed during this time indicate that 9,142.50 lin ft of RM in CHEU was lost due to federal agency actions during the 84-month period.

Based on these losses, we estimate a monthly loss rate of RM using the following equation:

$$\begin{gathered} Monthly\ loss\ rate\ of\ RM\ (CHEU) \\ = RM\ lost\ through\ federal\ agency\ actions \div 84\ months \\ = 9{,}142.50\ lin\ ft \div 84\ months \\ = 108.84\ lin\ ft\ per\ month \end{gathered}$$

Assuming the same monthly loss rates, we back-calculate the loss of RM in the 77 months between the effective date of species listing and the effective date of critical habitat designation (i.e., May 1, 2003 – October 2, 2009) in the CHEU using the following equation:

$$\begin{gathered} RM\ loss\ prior\ to\ critical\ habitat\ designation\ (CHEU) \\ = 108.84\ lin\ ft\ per\ month \times 77\ months \\ = 8{,}380.68\ lin\ ft \end{gathered}$$

Next, we determine the loss of RM since the effective date of critical habitat designation. Due to the high frequency of relatively small projects affecting smalltooth sawfish critical habitat, we update the losses to the red mangrove essential feature from federal actions every 12 months (i.e., July 1). From the effective date of critical habitat designation through June 30, 2024, 31,075.17 lin ft of RM in the CHEU has been lost due to federal agency actions (**Table 4**, Line 3). While this amount of loss only takes into account projects with a federal nexus requiring ESA Section 7 consultation, there are very few projects without a federal nexus that could affect red mangrove shoreline in the CHEU, as most in-water construction projects require federal authorization.

Using this information, we calculate the RM currently available in the CHEU using the following equation:

$$\begin{gathered} RM\ currently\ available\ (CHEU) \\ = RM\ at\ time\ of\ species\ listing - (RM\ loss\ prior\ to\ critical\ habitat\ designation \\ + RM\ loss\ since\ critical\ habitat\ designation) \\ = 5{,}512{,}320\ lin\ ft - (8{,}380.68\ lin\ ft + 31{,}075.17 lin\ ft) \end{gathered}$$

$= 5{,}472{,}864.15\ lin\ ft$

We calculate the amount of RM that must be maintained in the CHEU using the following equation:

$$RM\ that\ must\ be\ maintained\ (CHEU)$$
$$= RM\ at\ time\ of\ species\ listing \times 95\%$$
$$= 5{,}512{,}320\ lin\ ft \times 0.95$$
$$= 5{,}236{,}704\ lin\ ft$$

The proposed action would result in the loss of 642 lin ft of RM (**Table 4**, Line 6). Using the above results, we estimate the total amount of RM lost in the CHEU since species listing, including losses from the proposed action using the following equation:

$$\%\ RM\ lost\ in\ CHEU\ since\ species\ listing$$
$$= [(RM\ loss\ due\ to\ this\ project + RM\ lost\ prior\ to\ critical\ habitat\ designation$$
$$+ RM\ lost\ since\ critical\ habitat\ designation)$$
$$\div Total\ RM\ in\ CHEU\ at\ time\ of\ species\ listing] \times 100$$
$$= [642\ lin\ ft + 8{,}380.68\ lin\ ft + 31{,}075.17\ lin\ ft) \div 5{,}512{,}320\ lin\ ft] \times 100$$
$$= (40{,}097.85\ lin\ ft \div 5{,}512{,}320\ lin\ ft) \times 100$$
$$= 0.727422\%$$

Thus, we estimate the percent of RM remaining within the CHEU as:

$$\%\ RM\ remaining\ (CHEU)$$
$$= 100\% - \%\ RM\ lost\ since\ species\ listing\ (CHEU)$$
$$= 100\% - 0.727422 = 99.272578\%$$

Table 3. Summary of Impacts to the Red Mangrove Essential Feature

Red Mangrove Shoreline in the CHEU	Linear Feet
1. Available at the time of species listing	5,512,320
2. Losses prior to critical habitat designation	8,380.68
3. Losses since critical habitat designation	31,075.17
4. Available as of July 1, 2024	5,472,864.15
5. Linear feet that must be maintained per Recovery Plan	5,236,704 (95% of 5,512,320)
6. Affected by the proposed action	642
7. Affected since species listing (including the proposed action)	40,097.85 (0.727422% of 5,512,320)
8. Remaining	5,472,222.15 (99.272578% of 5,512,320)

Summary of Impacts to the Essential Features

Very small percentages of the essential features of smalltooth sawfish designated critical habitat have been affected by federal agency actions since the effective date of species listing. Including losses from the proposed action, 99.272578% of the RM essential feature available at the time of species listing remain in the CHEU. Thus, the loss of the RM essential feature associated with the proposed action, in combination with losses since we listed the species, does not provide any impediment to effectively protecting 95% of juvenile habitat in the CHEU available at the effective date of species listing, and therefore will not be an impediment to Recovery Objective #2.

8.1.2 Ensure Smalltooth Sawfish Abundance Increases (Recovery Objective #3)

In establishing Recovery Objective #3, we recognized that it was important that sufficient numbers of juvenile sawfish inhabit several nursery areas across a diverse geographic area to ensure survivorship and growth and to protect against the negative effects of stochastic events within parts of their range. To meet this objective, Recovery Region G (i.e., CHEU) must support sufficiently large numbers of juvenile sawfish to ensure that the species is viable in the long-term and can maintain genetic diversity. Recovery Objective #3 requires that the relative abundance of small juvenile sawfish (< 200 cm) either increases at an average annual rate of at least 5% over a 27-year period, or juvenile abundance is at greater than 80% of the carrying capacity of the recovery region.

Assessing the effect of the proposed action on small juvenile abundance is made difficult by the state of available data. Since the designation of critical habitat and the release of the recovery plan in 2009, ongoing studies have been in place to monitor the U.S. DPS of smalltooth sawfish. FWC FWRI is conducting a study in the CHEU that is supported primarily with funding provided by NMFS through the ESA Section 6 Species Recovery Grants Program, while Florida State University and the NOAA NMFS Southeast Fisheries Science Center Panama City Laboratory have focused studies in the TTIEU. The intent of these studies is to determine the abundance, distribution, habitat use, and movement of smalltooth sawfish. Early indications are that juvenile sawfish are at least stable and likely increasing in the CHEU, due in large part to ESA-listing of the species and designation of critical habitat. While it may be too early to state definitively that juveniles within CHEU are surviving to adulthood, researchers consistently capture newborn smalltooth sawfish, particularly within “hotspots,” indicating adult smalltooth sawfish are pupping within Recovery Region G. Available data from the adjacent Recovery Region H (i.e., TTIEU) indicate that adult smalltooth sawfish are also reproducing within this recovery region and that the juvenile population trend is at least stable and possibly increasing – though variability is high (Carlson and Osborne 2012; Carlson et al. 2007). With no other data to consider, the abundance trend in the TTIEU represents the best data available for assessing the population trends in the CHEU. Therefore, we do not believe the loss of habitat associated with the proposed action, in combination with the losses to date, will impede the 5% annual growth objective for the juvenile population within Recovery Region G.

9 CONCLUSION

We reviewed the Status of the Species, the Status of the Critical Habitat, the Environmental Baseline, the Effects of the Action, and the Cumulative Effects using the best available data.

We conclude that the permanent loss of 642 lin ft due to the proposed action will not interfere with achieving the relevant habitat-based recovery objectives for smalltooth sawfish and will not impede the critical habitat's ability as a whole to support the conservation of smalltooth sawfish, despite permanent adverse effects. Therefore, given the nature of the proposed action and the information provided above, we conclude that the action, as proposed, is not likely to destroy or adversely modify the critical habitat of smalltooth sawfish.

10 INCIDENTAL TAKE STATEMENT

10.1 Overview

NMFS does not anticipate that the proposed action will incidentally take any ESA-listed species under our purview and no take is authorized in this Opinion. Nonetheless, as soon as the Florida Department of Transportation becomes aware of any take of an ESA-listed species under NMFS's purview that occurs during the proposed action, the Florida Department of Transportation shall report the take to NMFS SERO PRD via the NMFS SERO Endangered Species Take Report Form (https://forms.gle/85fP2da4Ds9jEL829). This form shall be completed for each individual known reported capture, entanglement, stranding, or other take incident. Information provided via this form shall include the title, SR 31 Wilson Pigott Bridge replacement, the issuance date, and ECO tracking number, SERO-2024-01258, for this Opinion; the species name; the date and time of the incident; the general location and activity resulting in capture; condition of the species (i.e., alive, dead, sent to rehabilitation); size of the individual, behavior, identifying features (i.e., presence of tags, scars, or distinguishing marks), and any photos that may have been taken. At that time, consultation may need to be reinitiated.

Section 7(b)(4)(c) of the ESA specifies that to provide an Incidental Take Statement for an endangered or threatened species of marine mammal, the taking must be authorized under Section 101(a)(5) of the MMPA. Since no incidental take of listed marine mammals is anticipated as a result of the proposed action, no statement on incidental take of protected marine mammals is provided and no take is authorized. Nevertheless, the FDOT must immediately notify (within 24 hours, if communication is possible) our Office of Protected Resources if a take of a listed marine mammal occurs.

11 CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs federal agencies to utilize their authority to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation Recommendations identified in Opinions can assist

action agencies in implementing their responsibilities under Section 7(a)(1). Conservation recommendations are discretionary activities designed to minimize or avoid adverse effects of a proposed action on ESA-listed species or critical habitat, to help implement recovery plans, or to develop information. The following conservation recommendations are discretionary measures that NMFS believes are consistent with this obligation and therefore should be carried out by the federal action agency:

1. Continue public outreach and education on smalltooth sawfish and smalltooth sawfish critical habitat in an effort to minimize interactions, injury, and mortality.

2. Provide funding to conduct directed research on smalltooth sawfish that will help further our understanding about the species (e.g., implement a relative abundance monitoring program which will help define how spatial and temporal variability in the physical and biological environment influence smalltooth sawfish) in an effort to predict long-term changes in smalltooth sawfish distribution, abundance, extent, and timing of movements.

3. Fund surveys of detailed bathymetry and mangrove coverage within smalltooth sawfish critical habitat. Lee County and the USACE recently funded such surveys within the Cape Coral municipality. Data is needed from other municipalities within the CHEU to establish a more accurate baseline assessment of both critical habitat features (red mangroves and shallow-water areas).

4. Fund and support restoration efforts that rehabilitate and create shallow, euryhaline and mangrove fringe habitats within the range of smalltooth sawfish.

To stay abreast of actions that minimize or avoiding adverse effects or benefit listed species or their habitat, we request notification of the implementation of any conservation recommendations.

12 REINITIATION OF CONSULTATION

This concludes formal consultation on the proposed action. As provided in 50 CFR 402.16, reinitiation of formal consultation is required and shall be requested by Florida Department of Transportation, where discretionary federal action agency involvement or control over the action has been retained, or is authorized by law, and if: (a) the amount or extent of incidental take specified in the Incidental Take Statement is exceeded, (b) new information reveals effects of the action on listed species or critical habitat in a manner or to an extent not considered in this Opinion, (c) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this Opinion, or (d) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the FDOT must immediately request reinitiation of formal consultation and project activities may only resume if the FDOT establishes that such continuation will not violate Sections 7(a)(2) and 7(d) of the ESA.

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Physical Resources Appendix

Contents:

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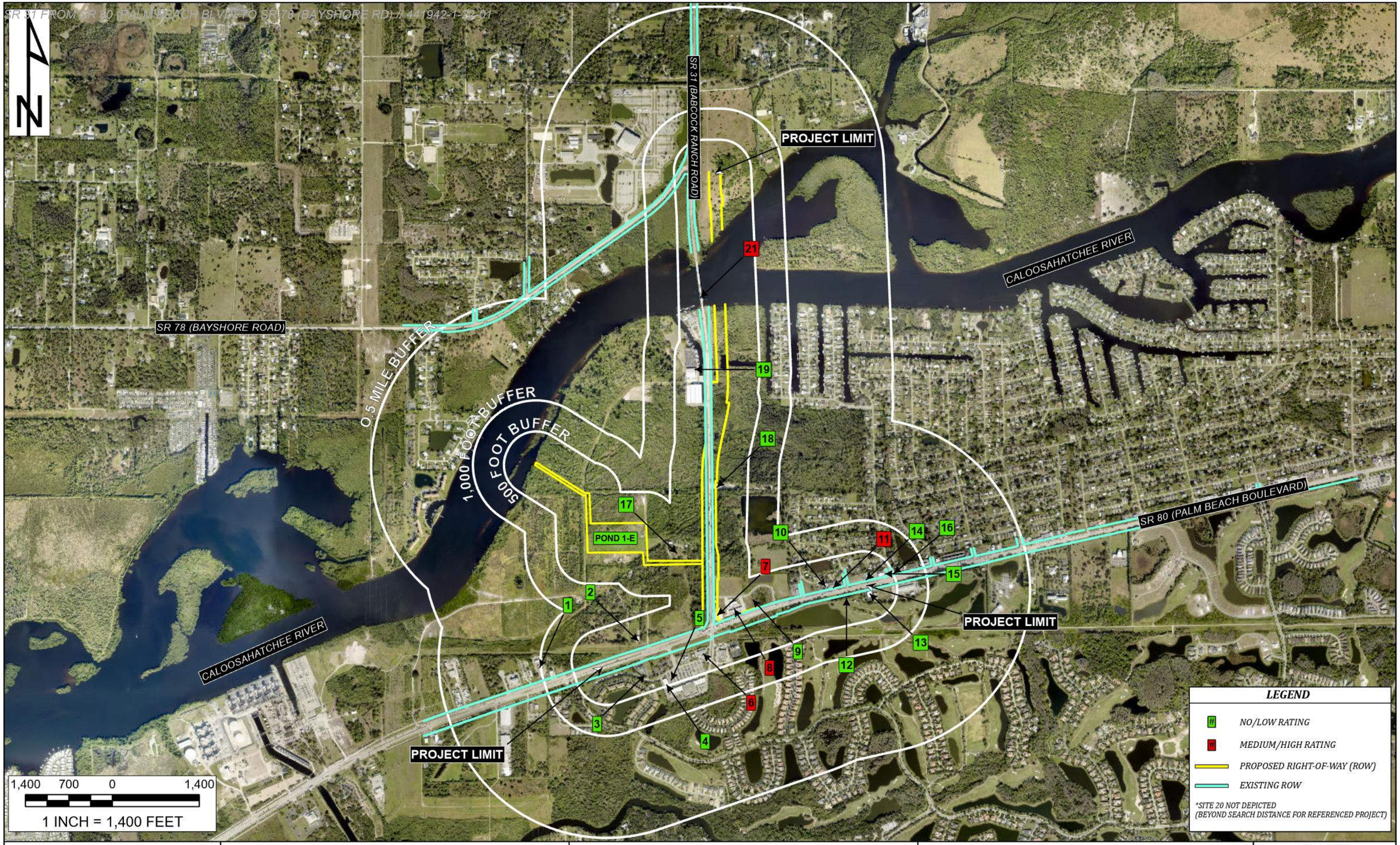


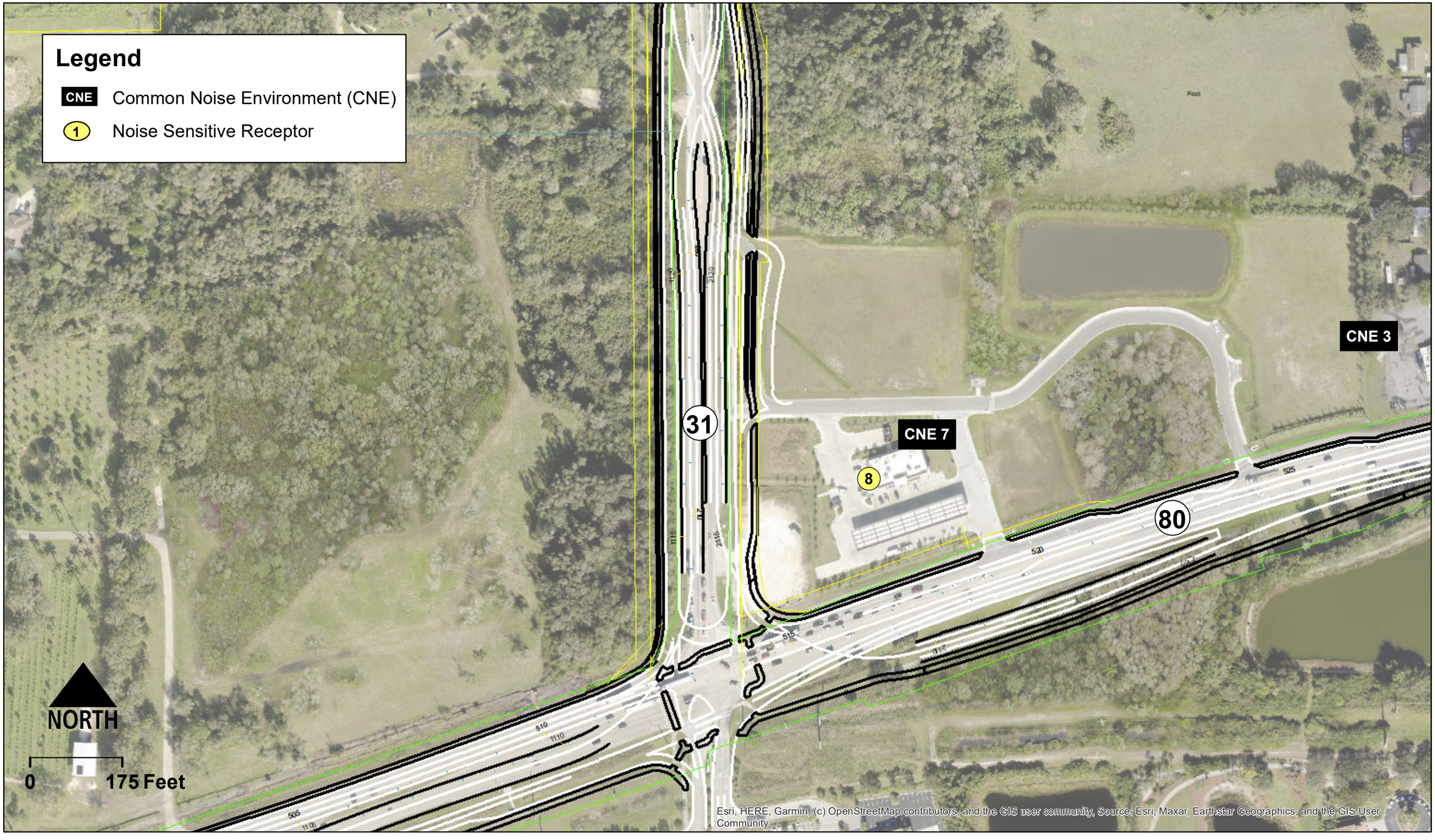
TIERRA GEOTECHNICAL • MATERIALS ENVIRONMENTAL • ENGINEERING	OWNER: FDOT-DISTRICT 1		PROJECT DEVELOPMENT AND ENVIRONMENT STUDY SR 31 (BABCOCK RANCH ROAD) FROM SR 80 (PALM BEACH BOULEVARD) TO SR 78 (BAYSHORE ROAD)	POTENTIAL CONTAMINATION SITES AND DRAINAGE ALTERNATIVES MAP
	COUNTY	TIERRA PROJECT NO.	FINANCIAL PROJECT ID	SHEET NO.
	LEE	6511-18-173E	441942-1-22-01	1

SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, FL
FPID: 441942-1-22-01

Noise Sensitive Receptors
Sheet 1 of 8

SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, FL
FPID: 441942-1-22-01

Noise Sensitive Receptors
Sheet 2 of 8



SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, FL
FPID: 441942-1-22-01

Noise Sensitive Receptors
Sheet 3 of 8

SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, FL
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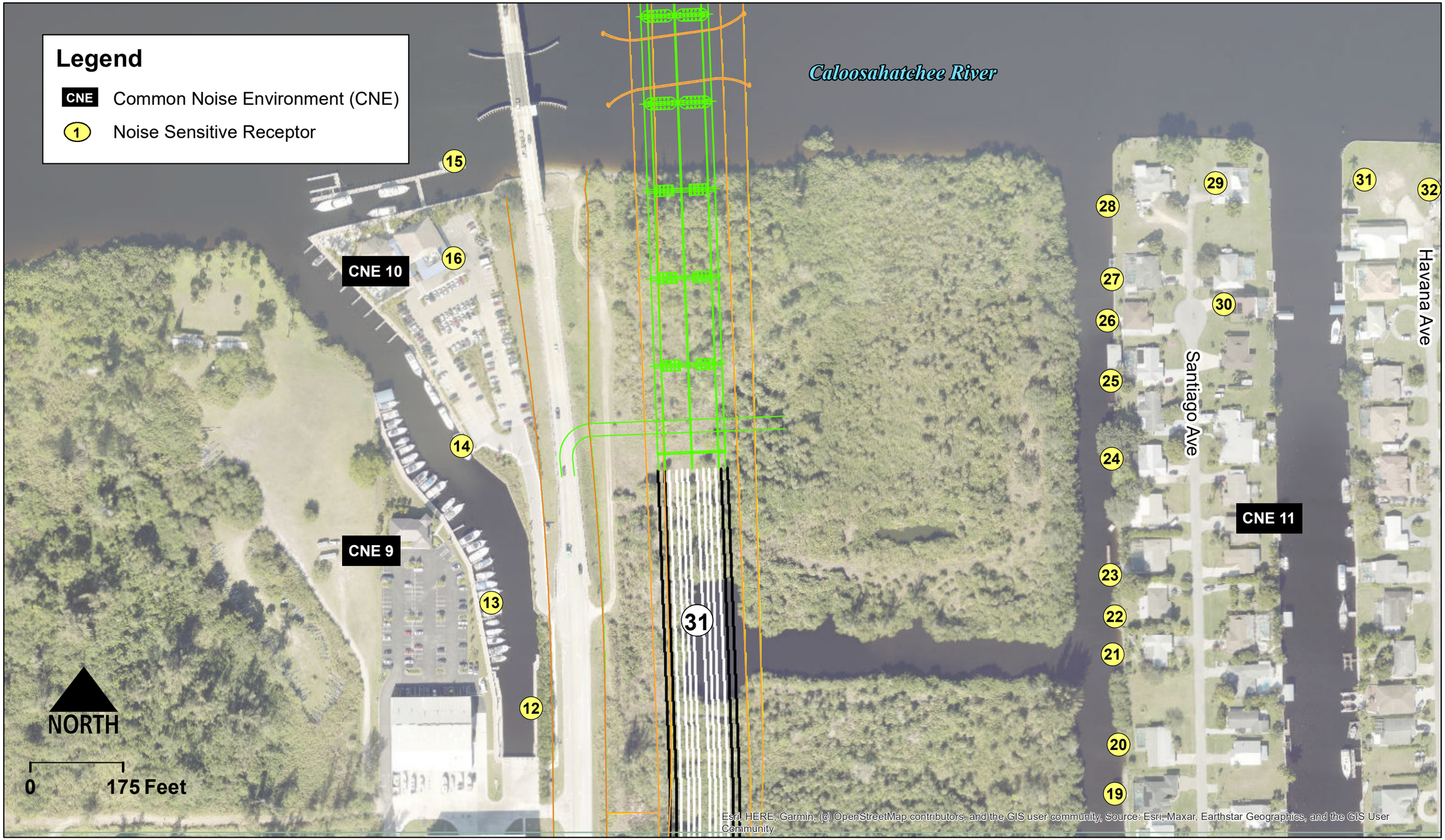
Noise Sensitive Receptors
Sheet 4 of 8

SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, FL
FPID: 441942-1-22-01

Noise Sensitive Receptors
Sheet 5 of 8



SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
Lee County, FL
FPID: 441942-1-22-01

Noise Sensitive Receptors
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SR 31 from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road)
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Public Involvement Appendix

Contents:

FLORIDA DEPARTMENT OF TRANSPORTATION

PUBLIC HEARING CERTIFICATION

SR 31 FROM SR 80 (PALM BEACH BLVD) TO SR 78 (BAYSHORE RD)

Project Developmentand Environment (PD&E) Study

from

Lee County, Florida

Financial Management No.: 441942-1-22-01

I certify that a public hearing was conducted on 11/02/2023, beginning at 06:00 PM for the above project. A transcript was made and the document attached is a full, true, and complete transcript of what was said at the hearing.

Patrick Bateman
(Name)

December 20, 2023
Date

Project Manager
(Title of FDOT Representative)

Electronically signed within SWEPT
on December 20, 2023 3:50:14 PM EST
(electronic signature on file)

Link to Public Hearing Transcript

1 - 44194212201-CE2-D1-Public_Hearing_Transcript-2023-1102.pdf

PUBLIC HEARING TRANSCRIPT

IN RE: State Road 31 from SR 80 to SR 78 Project Development and Environment (PD&E) Study Lee County (FPID 441942-1)

DATE TAKEN: November 2, 2023

PLACE TAKEN: The Field House at Babcock Ranch
43281 Cypress Parkway
Babcock Ranch, FL 33982

REPORTER: Jackie D. Burrell, RMR, RPR, FPR
Notary Public, State of Florida
at Large

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THE MODERATOR: Good evening.

The Department of Transportation welcomes you to the public hearing for the Project Development and Environment or PD&E Study for State Road 31 in Lee County. My name is Patrick Bateman. I'm the project manager. Thank you for attending this event in person or online.

Here with me tonight are FDOT representatives and the members of the consultant project team to answer your questions.

We'd like to thank any elected officials for your attendance and participation in this hearing. We encourage you to sign in with your name and the office you represent for the project record.

The purpose of tonight's hearing is to present the proposed improvements and share the engineering and environmental analysis conducted to date. The public hearing also serves as an official forum providing an opportunity for members of the public to express their opinions regarding the proposed improvements. We bring the proposed improvements to the public hearing so that we can hear your views and comments. We want to hear from people with local knowledge, and we want to hear what you like and don't like about the proposed

improvements.

It is important that you express your views at this stage of the project when the flexibility still exists to incorporate those views into the study documents. Final decisions are made using these documents.

This public hearing is using both an in-person and online format. All hearing materials detailing and documenting project analysis and recommendations such as the project video, environmental and engineering documents, and informational graphics have been available to the public online since October 26th, 2023. These materials are also available for viewing at the venue here tonight.

Additionally, project engineering and environmental documents are available for review at the FDOT SWIFT SunGuide Center, 10041 Daniels Parkway, Fort Myers, Florida 33913 and Riverdale Public Library 2421 Buckingham Road, Fort Myers, Florida 33905, as well on the project website.

Tonight we will show a project video, which will explain the project in detail. Following the video will be a ten-minute intermission. Finally, we will open the formal comment period where you

will have the opportunity to provide statements at the microphone or you may provide your comments directly to the court reporter or in writing.

Now I will read the following information for the record:

This is the public hearing for the State Road 31 from State Road 80 to State Road 78 Project Development and Environmental Study in Lee County Florida. Financial Project ID Number 441942-1-22-01. This public hearing is being conducted by the Florida Department of Transportation with Tallahassee as the approving authority. It is being held at the Field House at Babcock Ranch, 43281 Cypress Parkway, Babcock Ranch, Florida 33982 on Thursday, November 2nd, 2023 at 6:00 p.m.

This project is described as a PD&E Study to evaluate alternatives to address traffic demand, to address the substandard Wilson Pigott Bridge, to enhance linkage and regional connectivity, to enhance safety for hurricane evacuation and response times, and to improve the roadway design to better serve the needs of all users, including bicyclists and pedestrians.

The limits of the proposed improvements are

from State Road 80 (Palm Beach Boulevard), to State Road 78 (Bayshore Road) in Lee County.

This hearing is being conducted in accordance with all state and federal laws, as well as the Americans with Disabilities Act of 1990 and Title VI of the Civil Rights Act of 1964 and related statutes. It is also being conducted to meet all applicable executive orders. For a listing of these regulations, please see the hearing display boards here tonight or on the project website.

If anyone feels they have been discriminated against, they may complete one of the forms located at the sign-in table and mail the completed form to the address listed on the display board. This information is also available online.

At this time we will play the project video.

(Video presentation played.)

Welcome to the Florida Department of Transportation's public hearing for the State Road 31 Project Development and Environment, or PD&E Study.

We appreciate your attendance and participation. This public hearing is being conducted to give the public the opportunity to review and provide comments on the proposed

preferred alternative and associated effects on the social, economic, cultural, natural and physical environments.

The purpose of this PD&E Study is to evaluate engineering and environmental data and document information that will aid FDOT District 1 and the FDOT Office of Environmental Management or OEM in determining the type, preliminary design and location of the proposed improvements.

The study begins at State Road 80, Palm Beach Boulevard, and extends approximately 1.4 miles to State Road 78, Bayshore Road, in northwestern Lee County. The Department proposes to widen this section of State Road 31, replace the Wilson Pigott Bridge over the Caloosahatchee River, and convert the existing State Road 31/State Road 80 intersection to a grade separated configuration. The need for the proposed improvements to State Road 31 is based on existing and protected conditions including the tremendous growth projected for Lee County.

Due to its proximity to Interstate 75 and other destinations, the area is transitioning from agricultural and rural uses to suburban, including Babcock Ranch. Current average traffic volumes are

predicted to increase to volumes that would exceed the typical maximum volumes for a two-lane roadway by the year 2045.

The area continues to experience substantial growth, further increasing traffic and straining the corridor's capacity resulting in more congestion and poor level of service, including at the State Road 31/State Road 80 intersection.

In addition to traffic growth, State Road 31 currently does not provide accommodations for pedestrians and bicyclists. Also, improving the capacity of the roadway and maintaining the functionality of the bridge is important due to other special designations and functions.

State Road 31 is a designated highway corridor of Florida's emerging Strategic Intermodal System or SIS, and a tier one freight corridor of Lee County with about 25 percent of existing traffic along the roadway composed of trucks.

SIS facilities are those that are critical for regional and statewide movement of people and goods.

The proposed project meets planning consistency. This means PD&E Study documents are consistent with the project descriptions and

information contained in state, regional, and local planning documents.

Within the project limits, State Road 31 is a two-lane roadway with 12-foot lanes and four- to eight-foot paved shoulders. Storm water runoff is collected in roadside ditches with ultimate discharge to the Caloosahatchee River. The existing typical section does not meet SIS facility standards. The posted speed limit is 40 miles per hour.

The Wilson Pigott Bridge currently has two 10-foot lanes, four-foot shoulders and three-and-a-half foot sidewalks on both sides with no separation for motor vehicles. The existing vertical clearance over the channel is 21 feet.

Throughout this PD&E Study process FDOT evaluated many different concepts to improve capacity and operational conditions within the project study area, including at the State Road 31/State Road 80 intersection, and to identify a viable bridge replacement option.

After environmental and engineering analyses and public and agency comments, many of these alternatives were eliminated. The last public meeting was an alternatives public meeting held on

January 30th, 2023. At that meeting we asked for your input on proposed improvements to State Road 31. Some of the feedback received included concern regarding potential impact to businesses, noise, and questions about construction duration. Based on your comments and additional environmental and engineering analyses a preferred alternative was selected for the State Road 31 project. The supporting technical documents available for your review provide more detailed information regarding the engineering and environmental evaluations.

The preferred alternative for State Road 31 results in the following: Widen the existing two-lane undivided roadway to a six-lane divided roadway from State Road 80 to State Road 78, replacing the Wilson Pigott Bridge over the Caloosahatchee River, and reconfiguring the existing State Road 31/State Road 80 intersection to a grade separated intersection.

Please note that all materials for the preferred alternative and the following slides are on display here tonight and are available for viewing on the project website. The preferred alternative is a combination of widening existing State Road 31 from State Road 80 for about

.7 miles, then shifting 300 feet east prior to the Wilson Pigott Bridge to minimize impacts to the existing Florida gas transmission line. This portion of the alignment will be located east of the existing two-lane roadway and the 50-foot Florida gas transmission easement.

This project will tie in to the current State Road 31 project from State Road 78 in Lee County to north of Cook Brown Road in Charlotte County at the northern terminus. The proposed speed limit is 45 miles per hour.

The preferred alternative raises the roadway profile approximately three feet above existing State Road 31 due to the updated 100-year floodplain elevation in the project corridor.

There are multiple typical sections, or how the roadway will look, associated with the proposed improvements. The typical section for the widening of State Road 31 north and south of the Wilson Pigott Bridge in the orange shaped area is shown here. The proposed improvement would consist of widening the two-lane roadway to six lanes and includes three 11-foot lanes in each direction separated by a 22-foot raised median with curb along the inside and outside lanes.

A 12-foot wide shared use path is proposed on each side of State Road 31 to accommodate pedestrians and bicyclists with a nine-foot utility strip between the back of curb and path.

In accordance with Rule 1497 of the Florida Administrative Code, the proposed improvements will include a median to control movements or access of turning travel. These changes are presented in compliance with Section 335.199, Florida Statutes, transportation projects modifying access to adjacent property.

The proposed project would include modifying the existing access management classification along State Road 31 to access Class 5. Spacing between driveways and side roads would be restricted to no closer then 245 feet. Spacing for median openings and signals would be restricted to no closer than 1,320 feet.

This project will remove the existing drawbridge. The preferred alternative includes replacing the existing moveable bridge with a high-level fixed bridge. The bridge will have three 11-foot lanes in each direction, eight-foot shoulders and 12-foot shared use paths on each side.

Pedestrians and bicyclists will be protected via a raised barrier and railing. This bridge will be 34 feet higher than the current bridge and will not disrupt traffic from drawbridge openings.

The preferred alternative also includes reconfiguring the existing State Road 31/State Road 80 intersection to a grade separated intersection. The grade separation will introduce two new bridges for State Road 31 and State Road 80 movements and will also include a new signal at a crossover location on State Road 31.

Southbound State Road 31 travelers, such as those coming from Lee Civic Center or Babcock Ranch who want to go eastbound on State Road 80, will use the bridge and cross over at a new signal on State Road 31.

Similarly, eastbound State Road 80 travelers including those coming from Fort Myers who want to go northbound on State Road 31 will use the bridge and cross over at a new signal on State Road 31.

This is an animated rendering of the new proposed configuration at the State Road 31/State Road 80 intersection. As seen in this animation, the elevated roadways and bridges will separate conflicting traffic movements between State Road 31

and State Road 80. This new configuration will improve traffic flow at this intersection by not requiring vehicles on State Road 80 to stop at the at-grade signal for heavy left turn movements. Please note that this is on display at tonight's hearing and is also available on the project website.

The typical section on State Road 80 for the area just west of State Road 31 as shaded in orange is shown here. This is how the roadway and ramp area will look entering the bridge from eastbound State Road 80 to travel northbound on State Road 31.

The typical section shown here is how the bridge will look for the area shaded in orange for those travelling from eastbound State Road 80 onto the State Road 31 northbound bridge. Note, northbound traffic on State Road 31 will remain on the opposite side of the road until it crosses over halfway between LJ's Lounge and State Road 80.

The area immediately north of the proposed bridges, as shown in orange, will have an elevated center roadway section as shown in the typical section. Note, the traffic in the raised section remains on the opposite side until it crosses over

halfway between LJ's Lounge and State Road 80.

The typical section shown here is how the bridge area shaded here in orange will look for those traveling along the State Road 31 southbound bridge onto eastbound State Road 80. The proposed typical section on State Road 80 just east of State Road 31, as shaded in orange, is shown here. This is how the roadway and ramp area will look along the bridge before it ties back to State Road 80 at grade.

Throughout the study a no-build alternative is also considered. The no-build alternative assumes that no improvements are made to State Road 31 through the year 2045 except for routine maintenance. There are advantages and disadvantages to the no-build alternative. Advantages of the no-build alternative include, no impacts to the natural environment and no new costs for design and construction.

Disadvantages of not implementing the proposed project are maintenance of the existing Wilson Pigott Bridge will become increasingly costly and disruptive. The no build is not consistent with local transportation plans, and the no build does not meet existing and future travel demand, address

poor level of service and congestion at the State Road 31/State Road 80 intersection, address for (inaudible), improve pedestrian safety along State Road 31, improve emergency evacuation, and enhance regional connectivity.

The no-build alternative remains a valid option and will continue to be evaluated until the completion of this study.

FDOT evaluated environmental and socioeconomic factors relating to proposed State Road 31 improvements in accordance with the National Environmental Policy Act of 1969 as amended and another federal requirements. The evaluation considered the effects of the proposed project on protected species and habitat, wetlands and floodplains, water quality, storm water management and permitting, air quality, right of way requirements and relocations, contamination, archeological and historic resources, recreational sites, noise, lane use and construction effects.

Protected species and habits are allowed special protection under the Endangered Species Act of 1973 as amended and Florida Statutes. FDOT assessed species within the project limits, and through ongoing coordination with U.S. Fish and

Wildlife Service has determined that the proposed project may affect but it is not likely to adversely affect the existence of certain federally listed threatened or endangered species. And animal species include the small toothed sawfish, eastern indigo snake, green sea turtle, hawksbill sea turtle, leatherback sea turtle, loggerhead sea turtle, Audubon's Crested Caracara, wood stork, and West Indian manatee.

The project may affect the Florida bonneted bat, but this requires further coordination with federal agencies to confirm. In addition, no adverse effects are anticipated for the following state listed, threatened or endangered species: Gopher tortoise, Florida Sandhill crane, least tern, little blue HERON, reddish Egret, Roseate spoonbill, tricolor heron, Southeastern American kestrel. Coordination with US Fish and Wildlife Service regarding the final status of these species is ongoing.

If the preferred alternative is approved by the office of environmental management, FDOT District 1 will continue to work closely with environmental agencies in future phases such as design and construction to meet all environmental

permitting requirements.

FDOT evaluated wetlands within the project limits in accordance with Executive Order 11990, protection of wetlands. The proposed improvements may directly affect approximately 15.3 acres of wetlands, indirectly affect 5.2 acres of wetlands and 7.3 acres of surface waters.

The department will take all practical measures to minimize harm to this area. The department will mitigate wetland impacts resulting from this project's construction to meet requirements of Florida Statutes and United States Code.

The project has been evaluated for potential floodplain involvement in accordance with Executive Order 11988, Floodplain Management. There is no significant change in flood risk as a result of the proposed widening, and minimal impacts are expected to the 100-year floodplain. There is no significant change in flood risk, nor is there a significant change in the potential for interruption or termination of emergency services or emergency evacuation routes due to flooding.

Results of the environmental contamination screening showed that two sites were ranked high,

five sites were ranked medium, and 12 sites were ranked low for potential contamination. For the sites that are ranked low for contamination, no further action is required at this time. For the sites with a risk ranking of high or medium, the FDOT project manager and the district contamination impact coordinator will coordinate on further actions during the design phase that must be taken to address contamination issues. Before construction specially trained crews will address contamination in these areas as required.

The effects of traffic noise associated with the preferred build alternative have been evaluated in accordance with Title 23, Code of Federal Regulations part 772 and with the FDOT PD&E manual. Based on the results of the traffic noise analysis, there are no highway traffic noise impacted land uses within the project area that require abatement consideration.

A cultural resource assessment survey was conducted in accordance with the National Historic Preservation Act of 1966 and Florida Statutes. Archeologists and historians identified no archeological sites and six potential historic resources in the project area.

One resource, the Caloosahatchee River Canal, was determined eligible for listing in the National Register of Historic Places. The state historic preservation officer determined that this project would have no adverse effect to this historic resource.

The project team examined the project and area for publically owned properties that may be affected under Section 4F, Department of Transportation Act of 1966. There are two (inaudible) resources in the project vicinity, the Caloosahatchee Trail and the Great Calusa Blueway. A portion of the Caloosahatchee Trail, a 10-foot multi-use path on the north side of State Road 80, may experience temporary impacts during construction. This existing trail occurs fully within the existing FDOT right-of-way, and the primary purpose established by FDOT for the trail is transportation.

The proposed improvement of State Road 31 includes a 12-foot multi-use trail to support the trail system. There are no anticipated impacts to the Great Calusa Blueway.

It is anticipated that this project will not cause any relocation of families or businesses.

All right-of-way acquisition will be conducted in accordance with the Florida Statute 339.09 and the Federal Uniform Relocation Assistance and Real Property Acquisition Act of 1970, commonly known as the Uniform Act.

The right-of-way specialists who are supervising this program are here tonight and will be happy to answer your questions.

An evaluation matrix showing a detailed comparison of the preferred alternative and the no-build alternative is provided in the project handout and is also on display here this evening. The matrix shows potential effects to the social, cultural, natural and physical environments and identifies preliminary costs. The estimated costs to make the proposed improvements from State Road 80 to State Road 78 include 162.9 million dollars for final design and construction, 2.1 million dollars for wetland mitigation, 22.7 million dollars for right-of-way acquisition and storm water management areas.

The cost of construction engineering and inspection is estimated at 19.5 million dollars. The department's preliminary estimate of total project cost is 207.2 million dollars. The

department anticipates completion of this PD&E Study by spring 2024. The schedule is on display this evening. The right-of-way phase is funded. Construction is not funded at this time.

We encourage you to review project information tonight and provide us your feedback. All comments should be submitted or postmarked by November 12th, 2023, to become a part of the formal hearing record. You can submit comments verbally or in writing tonight via the project website or by email or U.S. mail to the project manager.

All hearing materials presented tonight are available to the public on the project website and will remain posted for your review. The project technical documents are also available for review in person here tonight. Project documents will also be available for public viewing during normal business hours at the locations shown.

Please visit the project website at www.swflroads.com/project/441942-1 for the latest study information, schedule, and upcoming events.

This PD&E Study is being conducted and completed according to the requirements of the National Environmental Policy Act and other related federal and state laws, rules and regulations which

will qualify future phases of this project for federal funding, and this hearing was advertised consistent with those requirements. Please see the statute display board for all other applicable requirements.

This hearing is also conducted in accordance with the American with Disabilities Act of 1990 and with Title VI of the Civil Rights Act of 1964 and related statutes. Anyone who feels he or she has been discriminated against with regard to race, color, national origin, age, sex, religion, disability or family status may complete one of the forms located at the sign-in table and mail the completed form to the address listed on the poster board.

And, finally, an FDOT safety moment. FDOT reminds you, please don't text and drive. FDOT thanks you for making safety a continued priority.

Thank you for your interest and participation in this State Road 31 project development and environment study public hearing and for taking the time to join us this evening.

(Video presentation concluded.)

THE MODERATOR: In a moment we will have a ten-minute intermission so you can review the

displays, talk with members of the project team and ask any questions that you may have before we begin the testimony portion of the hearing. If you would like to make a verbal comment here tonight, fill out a speaker card and please give it to anyone with a name tag during the intermission. If you do not wish to speak at the microphone, you may provide your comments in writing directly to the court reporter at the comment table. All comments are weighted equally. We will not be responding to questions or comments during the formal comment portion.

The time is now 6:32. We will resume at 6:42.

(Recess held from 6:32 p.m. to 6:43 p.m.)

THE MODERATOR: Ladies and gentlemen, we will now begin the public testimony portion of the testimony hearing.

We welcome your spoken or written comments that will help us make this important decision. The comment period for this hearing will remain open for 14 days after this hearing.

Anyone wishing to submit written statements or other exhibits in place of or in addition to verbal comments may do so. You have until November 12th, 2023, to postmark or submit comments to become a

part of the official public hearing transcript. Again, every comment carries equal weight. Please see your handout, display boards for the project, web page for contact and mailing information.

We will not be responding to questions or comments at this time. Our focus tonight is recording your comments; however, we will post a summary of comments received on the project web page approximately 30 days following the close of the comment period. If you would like to have additional discussion regarding the project, you may contact the FDOT project manager at the information listed on your handout and on the web page.

In-person speakers, please direct all comments clearly into the microphone and toward the hearing moderator at all times. This will ensure that your comments are captured accurately for the project record. Please limit your comment to three minutes. A project staff member will signal when you have fifteen seconds left. Once again, we are not responding to questions or comments during the testimony.

We will now call on those who have registered to speak in person. We will start with Steven

Brodkin.

MR. BRODKIN: My name is Steven Brodkin. I live in Bayshore area not far from this site. I don't understand why we're designing roads with no shoulders or break-down lanes. It makes no room for emergency vehicles such as ambulances, fire and rescue, and police to get by when there's a traffic backup, say, due to an accident or other things that are happening.

As an example, I came up I-75 today to come here. There was an accident on I-75, so the traffic is all backed up and the emergency vehicles came up the shoulders to get to that site. We're not going to have that. We're not going to have any place for those vehicles to go having curbs and no shoulder or break-down area.

In addition, if you -- if your vehicle breaks down, if you have a flat tire or if your vehicle just breaks down, you're stuck on the road. You have to pull off the road. So then maybe you're out there changing a tire, trying to change a tire in the road, you don't have these road rangers there to help you when you're on 31.

So I'm just not understanding that design. It seems unsafe to me. We should have shoulders and

break-down lanes for that purpose. Thank you.

THE MODERATOR: Is there anyone else attending in person who has not spoken but would like to speak?

We will move to our speakers joining us online.

Next is Adelle Smith.

MS. SMITH: Well, actually I had a question, but I'll just talk about my question. I was really curious when they gave the exact figures up here of 207 million dollars. I came to the last meeting when they were talking about the other end of the project, and if I recall correctly, and I'm sure my figures are probably not right, but the bridge alone was like 168 or 180 million dollars, so I'm curious as to whether this 207 million includes the bridge and where the funding is going to come from, all this money. And also when the -- I'm sorry, I thought I was loud enough.

When the -- when the project was actually going to start and finish because those of us that live off of North River Road and have to come down 31 all the time are going to be heavily impacted by all this. And my other concern is for those people who live on Bayshore Road and those of us who take

Bayshore Road to get onto I-75 there's going to be a bottleneck there because -- that won't quit, I'm sure, especially until this road is completed. So there's a lot of concerns for all the people who live out in that Alva, Olga area, and I'm sure Babcock Ranch as well who use 31 all the time. And once this construction starts I just see it as a nightmare, but it's an inevitable thing. I'm sure it's going to happen.

THE MODERATOR: Is there anyone else who has not spoken that would like to speak?

All right. Once again, written statements and exhibits in place of or in addition to verbal statements will be accepted and recorded as part of this hearing if postmarked or sent by ten days after this hearing on November 12th, 2023.

After the comment period closes the project team will compile all comments and together with the engineering and environmental work that has been done make a final recommendation that will be submitted to FDOT office of environmental management for approval.

We will publish the approval of the preferred alternative in the News-Press and post the approval on the project web page. The verbatim transcript

of this hearing's proceedings together with all written statements or exhibits received and all studies, displays, and informational material presented with this hearing will be part of the project decision making process and will be available for public review upon request at FDOT District 1 headquarters, 801 North Broadway Avenue, Bartow, Florida 33830.

Thank you for attending this public hearing and for providing your input into this project.

It is now 6:52. I hereby officially close the public hearing for State Road 31 from State Road 80, Palm Beach Boulevard to State Road 78, Bayshore Road, in Lee County, Florida.

Thank you again and have a good evening.

(Proceedings concluded at 6:53 p.m.)

CERTIFICATE OF REPORTER

STATE OF FLORIDA)

COUNTY OF LEE)

I, Jackie D. Burrell, Registered Merit Reporter, Florida Professional Reporter, do hereby certify that I was authorized to and did report the foregoing public hearing pages 1 through 28, and that the transcript is a true and complete record of my stenographic notes.

I further certify that I am not a relative, employee, attorney, or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in the action.

Dated: December 14, 2023.

(This transcript has been digitally signed.)

Jackie D. Burrell

Jackie D. Burrell, RMR, RPR, FPR