

ADMINISTRATIVE ACTION
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation

I-75 IMPROVEMENTS FROM SR 200 TO SR 326

District: FDOT District 5

County: Marion County

ETDM Number: 14542

Financial Management Number: 452074-1-21-01

Federal-Aid Project Number: N/A

Project Manager: David Graeber

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 (MOU) 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:

Director Office of Environmental Management
Florida Department of Transportation

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Consulting Project Manager:
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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).

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1. Project Information

1.1 Project Description

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for proposed operational improvements to the I-75 corridor in the City of Ocala and Marion County, Florida. These interim improvements were identified as part of Phase 1 of a master planning effort for the I-75 corridor between Florida's Turnpike and County Road 234. The operational improvements being evaluated by this PD&E Study include construction of auxiliary lanes between interchanges for an eight-mile segment of I-75 between S.R. 200 and S.R. 326. Within the study limits, I-75 is an urban principal arterial interstate that runs in a north and south direction with a posted speed of 70 miles per hour. I-75 is part of the Florida Intrastate Highway System, the Florida Strategic Intermodal System (SIS), and is designated by the Florida Department of Emergency Management (FDEM) as a critical link evacuation route. Within the study limits, I-75 is a six-lane limited access facility situated within approximately 300 feet of right-of-way. No transit facilities, frontage roads, or managed lanes are currently provided.

A project location map is shown in Figure 1.1.1.



Figure 1.1.1: Project Location

The preferred alternative proposes to add one 12-foot wide auxiliary lane between interchanges to the outside of the existing general-purpose lanes in each direction. The auxiliary lanes would not impact the interchange bridges. To accommodate the auxiliary lanes, the existing I-75 bridge over SW 20th Street (Bridge Number 360064) will be widened and the NW 63rd Street bridge over I-75 will be replaced (Bridge Number 360049). The preferred alternative typical section would be accommodated within the existing 300-foot roadway right-of-way and includes three 12-foot wide general purpose lanes in each direction, one 12-foot wide auxiliary lane in each direction, 12-foot wide (10-ft paved) inside and outside shoulders, and a depressed grassed median, as shown in Figure 1.1.2. Construction of the preferred alternative is scheduled for Spring 2025.

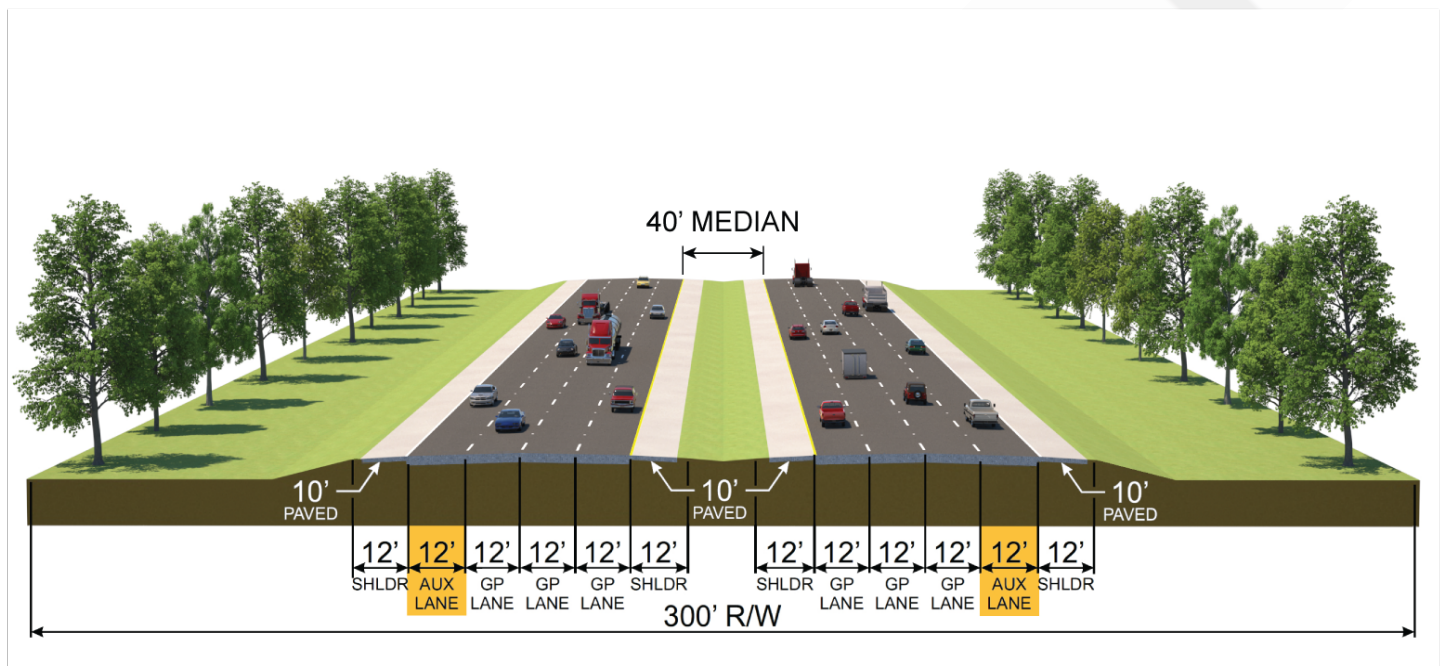


Figure 1.1.2: Preferred Alternative Typical Section

The preferred alternative drainage improvements include eleven pond sites, shown in Figure 1.1.3, that will be constructed as dry retention systems, with full containment of the 100 year - 10 day storm due to the highly-developed nature of the corridor, and limited outfall opportunities. Additional right-of-way will be required to provide the necessary pond sites.

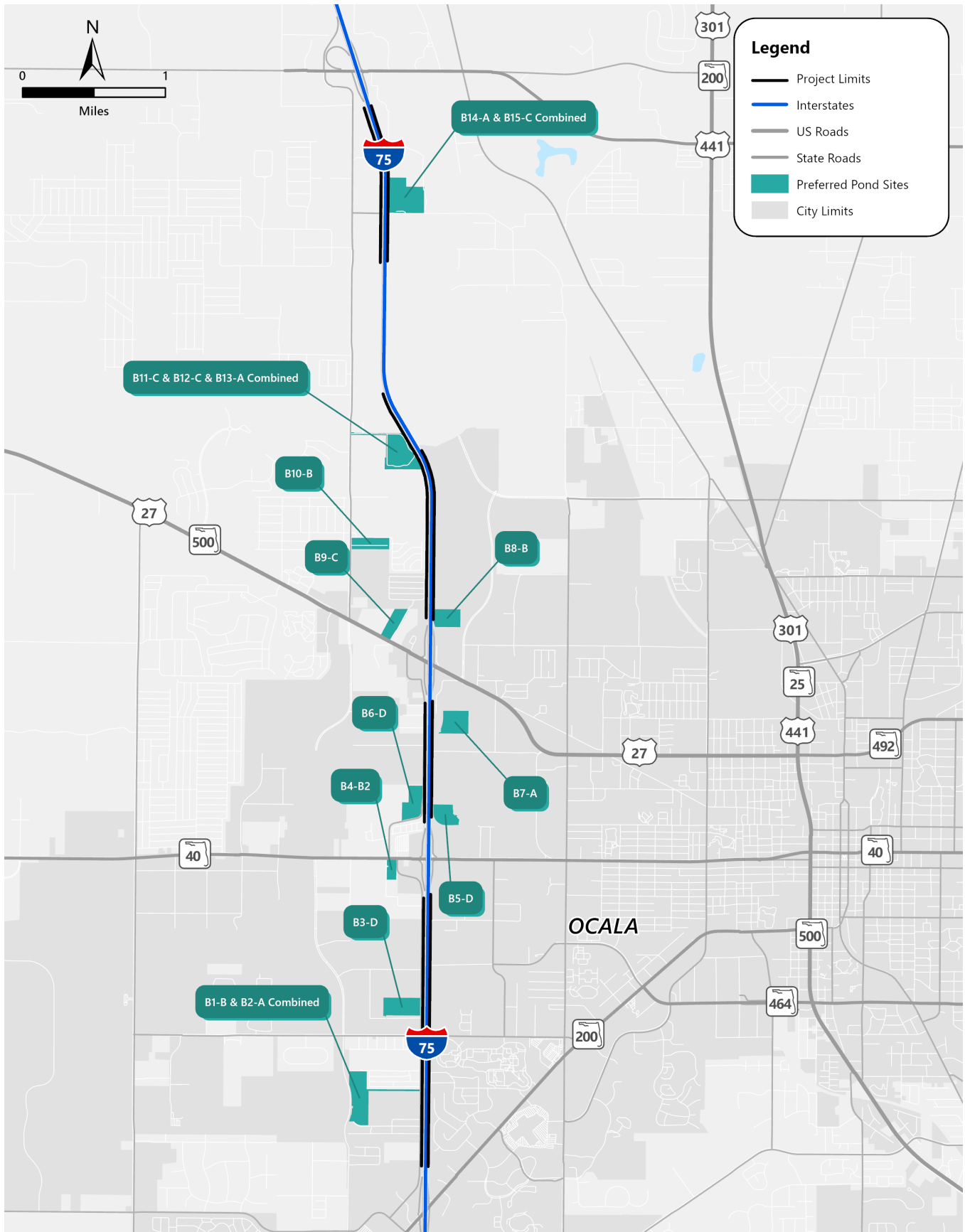


Figure 1.1.3: Preferred Pond Sites

Coastal Zone Consistency

ETDM Programming Screen is underway. ETAT review closed on January 19, 2024. A final federal consistency determination was not available as of January 22, 2024.

1.2 Purpose and Need

Project Purpose:

The purpose of this project is to evaluate operational improvements between existing interchanges for I-75 between S.R. 200 and S.R. 326.

Project Need:

The primary needs for this project are to enhance current transportation safety and modal interrelationships while providing additional capacity between existing interchanges.

Project Status

The project is within the jurisdiction of the Ocala-Marion Transportation Planning Organization (TPO) boundaries. The Ocala-Marion TPO 2045 Long Range Transportation Plan (LRTP) includes adding auxiliary lanes to I-75 from S.R. 200 to S.R. 326. The I-75 improvements are included in the FDOT 2023-2028 Work Program and 2024-2028 Ocala-Marion TPO Transportation Improvement Program (TIP). The I-75 improvements are funded for design and right-of-way in the Department's Five-Year Work Program as part of the Moving Florida Forward Initiative. This project begins at S.R. 200, which is the northern terminus for the I-75 PD&E from South of S.R. 44 to S.R. 200, ETDM #14542.

Safety

I-75 experiences crash rates (1.85) greater than the statewide average (1.0) for similar facilities. Crash data analyzed between 2018 and 2022 indicates there was a total of 1,228 vehicle crashes between S.R. 200 and S.R. 326. Of these, 297 resulted in at least one injury and 7 resulted in a fatality. The number of crashes increased every year from 161 crashes in 2018 to 272 crashes in 2022.

Based on the data, rear end collisions and sideswipes are cited as the primary types of crashes on I-75 mainline and the on/off-ramps. Contributing factors includes the closely spaced interchanges in the Ocala area that cause vehicles to "stack" in the right-hand lane with insufficient weaving distance between interchanges, weaving associated with vehicles entering and existing the I-75 mainline, and congestion at off-ramps that cause vehicles to queue from off-ramps onto the mainline.

Modal Interrelationships

Truck traffic on I-75 is substantial and accounts for over 20 percent of all daily vehicle trips within the study limits based on the FDOT, Traffic Characteristics Inventory. The segment of I-75 between U.S. 27 and S.R. 326 experiences the highest volume of trucks with more than 30 percent of the total trips made by trucks. Multiple existing and planned Intermodal Logistic Centers (ILC) and freight activity centers in Ocala contribute to the growth in truck volumes. These facilities include the Ocala/Marion County Commerce Park (Ocala 489), Ocala 275 ILC, and the Ocala International Airport and Business Park.

The interaction between heavy freight vehicles and passenger vehicles between interchanges contributes to both operational congestion and safety concerns.

Capacity/Transportation Demand

Existing annual average daily traffic (AADT) on I-75 within the study limits ranges from 74,000 vehicles per day (vpd) to 97,500 vpd, with the highest volume of traffic occurring between S.R. 200 and S.R. 40. I-75 northbound and southbound operates at level of service (LOS) C or better during the average weekday AM and PM peak hours. The LOS target for I-75 is D. As early as 2030, the Opening Year, I-75 northbound from S.R. 200 to S.R. 40 and I-75 southbound from S.R. 326 to S.R. 40 is projected to operate at Level of Service (LOS) F in the no-build condition. By 2040, the Design Year, AADTs within the study limits are projected to range between 122,000 and 142,500, with the highest volumes of traffic continuing to occur between S.R. 200 and S.R. 40.

I-75 is a unique corridor that experiences substantial increases in traffic during holidays, peak tourism seasons, weekends, and special events and experiences frequent closures because of incidents leading to non-recurring congestion. I-75 is part of the emergency evacuation route network designated by the FDEM.

1.3 Planning Consistency

The PD&E and design phases of the project are occurring concurrently. The project is part of the Moving Florida Forward Infrastructure Initiative (MFF), which was passed during the 2023 legislative session.

Currently Adopted LRTP-CFP	COMMENTS			
Yes	The project is included in the Ocala-Marion Transportation Planning Organization (TPO) 2045 Long Range Transportation Plan (LRTP) Cost Feasible Plan (CFP).			
	Currently Approved	\$	FY	COMMENTS
PE (Final Design)				
TIP	Y	\$12,120,000	2024	
STIP	Y	\$12,120,000	2024	Project is in the current STIP.
R/W				
TIP	Y	\$37,040,000	2024	
STIP	Y	\$37,040,000	2024	Project is in the current STIP.
Construction				
TIP	N			
STIP	N			

2. Environmental Analysis Summary

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

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

The Environmental Screening Tool (EST) Sociocultural Data Report (SDR) (Clipping) was used to identify demographic data in the project area. The SDR uses the Census 2017 - 2021 American Community Survey (ACS) data and reflects the approximation of the population based on the portion of a quarter-mile buffer area (project area) intersecting the census block groups along the project corridor.

The SDR identified 331 households with a population of 964 people. The median household income is \$46,750 for the project area compared to \$50,808 in Marion County. Approximately 12.39% of project area households are below poverty level compared to 13.41% in Marion County. Within the project area, 3.32% of households receive public assistance, compared to 2.42% in Marion County. A further review of the US Environmental Protection Agency (USEPA) EJSCREEN Mapping Tool identified census tracts with 6% to 39% of the population below poverty level. The census tracts with higher percentages are located on the east side of I-75 from US 27 to S.R. 326, which is also an Opportunity Zone explained further under the Economic topic.

The project area has a higher than county average minority population. The project area has 40.35% minority population, compared to 31.14% in Marion County. The minority population comprises of "Black or African American Alone" with 182 people (18.88%), "Claimed 2 or More Races" with 41 people (4.25%), "Asian Alone" with 32 people (3.32%), "Some Other Race Alone" with 28 people (2.90%), and "American Indian or Alaska Native Alone" with one person (0.10%) within the quarter-mile project buffer area. There are 159 people (16.49%) that have a "Hispanic or Latino of Any Race" ethnicity. Also, some of the "Hispanic or Latino of Any Race" is included as part of the minority population total.

The project area is lower in age than the county. In the project area, the median age is 37 and persons age 65 and over comprise 19.92% of the population. In Marion County, the median age is 48.3 and persons age 65 and over comprise 28.47% of the populations. There are 60 people in the project area (13.45%) between the ages of 20 and 64 who have a disability, which is a similar percentage to the county at 12.68%.

There are 369 housing units in the project area. The housing is comprised of single-family units (52%), multi-family units (28%), and mobile home units (20%). These units are either owner-occupied (51.49%), renter-occupied (38.21%), or vacant (10.3%). The home ownership rate of the project area is lower than that of Marion County which is 65.47% owner occupied. There are 25 (7.55%) occupied housing units with no vehicle, which is a higher rate than Marion County (4.74%).

There are 24 persons (2.56%) who speak English "not well" and 11 people (1.17%) who speak English "not at all" in the project area. In Marion County, 1.47% speak English "not well" and 0.36% who speak English "not at all". Based on US DOT Policy Guidance, the FDOT has identified four factors to help determine if Limited English Proficiency (LEP) services would be required as listed in the FDOT PD&E Manual. Based on a review of these factors and the fact that the LEP population totals 3.74% within the 500-foot project buffer, LEP services may be required.

Table 3.1.1 provides a summary comparison of demographics for the project area and Marion County.

Characteristic	Project Area	Marion County
Median Household Income	\$46,750	\$50,808
Percent Below Poverty	12.39%	13.41%
Percent Households Receiving Public Assistance	3.32%	2.42%
Percent Minority	40.35%	31.14%
Over Age 65	19.92%	28.47%
Persons Age 20 to 64 who have a Disability	13.45%	12.68%
Owner Occupied Housing Units	50%	65.47%
Housing Units with No Vehicle	7.55%	4.74%
Speaks English Not Well or Not At All	3.73%	1.83%

Source: SDR, 2017 - 2021 ACS, 5-Year Estimates

Table 3.1.1: Demographic Characteristics

The EST Geographic Information System (GIS) analysis identified the following community facilities within the project area:

- College of Central Florida
- Jehovah's Witnesses (Religious Center)

It should be noted that the Marion County Jail and Sheriff's Office is within a half mile of the project on the east side of I-75.

The proposed mainline improvements are within existing limited access right-of-way and will not further divide established neighborhoods. The preferred alternative, including the auxiliary lanes and the stormwater ponds, is not anticipated to result in changes to population or demographics, or impacts to community facilities. Emergency services may benefit from reduced travel delay. There is no known controversy associated with the preferred alternative. Community desire for improvements to I-75 has been documented in previous corridor planning studies and this PD&E study.

Displacements from stormwater pond locations are an adverse impact but will be mitigated through relocation, as discussed under the Relocation topic. Three business and five residential relocations are anticipated.

ACS data were reviewed to understand the potential for relocation of minority and low-income populations. If it is assumed that all relocation impacts within a block group that has a minority population greater than 50% or a percent of population below poverty greater than the county average (13.41%) will impact a minority or low-income person and all relocation impacts outside of these block groups will not, then no business relocations and 20% of the residential relocations will impact a minority or low-income person or business. Of the project area within which ponds could be feasibly located and perform their function, 39% was within a block group with a minority population greater than 50% or a percent of population below poverty greater than the county average (13.41%). The assumed percentage of relocation impacts affecting minority or low-income populations is not disproportionately high to the project area.

Based on the above discussion and analysis, the preferred alternative will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further Environmental Justice analysis is required.

3.2 Economic

The I-75 corridor serves as a crucial component of the region's transportation network, connecting a variety of land uses, connections to other state highways, and economic centers. I-75 is identified by FDOT as a regional freight mobility corridor throughout the project limits. Also, I-75 is a SIS facility on the National Highway System (NHS) and serves as an important north-south facility connecting the Great Lakes region of the Midwest to the Southeastern regions of the United States. Within Florida I-75 travels from the Georgia line, near Jennings, Florida down the west coast of Florida across the southern portion of the state to Miami connecting numerous major population centers, economic centers, and intermodal facilities along the way. Since I-75 is on the NHS it is one of the most important networks in stimulating and maintaining Florida's economy, as this network carries the most heavy truck traffic linking goods and commerce to and from major population centers and intermodal hubs as outlined in the FDOT's *Freight and Mobility Trade Plan*.

During the last two decades, Marion County has become one of the fastest-growing counties in the State of Florida. The County's population almost doubled between 1990 to 2020. Using the medium 2050 population growth forecasts from the University of Florida's Bureau of Economic and Business Research (BEBR), Marion County's population is projected to grow to 500,300. This is a 27.6% increase from its 2022 population estimate of 391,983. As population increases, roadway volumes are projected to increase as well creating a demand for additional roadway capacity.

The east side of I-75 from US 27 to S.R. 326 is an Opportunity Zone. The Opportunity Zone Program is a federal program and aims to foster economic development and job creation in economically distressed communities. Investments are made in Opportunity Zones through U.S. Treasury Qualified Opportunity Zone Funds, which must invest over 90 percent of their assets in Qualified Opportunity Zone properties and businesses. Qualified Opportunity Zone Funds attract investors through possible tax benefits.

The preferred alternative could have a beneficial economic impact because the roadway improvements have the opportunity to provide connectivity to local and regional employers and improve level of service to increase access to these areas. Providing auxiliary lanes would improve the efficiency of the existing travel lanes and reduce incident-related congestion. This improvement would allow I-75 to move people, goods, and services in a more efficient manner to employment, entertainment, economic centers, and shopping districts. Decreased roadway congestion provided by the project could reduce commute times to/from businesses in Ocala and surrounding areas.

3.3 Land Use Changes

The project is within Marion County and the City of Ocala. Land use along the corridor varies with commercial and industrial areas concentrated around the interchanges and multiple residential and agricultural areas. The residential areas are primarily located at the southern end of the project limits north of S.R. 200, immediately north of W. Silver Springs Boulevard, and immediately north of US 27. The remaining land uses are scattered throughout the project corridor with the north end having more crops, pasture, horse farms, and undeveloped wooded areas. Florida Land Use Cover and Forms Classification System (FLUCCS) data identified the major land uses in the project area to be Roads and Highway with 302.17 acres (31.66%), Commercial and Services with 152.74 acres (16.01%), Hardwood - Coniferous Mixed with 84.57 acres (8.87%), Field Crops with 82.52 acres (8.65%), Other Light Industrial with 54.16 acres (5.68%), and Improved Pastures with 50.22 acres (5.26%). Existing land use is shown in Figure 3.3.1.

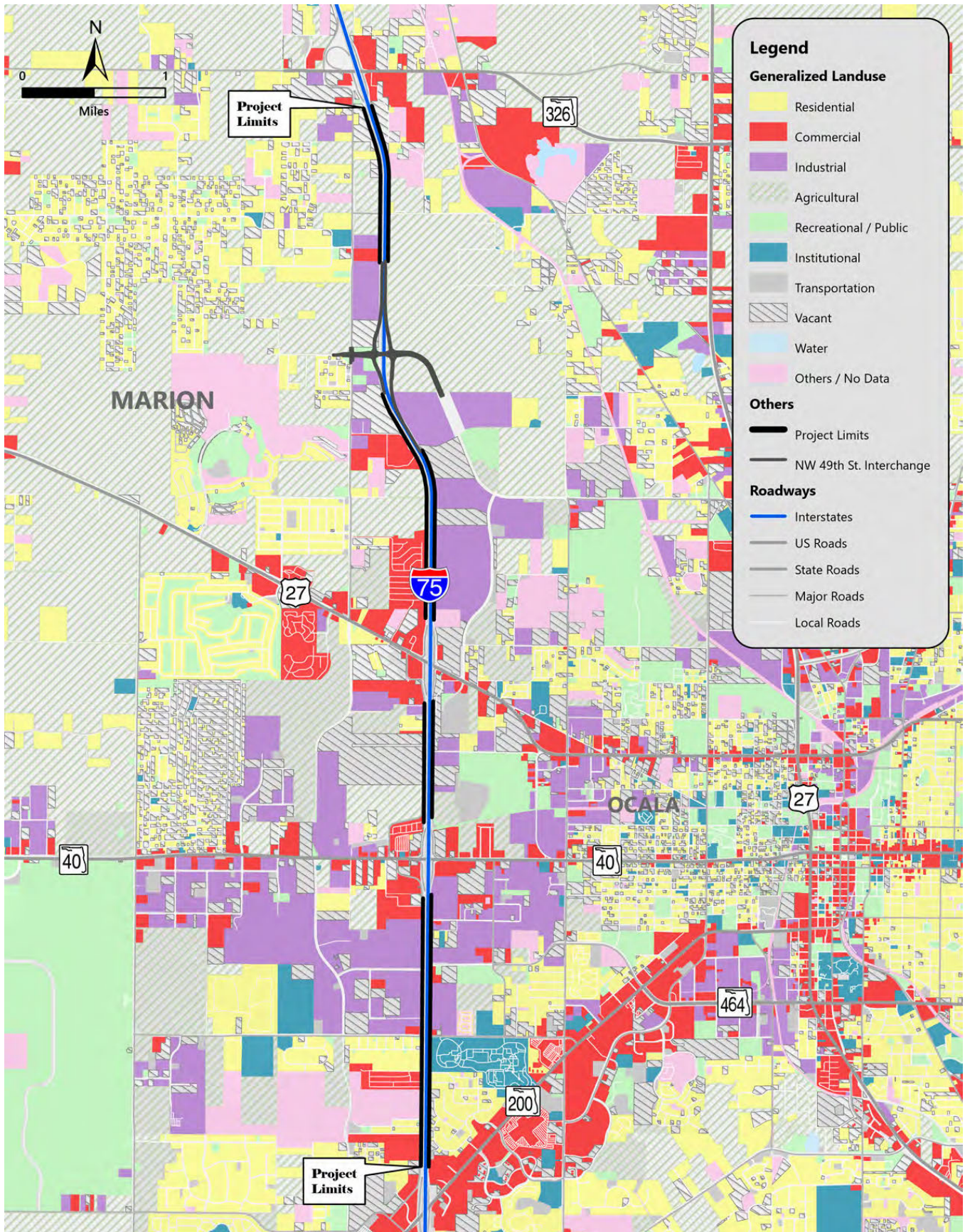


Figure 3.3.1: Existing Land Use

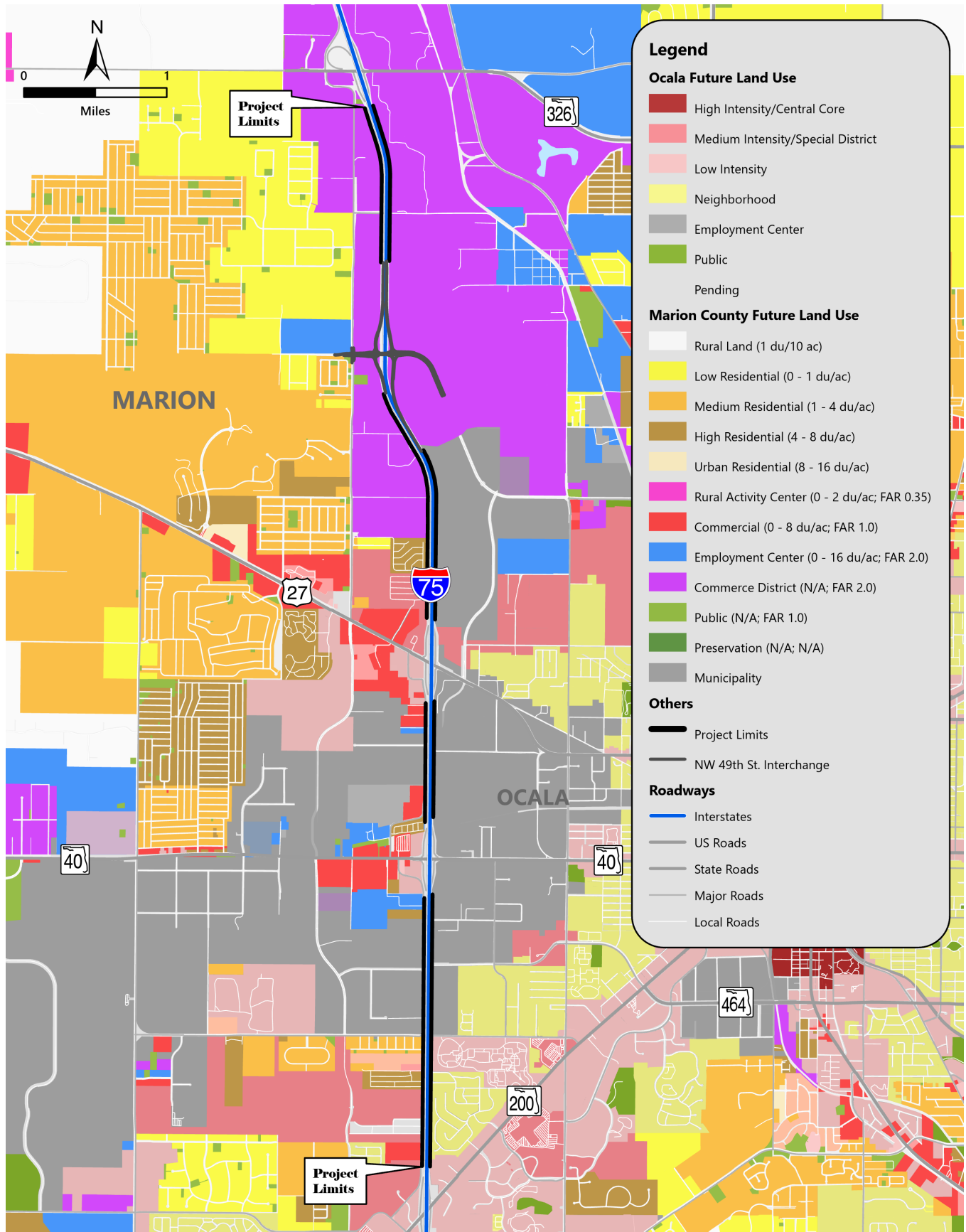


Figure 3.3.2: Future Land Use

Marion County's 2045 Future Land Use Map (dated August 28, 2019) shows agricultural land uses converting to commerce district, commercial uses, and other urban uses. The City of Ocala's Future Land Use Map (Dated July 2020) shows all urban land uses adjacent to I-75. The GeoPlan Future Land Use layer is mapped in Figure 3.3.2 and is consistent with the county and city future land use maps.

Approximately 212.54 acres of right-of-way will be required for stormwater ponds. Existing and future land use at each pond location is displayed in Table 3.3.1.

Pond Name	Existing Land Use(s)	Planned Future Land Use(s)
B1-B & B2-A Combined	Other / No Data (Vacant)	Medium Intensity/Special District
B3-D	Industrial & Vacant	Employment Center
B4-B2	Vacant	Commercial
B5-D	Agricultural	Employment Center
B6-D	Agricultural	Commercial
B7-A	Transportation	Employment Center
B8-B	Other / No Data & Vacant	Employment District
B9-C	Other / No Data (Vacant)	Commercial
B10-B	Residential / Vacant	Residential
B11-C, B12-C & B13-A Combined	Commercial	Commerce District
B14-A & B15-C Combined	Agricultural	Commerce District

Table 3.3.1: Land Uses within Preferred Pond Sites

Except for two locations (Ponds B10-B and B11-C, B12-C & B13-A), the stormwater ponds would be converting existing vacant or agricultural lands which are planned to be developed, and thus are consistent with the future land uses designated by the Marion County and City of Ocala Comprehensive Plans. Relocations from stormwater ponds are discussed in Section 3.6.

Growth is projected to occur with or without the project based on BEBR population projections and future land use maps. The project is not anticipated to induce growth.

3.4 Mobility

The project is anticipated to enhance mobility for passenger and freight vehicles. The addition of auxiliary lanes on the interstate is not anticipated to benefit mobility needs of non-driving populations. A Project Traffic Analysis Report (PTAR) was prepared for this study and is located in the project file. The PTAR evaluated No Build and Build conditions for the opening (2030) and design (2040) years.

In 2030, the preferred alternative is anticipated to result in I-75 operating below capacity and LOS D or better. In the northbound direction, the preferred alternative improves travel times by 1.9 minutes (19% improvement) and reduces vehicle hours of delay by up to 396 hours (80% improvement) when compared to the No Build Alternative. In the southbound direction, the preferred alternative improves travel times by 10.5 minutes (56% improvement) and reduces vehicle hours of delay by up to 2,211 hours (95% improvement) when compared to the No Build Alternative.

In 2040, the preferred alternative is anticipated to have overcapacity segments in both directions and need additional improvements, but it is an improvement over the No Build condition. In the northbound direction, the preferred alternative improves travel times by 3.8 minutes (32% improvement) and reduces vehicle hours of delay by up to 775 hours (88% improvement) when compared to the No Build Alternative. In the southbound direction, the preferred alternative improves travel times by 12.4 minutes (58% improvement) and reduces vehicle hours of delay by up to 2,603 hours (88% improvement) when compared to the No Build Alternative.

Because the project will reduce travel time and vehicle hours of delay, it is anticipated to enhance mobility.

3.5 Aesthetic Effects

The viewshed for motorists and residents is not expected to change substantially since the proposed improvements are the widening of an existing roadway. There are no scenic highways designated in the study area. There will be tree removal associated with the stormwater pond sites.

Three noise barriers (SB1, NB1, SB4) are recommended as part of the project (see Section 6.1). Noise barrier SB-1 extends on I-75 southbound from north of the S.R. 200 interchange to north of SW 20th Street. The current viewshed from the neighborhoods towards I-75 includes SW 38th Avenue and utility lines and a chain link fence between SW 38th Avenue and I-75. The viewshed change is expected to be minimal as the existing viewshed contains transportation and utility uses. Noise barrier NB1 extends on I-75 northbound from north of S.R. 200 to south of SW 20th Street. The current viewshed from the neighborhoods towards I-75 is mostly blocked by trees. The viewshed change from the neighborhoods is expected to be minimal as the trees would not be removed. Noise barrier SB4 extends on I-75 southbound from north of US 27 to the future but yet-to-be-constructed NW 49th Street interchange. The viewshed change is expected to be minimal as the existing viewshed contains transportation and utility uses.

There are numerous outdoor advertising signs adjacent to the I-75 right-of-way. Four legally permitted, conforming billboards (Tag Numbers: BR194, BR195, CH859, and CH860) are located behind the SB1 barrier system; five legally permitted, non-conforming billboards (Tag Numbers: BL849, BL850, BR316, BR318, BR319) are located behind the SB4 barrier; and ten legally permitted, non-conforming billboards (Tag Numbers: AW062, AW063, AW064, AW065, BR333, BR336, BY249, CL852, CL853, CM830) are located behind barrier NB1. Any potential noise barrier/billboard conflict will be addressed during the final design evaluation.

There are no historic resources that are identified as eligible for listing in the National Register of Historic Places (NRHP) that would experience viewshed impacts.

3.6 Relocation Potential

A Conceptual Stage Relocation Plan (CSR) is being prepared for this project and will be uploaded to the project file. The project will require right-of-way for stormwater pond locations. The preferred pond sites have the potential to impact a total of 25 parcels for a total of 212.54 acres. Three business and five residential relocations are anticipated as follows:

- Pond B3-D: One Business (Car Quest Parts Store and Car Quest Distribution Center)
- Pond B10-B: Four Residences
- Pond B9-C: One Business

- Pond B11-C, B12-C & B13 A Combined: Business (Flea Market)
- Pond B14-A: One Residence

In order to minimize the unavoidable effects of Right of Way acquisition and displacement of people, a Right of Way and Relocation Assistance Program will be carried out in accordance with Florida Statute 421.55, 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

There are several prime farmlands adjacent to the I-75 right-of-way. The auxiliary lanes will not impact farmlands. Two preferred pond sites may impact farmlands of local importance for a total of 0.92 acres, as shown in Figure 3.7.1. Pond B6-D impacts 0.89 acres that is currently used for horse farming based on the FLUCCS code. Pond B11-C, B12-C & B13-A impacts a 0.01-acre sliver that is currently a road and a 0.02-acre sliver that is currently used for agriculture based on its FLUCCS code. FDOT sent the farmland conversion impact rating form to the Natural Resource Conservation Service (NRCS) on January 18, 2024. Correspondence with NRCS is attached.

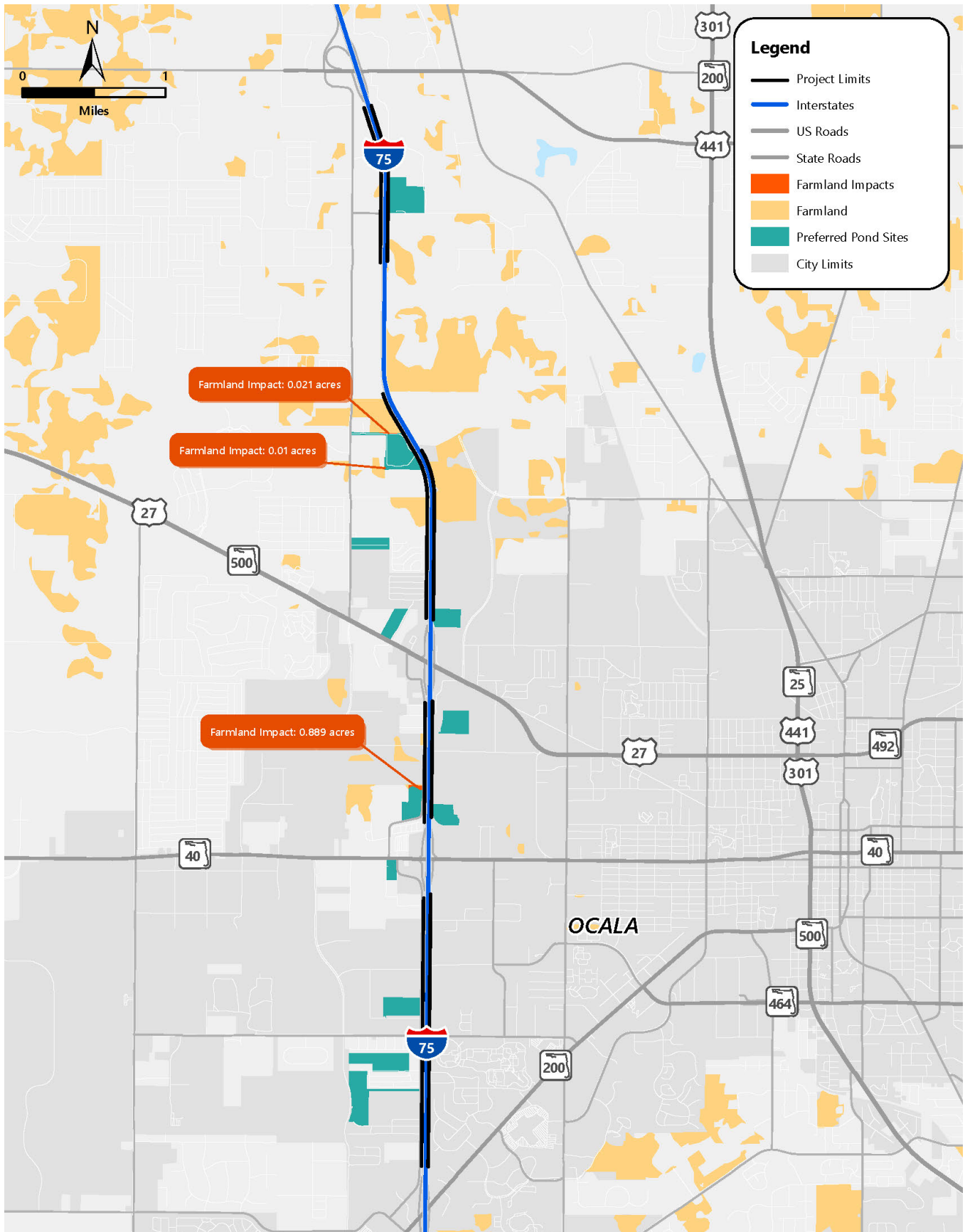


Figure 3.7.1: Potential Impacts to Farmlands of Unique Importance

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 these resources do not meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and State Historic Preservation Officer (SHPO) concurred with this determination on 01/10/2024. Therefore, FDOT, in consultation with SHPO, has determined that the proposed project will result in No Historic Properties Affected.

The following SHPO concurrence letters are attached: January 10, 2024 letter for the mainline CRAS with SHPO Project File Number 2023-7161, January 17, 2024 letter for the Phase II Evaluation with SHPO Project File Number 2024-187, and DATE(TBD) letter for the Ponds Addendum with SHPO Project File Number ##. *The Ponds Addendum is currently being prepared.*

The project archaeological APE was defined to include the existing right-of-way where improvements are proposed. The architectural history APE included the existing right-of-way and was extended to the back or side property lines of parcels adjacent to the right-of-way or a distance of no more than 328 feet from the right-of-way line at the I-75 interchanges with S.R. 326, Northwest Blitchton Road, and West Silver Springs Boulevard. As all improvements outside of the interchanges will be ground surface level and will not introduce any significant changes to the viewshed, no buffer was utilized for sections of corridor outside of the interchanges.

The archaeological survey consisted of the excavation of 262 shovel tests within the APE, 33 of which contained artifacts. Additionally, 345 no-dig points were recorded where disturbances and subsurface conditions (e.g., steep roadway berms, buried utilities, drainage features) precluded shovel testing. Five new archaeological sites (8MR04470-8MR04474) and three archaeological occurrences were recorded as a result of the survey. Archaeological occurrences are by definition ineligible for listing in the NRHP; therefore, no further testing for the archaeological occurrences is required. The archaeological sites are discussed below.

Newly recorded site 8MR04470 (Palm Lake Site 1) is a low-density (n=9) precontact lithic scatter identified by two positive shovel tests along the west side of I-75 near the Blitchton Road interchange. Delineating shovel tests were excavated to the north, south, and east of the site, but due to the limits of the APE, site 8MR04470 could not be fully delineated. Although no subsurface testing could be completed to the west due to APE limitations, the site is bound to the west by buried utilities and an adjacent roadway. Due to the absence of diagnostic artifacts and the lack of research potential the site is recommended ineligible for listing in the NRHP. No further work is recommended.

Newly recorded site 8MR04471 (Palm Lake Site 2) is a precontact site located along the west side of I-75 between the Blitchton Road and West Silver Springs interchanges. The site was identified by 13 positive shovel tests with artifacts (n=333) from 0-66.9 inches below surface. Artifacts from the site primarily consist of lithic material at various stages of tool manufacture. Several tools, two sherds of plain Native American ceramics, and an abundance of thermally altered lithic debitage were also recovered from the site, suggesting the site has moderate potential for cultural features. Additionally, site 8MR04471 is approximately 295 feet north of site 8MR04472, which did contain an artifact dating to the transitional

Paleoindian to early Archaic cultural periods. Delineating shovel tests were excavated to the south, as APE limitations and modern conditions precluded further shovel testing to the west, east, and north (e.g., buried utilities, an adjacent roadway, drainage features). Although the site could not be fully delineated according to Module 3 standards, the artifact density and depth of cultural deposits identified within site 8MR04471 within the current APE indicates the presence of intact cultural deposits. Many artifacts were recovered, and it is possible that intact features may be present. As such, it is not possible to evaluate the site for NRHP-eligibility based on the available information. As such, a Phase II evaluation was performed.

Newly recorded site 8MR04472 (Palm Lake Site 3) is a precontact site on the west side of I-75 between the Blitchton Road and West Silver Springs interchanges, just south of site 8MR04471. Artifacts from the site primarily consist of lithic material at various stages of tool manufacture and a Dalton projectile point (dating to transitional Paleolithic to early Archaic occupation [10,500-8,500 before present]). Delineating shovel tests were excavated to the north, south, and east; however, APE limitations precluded further shovel testing to the west. Although the site could not be fully delineated according to Module 3 standards, the diagnostic artifact and quantity of artifacts identified within site 8MR04472 suggests potentially significant cultural deposits or features may be present within the current APE. There is currently insufficient information to provide an NRHP eligibility recommendation for site 8MR04472. As such, a Phase II evaluation was performed.

Newly recorded site 8MR04473 (West Silver Springs Scatter) is a low-density precontact lithic scatter identified by four positive shovel tests along the west side of I-75 north of the West Silver Springs Boulevard interchange. Delineating shovel tests were excavated to the north, south, and east of the site, but due to the limits of the APE, site 8MR04473 could not be fully delineated. Although no subsurface testing could be completed to the west due to APE limitations, the site is bound to the west by buried utilities and an adjacent roadway. Due to the low density of artifacts, the lack of diagnostic artifacts recovered during survey, and the lack of research potential, the site is recommended ineligible for listing in the NRHP. No further work is recommended.

Newly recorded site 8MR04474 (I-75 Roadside Scatter) is a low-density precontact lithic scatter identified by one positive shovel test on the east side of I-75 near the S.R. 200 interchange. Delineating shovel tests were excavated to the north and south of the site, but due to the limits of the APE and modern conditions of the corridor, site 8MR04474 could not be fully delineated. Although no subsurface testing could be completed to the east or west, the site is bound in these directions by buried utilities, an adjacent roadway, a steep berm, and modern development. Due to the low density of artifacts, the lack of diagnostic artifacts recovered during survey, and the lack of research potential, the site is recommended as ineligible for listing in the NRHP. No further work is recommended.

Phase II evaluative testing began on August 1, 2023 with auger testing between Sites MR04471 and MR04472. All three auger tests were positive for cultural material, demonstrating that the two sites (8MR04471 and 8MR04472) existed as one contiguous site. The newly defined single site was referred to as 8MR04471 (Palm Lake Site 2).

The Phase II evaluation, located in the project file, included the excavation of six 3.3 6.6 ft test units within the boundary of the newly defined Site 8MR04471. As a result of the Phase I survey and Phase II testing, Site 8MR04471 is identified as a dense artifact scatter with several Native American cultural components dating to the Transitional Paleoindian/Early Archaic, Middle to Late Archaic, Woodland, and Mississippian periods (8500 BC-AD 1500+). The type and quantity of artifacts recovered suggest that the site was primarily used for late-stage lithic tool production and refinement. The presence of precontact ceramic sherds indicates that food preparation, production, and storage also occurred on site. Site 8MR04471 was utilized intermittently over a 10,000-year period as a temporary encampment for lithic tool production and refinement using raw materials extracted from nearby Coastal Plain chert quarry clusters.

The upland landform on which the site is situated has been significantly disturbed within and outside the site boundary. The artifact assemblage lacks diversity and is predominantly late-stage, lithic debitage. The assemblage of temporally diagnostic artifacts is typical of many similar sites in Marion County and the Central Florida region. Based on the paucity of diagnostic artifacts, a lack of cultural features, and the absence of stratigraphically discrete cultural components, it is unlikely that further excavation at Site 8MR04471 would yield information that would add to the current understanding of the precontact history of the region.

Based on the results of Phase II evaluation, FDOT recommended that Site 8MR04471, as expressed within the I-75 PD&E study corridor, is ineligible for listing in the NRHP in its letter to SHPO dated January 11, 2024. No further work is recommended. SHPO concurred with this finding on January 17, 2024 in the attached letter.

The architectural survey resulted in the identification and evaluation of 31 historic resources, including four previously recorded resources and 27 newly recorded resources. The previously recorded historic resources include two linear resources (8MR03271 and 8MR03403) and two buildings (8MR03847 and 8MR04312). The 27 newly recorded historic resources include 24 buildings (8MR04437-8MR04460) and three resource groups (8MR04466-8MR04468).

Previously recorded resource 8MR03403 was evaluated by the SHPO as ineligible for the NRHP on November 12, 2014. Based on the results of the survey, no changes appear to have been made to the segment of 8MR03403 within the APE, and so it remains ineligible for NRHP listing.

Previously recorded historic resources 8MR03271, 8MR03847, and 8MR04312, and all 27 newly recorded resources, lack the significant historical associations and architectural distinctions necessary for NRHP listing and are recommended not eligible for the NRHP.

No NRHP-listed or eligible cultural resources were identified within the project APE. SHPO concurred with this determination for the mainline and the Phase II Evaluation for 8MR04471 in the attached letters. The Ponds Addendum is scheduled for completion in January 2024.

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

There are no properties in the project area that are protected pursuant to Section 4(f) of the USDOT Act of 1966.

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

There are no other protected public 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) has been prepared in accordance with the NRE Outline and Guidance document and is included in the project file.

The study area for this evaluation includes the I-75 mainline right-of-way (approximately 300 feet) along the eight-mile segment of I-75 between S.R. 200 and S.R. 326 (Mainline Study Area). In addition, 19 alternative pond sites (Pond Sites Study Area) were evaluated, including the preferred pond sites.

A Florida Natural Areas Inventory (FNAI) Standard Data Report, the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) resource list, and available GIS data were reviewed. The FNAI report and IPaC list are attached to the NRE. Reviews for the presence of protected species were then completed during field reconnaissance events in May 2023 for the Mainline Study Area and October through December 2023 for the Pond Sites Study Area. Table 5.1.1 and 5.1.2 list the federally and state protected species with potential to occur within the study area and their effect determinations. A total of 32 listed species and one candidate species were identified as having the potential to occur within the study area. Nine of the listed species have a moderate or high potential of occurrence. None of the species except gopher tortoise were observed within the study areas. Each species and their effect determinations are discussed in more detail in the following subsections. Discussion is also included for the bald eagle.

The study areas were also evaluated for Designated Critical Habitat as defined by 50 CFR 17.94. No designated critical habitat is located within the project study areas.

NRE will be submitted to the USFWS, Florida Department of Environmental Protection (FDEP), St. Johns River Water Management District (SJRWMD), Florida Department of Agriculture and Consumer Services (FDACS), and Florida Fish and Wildlife Conservation Commission (FWC) for review and to initiate coordination/consultation for the project. The resulting coordination and/or concurrence would henceforth be documented in the Environmental Document.

Scientific Name	Common Name	Status	Probability of Occurrence in Project Area	Effect Determination
Birds				
<i>Aphelocoma coerulescens</i>	Florida scrub-jay (1)	Threatened	Low	No Effect
<i>Dryobates borealis</i>	Red-cockaded woodpecker (2)	Endangered	Low	No Effect
<i>Laterallus jamaicensis jamaicensis</i>	Eastern black rail (3)	Threatened	Low	No Effect
<i>Mycteria americana</i>	Wood stork	Threatened	Moderate	May Affect, Not Likely to Adversely Affect

Reptiles				
<i>Drymarchon corais couperi</i>	Eastern indigo snake (3)	Threatened	Moderate	May Affect, Not Likely to Adversely Affect
Insects				
<i>Danaus plexippus</i>	Monarch butterfly (3)	Candidate	Moderate	N/A (4)
Plants				
<i>Dicerandra cornutissima</i>	Longspurred mint (1)	Endangered	Low	No Effect
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	Scrub buckwheat (1)	Threatened	Low	No Effect
<i>Polygala lewtonii</i>	Lewton's polygala (3)	Endangered	Low	No Effect

Table 5.1.1: Federally Listed Species Potentially Occurring within the Study Area

Table Notes:

- (1) This federally listed species was identified by the FNAI Standard Data Report.
- (2) This species was identified in FNAI Standard Data Report for the Pond Sites Study Area only.
- (3) This federally listed species was identified by the USFWS IPaC.
- (4) Effect determinations are not applicable to species proposed for listing or candidate species.

Scientific Name	Common Name	Status	Probability of Occurrence in Project Area	Effect Determination
Birds				
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	Threatened	Moderate	No Adverse Effect Anticipated
<i>Athene cunicularia floridana</i>	Florida burrowing owl	Threatened	Low	No Adverse Effect Anticipated
<i>Egretta caerulea</i>	Little blue heron (3)	Threatened	Moderate	No Effect Anticipated
<i>Egretta tricolor</i>	Tricolored heron (3)	Threatened	Moderate	No Effect Anticipated
<i>Falco sparverius paulus</i>	Southeastern American kestrel (4)	Threatened	Moderate	No Effect Anticipated
Reptiles				
<i>Gopherus polyphemus</i>	Gopher tortoise	Threatened	High (Observed)	No Adverse Effect Anticipated
<i>Lampropeltis extenuate</i>	Short-tailed snake	Threatened	Low	No Effect Anticipated
<i>Notophthalmus perstriatus</i>	Striped newt	Threatened	Low	No Effect Anticipated
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake (4)	Threatened	Moderate	No Adverse Effect Anticipated
Plants				
<i>Agrimonia incisa</i>	Incised groove-bur	Threatened	Low	No Effect Anticipated
<i>Arnoglossum diversifolium</i>	Variable-leaved Indian-plantain (1)	Threatened	Low	No Effect Anticipated
<i>Calopogon multiflorus</i>	Many-flowered grass-pink	Threatened	Low	No Effect Anticipated
<i>Centrosema arenicola</i>	Sand butterfly pea	Endangered	Low	No Effect Anticipated

<i>Forestiera godfreyi</i>	Godfrey's swampprivet	Endangered	Low	No Effect Anticipated
<i>Litsea aestivalis</i>	Pondspice	Endangered	Low	No Effect Anticipated
<i>Matelea floridana</i>	Florida spiny-pod	Endangered	Low	No Effect Anticipated
<i>Monotropsis reynoldsiae</i>	Pygmy pipes	Endangered	Low	No Effect Anticipated
<i>Nemastylis floridana</i>	Celestial lily (1)	Endangered	Low	No Effect Anticipated
<i>Nolina atopocarpa</i>	Florida beargrass (2)	Threatened	Low	No Effect Anticipated
<i>Pteroglossaspis ecristata</i>	Giant orchid	Threatened	Low	No Effect Anticipated
<i>Pycnanthemum floridanum</i>	Florida mountain-mint	Threatened	Moderate	No Adverse Effect Anticipated
<i>Salix floridana</i>	Florida willow	Endangered	Low	No Effect Anticipated
<i>Sideroxylon alachuense</i>	Silver buckthorn	Endangered	Low	No Effect Anticipated
<i>Spigelia loganioides</i>	Pinkroot	Endangered	Low	No Effect Anticipated

Table 5.2.2: State Listed Species Potentially Occurring within the Study Area

Table Notes:

- (1) This species was identified in FNAI Standard Data Report for the Pond Sites Study Area only.
- (2) This species was identified in FNAI Standard Data Report for the Mainline Study Area only.
- (3) Although not observed these species could forage in the wetland identified within the Mainline Study Area, described in Section 5.0.
- (4) The study areas fall within the range identified by the FWC for this species. In addition, habitat for this species was observed within the Pond Sites Study Area.

Federally Listed Species

Florida scrub-jay (*Aphelocoma coerulescens*)

The federal status for the Florida scrub-jay is threatened. Florida scrub-jays utilize oak scrub as well as scrubby flatwoods with sand pine. These habitats are fire dependent and are characterized by an open canopy of widely spaced trees and a low, shrubby understory dominated by scrub oak and saw palmetto, generally interspersed with patches of white sand. These habitats occur on well-drained to excessively well-drained soils. The FNAI Standard Data Report identified the Florida scrub-jay as having the potential to occur within the study areas but did not report any documented occurrences.

The study areas fall within the USFWS Consultation Area for the Florida scrub-jay. However, there was no suitable habitat present within the study areas and the Florida scrub-jay was not observed during field reconnaissance. Therefore, it has been determined that the project will have **no effect** on the Florida scrub-jay.

Red-cockaded woodpecker (*Dryobates borealis*)

The red-cockaded woodpecker is listed as endangered by the USFWS due to habitat fragmentation and poor management of appropriate habitat. A large portion of the land occupied by red-cockaded woodpeckers is federally managed, however smaller populations reside on state-owned and private lands. Their distribution is dependent on remaining areas of old-growth pine forests. In north and central Florida, they prefer longleaf pine (*Pinus palustris*) flatwoods. The FNAI Standard Data Report identified the red-cockaded woodpecker as having the potential to occur within the Pond Sites Study Area but did not report any documented occurrences. The study areas do not fall within the USFWS Consultation Area for the red-cockaded woodpecker. There was no suitable habitat present within the study areas and the Florida scrub-jay was not observed during field reconnaissance. Therefore, it has been determined that the project will have **no effect** on the red-cockaded woodpecker.

Eastern black rail (*Laterallus jamaicensis jamaicensis*)

The federal status for the Eastern black rail is threatened. It is a small, cryptic marsh bird that is no bigger than 15 centimeters in length. Males and females are generally pale to blackish gray with bright red eyes. They require dense overhead cover and prefer herbaceous, emergent wetland vegetation. Nests are well-hidden in dense clumps of vegetation and are typically constructed over moist soil or shallow water. The USFWS IPaC identified the Eastern black rail as having the potential to occur within the study areas. The Eastern black rail was not observed during field reconnaissance. Considering the absence of suitable marshes within the study areas, it has been determined that the project will have **no effect** on the Eastern black rail.

Wood stork (*Mycteria americana*)

The federal status for the wood stork is threatened, however, USFWS has recently proposed removing it from listing (88 FR 9830, February 15, 2023). The wood stork is a large wading bird with black flight feathers and a short black tail. It utilizes freshwater and estuarine habitats for nesting, foraging, and roosting. Primary nesting sites include cypress or mangrove swamps with foraging habitat consisting of marshes, ditches, and flooded pasture with water depths ranging from two to 15 inches. The primary prey consists of fish and crayfish. The USFWS guidelines indicate that the Core Foraging Area (CFA) for the wood stork in central Florida is a 15-mile radius surrounding nesting areas. The CFA is defined as the distance storks may fly from the colony to capture prey for their young.

Suitable foraging habitat (SFH) for the wood stork is described as any area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between two and 15 inches. SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to, freshwater marshes and stock ponds, shallow, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs.

Based on FDEP data updated in 2023, there are no active wood stork nesting colonies occurring within a 15-mile radius of the project area. However, based on their distribution overlaying the project area and site reconnaissance there are few areas with suitable foraging habitat within the study areas. Use of the USFWS Wood Stork Effect Determination Key (2008), leads to a determination that the preferred alternative **may affect, but is not likely to adversely affect** the wood stork.

Eastern indigo snake (*Drymarchon corais couperi*)

The federal status for the Eastern indigo snake is threatened. The indigo snake is a large, docile bluish black snake that can reach lengths of up to eight feet. It may be found in a range of wetland and upland habitats from marsh edges to pine flatwoods and coastal dunes. It utilizes gopher tortoise burrows and other holes and cavities for shelter. The USFWS IPaC identified the Eastern indigo snake as having the potential to occur within the study areas. The FNAI Standard Data Report did not identify any occurrences of the Eastern indigo snake within the vicinity of the survey areas and the Eastern indigo snake was not observed during field reconnaissance. The I-75 corridor consists of disturbed and maintained road right-of-way and usage by the Eastern indigo snake is unlikely, while the presence of gopher tortoise burrows and other holes and cavities for indigo snake refuge was confirmed on many of the alternative pond sites. Considering the potential for the Eastern indigo snake to be present within the area, the FDOT has committed to implement the USFWS Standard Protection Measures for the Eastern Indigo Snake (2021) during construction. Use of the Eastern Indigo Snake Programmatic Effect Determination Key (attached) leads to a determination that the preferred alternative **may affect, but is not likely to adversely affect** the Eastern indigo snake.

Monarch butterfly (*Danaus plexippus*)

The monarch butterfly is a candidate species for federal listing under the ESA. It is large and conspicuous with bright orange wings surrounded by a black border and covered with black veins. The black wing border also has a double row of white spots on the upper side. The adults depend on nectar-rich flowers for foraging during breeding and migration. They only lay eggs on their obligate host plant, milkweed (primarily *Asclepias* spp.). As such, anywhere that milkweed is present is considered monarch butterfly habitat. The USFWS IPaC identified the monarch butterfly as having the potential to occur within the study areas. Mowed right-of-way can contain milkweed and is considered potential habitat, however, naturally occurring milkweed has become rarer and no milkweed was directly observed during field reconnaissance. Monarch butterflies are present year-round in Florida and, as such, construction cannot be timed to avoid impacts to potential habitat. However, naturally occurring nectar plants will be able to reestablish within the right-of-way once construction is complete. Most alternative pond sites are densely forested and do not support monarch butterfly habitat. Other alternative pond sites include areas with managed fields and pastures that are routinely mowed or harvested for hay and do not routinely support suitable habitat. A few ruderal fields are present that may support suitable monarch butterfly habitat that would be displaced by a pond design. However, these small areas can readily reestablish along new pond site margins and adjacent cleared areas that would replace the lost habitat.

Longspurred mint (*Dicerandra cornutissima*)

The federal status for the longspurred mint is endangered. Longspurred mint is a low shrub with numerous stiff, erect, square stems arising from a woody base. Leaves are needle-like with a minty fragrance. The flowers are rose-purple with dark purple lines and dots with the throat whitish. Habitat for the longspurred mint consists of openings or disturbed areas in white sand scrub and sandhill on central Florida ridges with scrub oaks, sand pine, and lichens. The longspurred is also found on paths, firelines, and roadsides. The FNAI Standard Data Report identified the longspurred mint as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the longspurred mint in Marion County. However, there is no suitable habitat within the study areas, and the longspurred mint was not observed during field reconnaissance. Therefore, it has been determined that the preferred alternative would have **no effect** on longspurred mint.

Scrub buckwheat (*Eriogonum longifolium* var. *gnaphalifolium*)

The federal status for the scrub buckwheat is threatened. The scrub buckwheat occurs with Lewton's polygala in high pine and scrub habitats though it occurs most commonly in intermediate turkey oak barrens. The FNAI Standard Data Report identified scrub buckwheat as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the scrub buckwheat in Marion County. However, there is no suitable habitat remaining within the study areas, and the scrub buckwheat was not observed during field reconnaissance. Therefore, it has been determined that the preferred alternative would have **no effect** on scrub buckwheat.

Lewton's polygala (*Polygala lewtonii*)

The federal status for Lewton's polygala is endangered. Lewton's polygala occurs with scrub buckwheat in high pine and scrub habitats though it occurs most commonly in intermediate turkey oak barrens. The USFWS IPaC identified Lewton's polygala as having the potential to occur within the study areas. As per the Atlas of Florida Plants, there are documented occurrences of Lewton's polygala in Marion County. However, there is no remaining suitable habitat within the study areas, and Lewton's polygala was not observed during field reconnaissance. Therefore, it has been determined that the preferred alternative would have **no effect** on Lewton's polygala.

State Listed Species

Florida sandhill crane (*Antigone canadensis pratensis*)

The Florida sandhill crane is a state threatened species. Sandhill cranes are tall gray birds with a red crown. They use a variety of habitats, preferring wet prairies, marshy lake margins, pastures, and marshes. Sandhill cranes nest and forage in shallow, freshwater marshes. Their nests are usually built-up accumulations of aquatic macrophytes within wetland interiors where disturbance from predators is less likely. Sandhill cranes breed from December through August and nest between February and April.

The FNAI Standard Data Report identified the Florida sandhill crane as having the potential to occur within the study areas but did not report any documented occurrences. There is no suitable nesting habitat within the study areas, and sandhill cranes were not observed during field reconnaissance. The Ponds Site Study Area could possibly contain suitable foraging habitat. Per the FWC species guidelines (2016), pre-planning and pre-construction surveys are recommended in areas with potential to support nesting sandhill cranes to ensure active nests and flightless young are protected. Since the FDOT will follow the FWC guidelines, there is **no adverse effect anticipated** on the Florida sandhill crane.

Florida burrowing owl (*Athene cunicularia floridana*)

The Florida burrowing owl was classified as a threatened species by the FWC on January 11, 2017. Burrowing owls are small, ground-dwelling owls that can reach a length of eight inches and a wingspan of 21 inches. Florida burrowing owls have a brown body and wings with white speckles, a white chin, long legs, and large yellow eyes. Their typical habitat includes open prairies, pastures, and agricultural fields. Burrowing owls are known to revitalize inactive burrows, including tortoise burrows, and often move between burrows during the non-nesting season.

The FNAI Standard Data Report identified the Florida burrowing owl as having the potential to occur within the study areas but did not report any documented occurrences. No Florida burrowing owls were observed during site reconnaissance. Formal burrowing owl surveys are not anticipated at this time. If an owl burrow is discovered during construction, the FWC will be contacted to coordinate a permitting approach. For these reasons, there is **no adverse effect anticipated** to the Florida burrowing owl.

Little blue heron and tri-colored heron (*Egretta caerulea* and *Egretta tricolor*)

The little blue heron and tricolored heron are state threatened wading birds. These birds inhabit fresh and saltwater environments including swamps, marshes estuaries, ponds, lakes, and rivers. They nest in colonies (or rookeries), often with other wading bird species. They make nests out of sticks in trees and shrubs on islands or adjacent to water, in thickets near water, or among emergent vegetation.

Although the FNAI Standard Data Report did not identify these wading birds as having the potential to occur within the study areas, these species could forage in the wetland identified within the Mainline Study Area, described in Section 5.2. Nesting by these species within the study areas is not expected. Although neither the little blue heron nor the tricolored heron were observed during site reconnaissance, these species have a moderate probability of occurrence within the study areas.

Impacts to wading bird foraging habitat is addressed through wetland mitigation that meets the requirements of Rule 68A-27.007, F.A.C. However, if nesting is detected, additional measures are necessary to develop appropriate avoidance, minimization, and mitigation measures. FWC will also recommend pre-construction surveys prior to site clearing or excavation to ensure active nests or flightless young are not present. With adherence to the FWC guidelines and wetland impacts minimized and mitigated, there is **no effect anticipated** to these species.

Southeastern American kestrel (*Falco sparverius paulus*)

The southeastern American kestrel is a state threatened species. Females have brown wings while males have bluish-gray wings, however both have white bellies and black markings around their eyes. There are two kestrel subspecies in Florida. The American kestrel is migratory and is only present in Florida between September and April. The southeastern American kestrel is non-migratory and can be observed all year round. Kestrels utilize open grassland, pasture, and agricultural land, as well as ephemeral wetlands. They prefer habitats with perches, a diverse prey population, and tree snags with cavities for nesting. Southeastern American kestrels breed from March through July.

Although the FNAI Standard Data Report did not identify the southeastern American kestrel as having the potential to occur within the study areas, the study areas fall within the range identified by the FWC for this species. Habitat for this species was observed within the Pond Sites Study Area. Therefore, the southeastern American kestrel has a moderate probability of occurrence within the study areas. However, the southeastern American kestrel was not observed during field reconnaissance.

FWC formal surveys for the southeastern American kestrel are conducted from April through August and are valid until March 1 of the following breeding season. FWC recommends three survey events. Surveys are conducted along transects to document the presence of kestrels (perching or foraging), suitable cavities, and/or active nest cavities. Verification of suitable nest cavities is conducted between March 1 and July 31.

The FWC may recommend kestrel surveys during permitting. If kestrel breeding and/or nesting is confirmed, the FWC will recommend avoidance measures to avoid a take by maintaining a 490-foot buffer around active nest cavities during the breeding season, retaining cavities in natural structures, and maintaining at least 124 acres of SFH within a 0.31-mile radius of occupied habitat.

Since the FDOT will perform kestrel surveys during permitting, if required, and follow the FWC recommendations, there is **no effect anticipated** on the southeastern American kestrel.

Gopher tortoise (*Gopherus polyphemus*)

The gopher tortoise is a state threatened species and has recently been delisted as a candidate species with the USFWS. It is a moderately sized terrestrial tortoise that prefers open, sunny locations with sandy, well-drained soils and low-growing forage plants such as wiregrass, broadleaf grasses, gopher apple, and legumes. They are found in habitats such as longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. They are a burrowing species that spend up to 80% of their time in their burrows.

The FNAI Standard Data Report identified the gopher tortoise as having the potential to occur within the study areas but did not report any documented occurrences. A NRCS Gopher Tortoise Burrowing Soil Suitability Reports were run for the survey areas and are included in the soil survey reports in Appendices D and E of the NRE.

Three potentially occupied burrows were observed within observed in a clearing area within alternative pond site B8-B. In addition, one abandoned gopher tortoise burrow was observed within alternative pond site B4-B1 and B4-B2 near tree in mid-eastern edge.

FDOT will survey upland habitat within the project area for gopher tortoises and their burrows prior to construction. If a gopher tortoise or a potentially occupied burrow is discovered in or within 25 feet of the project construction corridor, FDOT will coordinate with the FWC to secure a Gopher Tortoise Relocation Permit. For these reasons, there is **no**

adverse effect anticipated to the gopher tortoise.

Short-tailed snake (*Lampropeltis extenuate*)

The short-tailed snake is a state threatened species. It is a small, slender snake that is adapted to digging and living underground. It can reach a length of up to 20 inches (51 centimeters) and has a gray body with 50-80 brown spots that are separated by yellow to red sections. This species can be found burrowed in sandy soils, particularly longleaf pine and xeric oak sandhills but they may also use scrub and xeric hammock habitats. The FNAI Standard Data Report identified the short-tailed snake as having the potential to occur within the study areas but did not report any documented occurrences. There is no suitable habitat within the study areas, and the short-tailed snake was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect** anticipated on the short-tailed snake.

Striped newt (*Notophthalmus perstriatus*)

The striped newt is a state threatened species as of 2022. It is a small salamander. In most life stages, they can be identified by the reddish-to-orange stripe on their bodies. Adults and older juveniles are olive to greenish brown. Striped newts use dry upland habitats, most frequently sandhill but can also inhabit scrub and can be found occasionally in pine flatwoods. They breed in isolated, mostly ephemeral wetlands (depression marshes) that lack predatory fishes as a result of periodic drying cycles. Occasional fire and relatively undisturbed soil and vegetative groundcover are important terrestrial habitat components. The FNAI Standard Data Report identified the striped newt as having the potential to occur within the study areas but did not report any documented occurrences. There is no suitable habitat within the study areas and the striped newt was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on the striped newt.

Florida pine snake (*Pituophis melanoleucus mugitus*)

The Florida pine snake is state threatened species. The pine snake is a large, heavy-bodied snake that can reach up to 7.5 feet. These snakes have a nose scale and cone-shaped head that enable the snake to dig. They spend most of their life underground and have been found within tortoise, armadillo, and pocket gopher burrows. The Florida pine snake uses a variety of habitats with a preference for dry, open-canopy pine flatwoods and scrubby oak lands with well-drained soils and a high density of burrows. Pine snakes are most active March through October.

Although the FNAI Standard Data Report did not identify the Florida pine snake as having the potential to occur within the study areas, the study areas fall within the range identified by the FWC for this species. In addition, habitat for this species was observed within the Pond Sites Study Area. As a result, the Florida pine snake has a moderate probability of occurrence within the study areas. However, the Florida pine snake was not observed during field reconnaissance. The FWC provides guidance for Florida pine snake surveys; however, due to the cryptic nature of the species, surveys are generally not required. Additionally, due to similarities in habitat utilization, the construction conditions required to protect the Eastern indigo snake would have the benefit of also protecting the Florida pine snake. For these reasons, there is **no adverse effect anticipated** to occur to the Florida pine snake.

Incised groove-bur (*Agrimonia incisa*)

The incised groove-bur is a state threatened perennial herb that grows from tuberous roots. Flowers occur alternating on stems. Habitat for this species consists of fire-maintained sandhill, upland pine, and upland mixed woodland. It is also found in open pine woods or mixed pine-oak woods, bluffs, small clearings and old roads, and the edges of upland hardwood forests and other mesic habitats. The FNAI Standard Data Report identified the incised groove-bur as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the incised groove-bur in Marion County. However, there is no suitable habitat within the study areas, and the incised groove-bur was not observed during field reconnaissance. Therefore, the

preferred alternative would have **no effect anticipated** on the incised groove-bur.

Variable-leaved Indian-plantain (*Arnoglossum diversifolium*)

The variable-leaved Indian-plantain is a state threatened plant. It is an herbaceous perennial with slightly grooved and angled stems up to 6.5 feet tall with white to lavender flowers in a cluster at the top. It occurs in floodplain forests, banks of woodland streams, and seasonally wet wooded hammocks. The FNAI Standard Data Report identified the variable-leaved Indian-plantain as having the potential to occur within the Pond Sites Study Area but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the variable-leaved Indian-plantain in Marion County. There is no suitable habitat within the Pond Sites Study Area, and the variable-leaved Indian-plantain was not observed during field reconnaissance. Therefore, there is **no effect anticipated** for the variable-leaved Indian-plantain.

Many-flowered grass-pink (*Calopogon multiflorus*)

The many-flowered grass-pink is a state threatened plant. It is an orchid with thin basal leaves and a leafless flower stalk. The flowers are pink with a crest of orange bristles. It occurs in fire-maintained flatwoods among saw palmetto or edges of hammocks. The FNAI Standard Data Report identified many-flowered grass-pink as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the many-flowered grass-pink in Marion County. The study areas do not include any natural pinelands with a regular fire regime, and the many-flowered grass-pink was not observed during field reconnaissance. Therefore, there is **no effect anticipated** on the many-flowered grass-pink.

Sand butterfly pea (*Centrosema arenicola*)

The sand butterfly pea is a state endangered plant. Sand butterfly pea is a perennial vine with leaflets of three that has a distinct purple-blue flower with a large banner. It occurs in sandhills and scrubby flatwoods. The FNAI Standard Data Report identified sand butterfly pea as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the sand butterfly pea in Marion County. However, there is no suitable habitat within the study areas, and the sand butterfly pea was not observed during field reconnaissance. Therefore, there is **no effect anticipated** on the sand butterfly pea.

Godfrey's swampprivet (*Forestiera godfreyi*)

The Godfrey's swampprivet is a state endangered plant described as a deciduous shrub or small tree with a height ranging from eight to 16 feet. The plant contains flower clusters close to the stem and fruits that are waxy and dark blue. This species occurs in upland hardwood forests with limestone at or near the surface, often on slopes above lakes and rivers. The FNAI Standard Data Report identified Godfrey's swampprivet as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Godfrey's swampprivet in Marion County. However, there is no suitable habitat within the study areas, and Godfrey's swampprivet was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on Godfrey's swampprivet.

Pondspice (*Litsea aestivalis*)

Pondspice is a state endangered shrub or small tree. It contains twigs that are zigzag and tiny flowers with six yellow sepals and no petals, usually in clusters, and produces a fleshy, red and round fruit. It occurs on peaty soils in edges of baygalls, flatwoods ponds, depression marshes, and cypress domes, and may form thickets around edges of ponds. The FNAI Standard Data Report identified pondspice as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of pondspice in Marion County. However, there is no suitable habitat within the study areas, and pondspice was not observed during field

reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on pondspice.

Florida spiny-pod (*Matelea floridana*)

The Florida spiny-pod is a state endangered vine that is most easily distinguished by its bright green fruit capsule that exhibits fleshy spines. It occurs in sandhills, upland pine, and dry hammocks. The FNAI Standard Data Report identified Florida spiny-pod as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida spiny-pod in Marion County. However, there is no suitable habitat within the study areas, and Florida spiny-pod was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on the Florida spiny-pod.

Pygmy pipes (*Monotropis reynoldsiae*)

The pygmy pipes is a state endangered perennial herb which lacks chlorophyll. The flowers are located at the top of each stem in white or lavender and are slightly fragrant with petals in a bell-shaped tube. The fruit is a small, dark pink berry. The species occurs in upland hardwood forests, hammocks, sand pine and oak scrub. The FNAI Standard Data Report identified pygmy pipes as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida pygmy pipes in Marion County. However, there is no suitable habitat within the study areas, and pygmy pipes was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on pygmy pipes.

Celestial lily (*Nemastylis floridana*)

Celestial lily is a state endangered plant. It is a perennial herb with grass-like basal leaves and a blue-purple flower with bright yellow stamens. Celestial lily occurs in fire-maintained wet flatwoods, prairies, and marshes. The FNAI Standard Data Report identified celestial lily as having the potential to occur within the Pond Sites Study Area but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the celestial lily in Marion County. There is no suitable habitat within the Pond Sites Study Area, and the celestial lily was not observed during field reconnaissance. Therefore, there is **no effect anticipated** on the celestial lily.

Florida beargrass (*Nolina atopocarpa*)

Florida beargrass is a state threatened plant that grows as a rosette with long, thin leaves and a bulb-like base. It occurs in grassy areas of mesic and wet flatwoods. The FNAI Standard Data Report identified Florida beargrass as having the potential to occur within the Mainline Study Area but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the Florida beargrass in Marion County. There is no suitable habitat within the Mainline Study Area, and the Florida beargrass was not observed during field reconnaissance. Therefore, there is **no effect anticipated** on the Florida beargrass.

Giant orchid (*Pteroglossaspis ecristata*)

The giant orchid is a state threatened plant. It is an herbaceous perennial most easily identified by its flower stalk that can grow to five feet, exhibiting yellowish maroon flowers. It occurs in sandhill, scrub, and pine flatwoods and rocklands. The FNAI Standard Data Report identified the giant orchid as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the giant orchid in Marion County. However, there is no suitable habitat within the study areas, and the giant orchid was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on the giant orchid.

Florida mountain-mint (*Pycnanthemum floridanum*)

The Florida mountain-mint is a state threatened plant. It is a herbaceous perennial that grows several feet tall with square stems. White flowers with pink-purple spots develop in tight clusters toward the top of the plant. It occurs in roadside ditches and sandhill communities.

The FNAI Standard Data Report identified the Florida mountain-mint as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida mountain-mint in Marion County. Therefore, the Florida mountain-mint has a moderate probability of occurrence within the study areas. However, there is no suitable habitat within the study areas, and the Florida mountain-mint was not observed during field reconnaissance. Therefore, it has been determined that the proposed project would have **no adverse effect anticipated** on the Florida mountain-mint.

Florida willow (*Salix floridana*)

The Florida willow is a state endangered plant that grows as a shrub or small tree with flowers arranged as distinct catkins that are shorter than those of the common Carolina willow. Leaves are broadly lanceolate and are bright green above with a grayish-white underside. It occurs in wet, mucky soils in bottomland forests, hydric hammocks, and swamps. The FNAI Standard Data Report identified the Florida willow as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida willow in Marion County. However, there is no suitable habitat within the study areas, and the Florida willow was not observed during field reconnaissance. Therefore, there is **no effect anticipated** on the Florida willow.

Silver buckthorn (*Sideroxylon alachuense*)

The silver buckthorn is a state endangered tree that grows up to 30 feet tall. Flowers contain five to six white petals and are clustered on each spur-shot. Fruits are black and oblong. There are no documented occurrences within the project area. The FNAI Standard Data Report identified the silver buckthorn as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the silver buckthorn in Marion County. However, there is no suitable habitat within the study areas, and the silver buckthorn was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on the silver buckthorn.

Pinkroot (*Spigelia loganioides*)

The pinkroot is a state endangered perennial herb that grows up to eight inches tall with several sparingly branched stems from a slightly wooded base. Flowers are solitary or few in a terminal stem, white with lavender lines, and narrowly funnel-shaped with five erect or flaring lobes. The fruit is small with two rounded lobes. It is known from hydric hammocks, mesic woods, and ditches. The FNAI Standard Data Report identified the pinkroot as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the pinkroot in Marion County. However, there is no suitable habitat within the study areas, and the pinkroot was not observed during field reconnaissance. Therefore, the preferred alternative would have **no effect anticipated** on the pinkroot.

Other Protected Species

Bald Eagle

The USFWS de-listed the bald eagle in 2007 however, protection continues under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) (BGEPA), as amended, and the Migratory Bird Treaty Act (MBTA). They are opportunistic feeders and take dead fish and other carrion and are known to steal prey from other birds. Construction activities are

restricted within 330 feet of active nest trees and the USFWS Eagle Management Guidelines are required if construction occurs within 660 feet of an active eagle nest during the nesting season (October 1 through May 15). According to the FWC eagle nest locator as well as the Audubon Eagle Watch mapper, there are no current or historic bald eagle nests within a one-mile radius of the study areas. Therefore, the bald eagle has a low probability of presence within the study area.

FDOT will survey for bald eagle nests during permitting and design. If a bald eagle nest is identified within 660 feet of the project prior to or during construction, FDOT will coordinate with the USFWS and the FWC in accordance with the BGEPA and MBTA, and will adhere to the USFWS Bald Eagle Management Guidelines.

Florida black bear

The Florida black bear is a large mammal that inhabits large expanses of undeveloped land for foraging. The black bear has been delisted by FWC, but their populations are still managed under the FWC Florida Black Bear Management Plan (December 2019). The FWC identifies the Florida black bear range based on the following four categories, depending on how frequently bears occur in the area: frequent, common, occasional and rare. Based on the Florida Black Bear Management Plan, the study areas do not fall within a Florida Black Bear Range. However, a Florida Black Bear Range designated as having common occurrences of the Florida black bear is located west and northwest of the study areas. In addition, there are documented Florida black bear related calls within the study areas (see map in Appendix H of the NRE). Therefore, Florida black bear regulations, as documented in the Florida Black Bear Management Plan, including the Bear Conservation Rule and the Bear Feeding Rule, will be followed during the construction phase of the project. FDOT will require contractors to remove garbage daily from the construction site or use bear proof containers for securing of food and other debris from the 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 888-404-FWCC (3922). Considering these measures, impacts to the Florida black bear are not anticipated.

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.

Jurisdictional limits of wetlands and other surface waters were estimated for the study areas pursuant to the State of Florida's *Delineation of the Landward Extent of Wetlands and Surface Waters* (Chapter 62-340, FAC), the USACE 1987 *Wetland Delineation Manual*, and the 2012 *USACE Atlantic and Gulf Coastal Plain Regional Supplement* (Version 2.0). Field reconnaissance was conducted in May 2023 for the Mainline Study Area and observed a single jurisdictional wetland. Field reconnaissance was conducted October through December 2023 within the Pond Sites Study Area and identified no wetlands or other surface waters.

The single wetland identified is a 0.37-acre isolated herbaceous wetland is located within the right-of-way on the east side I-75 north of S.R. 40. It is in a depressional area between the right-of-way fence line and roadway embankment and consists primarily of grasses with clusters of Carolina willow and some hardwood trees. The wetland is expected to be considered a jurisdictional feature that will require permitting.



Figure 5.2.1: Wetland

The proposed northbound auxiliary lane and required embankment slope would result in direct permanent and secondary impact to the wetland totaling approximately 0.1 and 0.2 acres, respectively. The Uniform Mitigation Assessment Method (UMAM) per Chapter 62-330.345, FAC, was used to assess the potential wetland impact area to provide a preliminary estimate of total wetland functional loss resulting from the project. UMAM functional loss equates to mitigation bank credits that can be purchased to satisfy wetland mitigation requirements. The UMAM functional loss that would result from the project for the herbaceous wetland impact totals 0.06.

Short-term and long-term impacts to water quality, and the resultant effects on wetland resources caused by construction and the resultant project are anticipated to be low with the use of Best Management Practices (BMPs) during construction. The proposed addition of auxiliary lanes was determined to be necessary to enhance current transportation safety and modal interrelationships while providing additional capacity between existing interchanges. Every effort has been made during the preliminary design to minimize and restrict impacts to within the existing FDOT right-of-way where wetland and upland habitats provide minimal habitat values. Impacts to wetlands will be mitigated within the basin and therefore cumulative effects are expected to be insignificant.

The preferred alternative will have no significant short-term or long-term adverse impacts to wetlands. The design alternative carefully considered minimizing impacts to wetlands by keeping most of the project within the existing right-of-way and preventing impacts to wetlands beyond the right-of-way when selecting preferred pond sites. There is no practicable alternative to construction in wetlands within the right-of-way. Measures have been taken to avoid wetland impacts to the extent possible. Impacts to wetlands will be mitigated for pursuant to Section 373.4137 through either the purchase of mitigation bank credits from an appropriate mitigation bank or other mitigation options such as the purchase of mitigation services through the water management districts or FDEP.

The NRE will be submitted to the U.S. Army Corps of Engineers (USACE), FDEP, and SJRWMD for review and to initiate coordination/consultation for the project. Resulting coordination and/or concurrence letters will be attached once available.

5.3 Essential Fish Habitat (EFH)

There is no Essential Fish Habitat (EFH) in the project area.

5.4 Floodplains

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

The preferred alternative includes widening within isolated floodplains. These floodplains are primarily relatively shallow localized depressions, with limited offsite contributing area. Many of these depressions are associated with the existing linear stormwater management facilities within the limited access right-of-way. There are no floodways associated with the project area.

Floodplain impacts were estimated from the Federal Emergency Management (FEMA) floodplain GIS layers and 2-foot contour maps. Volumes will be replaced by balancing cut/fill either within the right-of-way, or by the addition of equivalent compensatory volume within the proposed stormwater management facilities.

A Location Hydraulics Report (LHR) was prepared under separate cover and can be found in the project file. Modifications to existing drainage structures such as extending cross drains and median drains included in this project will result in an insignificant change in their capacity to carry floodwater. These modifications will cause minimal increases in flood heights and flood limits which will not result in any significant adverse impacts on the natural and beneficial floodplain values or any significant change in flood risks or damage. There will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes as the result of modifications to existing drainage structures. Therefore, it has been determined that this encroachment is not significant.

A total of 13.12 acres of floodplain are within the right-of-way and 1.44 acres will be impacted by the preferred alternative. A summary of floodplain impact volumes has been included in the Table 5.4.1, with compensation approach noted for each.

Basin	Floodplain Area ID	Side	Floodplain Elevation (FT)	Total Floodplain within Right-of-way [Acre (AC)]	Floodplain Impact (AC)	Impact Volume (AC)	Approach to Compensation
1	<i>No floodplain present within area of proposed improvements.</i>						
2	2-1	East	77	0.33	0	0	N/A
3	3-1	East	76	0.28	0.02		Balance cut/fill
	3-2	East	70	1.49	0.24		
	3-3	West	68	0.91	0.03		
4	<i>No floodplain present within area of proposed improvements.</i>						
5	5-1	East	66	0.99	0	0	N/A
	5-2	West	65	1.12	0.01	0.01	Balance cut/fill
6	<i>Basin overlap - Floodplain accounted for in Basin 7.</i>						
7	7-1	East	70	0.88	0.13	0.13	Balance cut/fill
	7-2	West	70	1.05	0.03	0.03	
8	<i>No floodplain present within area of proposed improvements.</i>						
9	<i>No floodplain present within area of proposed improvements.</i>						
10	10-1	West	72	0.59	0	0	N/A
	10-2	East	78	0.11	0	0	N/A
11	<i>No floodplain present within area of proposed improvements.</i>						
12	<i>No floodplain present within area of proposed improvements.</i>						
13	<i>Floodplain within R/W fully impacted by the 49th Street Interchange. No impacts from this project.</i>						
14	14-1	East	68	0.92	0.22	0.27	Balance cut/fill
	14-3		60	0.30	0.02	0.02	
	14-2	West	68	0.74	0.19	0.21	
	14-4		66	1.23	0	0	N/A
15	15-2	East	64	2.18	0.55	0.55	Balance cut/fill

Table 5.4.1: Floodplain Impacts

5.5 Sole Source Aquifer

There is no Sole Source Aquifer associated with this project.

5.6 Water Resources

A Water Quality Impact Evaluation (WQIE) was conducted for the project to comply with the Clean Water Act and is available in the project file. The study area lies within the jurisdiction of the SJRWMD. There are no surface waters in the project area.

There are 15 basins delineated within the project corridor between S.R. 200 and S.R. 326, with one additional basin north of the interchange (16 basins total) that will be affected by the proposed improvements. Basins are closed basins, and drainage conveyance within the corridor is a mix of open and closed conveyance, with cross-drains and median drains directing runoff to a series of linear treatment swales and/or infield ponds within the project corridor. There are no reported flooding problems within the corridor. The proposed auxiliary lanes will be constructed as flush shoulder sections, and the existing conveyance patterns will be maintained in proposed conditions. Extensions will be required for crossdrains and

median drains affected by the pavement widening, but no other changes to existing closed conveyance systems are proposed.

Stormwater management facilities are proposed, and will be constructed as dry retention systems, with full containment of the 100 year - 10 day storm due to the highly developed nature of the corridor, and limited outfall opportunities. There will be minor impacts to permitted swales due to the widening. While it is anticipated that the impacts associated with the auxiliary lanes can generally be accommodated through balancing cut and fill operations adjacent to the mainline facility, the proposed stormwater management facilities will be designed for an "ultimate" condition that assumes the right-of-way is fully built out with 90% impervious (270' total pavement width) and all linear treatment facilities are fully impacted.

An Environmental Look Around meeting was held on December 12, 2023 with the local agencies identified within the project corridor in order to explore the potential for joint use opportunities. This was a joint meeting between this project (the "North Project") and the adjacent auxiliary lanes project (the "South Project"). There was one opportunity identified as a potential partnership with Marion County for the South Project, but no opportunities were identified for this portion of the corridor at this time. The ponds identified as the "Preferred Ponds" (along with current size) for this PD&E are listed in Table 5.6.1. Detailed discussion of the design approach, criteria for site selection, per basin pond options, and pond selection methodology can be found in the Pond Siting Report (PSR) submitted under separate cover and located in the project file. Geotechnical exploration is currently underway, and pond sizes and locations will be finalized during the design phase of the project.

Basin	Pond Name	Preferred Pond Size (acres)
1	B1-B & B2-A Combined	28.61
2		
3	B3-D	20.59
4	B4-B2	5.92
5	B5-D	13.28
6	B6-D	16.85
7	B7-A	18.9
8	B8-B	14.84
9	B9-C	11.66
10	B10-B	13.46
11	B11-C & B12-C & B13-A Combined	33.75
12		
13		
14	B14-A & B15-C Combined	34.68
15		
Total		212.54

Table 5.6.1: Preferred Ponds

During the Design phase, an Environmental Resource Permit (ERP) permit will be required for new ponds and changes to existing ponds. Water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with FDEP National Pollutant Discharge Elimination System (NPDES) Permit including the preparation of a Stormwater Pollution Prevention Plan (SWPPP); the latest edition of the FDOT Standard Specification for

Road and Bridge Construction; and through the use of BMPs including temporary erosion features (e.g. turbidity barriers) during construction.

More information about water resources is contained in the PSR, located in the project file.

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

There are no Coastal Barrier Resources in the project area.

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.

This is a Type 1 Project pursuant to 23 CFR 772 and Section 335.17, F.S.

Noise levels were predicted at 165 noise sensitive sites representing 427 residences [Noise Abatement Criteria (NAC) B], three special land use (SLU) NAC C receptors, and five SLU NAC E receptors. Due to the number of receptors, the analysis divided the study corridor into Noise Study Areas (NSA).

Overall, 214 noise receptors are currently affected by I-75 traffic noise. Under the No-Build Alternative, noise levels are predicted to meet or exceed the NAC for 313 noise receptors. By comparison, predicted noise levels for the preferred alternative are predicted to meet or exceed the NAC at 357 noise receptors with an average 2.8 dB(A) increase in noise over the existing condition. The greatest increase, 5.0 dB(A), occurs in NSA SB4 at receptor SB4-07. None of the noise increases are considered substantial (defined as 15 dB(A) or higher) compared to existing conditions.

Noise levels at 357 residences and four special-use sites are predicted to approach or exceed the NAC for the preferred alternative. Noise barriers were considered for all impacted sites identified in the noise modeling and are shown in the attached Noise Barrier Map Series. The noise analysis indicates that three noise barriers could potentially provide reasonable and feasible noise abatement for 277 of the 297 impacted residences in NSAs SB1, SB4, NB1 and provide a benefit to 32 non-impacted residences. These three noise barriers are potentially feasible and reasonable, contingent upon the following conditions:

- Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process; and
- Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement; and
- 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 FDOT; and
- Safety and engineering aspects have been reviewed, and any conflicts or issues resolved.

Noise barriers SB-A2, SB-A3, and SB-A4 were evaluated to reduced traffic noise for 57 impacted receptors in NSAs SB2 and SB3. The barriers meet FDOT acoustic criteria but were unable to meet the cost-reasonableness criterion of \$42,000 per benefited receptor. Based on the analyses performed to date, there appear to be no feasible and reasonable solutions available to mitigate the noise impacts for these 57 receptors.

The special-use barrier analyses, SB-A1 and SB-A5, determined that noise abatement was not cost reasonable for the impacted sites identified as SB1-SLU1-1 and SB4-SLU4-2; however, select special-use sites in NSAs SB1 and SB4 will

receive incidental benefits from potential noise barriers for the adjacent residential areas.

Based on the existing land use within the limits of this project, the construction of the proposed roadway improvements will have temporary noise and vibration impacts. Construction noise sensitive sites include all sites detailed in the Noise Study Report (NSR). Vibration-sensitive sites on the project include residences and medical offices. Trucks, compaction equipment, earth-moving equipment, pumps, and generators are sources of construction noise and vibration. During the construction phase of the preferred alternative, short-term noise and vibration may be generated by stationary and mobile construction equipment. The construction noise and vibration will be temporary at any location and controlled by adherence to the most recent edition of the *FDOT Standard Specifications for Road and Bridge Construction*.

More detailed information and maps are in the NSR, located in the project file.

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 Level I Contamination Screening Evaluation Report (CSER) was prepared to evaluate the potential for contamination within or adjacent to the mainline study area and within the pond sites. The CSER is in the project file.

Field reconnaissance was conducted on Thursday, July 20, 2023 to assess conditions within the mainline study area. Field reconnaissance was conducted on Tuesday, January 2, 2024 to assess conditions within the pond sites study area.

The Preferred Alternative mainline improvements are within the right-of-way and avoid and minimize involvement with contamination sites, where possible.

The CSER identified 45 contamination sites near the Mainline Study Area and 7 additional sites near or within the preferred pond sites. The contamination risk rating system incorporates four levels of risk: No, Low, Medium, and High. The project study area contains 8 high risk sites, 11 medium risk sites, 30 low risk sites, and 3 no risk sites. The sites, locations, and risk ratings are contained in Table 6.3.1 for the mainline study area and in Table 6.3.2 for the preferred pond sites. Figure 6.3.1 displays the locations of potential contamination sites.

Site ID	Site Name	Site Address	Concern	Risk Rating
1	Shell-Gators #184	4410 NW S.R. 326	Active soil and groundwater remediation	HIGH

2	Pilot Travel Centers #092	4255 W S.R. 326	Active gas station with historic spill	HIGH
3	NW 42 Avenue & S.R. 326	NW 42 Avenue & S.R. 326	Historic spill/lack of information	MEDIUM
4	Fina Osceola/ Citrus Center #90	4224 W S.R. 326/ 4250 W S.R. 326	Active gas station	MEDIUM
5	Pantry Inc. / FL#0160	4150 W S.R. 326	Active gas station	MEDIUM
6	Shamrock Station	NW 44th Avenue Corner of I-75 & S.R. 326	Historic USTs/lack of tank closure assessment	MEDIUM
7	Highland Tractor Co	7398 NW 44th Avenue	Tanks/lack of information	MEDIUM
8	Clyde Earl Johnson	4050 NW 63rd Street	Lack of information	MEDIUM
9	Thermo King of Ocala, Inc.	6015 NW 44th Avenue	Likely presence of above ground storage tanks (ASTs), refrigerants and petroleum products on site	LOW
10	All-In Removal	5877 NW 44th Avenue	Active waste processing facility	LOW
11	Scorpion Performance	5817 NW 44th Avenue	Active	LOW
12	Hickory Springs Manufacturing Company	5407 NW 44th Avenue	Conditionally Exempt small quantity generator (SQG) of hazardous waste (HW)	LOW
13	Hydro Spa LLC	5401 NW 44TH Avenue	Historic large quantity generator (LQG) of HW	LOW
14	Boutwell Limerock Mining - Clifton Mine	East of I-75 north of NW 35th Street	Active mine	LOW
15	SE Independent Delivery Services	I-75 @ North of Exit 352	Historic Spill/lack of information	MEDIUM
16	Junie Counts Landfill / Counts Construction	3021 NW 21st Street	Active landfill	LOW
17	Friends Recycling Formerly Ocala Recycling	2350 NW 27th Avenue	Active landfill	LOW
18	Goebels Interstate 66 / Sunshine Food Mart #201 / Superamerica of Florida #8028	3801 NW Blitchton Road	Active soil and groundwater remediation	HIGH
19	DP & Sons I-75 Spill	I-75 near NW Blitchton Road	Historic spill	LOW
20	Texaco-Chisolm / Longs Texaco	3761 NW Blitchton Road	Historic gas station and spill	LOW
21	Fuqua Sawmill Inc.	1751 NW 33rd Avenue / 1761 SW 34th Avenue	Active yard waste recycling facility	LOW
22	Ron's Towing / Marathon-Blitchton #346	3760 NW Blitchton Road	Active soil and groundwater remediation	HIGH
23	3780 NW Blitchton Road	3780 NW Blitchton Road	Historic spill	LOW
24	Raney Truck Parts Inc.	1650 NW 38th Avenue	SQG of HW	LOW
25	Bennetts Diesel Inc.	1604 NW 38th Avenue	Historic SQG of HW	LOW
26	Werner Enterprises	I-75 @ Exit 354	Historic spill	LOW
27	I-75 & NW 10th Street	I-75 & NW 10th Street	Debris Staging Area	LOW
28	Waste Pro Ocala MRF	3621 NW 10th Street	Active materials recovery facility (MRF)	LOW

29	Chariot Eagle Inc.	931 NW 37th Avenue	Very small quantity generator (VSQG) of HW	LOW
30	Damar Manufacturing Inc.	701 NW 37th Avenue	Violations for handling HW	HIGH
31	Scales Express 02-1I-3217	I-75 SB North of S.R. 40 Overpass	Historic spill	LOW
32	Sunrise Food Mart #64	3825 W Silver Springs Boulevard	Active soil and groundwater remediation	HIGH
33	I-75 Service Center / Exxon #5333	3820 W Silver Springs Boulevard	Historic gas station and spill	LOW
34	Island Food Store #409-Former	3637 W Silver Springs Boulevard	Declaration of Restrictive Covenant - soil and groundwater restrictions	HIGH
35	Amoco-Colony #106 / Exxon on Run Ocala	3630 W Silver Springs Boulevard	Active gas station	MEDIUM
36	I-75 NB & S.R. 40 @ Exit 352	I-75 NB & S.R. 40 @ Exit 352	Historic spill/lack of information	MEDIUM
37	HD Supply Plumbing HVAC Ltd #HG4015	700 SW 38th Avenue	Conditionally Exempt SQG	LOW
38	POA Acquisitions	731 SW 37th Avenue	Historic SQG of HW	NO
39	Fidelity Manufacturing	1101 SW 37th Avenue	SQG of HW	LOW
40	Elster Amco Water Inc.	1100 SW 38th Avenue	NonGen of HW	NO
41	E-ONE	1701 SW 37th Avenue	LQG of HW	LOW
42	Carquest Distribution Center	1700 SW 38th Avenue	SQG of HW	LOW
43	Maris Distributing Co	1805 SW 37th Avenue	Historic tanks	LOW
44	Jayveer Qwik King Stores	3685 SW 20th Street	Active gas station	MEDIUM
45	Home Depot #0253	3300 SW 35th Terrace	SQG of HW/AST	LOW

Table 6.3.1: Mainline Study Area Contamination Sites

Site ID	Site Name	Site Address	Concern	Risk Rating
46	Sunshine Food Mart #124	3928 W Silver Springs	Historic spill and active gas station	MEDIUM
47	Leesburg Motel Investment Inc./Comfort Inn	4040 W Silver Springs	Historic spill	LOW
48	Glenn Miller Realty	3960 W Silver Springs	Historic gas station	LOW
49	Chevron-Blitchton Road	3901 NW Blitchton Road	Active soil and groundwater remediation	HIGH
50	Joes Jiffy	4043 NW Blitchton Road	Historic gas station	LOW
51	Ashley Farms Golf & Country Club WTP	4170 NW 44th Avenue	Tanks	LOW
52	Shaw Pipeline Service - Price Gregory Yard	4055 NW 63rd Street	Non-generator of HW	NO

Table 6.3.2: Preferred Ponds Study Area Contamination Sites

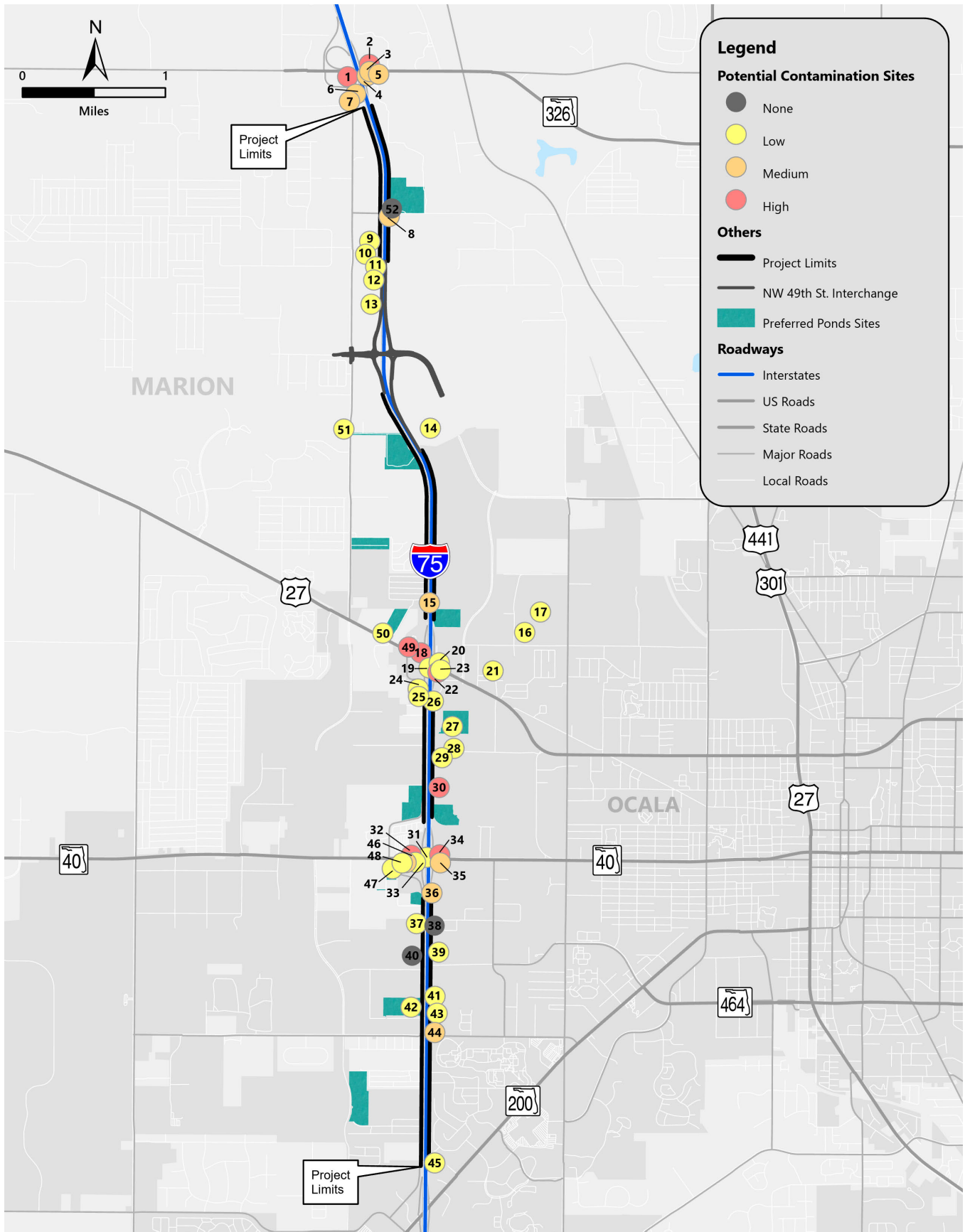


Figure 6.3.1: Potential Contamination Sites

For sites assigned a risk rating of "No", no further action is recommended. These sites have been evaluated and deemed not to pose a potential environmental contamination risk to the preferred alternative at this time.

For sites assigned a risk rating of "Low", no further action is required at this time. While these sites/facilities have the potential to impact the preferred alternative, they were deemed to have a low risk at this time, based on several factors. Factors that may change the risk rating include a facility's non-compliance to environmental regulations, discharges to soil or groundwater, and modifications to current permits. If these factors change, additional assessment of the facilities may be warranted.

For sites assigned a risk rating of "Medium" or "High", a Level II Assessment is recommended. These sites have documented contamination, which may impact the preferred alternative. A soil and groundwater sampling plan should be developed for each site, as applicable. Based on the findings of a future review and Level II Assessment, the design engineers may be required to avoid areas of concern or include special provisions with the plans to require that construction activities performed in areas of concern be conducted or supervised by a contamination assessment and remediation contractor specified by FDOT.

Identifying the potential contamination sites early will allow for further avoidance and minimization measures during final design, when Level II assessments are conducted, and during construction. Such measures could include design modifications, developing modified special provisions, technical special provisions, or remediation.

6.4 Utilities and Railroads

A Utilities Technical Memorandum has been prepared and is in the project file. The existing utilities within the project area were identified through the Sunshine State 811 "IRTH One Call" system. Utility owners were contacted to gather information regarding the nature of their facilities within the project limits. The utility owners and potential conflicts identified to date are listed in Table 6.4.1.

Utility Type	Utility Owner	Potential Conflicts
Telephone	Windstream Communication AT1138	No conflict with auxiliary lanes anticipated.
Communication Lines, Fiber	AT&T Corp. ATTF01	No conflict with auxiliary lanes anticipated.
Electric	Clay Electric CLAY05	No conflict with auxiliary lanes anticipated.
Fiber, Telephone	Century Link CNTL01	No response received.
Fiber	City Of Ocala Telecommunication CO2143	Existing utility conflicts impacted: <ul style="list-style-type: none"> • Underground fiber located on the north side of I-75 and SW 20th Street intersection. • Aerial fiber crossing near SW 7th Street.

Sewer, Water	City Of Ocala Water And Sewer Department COO593	Existing utility conflicts impacted: <ul style="list-style-type: none"> • 8-inch PVC pipe crossing I-75 perpendicularly from east to west at milepost 16.7597 • 36-inch French drain and an 18-inch storm drain run parallel with I-75 below the centerline. • Bore and jack of 340 feet of 18-inch D.I.P. force main with a 36-inch steel casting and a minimum cover of 36 inches from the ground crossing I-75 from east to west 2,217 feet north of S.R. 200. • Two 18-inch CMP pipes and a 6-inch gas pipeline run parallel to the centerline of I-75.
CATV	Cox Cable COX02	No conflict with auxiliary lanes anticipated.
Gas	Florida Gas Transmission FGT10	Existing utility conflicts impacted: <ul style="list-style-type: none"> • Natural gas transmission pipeline (FLBLO) crossing approximately 1 mile north of US 27.
Electric (Distribution & Transmission)	Duke Energy FPC280	No conflict with auxiliary lanes anticipated.
	Marion County Utilities FWS01	No response received.
Electric	Ocala Electric Utility OEU503	No response received.
Fiber	Duke Energy PE1741	No conflict with auxiliary lanes anticipated.
Telephone	AT&T Distribution SBF09	No conflict with auxiliary lanes anticipated.
Fiber	Uniti Fiber LLC.	Potential new conflicts: <ul style="list-style-type: none"> • ISP underground fiber cable that is located along SW 20th Street and turns south along I-75. • Underground fiber cable at NW 10 St. is near the right-of-way.
Electric, Fiber	Traffic Control Devices, Inc. TC2046	No response received.
Gas, Natural Gas	TECO Peoples Gas WFG361	No response received.

Table 6.4.1: Potential Utility Conflicts

All except two are existing utility conflicts that are located within the existing right of way by permit. Depending on their location and depth, improvements associated with the construction of the preferred alternative may require adjustment of some of these facilities. The preferred alternative was designed to avoid impacts to existing utilities located within easements to the maximum extent practicable. The proposed improvements may potentially impact several of the power transmission poles and lighting poles in this area. The extent of utility impacts will be determined during the design phase of the project.

There are no railroads within the study limits.

6.5 Construction

Noise and vibration impacts may be generated by heavy equipment and construction activities such as pile driving and vibratory compaction of embankments. Adherence to local construction noise and/or construction vibration ordinances by

the construction contractor will also be required where applicable.

Visual impacts associated with the storage of construction materials and establishment of temporary construction facilities will occur but are temporary and short term.

Water quality impacts resulting from erosion and sedimentation will be controlled in accordance with FDOT's Standard Specifications for Road and Bridge Construction and using BMPs. Erosion and sedimentation will be treated in accordance with the FDEP's NPDES permit and the SWPPP.

A maintenance of traffic report has been prepared and is appended to the Preliminary Engineering Report, located in the project file. Maintenance of traffic and sequence of construction will be planned and scheduled to minimize traffic delays during project construction. Signs will be used as appropriate to provide notice of road closures and other pertinent information to the traveling public. The local news media will be notified in advance of road closings and other construction-related activities which could inconvenience the community so that pedestrians, motorists, residents, and businesspersons can plan travel routes in advance. Access to all businesses and residences will be maintained to the extent practical through controlled construction scheduling.

7. Engineering Analysis Support

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

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8. Permits

The following environmental permits are anticipated for this project:

State Permit(s)

DEP or WMD Environmental Resource Permit (ERP)
DEP National Pollutant Discharge Elimination System Permit
FWC Gopher Tortoise Relocation Permit
State 404 Permit

Status

To be acquired
To be acquired
To be acquired
To be acquired

Permits Comments

The proposed project would require permits from state regulatory agencies for impacts to wetlands, water quality protection, and gopher tortoises, if necessary.

In Marion County, the I-75 corridor represents the boundary of two water management districts. The portion of the study area west of I-75 falls within the Southwest Florida Water Management District (SWFWMD) and the portion of the study area east of I-75 falls within the SJRWMD. By agreement, all FDOT District 5 improvements to I 75 will be permitted by the SJRWMD even though some preferred pond sites may overlay the SWFMWD boundary.

A FDEP 404 permit is required to impact waters of the U.S., including wetlands. The location of Wetland 1 is contained along the I-75 right-of-way and may be isolated and potentially not considered a jurisdictional water of the U.S. by the state. A determination by FDEP may be necessary during design and permitting to confirm whether the wetland is jurisdictional under Section 404 and whether the proposed impact would therefore require a 404 permit.

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 prepared in February 2020 and is in the project file. Public outreach was conducted to listen to the community to better understand the public's concerns regarding I-75. Public outreach included individual meetings, public information meetings, and a public hearing.

From Mid-October 2023 through the public information meetings held Mid-December 2023, the project team met with local government staff and elected officials, interested communities and community groups, business chambers, civic organizations, and individual businesses and travelers along the project limits. The general consensus is that this project is much needed, and the focus should be on minimal disruption to the community in accomplishing these project goals. Details of individual meetings and contacts will be included in the Comments and Coordination Report, to be completed following the public hearing.

Public Information Meetings

Two in-person meetings and one virtual public information meeting were held in December 2023. The first in-person meeting was held on December 11, 2023 at the Savannah at the Villages, 1575 Buena Vista Boulevard, The Villages, Florida from 5:30 p.m. to 7:30 p.m. The second in-person meeting was held on December 13 at the Hilton Ocala, 3600 Southwest 36th Avenue, Ocala, Florida from 5:30 p.m. to 7:30 p.m. The virtual meeting was held on December 14, 2023, via GoToWebinar at 5:30 p.m.

Meeting invitations were sent to elected and appointed officials and property owners within 300-feet of the right-of-way. Meeting notifications were also available via press release, Florida Administrative Register, newspaper advertisements in the Ocala Star Banner and The Villages Daily Sun, and the project website (cflroads.com/project/452074-1).

The in-person meetings were held in an open-house format with a separate room for the project overview presentation. Project team members were stationed alongside project display boards and roll plots to address questions one-on-one with members of the public. An information handout was provided upon sign-in. Public participation on December 11, 2023 totaled 29, not including project team and FDOT staff. No elected officials and no local media were present. Two public comments were received at the meeting. Public participation at the meeting on December 13, 2023 totaled 45, not including project team and FDOT staff. No elected officials were present. A total of 19 comments were received at the meeting.

The content of the virtual presentation mirrored the in-person meeting presentation and was made available through the end of the comment period. The online meetings included meeting materials available to download including the exhibit boards, comment form, presentation and one-page handout.

The comments were overall positive. Common concerns included additional interchange improvements, construction-related noise, and pond placements.

Date of Public Hearing: 03/04/2024

Summary of Public Hearing

To be completed following the public hearing.

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10. Commitments Summary

1. FDOT will adhere to the USFWS Standard Protection Measures for the Eastern Indigo Snake (2021) during construction and inspect potential eastern indigo snake refugia prior to construction.
2. FDOT will require contractors to remove garbage daily from the construction site or use bear proof containers for securing of food and other debris from the 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 888-404-FWCC (3922).

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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 (SDR)
Project Traffic Analysis Report (PTAR)
Project Traffic Analysis Report (PTAR) Appendix
Cultural Resources Assessment Survey (CRAS)
Phase II Evaluation for 8MR04471
Natural Resources Evaluation (NRE)
Noise Study Report (NSR)
Utilities Technical Memorandum
Contamination Screening Evaluation Report (CSER)
Public Involvement Plan

Attachments

Planning Consistency

Project Plan Consistency Documentation

Social and Economic

NRCS Coordination Documentation

Cultural Resources

SHPO Concurrence Letter - Mainline

SHPO Concurrence Letter Phase II

Natural Resources

Standard Protection Measures for the Eastern Indigo Snake

Eastern Indigo Snake Effect Determination Key

Wood Stork Effect Determination Key

Physical Resources

Noise Barrier Map Series

Planning Consistency Appendix

Contents:

Project Plan Consistency Documentation

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FIGURE 6: 2021-2025 PROJECTS

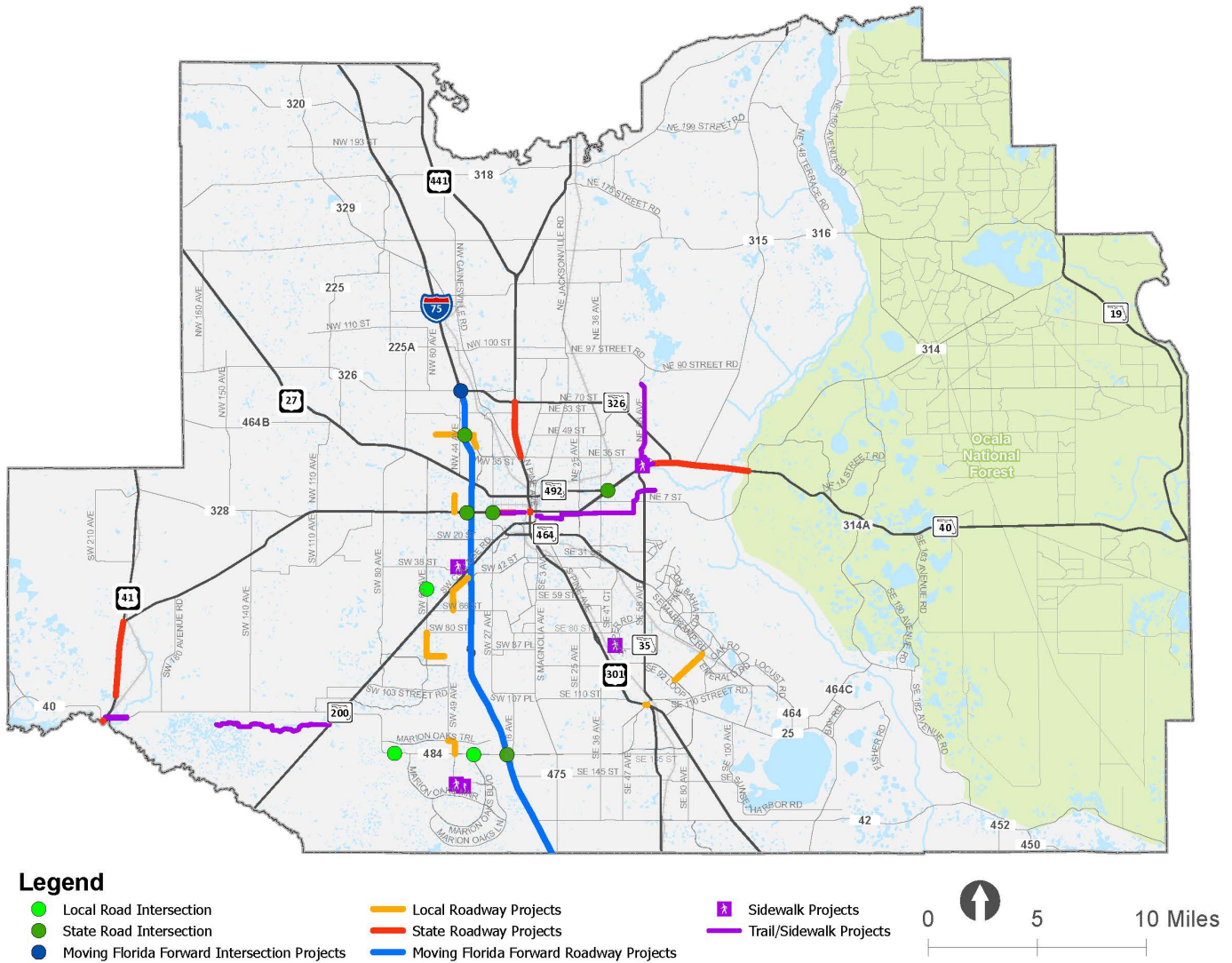
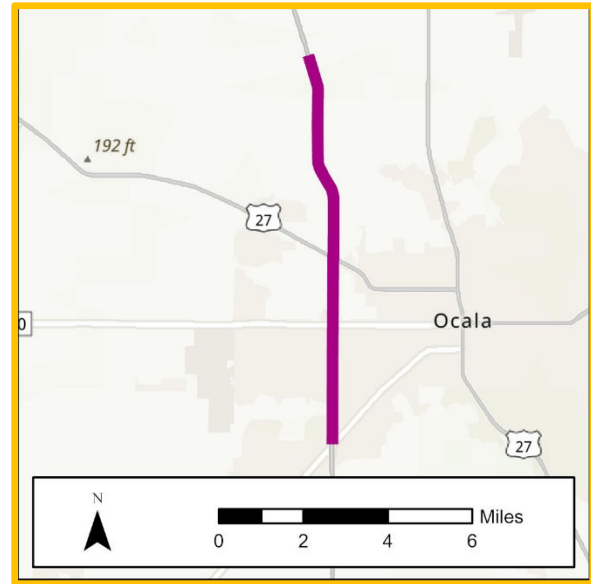


TABLE 1: 2021-2025 PROJECTS

PROJECT TYPE	FACILITY	FROM	TO	IMPROVEMENT
State/Federal Funded Roadway investments	SR 45 (US 41)	SW 110TH St	N of SR 40	Add Lanes & Reconstruct
	SR 40	End of 4 Lanes	E of CR 314	Add Lanes & Reconstruct
	CR 484	SW 20TH Ave	CR 475A	Interchange Improvement
	SR 40	at SW 40th Ave and SW 27th Ave		Add Turn Lane(s)
	I-75(SR 93)	End of NW 49th St	End of NW 35th St	New Interchange
	US 441	SR 40	SR 40A (SW Broadway)	Traffic Ops Improvement
	E SR 40	At SR 492		Traffic Signals
	SR 40	SW 27th Ave	MLK Jr. Ave	Safety Project
	US 41/Williams St	Brittan Alexander Bridge	River Rd	Safety Project
	SR 25	NW 35th St	SR 326	Safety Project
	CR 42	at SE 182ND		Add Turn Lane(s)
	NW 44th Avenue	SR 40	NW 11th Street	New Four Lanes
	Dunnellon Trail	River View	Rainbow River Bridge	Multimodal/Roadway
	Emerald Rd. Exten.	SE 92nd Loop	FL Northern Railroad	New 2 Lane
	CR 484	at Intersection of Marion Oaks Boulevard		Intersection/Turn lanes
	CR 484	at SW 135th Street Road		Intersection/Turn lanes
	SW 60th Avenue	SW 54th Street	SECO Driveway	Intersection/Turn lanes
Moving Florida Forward	I-75 (SR 93)	at SR 326		Interchange Operational Improvements
	I-75 North Portion	SR 200	SR 326	Add Auxiliary Lanes
	I-75 South Portion	South of SR 44	SR 200	Add Auxiliary Lanes
Local Funded Roadway investments	SE Abshier Blvd	SE Hames Rd	N of SE Agnew Rd	Traffic Signals
	Emerald Road Extension	SE 92nd Loop	Florida Northern Railroad	New 2 Lane
	NW 49th Street Ext	NW 44th Ave	NW 35th Ave	New 4 Lane
	NW 49th Street	1.1 miles west of NW 44th Ave	NW 44th Ave	New 2 Lane
	SW 49th/40th Ave	SW 66th St	SW 42nd St Flyover	New 4 Lane divided
	SW 49th Ave	Marion Oaks Trail	CR 484	New 4 Lane
	SW 90th St	SW 60th Ave	0.8 miles E of SW 60th Ave	New 2 Lane
	SW 60th Ave	SW 90th St	SW 80th St	Traffic Signals
	CR 484	at Marion Oaks Blvd		Add Turn Lanes, Modify Signals
Pedestrian/ Bicycle investments	Silver Springs State Park			Pedestrian Bridges
	Pruitt Trail	SR 200	Pruitt Trailhead	Bike Path/Trail
	Indian Lake Trail	Silver Springs State Park	Indian Lake Park	Bike Path/Trail
	Downtown Ocala Trail	SE Osceola Ave	Silver Springs State Park	Bike Path/Trail
	SR 40	NW 27th Ave	SW 7th Ave	Sidewalks
	Marion Oaks-Sunrise/Horizon	Marion Oaks Golf Way	Marion Oaks Manor	Sidewalks
	Saddlewood Elementary Sidewalks			Sidewalks
	Legacy Elementary Sidewalks			Sidewalks
Technological investments	Marion County/ Ocala ITS Operational Support			ITS Communication System

Project: I-75 Improvements

Project Type: Roadway Capacity
 FM Number: 4520741
 Lead Agency: FDOT
 Length: 8 miles
 LRTP (Page #): LRTP Cost Feasible (pages 112-113) (Table 7.11)



Description:

This project is part of the Moving Florida Forward Infrastructure Initiative and will involve the addition of auxiliary lanes on the north portion of I-75 from SR 200 to SR 326 in Marion County.

Prior <2024:

\$0

Future >2028:

\$0

Total Project Cost:

\$50,188,000

Phase	Fund Category	Funding Source	2024	2025	2026	2027	2028	Total
PE	DIH	State	\$20,000	\$0	\$0	\$0	\$0	\$20,000
PE	MFF	State	\$12,100,000	\$0	\$0	\$0	\$0	\$12,100,000
ROW	DIH	State	\$40,000	\$0	\$0	\$0	\$0	\$40,000
ROW	MFF	State	\$37,000,000	\$0	\$0	\$0	\$0	\$37,000,000
RRU	MFF	State	\$1,028,000	\$0	\$0	\$0	\$0	\$1,028,000
Total:			\$50,188,000	\$0	\$0	\$0	\$0	\$50,188,000



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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:452074	Related Items Shown
County/MPO Area:Marion	As Of:12/21/2023

HIGHWAYS							
Item Number: 452074 1	Project Description: I-75 IMPROVEMENTS FROM SR 200 TO SR 326						*SIS*
District: 05	County: MARION	Type of Work: ADD AUXILIARY LANE(S)				Project Length: 8.000MI	
		Fiscal Year					
Phase / Responsible Agency	<2024	2024	2025	2026	2027	>2027	All Years
P D & E / MANAGED BY FDOT							
Fund Code: DIH-STATE IN-HOUSE PRODUCT SUPPORT		10,000					10,000
PRELIMINARY ENGINEERING / MANAGED BY FDOT							
Fund Code: DIH-STATE IN-HOUSE PRODUCT SUPPORT		20,000					20,000
MFF-MOVING FLORIDA FOWARD		12,100,000					12,100,000
Phase: PRELIMINARY ENGINEERING Totals		12,120,000					12,120,000
RIGHT OF WAY / MANAGED BY FDOT							
Fund Code: DIH-STATE IN-HOUSE PRODUCT SUPPORT		40,000					40,000
MFF-MOVING FLORIDA FOWARD		37,000,000					37,000,000
Phase: RIGHT OF WAY Totals		37,040,000					37,040,000

RAILROAD & UTILITIES / MANAGED BY FDOT							
Fund Code:	MFF-MOVING FLORIDA FOWARD		1,028,000				1,028,000
	Item: 452074 1 Totals		50,198,000				50,198,000
	Project Totals		50,198,000				50,198,000
	Grand Total		50,198,000				50,198,000

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](#)

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Florida Department of Transportation

Consistent, Predictable, Repeatable

Social and Economic Appendix

Contents:

NRCS Coordination Documentation

DRAFT

Bell, Aubyn

From: Bell, Aubyn
Sent: Thursday, January 18, 2024 9:49 AM
To: isabelle.giuliani@usda.gov
Cc: David.Graeber@dot.state.fl.us; Schnell, Steven; darrell.leach@usda.gov
Subject: Farmlands Determination - 452074: I-75 Improvements from SR 200 to SR 326 PD&E Study
Attachments: 452074 I-75 PDE - NRCS-CPA-106.PDF; preferred_ponds.zip; Project_Limits.zip; AUX_Farmland_Ponds_8-5x11_NRCS.pdf

Good Morning Ms. Guiliani,

FDOT is conducting a PD&E Study for adding auxiliary lanes to I-75 from S.R. 200 to S.R. 326 in Marion County, Florida. The project includes stormwater pond sites. Attached are the Form NRCS CPA-106, a project map with farmlands overlaid, and shapefiles for the limits of auxiliary lanes and the preferred pond sites.

Please let me know if you have any questions or need additional information.

Thank you,

Aubyn Bell, AICP
Senior Environmental Planner

HDR
Address: 76 S. Laura Street, Suite 1600
Jacksonville, Florida 32202
D 904-598-8901 **M** 904-629-2408
aubyn.bell@hdrinc.com

hdrinc.com/follow-us

Cultural Resources Appendix

Contents:

SHPO Concurrence Letter - Mainline

SHPO Concurrence Letter Phase II

DRAFT



Florida Department of Transportation

RON DESANTIS
GOVERNOR

719 S. Woodland Blvd.
DeLand, FL 32720

JARED W. PERDUE, P.E.
SECRETARY

December 13, 2023

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

Attn: Ms. Alyssa McManus, Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey
I-75 from SR 200 to SR 326 PD&E
Marion County, Florida
Financial Management No.: 452074-1

Dear Ms. Lotane,

Enclosed please find one copy of the report titled *Cultural Resource Assessment Survey [CRAS] for Interstate 75 from State Road 200 to State Road 326 Project Development and Environment Study, Marion County, Florida*. This report presents the findings of a CRAS conducted in support of the proposed improvements to Interstate 75 (I-75) from just north of the State Road (SR) 200 interchange to just north of the SR 325 interchange in Marion County, Florida. The Florida Department of Transportation (FDOT), District 5, is proposing the construction of auxiliary lanes and the replacement of one bridge. The I-75 roadway improvements will take place within the existing FDOT-owned right-of-way; no additional right-of-way is proposed for the corridor improvements. Additional right-of-way will be required for stormwater retention ponds, which will be evaluated under separate cover. This project is funded through the Moving Florida Forward initiative for construction in 2025.

The project's archaeological Area of Potential Effect (APE) was defined as the I-75 right-of-way where construction is proposed. The architectural history APE included the existing right-of-way and was extended to the back or side property lines of parcels adjacent to the right-of-way or a distance of no more than 100 meters (328 feet) from the right-of-way line at the I-75 interchanges with SR 326, Northwest Blitchton Road, and West Silver Springs Boulevard, as proposed interchange improvements will include above-grade work. As all improvements outside of the interchanges will be ground surface level within existing right-of-way and will not introduce any significant changes to the viewshed, no buffer was utilized for sections of corridor outside of the interchanges.

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This CRAS was conducted in accordance with the requirements set forth in Section 106 of the National Historic Preservation Act of 1966, as amended, found in 36 CFR Part 800 (Protection of Historic Properties). The study also complies with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code and Section 267.12, Florida Statutes, Chapter 1A-32. All work was performed in accordance with Part 2, Chapter 8 of FDOT's PD&E Manual (revised July 2023), FDOT's Cultural Resources Management Handbook, and the standards stipulated in the Florida Division of Historical Resources' (FDHR) *Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals*. The Principal Investigator for this project meets the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716-42). This study also complies with Public Law 113-287 (Title 54 U.S.C.), which incorporates the provisions of the National Historic Preservation Act of 1966, as amended, and the Archeological and Historic Preservation Act of 1974, as amended.

The archaeological survey consisted of the excavation of 262 shovel tests within the archaeological APE, 33 of which contained artifacts. Additionally, 345 no-dig points were recorded where disturbance and subsurface conditions (e.g., steep roadway berms, buried utilities, drainage features) precluded shovel testing. Five new archaeological sites (8MR04470–8MR04474) and three archaeological occurrences were recorded as a result of the survey. Archaeological occurrences are, by definition, ineligible for listing in the National Register of Historic Places (NRHP); therefore, no further testing for the archaeological occurrences is required. The archaeological sites are discussed below.

Newly recorded site 8MR04470 (Palm Lake Site 1) is a low-density precontact lithic scatter identified by two positive shovel tests along the west side of I-75 near the Blitchton Road interchange. Delineating shovel tests were excavated to the north, south, and east of the site, but due to the limits of the APE, site 8MR04470 could not be fully delineated. Although no subsurface testing could be completed to the west due to APE limitations, the site is bound to the west by buried utilities and an adjacent roadway. Due to the absence of diagnostic artifacts and the lack of research potential, it is SEARCH's opinion that the site is ineligible for listing in the NRHP. No further work is recommended for 8MR04470.

Newly recorded site 8MR04471 (Palm Lake Site 2) is a precontact site located along the west side of I-75 between the Blitchton Road and West Silver Springs Boulevard interchanges. The site was identified by 13 positive shovel tests with artifacts (n=333) from 0–170 centimeters below surface (0–66.9 inches below surface). Artifacts from the site primarily consist of lithic material at various stages of tool manufacture. Several tools, two sherds of plain Native American ceramics, and an abundance of thermally altered lithic debitage were also recovered from the site, suggesting the site has moderate potential for cultural features. Additionally, site 8MR04471 is approximately 90 meters (295 feet) north of site 8MR04472, which did contain an artifact dating to the transitional Paleoindian to early Archaic cultural periods. Delineating shovel tests were excavated to the south, as APE limitations and modern conditions precluded further shovel testing to the west, east, and north (e.g., buried utilities, an adjacent roadway, drainage features). Although the site could not

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be fully delineated according to Module 3 standards, the artifact density and depth of cultural deposits identified within site 8MR04471 within the current APE indicates the presence of intact cultural deposits. Many artifacts were recovered, and it is possible that intact features may be present. As such, it is not possible to evaluate the site for NRHP-eligibility based on the available information. As such, Phase II archaeological investigations were recommended at site 8MR04471.

Newly recorded site 8MR04472 (Palm Lake Site 3) is a precontact site on the west side of I-75 between the Blichton Road and West Silver Springs interchanges, just south of site 8MR04471. Artifacts from the site primarily consist of lithic material at various stages of tool manufacture and a Dalton projectile point (dating to transitional Paleolithic to early Archaic occupation [10,500–8,500 years before present]). Delineating shovel tests were excavated to the north, south, and east; however, APE limitations precluded further shovel testing to the west. Although the site could not be fully delineated according to Module 3 standards, the diagnostic artifact and quantity of artifacts identified within site 8MR04472 suggests potentially significant cultural deposits or features may be present within the current APE. Similar to site 8MR04471, the Phase I survey yielded insufficient information to develop an NRHP eligibility recommendation for site 8MR04472. As such, Phase II archaeological investigations were recommended at site 8MR04472.

Newly recorded site 8MR04473 (West Silver Springs Scatter) is a low-density precontact lithic scatter identified by four positive shovel tests along the west side of I-75 north of the West Silver Springs Boulevard interchange. Delineating shovel tests were excavated to the north, south, and east of the site, but due to the limits of the APE, site 8MR04473 could not be fully delineated. Although no subsurface testing could be completed to the west due to APE limitations, the site is bound to the west by buried utilities and an adjacent roadway. Due to the low density of artifacts, the lack of diagnostic artifacts recovered during survey, and the lack of research potential, it is FDOT's opinion that the site is ineligible for listing in the NRHP. No further work is recommended for 8MR04473.

Newly recorded site 8MR04474 (I-75 Roadside Scatter) is a low-density precontact lithic scatter identified by one positive shovel test on the east side of I-75 near the SR 200 interchange. Delineating shovel tests were excavated to the north and south of the site, but due to the limits of the APE and modern conditions of the corridor, site 8MR04474 could not be fully delineated. Although no subsurface testing could be completed to the east or west, the site is bound in these directions by buried utilities, an adjacent roadway, a steep berm, and modern development. Due to the low density of artifacts, the lack of diagnostic artifacts recovered during survey, and the lack of research potential, it is FDOT's opinion that the site is ineligible for listing in the NRHP. No further work is recommended for 8MR04474.

The architectural survey resulted in the identification and evaluation of 31 historic resources, including four previously recorded resources and 27 newly recorded resources. The previously recorded historic resources include two linear resources (8MR03271 and 8MR03403) and two buildings (8MR03847 and 8MR04312). The 27 newly recorded historic resources include 24 buildings (8MR04437–8MR04460) and three resource groups (8MR04466–8MR04468).

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Previously recorded resource 8MR03403 was evaluated by the SHPO as ineligible for the NRHP on November 12, 2014. Based on the results of the survey, no changes appear to have been made to the segment of 8MR03403 within the APE, and so it remains ineligible for NRHP listing.

Previously recorded historic resources 8MR03271, 8MR03847, and 8MR04312, and all 27 newly recorded resources, lack the significant historical associations and architectural distinctions necessary for NRHP listing and are recommended not eligible for the NRHP.

In summary, SEARCH recommends Phase II archaeological evaluations for 8MR04471 and 8MR04472 to determine whether these resources are eligible for the NRHP which will allow for a more accurate evaluation of project effects. No further cultural resources work is recommended for the remaining archaeological or architectural resources identified by the Phase I CRAS.

I respectfully request your concurrence with the findings of the enclosed report.

If you have any questions or need further assistance, please contact Catherine Owen, District Cultural Resource Coordinator, at (386) 943-5383 or me at (386) 943-5436.

Sincerely,

A handwritten signature in cursive script, appearing to read "Catherine Owen".

For Casey Lyon, M.S.
Environmental Manager
FDOT, District Five

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The Florida State Historic Preservation Officer finds the attached Cultural Resource 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 2023-7161. Or, the SHPO finds the attached document contains _____ insufficient information.

In accordance with the Programmatic Agreement among the ACHP, 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 FDOT may approve the project as de minimis use under Section 4(f) under 23 CFR 774.

SHPO Comments:

Kelly Chase

Alissa S. Lotane, Director
Florida Division of Historical Resources

1.10.2024
Date



Florida Department of Transportation

RON DESANTIS
GOVERNOR

719 S. Woodland Blvd.
DeLand, FL 32720

JARED W. PERDUE, P.E.
SECRETARY

January 11, 2024

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

Attn: Ms. Alyssa McManus, Transportation Compliance Review Program

RE: Phase II Archaeological Testing, Site 8MR04471
I-75 from SR 200 to SR 326 PD&E
Marion County, Florida
Financial Management No.: 452074-1

Dear Ms. Lotane,

Enclosed please find one copy of the report titled *Phase II Archaeological Testing of 8MR04471 in Support of the Interstate 75 from State Road 200 to State Road 326 Project Development and Environment Study, Marion County, Florida*. This report presents the findings of Phase II testing of Site 8MR04471 in support of the I-75 Project Development and Environment (PD&E) study in Marion County, Florida. The Florida Department of Transportation (FDOT), District 5, is proposing improvements and auxiliary lanes along I-75 from SR 200 to SR 326, a distance of 13.6 kilometers (8.2 miles). The project is funded through the Moving Florida Forward initiative for construction in 2025.

In 2023, SEARCH conducted a Phase I cultural resource assessment survey (CRAS) in support of this I-75 PD&E. During the CRAS, two new archaeological sites (8MR04471 and 8MR04472) were recorded along the west side of I-75 between US 27 and SR 40. The artifact density and depth of cultural deposits identified within both sites indicated the presence of deeply buried cultural deposits. The Phase I survey level of investigation was not adequate to inform an assessment for the sites' eligibility for listing on the National Register of Historic Places (NRHP); SEARCH therefore recommended Phase II evaluation to determine NRHP eligibility. In consultation with the FDOT, District 5, Phase II evaluation was undertaken for Sites 8MR04471 and 8MR04472.

The cultural resources studies are being conducted to comply with Public Law 113-287 (Title 54 U.S.C.), which incorporates the provisions of the National Historic Preservation Act (NHPA) of 1966, as amended, and the Archeological and Historic Preservation Act of 1974, as amended. The

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study also meets the regulations for implementing NHPA Section 106 found in 36 CFR Part 800 (Protection of Historic Properties). This study also meets the regulations for implementing National Historic Preservation Act Section 106 found in 36 Code of Federal Regulations Part 800 (Protection of Historic Properties). This study also complies with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code.

All work was performed in accordance with Part 2, Chapter 8, of the FDOT's PD&E Manual (revised July 2023), as well as the Florida Division of Historical Resources' (FDHR) recommendations for such projects as stipulated in the FDHR's *Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals*. The principal investigator for this project meets the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-42).

Phase II evaluative testing began on August 1, 2023, with auger testing between Sites 8MR04471 and 8MR04472 to determine whether the sites were connected. Three auger tests were excavated at 25 meters (m) (82 feet [ft]) intervals within the 90 m (295 ft) space between the two sites. All three auger tests were positive for cultural material, demonstrating that the two sites (8MR04471 and 8MR04472) existed as one contiguous site. The newly defined single site was referred to as 8MR04471 (Palm Lake Site 2).

The Phase II evaluation included the excavation of six 1.0 × 2.0 m (3.3 × 6.6 ft) test units within the boundary of the newly defined Site 8MR04471. As a result of the Phase I survey and Phase II testing, Site 8MR04471 is identified as a dense artifact scatter with several Native American cultural components dating to the Transitional Paleoindian/Early Archaic, Middle to Late Archaic, Woodland, and Mississippian periods (8500 BC–AD 1500+). The type and quantity of artifacts recovered suggest that the site was primarily used for late-stage lithic tool production and refinement. The presence of precontact ceramic sherds indicates that food preparation, production, and storage also occurred on site. Site 8MR04471 was utilized intermittently over a 10,000-year period as a temporary encampment for lithic tool production and refinement using raw materials extracted from nearby Coastal Plain chert quarry clusters.

The upland landform on which the site is situated has been significantly disturbed within and outside the site boundary. The artifact assemblage lacks diversity and is predominantly late-stage, lithic debitage. The assemblage of temporally diagnostic artifacts is typical of many similar sites in Marion County and the Central Florida region. Based on the paucity of diagnostic artifacts, a lack of cultural features, and the absence of stratigraphically discrete cultural components, it is unlikely that further excavation at Site 8MR04471 would yield information that would add to the current understanding of the precontact history of the region.

Based on the results of this study, it is the opinion of the District that Site 8MR04471, as expressed within the I-75 PD&E study corridor, is ineligible for listing in the NRHP. The District recommends no further work for 8MR04471 within the I-75 project corridor.

I respectfully request your concurrence with the findings of the enclosed report.

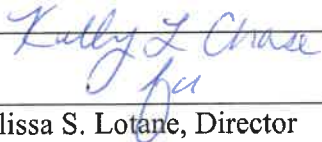
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If you have any questions or need further assistance, please contact Catherine Owen, District Cultural Resource Coordinator, at (386) 943-5383 or me at (386) 943-5436.

Sincerely,



For: Casey Lyon, M.S.
Environmental Manager
FDOT, District Five

The Florida Division of Historical Resources finds the enclosed Phase II archaeological testing report complete and sufficient and <input checked="" type="checkbox"/> concurs / <input type="checkbox"/> does not concur with the determinations of historic significance provided in this cover letter and <input checked="" type="checkbox"/> does / <input type="checkbox"/> does not find applicable the determinations of effects provided in this cover letter for SHPO/FDHR Project File Number <u>2024-107</u> .	
FDHR Comments:	
	<u>1.16.24</u>
Alissa S. Lotane, Director Florida Division of Historical Resources	Date

Natural Resources Appendix

Contents:

Standard Protection Measures for the Eastern Indigo Snake

Eastern Indigo Snake Effect Determination Key

Wood Stork Effect Determination Key

DRAFT

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE U.S. Fish and Wildlife Service

March 23, 2021

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

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

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

POSTER INFORMATION

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

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat.

These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

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

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida and Georgia. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas and often move seasonally between upland and lowland habitats, particularly in the northern portions of its range (North Florida and Georgia). Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Reliance on xeric sandhill habitats throughout the northern portion of the range in northern Florida and Georgia is due to the dependence on gopher tortoise burrows for shelter during winter. Breeding occurs during October through February. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

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

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

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

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

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

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

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

North Florida Field Office: (904) 731-3336

Panama City Field Office: (850) 769-0552

South Florida Field Office: (772) 562-3909

Georgia Field Office: (706) 613-9493

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5 x 11in paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC or GADNR websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

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

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicants designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

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



United States Department of the Interior



FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

August 1, 2017

Donnie Kinard
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Subject: Consultation Key for the Eastern Indigo Snake – Revised

Dear Mr. Kinard:

This letter revises and replaces the January 25, 2010, and August 13, 2013, letters to the U.S. Army Corps of Engineers (Corps) regarding the use of the eastern indigo snake programmatic effect determination key (Key) for projects occurring within the South Florida Ecological Service's Office (SFESO) jurisdiction. This revision supersedes all prior versions of the Key in the SFESO area. The purpose of this revision is to clarify portions of the previous keys based on questions we have been asked, specifically related to habitat and refugia used by eastern indigo snakes (*Drymarchon corais couperi*), in the southern portion of their range and within the jurisdiction of the SFESO. This Key is provided pursuant to the Service's authorities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*). This Key revision has been assigned Service Consultation Code: 41420-2009-I-0467-R001.

The purpose of this Key is to assist the Corps (or other Federal action agency) in making appropriate effects determinations for the eastern indigo snake under section 7 of the Act, and streamline informal consultation with the SFESO for the eastern indigo snake when the proposed action can be walked through the Key. The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

This Key uses project size and home ranges of eastern indigo snakes as the basis for making determinations of "may affect, but is not likely to adversely affect" (NLAA) and "may affect, and is likely to adversely affect" (may affect). Suitable habitat for the eastern indigo snake consists of a mosaic of habitats types, most of which occur throughout South Florida. Information on home ranges for individuals is not available in specific habitats in South Florida. Therefore, the SFESO uses the information from a 26-year study conducted by Layne and Steiner (1996) at Archbold Biological Station, Lake Placid, Florida, as the best available

information. Layne and Steiner (1996) determined the average home range size for a female eastern indigo snake was 46 acres and 184 acres for a male.

Projects that would remove/destroy less than 25 acres of eastern indigo snake habitat are expected to result in the loss of a portion of an eastern indigo snakes home range that would not impair the ability of the individual to feed, breed, and shelter. Therefore, the Service finds that take would not be reasonably certain to occur due to habitat loss. However, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take. Consequently, projects less than 25 acres that include the Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and a commitment to excavate underground refugia as part of the proposed action would be expected to avoid take and thus, may affect, but are not likely to adversely affect the species.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

Projects that would remove 25 acres or more of eastern indigo snake habitat could remove more than half of a female eastern indigo snakes home range. This loss of habitat within a home range would be expected to significantly impair the ability of that individual to feed, breed, and shelter. Therefore, the Service finds take through habitat loss would be reasonably certain to occur and formal consultation is appropriate. Furthermore, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take.

Eastern indigo snakes use a variety of habitat and are difficult to detect. Therefore, site specific information on the land use, observations of eastern indigo snakes within the vicinity, as well as other factors, as appropriate, will all be considered by the Service when making a final recommendation on the appropriate effects determination and whether it is appropriate to conclude consultation with the Corps (or other Federal action agency) formally or informally for projects that will impact 25 acres or more of habitat. Accordingly, when the use of the Key results in a determination of "may affect," the Corps (or other Federal action agency) is advised that consultation may be concluded informally or formally, depending on the project specific effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps (or other Federal action agency) desires to proceed with a consultation request prior to receiving

additional technical assistance from the Service, we recommend the agency documents the biological rationale for their determination and proceed with a request accordingly.

If the use of the Key results in a determination of “no effect,” no further consultation is necessary with the SFESO. If the use of the Key results in a determination of “NLAA,” the SFESO concurs with this determination based on the rationale provide above, and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake. For “no effect” or “NLAA” determinations, the Service recommends that the Corps (or other Federal action agency) documents the pathway used to reach your no effect or NLAA determination in the project record and proceed with other species analysis as warranted.

Eastern Indigo Snake Programmatic Effect Determination Key
Revised July 2017
South Florida Ecological Service Office

Scope of the Key

This Key should be used only in the review of permit applications for effects determinations for the eastern indigo snake (*Drymarchon corais couperi*) within the South Florida Ecological Service’s Office (SFESO) area (Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, and St. Lucie Counties). There is no designated critical habitat for the eastern indigo snake.

This Key is subject to revision as the Corps (or other Federal action agency) and Service deem necessary and in particular whenever there is new information on eastern indigo snake biology and effects of proposed projects.

The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

Habitat

Habitat use varies seasonally between upland and wetland areas, especially in the more northern parts of the species’ range. In southern parts of their range eastern indigo snakes are habitat generalists which use most available habitat types. Movements between habitat types in northern areas of their range may relate to the need for thermal refugia (protection from cold and/or heat).

In northern areas of their range eastern indigo snakes prefer an interspersed of tortoise-inhabited sandhills and wetlands (Landers and Speake 1980). In these northern regions eastern indigo

snakes most often use forested areas rich with gopher tortoise burrows, hollowed root channels, hollow logs, or the burrows of rodents, armadillos, or land crabs as thermal refugia during cooler seasons (Lawler 1977; Moler 1985a; Layne and Steiner 1996). The eastern indigo snake in the northern region is typically classified as a longleaf pine savanna specialist because here, in the northern four-fifths of its range, the eastern indigo snake is typically only found in vicinity of xeric longleaf pine–turkey oak sandhills inhabited by the gopher tortoise (Means 2006).

In the milder climates of central and southern Florida, comprising the remaining one fifth of its range, thermal refugia such as those provided by gopher tortoise burrows may not be as critical to survival of indigo snakes. Consequently, eastern indigo snakes in these regions use a more diverse assemblage of habitats such as pine flatwoods, scrubby flatwoods, floodplain edges, sand ridges, dry glades, tropical hammocks, edges of freshwater marshes, muckland fields, coastal dunes, and xeric sandhill communities; with highest population concentrations of eastern indigo snakes occurring in the sandhill and pineland regions of northern and central Florida (Service 1999). Eastern indigo snakes have also been found on agricultural lands with close proximity to wetlands (Zeigler 2006).

In south Florida, agricultural sites (*e.g.*, sugar cane fields and citrus groves) are occupied by eastern indigo snakes. The use of sugarcane fields by eastern indigo snakes was first documented by Layne and Steiner in 1996. In these areas there is typically an abundance of wetland and upland ecotones (due to the presence of many ditches and canals), which support a diverse prey base for foraging. In fact, some speculate agricultural areas may actually have a higher density of eastern indigo snakes than natural communities due to the increased availability of prey. Gopher tortoise burrows are absent at these locations but there is an abundance of both natural and artificial refugia. Enge and Endries (2009) reporting on the status of the eastern indigo snake included sugarcane fields and citrus groves in a Global Information Systems (GIS)-base map of potential eastern indigo snake habitat. Numerous sightings of eastern indigo snakes within sugarcane fields have been reported within south Florida (Florida Fish and Wildlife Conservation Commission Indigo Snake Database [Enge 2017]). A recent study associated with the Comprehensive Everglades Restoration Plan (CERP) (A-1 FEB Project formerly A-1 Reservoir; Service code: 41420-2006-F-0477) documented eastern indigo snakes within sugarcane fields. The snakes used artificial habitats such as piles of limerock, construction debris, and pump stations. Recent studies also associated with the CERP at the C-44 Project (Service code: 41420-2009-FA-0314), and C-43 Project (Service code: 41420-2007-F-0589) documented eastern indigo snakes within citrus groves. The snakes used artificial habitats such as boards, sheets of tin, construction debris, pipes, drain pipes in abandoned buildings and septic tanks.

In extreme south Florida (*i.e.*, the Everglades and Florida Keys), eastern indigo snakes also utilize tropical hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats. Though eastern indigo snakes have been found in all available habitats of south Florida it is thought they prefer hammocks and pine forests since most observations occur there and use of these areas is disproportionate compared to the relatively small total area of these habitats (Steiner *et al.* 1983).

Even though thermal stress may not be a limiting factor throughout the year in south Florida, eastern indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigo snakes use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasyus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Layne and Steiner 1996; Wilson and Porras 1983). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges.

Minimization Measures

The Service developed protection measures for the eastern indigo snake “Standard Protection Measures for the Eastern Indigo Snake” (Service 2013) located at: https://www.fws.gov/verobeach/ReptilesPDFs/20130812_EIS%20Standard%20Protection%20Measures_final.pdf. These protection measures (or the most updated version) are considered a minimization measure for projects proposed within eastern indigo snake habitat.

Determinations

If the use of this Key results in a determination of “**no effect**,” no further consultation is necessary with the SFESO.

If the use of this Key results in a determination of “**NLAA**,” the SFESO concurs with this determination and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake.

For no effect or NLAA determinations, the Corps (or other Federal action agency) should make a note in the project file indicating the pathway used to reach your no effect or NLAA determination.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the subsequent Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual’s home range.

If the use of this Key results in a determination of “**may affect**,” consultation may be concluded informally or formally depending on project effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps desires to proceed with a consultation request prior to receiving additional technical assistance from the Service, we recommend the Corps document the biological rationale for their determination and proceed with a request accordingly.

- A. Project is not located in open water or salt marsh.....go to B
 Project is located solely in open water or salt marsh.....no effect
- B. Permit will be conditioned for use of the Service's most current guidance for Standard Protection Measures For The Eastern Indigo Snake (currently 2013) during site preparation and project construction.....go to C
 Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested.....may affect
- C. The project will impact less than 25 acres of eastern indigo snake habitat (e.g., sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....go to D
 The project will impact 25 acres or more of eastern indigo snake habitat (e.g., sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....may affect
- D. The project has no known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and/or injured during project activities.....NLAA
 The project has known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and /or injured.....go to E
- E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be excavated prior to site manipulation in the vicinity of the burrow¹. If an eastern indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an eastern indigo snake, no work will commence until the snake has vacated the vicinity of proposed work.....NLAA²
 Permit will not be conditioned as outlined above.....may affect

End Key

¹ If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise>.

² Please note, if the proposed project will impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, NLAA is not the appropriate conclusion. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range

Donnie Kinard

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Working with the Fish and Wildlife Foundation of Florida, the Service has established a fund to support conservation and recovery for the eastern indigo snake. Any project that has the potential to affect the eastern indigo snake and/or its habitat is encouraged to make a voluntary contribution to this fund. If you would like additional information about how to make a contribution and how these monies are used to support eastern indigo snake recovery please contact Ashleigh Blackford, Connie Cassler, or José Rivera at 772-562-3559.

This revised Key is effective immediately upon receipt by the Corps. Should circumstances change or new information become available regarding the eastern indigo snake and/or implementation of the Key, the determinations herein may be reconsidered and this Key further revised or amended.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. If you have any questions or comments regarding this Key, please contact the SFESO at 772-562-3909.

Sincerely,



Roxanna Hinzman
Field Supervisor
South Florida Ecological Services

Cc:

Corps, Jacksonville, Florida (Dale Beter, Muriel Blaisdell, Ingrid Gilbert, Angela Ryan,
Irene Sadowski, Victoria White, Alisa Zarbo)
Service, Athens, Georgia (Michelle Elmore)
Service, Jacksonville, Florida (Annie Dziergowski)
Service, Panama City, Florida (Sean Blomquist)

**THE CORPS OF ENGINEERS, JACKSONVILLE DISTRICT, U. S. FISH AND WILDLIFE SERVICE, JACKSONVILLE ECOLOGICAL SERVICES FIELD OFFICE AND STATE OF FLORIDA EFFECT DETERMINATION KEY FOR THE WOOD STORK IN CENTRAL AND NORTH PENINSULAR FLORIDA
September 2008**

Purpose and Background

The purpose of this document is to provide a tool to improve the timing and consistency of review of Federal and State permit applications and Federal civil works projects, for potential effects of these projects on the endangered wood stork (*Mycteria americana*) within the Jacksonville Ecological Services Field Office (JAFL) geographic area of responsibility (GAR see below). The key is designed primarily for Corps Project Managers in the Regulatory and Planning Divisions and the Florida Department of Environmental Protection or its authorized designee, or Water Management Districts. The tool consists of the following dichotomous key and reference material. The key is intended to be used to evaluate permit applications and Corps' civil works projects for impacts potentially affecting wood storks or their wetland habitats. At certain steps in the key, the user is referred to graphics depicting known wood stork nesting colonies and their core foraging areas (CFA), footnotes, and other support documents. The graphics and supporting documents may be downloaded from the Corps' web page at <http://www.saj.usace.army.mil/permit> or at the JAFL web site at <http://www.fws.gov/northflorida/WoodStorks>. We intend to utilize the most recent information for both the graphics and supporting information; so should this information be updated, we will modify it accordingly. **Note: This information is provided as an aid to project review and analysis, and is not intended to substitute for a comprehensive biological assessment of potential project impacts. Such assessments are site-specific and usually generated by the project applicant or, in the case of civil works projects, by the Corps or project co-sponsor.**

Explanatory footnotes provided in the key must be closely followed whenever encountered.

Scope of the key

This key should only be used in the review of permit applications for effects determinations on wood storks within the JAFL GAR, and not for other listed species. Counties within the JAFL GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

The final effect determination will be based on project location and description, the potential effects to wood storks, and any measures (for example project components, special permit conditions) that avoid or minimize direct, indirect, and/or cumulative

impacts to wood storks and/or suitable wood stork foraging habitat. Projects that key to a “no effect” determination do not require additional consultation or coordination with the JAFL. Projects that key to “NLAA” also do not need further consultation; however, the JAFL staff will assist the Corps if requested, to answer questions regarding the appropriateness of mitigation options. Projects that key to a “may affect” determination equate to “likely to adversely affect” situations, and those projects should not be processed under the SPGP or any other programmatic general permit. For all “may affect” determinations, Corps Project Managers should request the JAFL to initiate formal consultation on the Wood stork.

Summary of General Wood Stork Nesting and Foraging Habitat Information

The wood stork is primarily associated with freshwater and estuarine habitats that are used for nesting, roosting, and foraging. Wood storks typically nest colonially in medium to tall trees that occur in stands located either in swamps or on islands surrounded by relatively broad expanses of open water (Ogden 1991; Rodgers et al. 1996). Successful breeding sites are those that have limited human disturbance and low exposure to land based predators. Nesting sites protected from land-based predators are characterized as those surrounded by large expanses of open water or where the nest trees are inundated at the onset of nesting and remain inundated throughout most of the breeding cycle. These colonies have water depths between 0.9 and 1.5 meters (3 and 5 feet) during the breeding season.

In addition to limited human disturbance and land-based predation, successful nesting depends on the availability of suitable foraging habitat. Such habitat generally results from a combination of average or above-average rainfall during the summer rainy season, and an absence of unusually rainy or cold weather during the winter-spring breeding season (Kahl 1964; Rodgers et al. 1987). This pattern produces widespread and prolonged flooding of summer marshes that tends to maximize production of freshwater fishes, followed by steady drying that concentrate fish during the season when storks nest (Kahl 1964). Successful nesting colonies are those that have a large number of foraging sites. To maintain a wide range of foraging opportunities, a variety of wetland habitats exhibiting short and long hydroperiods should be present. In terms of wood stork foraging, the Service (1999) describes a short hydroperiod as one where a wetland fluctuates between wet and dry in 1 to 5-month cycles, and a long hydroperiod where the wet period is greater than five consecutive months. Wood storks during the wet season generally feed in the shallow water of short-hydroperiod wetlands and in coastal habitats during low tide. During the dry season, foraging shifts to longer hydroperiod interior wetlands as they progressively dry down (though usually retaining some surface water throughout the dry season).

Because of their specialized feeding behavior, wood storks forage most effectively in shallow-water areas with highly concentrated prey. Typical foraging sites for the wood stork include freshwater marshes, depressions in cypress heads, swamp sloughs, managed impoundments, stock ponds, shallow-seasonally flooded roadside or agricultural ditches, and narrow tidal creeks or shallow tidal pools. Good foraging conditions are characterized by water that is relatively calm, open, and having water depths between 5 and 15 inches (5 and 38 cm). Preferred foraging habitat includes wetlands exhibiting a mosaic of submerged and/or emergent aquatic vegetation, and shallow, open-water areas subject to hydrologic

regimes ranging from dry to wet. The vegetative component provides nursery habitat for small fish, frogs, and other aquatic prey, and the shallow, open-water areas provide sites for concentration of the prey during daily or seasonal low water periods.

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WOOD STORK KEY

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

A. Project within 2,500 feet of an active colony site¹.....*May affect*

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

B. Project does not affect suitable foraging habitat² (SFH).....*no effect*

Project impacts SFH².....go to C

C. Project impacts to SFH are less than or equal to 0.5 acre³.....*NLAA*⁴

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

D. Project impacts to SFH not within a Core Foraging Area⁵ (see attached map) of a colony site, and no wood storks have been documented foraging on site.....*NLAA*⁴

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

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

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

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

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

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

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

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

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

Monitoring and Reporting Effects

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

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Physical Resources Appendix

Contents:

Noise Barrier Map Series

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I-75 FORWARD
S.R. 200 TO S.R. 326

- No Impact - No Benefit
- Impact - Benefit
- No Impact - Benefit
- ✗ Impact - No Benefit
- Receptor Group
- ▬ Barrier Recommended
- ▬ Barrier Not Recommended
- Non-conforming Billboard
- Conforming Billboard

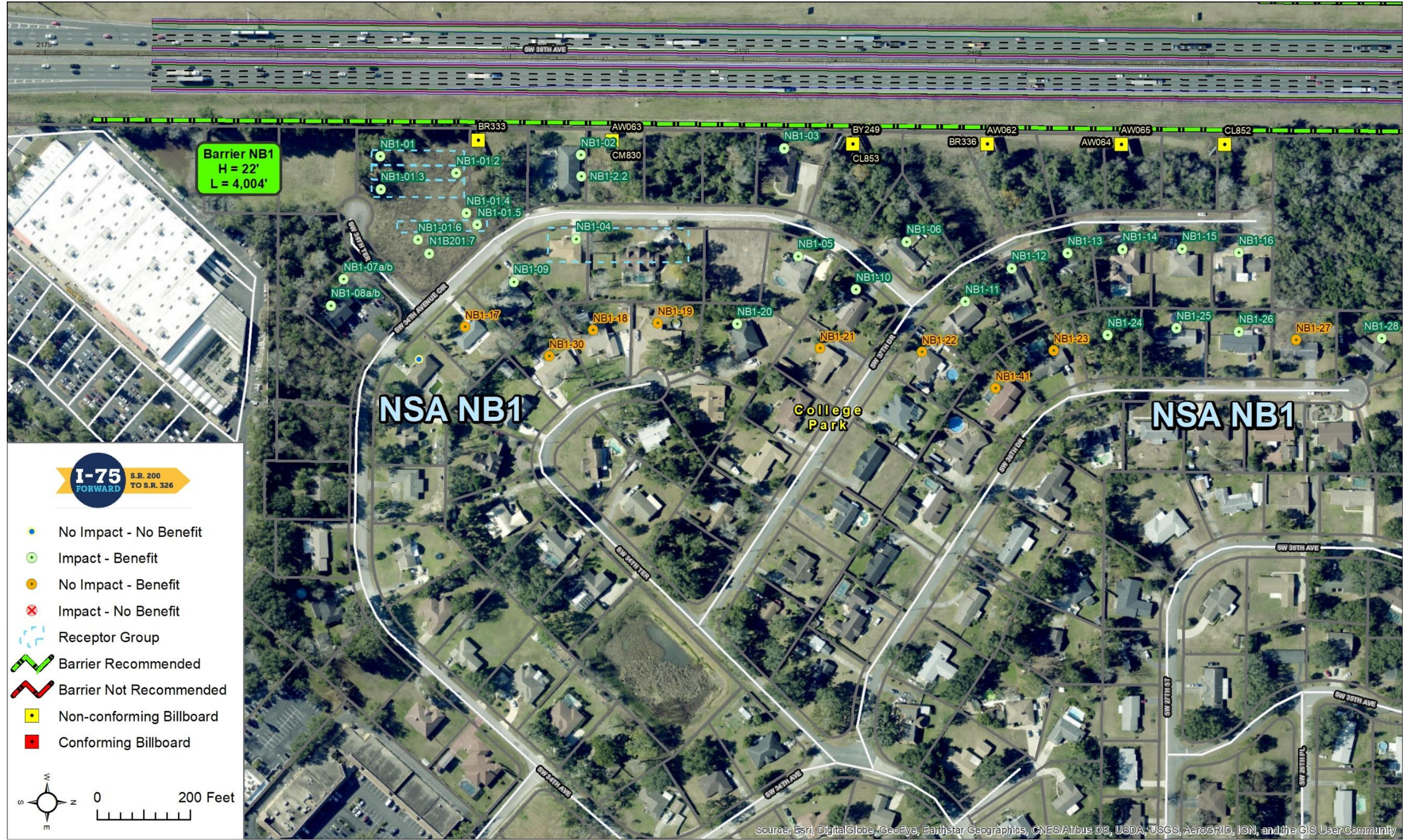
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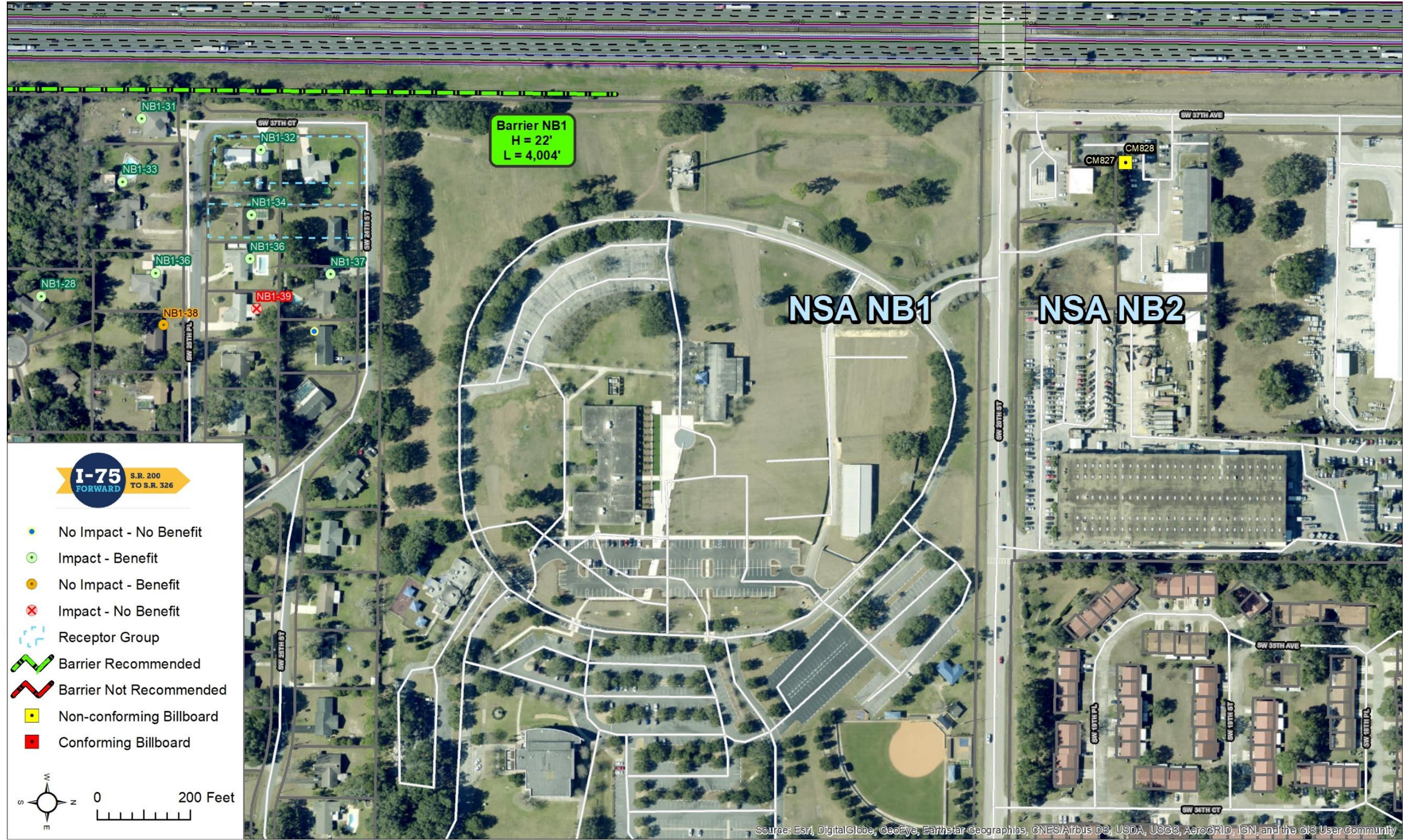


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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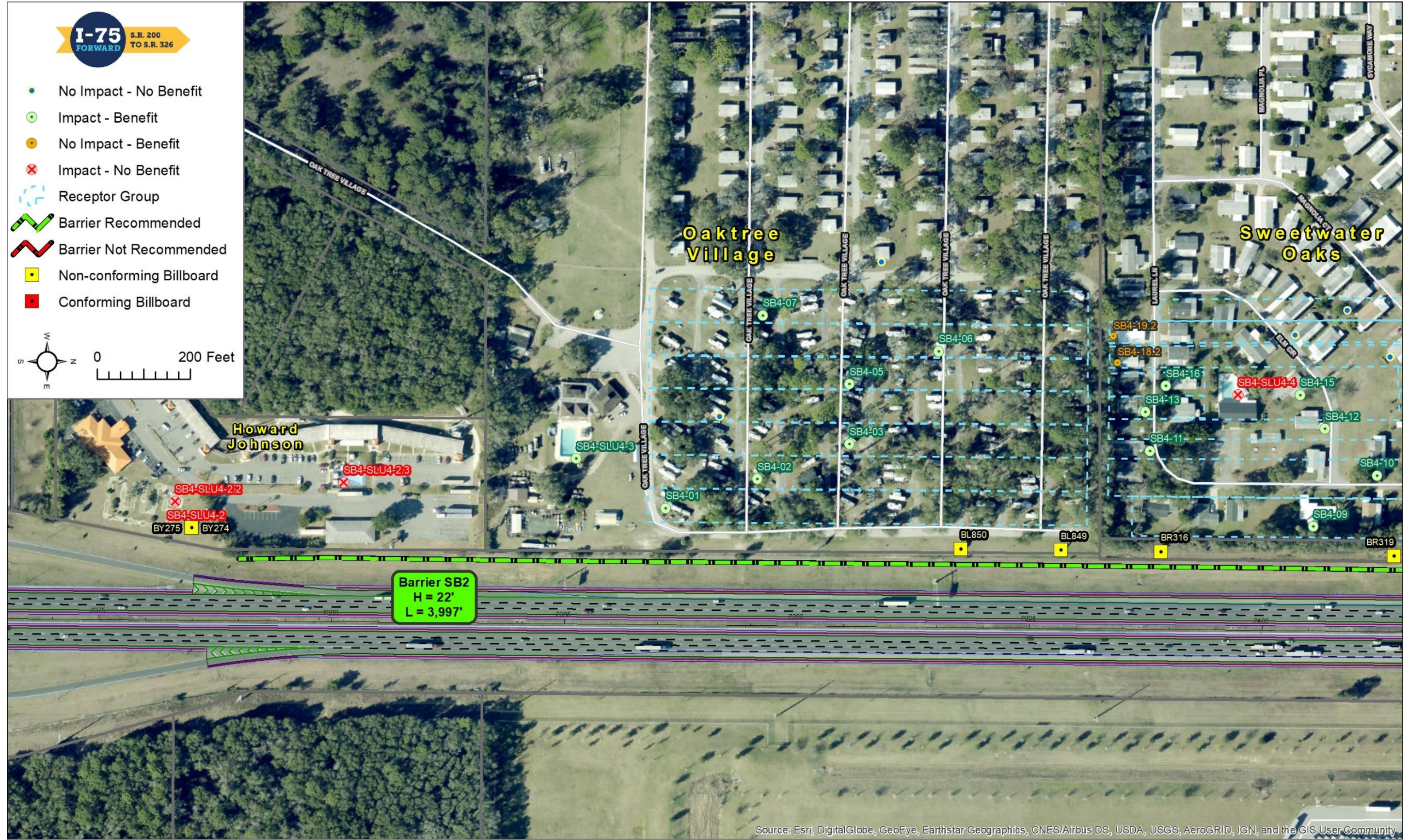




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- No Impact - No Benefit
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- No Impact - Benefit
- ✗ Impact - No Benefit
- ⊗ Receptor Group
- ▬ Barrier Recommended
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- Conforming Billboard

