

ADMINISTRATIVE ACTION
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation

LPGA BLVD FROM US 92 (SR 600) TO WILLIAMSON BLVD

District: FDOT District 5

County: Volusia County

ETDM Number: 14332

Financial Management Number: 448456-1-22-01

Federal-Aid Project Number: D521-091-B

Project Manager: Jesse Blouin

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

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

On 06/04/2021 the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Program.

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1. Project Information

1.1 Project Description

This project involves widening of LPGA Boulevard from a two-way, two-lane roadway to a four-lane and six-lane divided roadway with raised median, and addition of bicycle and pedestrian facilities in the form of shared-use paths from US 92 (SR 600) to Williamson Boulevard, a distance of approximately 6.2 miles, in the City of Daytona Beach, Volusia County. The project also includes modifications to the LPGA Boulevard/ Interstate-95 (I-95) interchange (Exit 265) to a Signalized Turbine Interchange concept, replacement and widening of the Tomoka River Bridge (Bridge Number 794038) from two lanes to six lanes, addition of stormwater ponds, and access management changes as the result of roadway widening. The Tomoka River at the project area is not navigable.

The existing LPGA Boulevard is a two-lane rural roadway from US 92 to Tomoka Farms Road (east of the Tomoka River), a four-lane suburban roadway from Tomoka Farms Road to the I-95 Southbound Ramps, and a six-lane suburban roadway from the I-95 Southbound Ramps to Williamson Boulevard. There are 13 intersections along the PD&E Study limits including ramp terminals at the I-95 interchange, nine of which are signalized.

LPGA Boulevard is a county road maintained by Volusia County, except between Tomoka Farms Road and Technology Boulevard/Outlet Boulevard where FDOT maintains the limited access right of way to the I-95 interchange. Most of LPGA Boulevard does not have paved shoulders and there are only limited areas of sidewalks between Tymber Creek Road and Williamson Boulevard.

I-95 is a six-lane, Strategic Intermodal System (SIS) facility. The I-95 interchange at LPGA Boulevard is a partial cloverleaf interchange, or parclo interchange, with six on and off ramps. This interchange is located approximately 3.5 miles north of the I-95 and US 92 interchange and approximately 2.6 miles south of the I-95 and State Road (SR) 40 interchange.

Both LPGA Boulevard and I-95 are designated as emergency evacuation routes.

A project location map is show in Figure 1.1.1.

The Preferred Alternative includes widening of LPGA Boulevard, adding new shared-use paths, modifying the I-95 interchange to a Signalized Turbine Interchange, replacing the Tomoka River bridge, and modifying intersection configurations.

The Preferred Alternative typical cross sections are described below:

- US 92 to Tymber Creek Road: Four-lane divided roadway within the existing 200 feet right-of-way, except at a future location of Dunn Avenue extension intersection where minor corner clip (4,050 square feet) will be needed to accommodate a northbound right turn lane. The segment includes two 12-foot lanes in both directions, a variable 40-foot to 70-foot median, curb and gutter, and 14-foot shared-use paths on both sides of the roadway. All roadway improvements will be within the existing right-of-way.

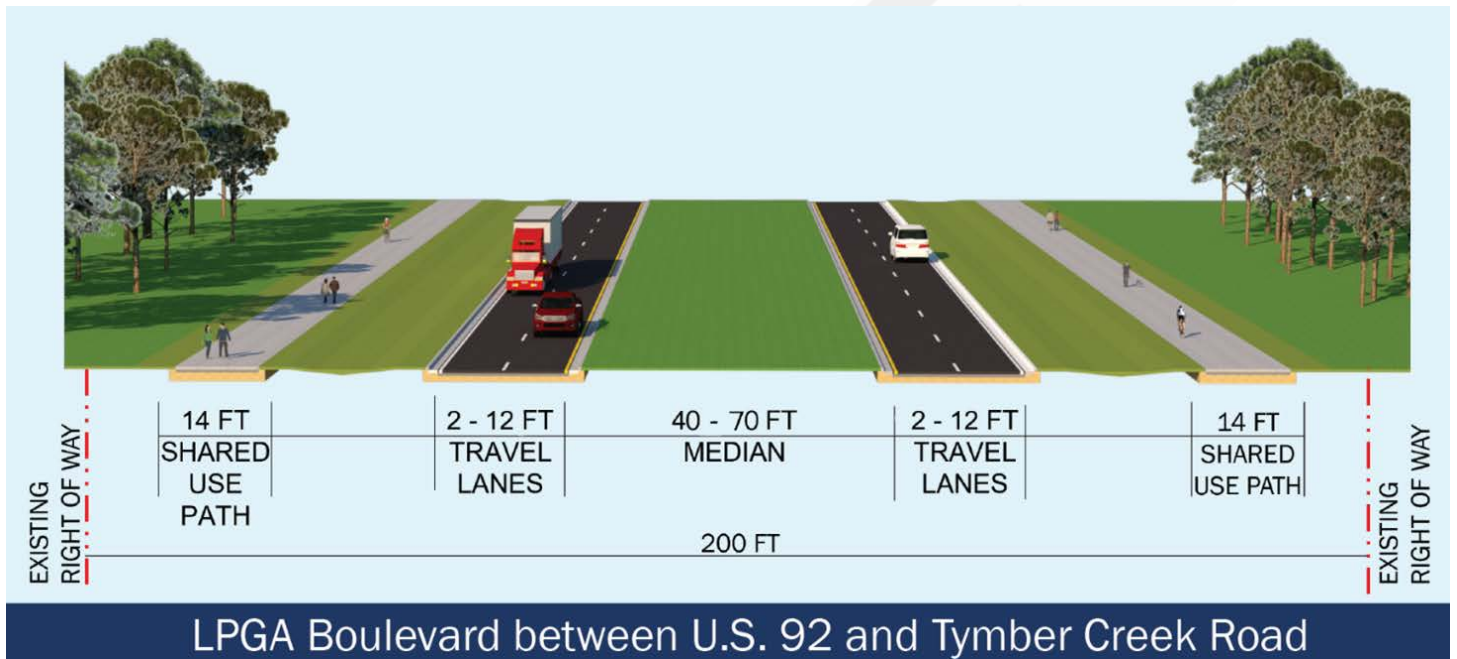
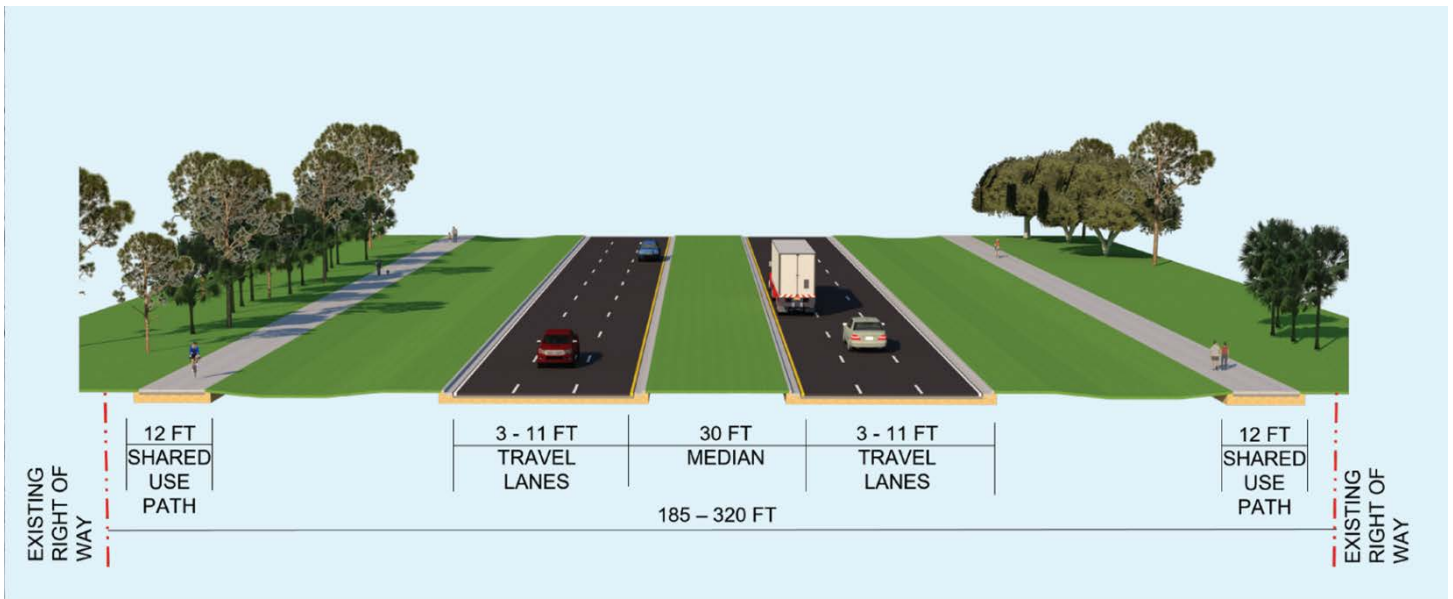


Figure 1.1.2: Preferred Alternative Typical Section between U.S. 92 and Tymber Creek Road

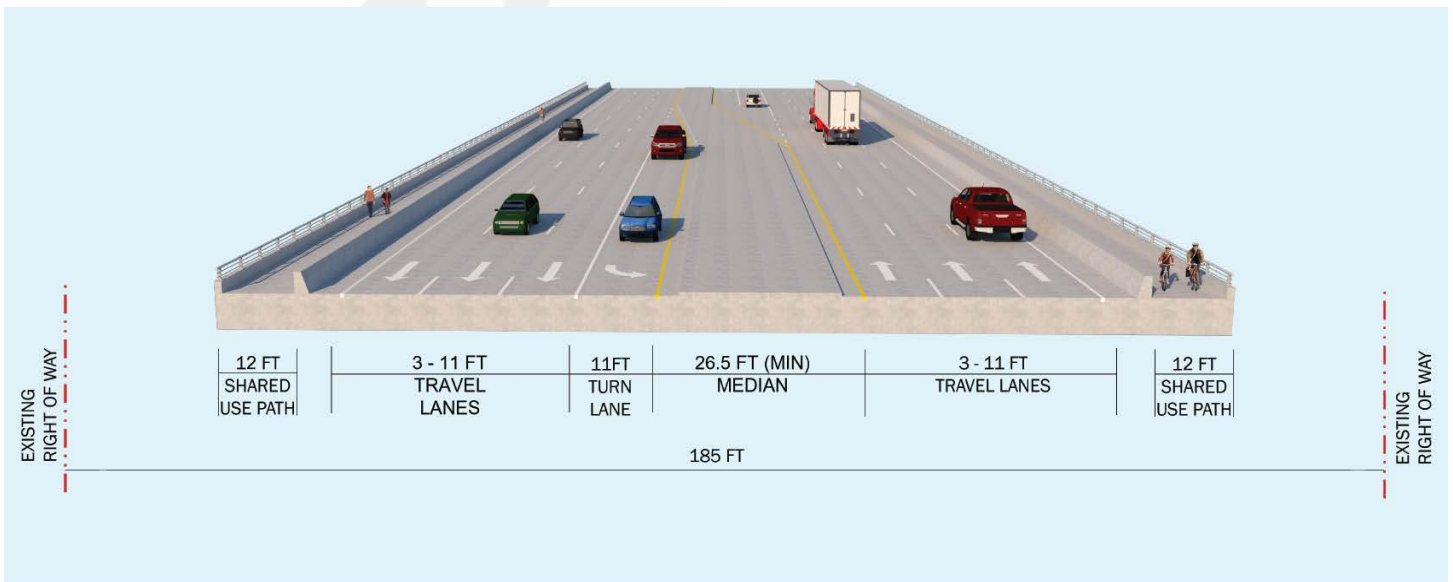
- From Tymber Creek Road to Williamson Boulevard: Six-lane divided roadway within the existing 185 feet to 320 feet right-of-way, except at two locations where minor right of way (2,250 square feet) is needed to connect the shared-use path to the existing sidewalk and corner clip at Williamson Boulevard to install a signal mast arm. The segment includes three 11-foot lanes in both directions (not including auxiliary or turn lanes), a variable median width with a 30-foot minimum, curb and gutter, and 12-foot shared-use paths on both sides of the roadway.



LPGA Boulevard between Tymber Creek Road and Williamson Boulevard

Figure 1.1.3: Preferred Alternative Typical Section between Tymber Creek Road and Williamson Boulevard

- The existing Tomoka River bridge (Bridge number 794038), built in 1968, is 250 feet long and 32.7 feet wide. The bridge is not considered Structurally Deficient; however, it is listed as Functionally Obsolete. The Tomoka River bridge will be replaced with a 340-foot long, 4 spans bridge that is raised to improve water flows. The bridge will carry a 6-lane divided roadway - three 11-foot lanes in both directions (not including auxiliary turn lanes), 26.5-foot median and 12-foot shared-use path on both sides of the roadway, barrier-separated from the travel lanes. All proposed bridge improvements will be within the existing right-of-way. The vertical profile of the bridge will accommodate bridge drainage and the 6' of clearance to the wildlife paths located on both sides of the river channel.



LPGA Boulevard at Tomoka River Bridge

Figure 1.1.4: Preferred Alternative Typical Section at Tomoka River Bridge

- The Preferred Alternative interchange configuration is the Signalized Turbine Interchange. The Signalized Turbine Interchange concept spreads the traffic across westbound and eastbound LPGA Boulevard and, as a result, it moves high volumes efficiently and provides enough queue storage between signalized ramp terminals. This concept would provide better safety and operational benefits than the other concepts evaluated early during the design year (2050). It also can be widened (by adding lanes) in the future if warranted without reconstructing the bridges. Refer to the Interchange Modification Report (IMR), located in the project file, for more details.



Figure 1.1.5: Preferred Alternative Interchange Configuration

The Preferred Alternative intersection configurations are as follows:

- US 92 - Signalized Intersection (same as existing).
- Welshinger-Butler Circle (South Intersection) - Roundabout (changed from two-way stop control).
- Welshinger-Butler Circle (North Intersection) - Roundabout (changed from two-way stop control).
- International Tennis Drive / International Golf Drive - Roundabout (changed from two-way stop control).
- Tournament Drive - Signalized Intersection (same as existing).
- Tymber Creek Road - Signalized Intersection (same as existing).
- Champions Drive - Signalized Intersection (same as existing).
- Tomoka Farms Road - Signalized (same as existing).
- I-95 Southbound Ramps - Signalized Intersection (same as existing).
- I-95 Northbound Ramps - Signalized Intersection (same as existing).
- Technology Boulevard - Signalized Intersection (same as existing).

- Williamson Boulevard - Signalized Intersection (same as existing).
- Concierge Boulevard - Unsignalized Intersection (changed to right-in right-out only).

1.2 Purpose and Need

The purpose for improving LPGA Boulevard from US 92 to Williamson Boulevard is to accommodate future transportation demand from approved developments and enhance safety for the corridor and the I-95 interchange.

The need for the project is based on existing and future transportation demand and safety along the LPGA Boulevard corridor and at the interchange area.

Transportation Demand

LPGA Boulevard from US 92 to Williamson Boulevard is currently operating near capacity. A review of existing (2021) traffic volumes in the project area showed an Annual Average Daily Traffic (AADT) of 12,000 vehicles per day for LPGA Boulevard from US 92 to Tomoka Farms Road and an AADT of up to 44,000 vehicles per day from Tomoka Farms Road through the I-95 interchange to Williamson Boulevard. Large, approved developments and active construction projects (such as LPGA Preserve, Indian Road Warehouse, and Tomoka Village), in combination with additional planned growth in the vicinity of LPGA Boulevard, are expected to increase traffic to levels that would exceed maximum service volumes for two-lane and six-lane, non-state, signalized roadways per the 2023 FDOT Quality/Level of Service (QLOS) Handbook. Future (2050) travel demands along LPGA Boulevard are expected to double or triple in some locations. The AADT between US 92 and Tymber Creek Road is expected to reach 36,000 vehicles per day. Heavy volumes are expected east of the I-95 interchange where AADT will reach 78,000 vehicles per day in 2050. These volumes will significantly exceed the existing roadway capacity and cause LPGA Boulevard to operate at LOS F.

The target LOS for I-95 and LPGA Boulevard is LOS D per the FDOT Level of Service Policy (Topic Number 000-525-006) and LOS E per Volusia County. The I-95 freeway segment approaching LPGA Boulevard currently functions at LOS D or better. Based on anticipated growth, the quality of traffic flow on I 95 and LPGA Boulevard in the study area is expected to decline in future years. Without improvements to the LPGA Boulevard corridor, the intersections on LPGA Boulevard as well as the I 95 off-ramps are anticipated to operate over capacity in the future resulting in longer travel times to reach workplaces, schools, and businesses.

Safety

A review of crash data reported in the project study area for the five-year period from January 1, 2015 to December 31, 2019 indicated there were 1,354 crashes; an average of 270 crashes per year. The most predominant crash type reported for the overall study area was rear-end crashes (37%). There were 11 reported fatal crashes, 414 injury crashes, and 929 property-damage-only crashes reported for the overall study area.

The highest numbers of crashes correspond to the locations with deficient LOS. These include the I-95 northbound off-ramp to LPGA Boulevard with crashes during the intersection's right turn on red condition; the I-95 southbound loop on-ramp from LPGA Boulevard westbound; and the eastbound approach of LPGA Boulevard to Williamson Boulevard. There are also high numbers of crashes at the intersections and uncontrolled access points along LPGA Boulevard. Most of LPGA Boulevard lacks pedestrian and bicycle facilities, which creates unsafe conditions for nonmotorized users. Between 2015 and 2019 six pedestrian/bicycle crashes were reported within the PD&E Study area.

A review of the project study area's crash rates calculated in crashes per million vehicle miles traveled showed that LPGA Boulevard from I-95 Southbound off ramp to I-95 Northbound off ramp has the highest crash rate for the study area with a rate of 3.42. This crash rate is lower than the statewide average crash rate (3.654) for similar facilities. The crash rates for the remaining sections of LPGA Boulevard range between 0.11 to 0.97. The section of I-95 south of LPGA Boulevard has the highest crash rate on I-95 sections is 1.18 which is higher than the statewide average crash rate (0.976) for similar facilities. I-95 section north of LPGA Boulevard has a crash rate of 0.50. The intersections that have crash rates higher than the statewide average rates for similar facilities are US 92 (0.69), Tournament Drive (1.17), Tomoka Farms Road (0.52) and Williamson Boulevard (0.74). The corresponding statewide averages for these intersections are 0.333, 0.367, 0.367, and 0.623.

Without improvements to the LPGA Boulevard corridor and at the I-95 interchange, the number of crashes is expected to continue to rise as future traffic volumes increase, compromising the safety of both vehicular and nonmotorized users.

Project Status

The project is within the jurisdiction of the River to Sea Transportation Planning Organization (R2CTPO), which covers Volusia County and parts of Flagler County. The proposed improvements for this project are listed in the R2CTPO Connect 2045 Long Range Transportation Plan (LRTP) and Fiscal Year (FY) 2022/23 to FY 2026/27 Transportation Improvement Program (TIP). Currently the PD&E and Design phases for this project are funded in FY 2021/2022 FDOT Work Program. The right of way phase is partially funded in FY 2026/2027. The construction phase is not currently funded. Table 1.1.1 summarizes the funding status from the FDOT Work Program for this project.

Phase	Funding	Amount
PD&E Study	Ongoing: Completion Fall 2023	\$3.7 Million
Design*	Funded: Spring 2022	\$7 Million
Right of Way**	Partially Funded: 2027	\$4 Million
Construction	Unfunded	-
<p><i>*Design is being conducted concurrently with the PD&E Study</i> <i>**All proposed improvements are expected to be within the existing right-of-way except stormwater management ponds between Tomoka Farms Road and Tymber Creek Road and minor corner clips between Tymber Creek Road to Williamson Boulevard. Actual cost of stormwater management ponds will be determined at the conclusion of PD&E Study.</i></p>		

Table 1.1.1: Project Funding Status the FDOT Work Program

1.3 Planning Consistency

PD&E and Design phases were funded concurrently and approved prior to 2023.

Currently Adopted LRTP-CFP	COMMENTS			
Yes	See the Planning Consistency Package			
	Currently Approved	\$	FY	COMMENTS
PE (Final Design)				
TIP	Y	0	2023	PD&E and Design phases were funded concurrently and approved prior to 2023. Cost estimates between the TIP (Attachment 2) and STIP (Attachment 3) are consistent.

STIP	Y	13,657 57,603	2023 2024	PD&E and Design phases were funded concurrently and approved prior to 2023. Cost estimates between the TIP (Attachment 2) and STIP (Attachment 3) are consistent.
R/W				
TIP	Y	7,000,000	>2026	Cost estimates between the TIP (Attachment 2) and STIP (Attachment 3) are consistent.
STIP	Y	7,000,000	>2026	Cost estimates between the TIP (Attachment 2) and STIP (Attachment 3) are consistent.
Construction				
TIP	N			
STIP	N			Construction funding is not programmed.

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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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Farmland Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Wild and Scenic Rivers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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

A GIS analysis for sociocultural effects was performed as part of the Efficient Transportation Decision Making (ETDM) screening (project# 14332) in January 2021. The sociocultural effects was recently updated by the analysis performed using the Sociocultural Data Report created on June 9, 2023 and is summarized below.

The study area, located in Volusia County, is mostly suburban with areas of residential and commercial development. The primary existing land uses within the 500-foot buffer area are: Acreage Not Zone For Agriculture (13.45%), Agricultural (9.61%), Public/Semi-Public (12.38%), Residential (9.07%), Vacant Nonresidential (8.32%), Vacant Residential (4.16%), and Institutional (2.99%). Starting at US 92 and heading north, the project is predominately undeveloped for roughly two miles. Several planned residential developments have been approved within the study area along LPGA Boulevard between US 92 and Tymber Creek Drive. Father Lopez Catholic High School and the Larry Kelly Field at the Daytona Beach Municipal Stadium are located at Welshinger-Butler Circle intersection and will not be impacted. There are existing large residential developments within the project area at the intersection of International Tennis Drive and International Golf Drive. LPGA International golf course and the Florida Tennis Center are also located adjacent to this intersection. Tymber Creek Road leads to the entrance of the Latitude Margaritaville Daytona Beach residential development and future mixed-use development being constructed south of Tymber Creek Road intersection. There are several businesses located on LPGA Boulevard east of Tymber Creek Road with direct access to LPGA Boulevard. Daytona Beach Fire Department and Rescue Station 7 is located on the south side of LPGA Boulevard east of Champions Drive. East of the Tomoka River bridge to Williamson Boulevard, the adjacent land use of the study corridor is mainly commercial consisting of several car dealerships, Buc-ee's gas station, Tanger Outlets Daytona Beach, and big box stores. The proposed improvements are within existing right-of-way and will not split communities, impact community facilities, or impact emergency services.

The ETDM Summary Report identified demographics within the 500-foot buffer of the project. According to the report, there is one census block group within the 500-foot buffer area that contains a minority population greater than 40%. The block group is located at the project terminus between I-95 and Williamson Boulevard. It is 79% minority and 55% low-income. The remainder of the corridor ranges between 29-36% minority and 18-36% low-income. The Sociocultural Data Report, located in the project file, identified three persons (0.54%) who speak English "not well" and no person who speaks English "not at all" (0%), based on the 500-foot project buffer. Written translation obligations under "safe harbor" were not anticipated for this project.

Table 3.1.1 compares demographic characteristics of the LPGA Boulevard study area, which includes six census blocks that intersect the project, to Volusia County.

Geography	2021 Population	Median Household Income	Below Poverty	High School Graduate or Higher	Bachelors Degree or Higher	Average Median Age	With Disability
Study Area	591	\$64,235	15.1%	91.5%	42.1%	45	10.1%
Volusia County	548,783	\$56,786	12.9%	91.1%	25.4%	46.4	14.6%

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

Table 3.1.1: Demographic Characteristics

Table 3.1.2 compares race and ethnicity characteristics of the LPGA Boulevard Study area to Volusia County.

Geography	White Alone	Black Alone	Asian Alone	Other Race Alone	2 or More Races	Hispanic or Latino of Any Race (Ethnicity)	Minority (Race and Ethnicity)
Study Area	74.5%	15.6%	3.2%	4.6%	1.7%	5.6%	30.3%
Volusia County	76.8%	10.9%	1.8%	6.1%	4.4%	15.1%	30.1%

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

Table 3.1.2: Race and Ethnicity

Table 3.1.3 compares housing trends of the LPGA Boulevard Study area to Volusia County.

Geography	Total Housing Units	Renter Occupied Housing Units	Owner Occupied Housing Units	Vacant Units	Occupied Housing Units with No Vehicle
Study Area	297	45.8%	44.1%	9.8%	3.0%
Volusia County	270,402	24.1%	60.5%	15.5%	5.6%

Table 3.1.3: Housing Trends

The proposed improvements are within existing right-of-way and will not involve residential or business relocations, impacts to community facilities, or dividing established neighborhoods. No changes to population or demographics are anticipated to result from the project. There is no known controversy associated with the Preferred Alternative. Based on the analysis for this PD&E study, 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 University of Florida's Bureau of Economic and Business Research (BEBR) projects that with medium population growth, Volusia County's current (2020) population of 551,588 will grow to 629,700 by 2040 (an increase of over 14%). As the population and development increases, increased demand on the surrounding roadway network will occur. There are several businesses along the corridor which may have the access to their locations altered; however, the project will not adversely impact access once construction is complete. Even though there will be some modifications to access, the project is anticipated to have a beneficial impact because the roadway expansion would provide enhanced connectivity to local and regional employers, while improving transportation level of service within the limits of the project. The addition of multi-modal accommodations in the form of shared use paths on both sides of the roadway throughout the project limits will also provide improved access to businesses for non-motorized users within the study area. Business and residential relocations are not anticipated.

3.3 Land Use Changes

The study area, located in Volusia County, is mostly suburban with areas of residential and commercial development and natural areas, as shown in Figure 3.3.1. The Tiger Bay State Forest, Tiger Bay Wildlife Management Area (WMA) Rima Ridge Unit and St. Johns River Water Management District (SJRWMD) Water Management Area are adjacent to the corridor at its southern terminus but are not impacted by the project. Florida Land Use Cover and Forms Classification System (FLUCCS) data, aerial photographs and wetland data from the National Wetlands Inventory were utilized to determine current land use and habitat types within the project area. The land uses and habitat types within and adjacent to the project area were subsequently ground-verified during field visits conducted in March of 2022 and January and February of 2023. The predominant land uses within the study area are as follows: Transportation/Utilities (31.3%); Low Residential (22.84%); Mixed-use General (16.8%); Commercial (9.41%); High Residential (5.7%); and Conservation (5.51%). Approximately 25 acres of right-of-way will be required for stormwater ponds. Land use at these locations will change from undeveloped to stormwater ponds.

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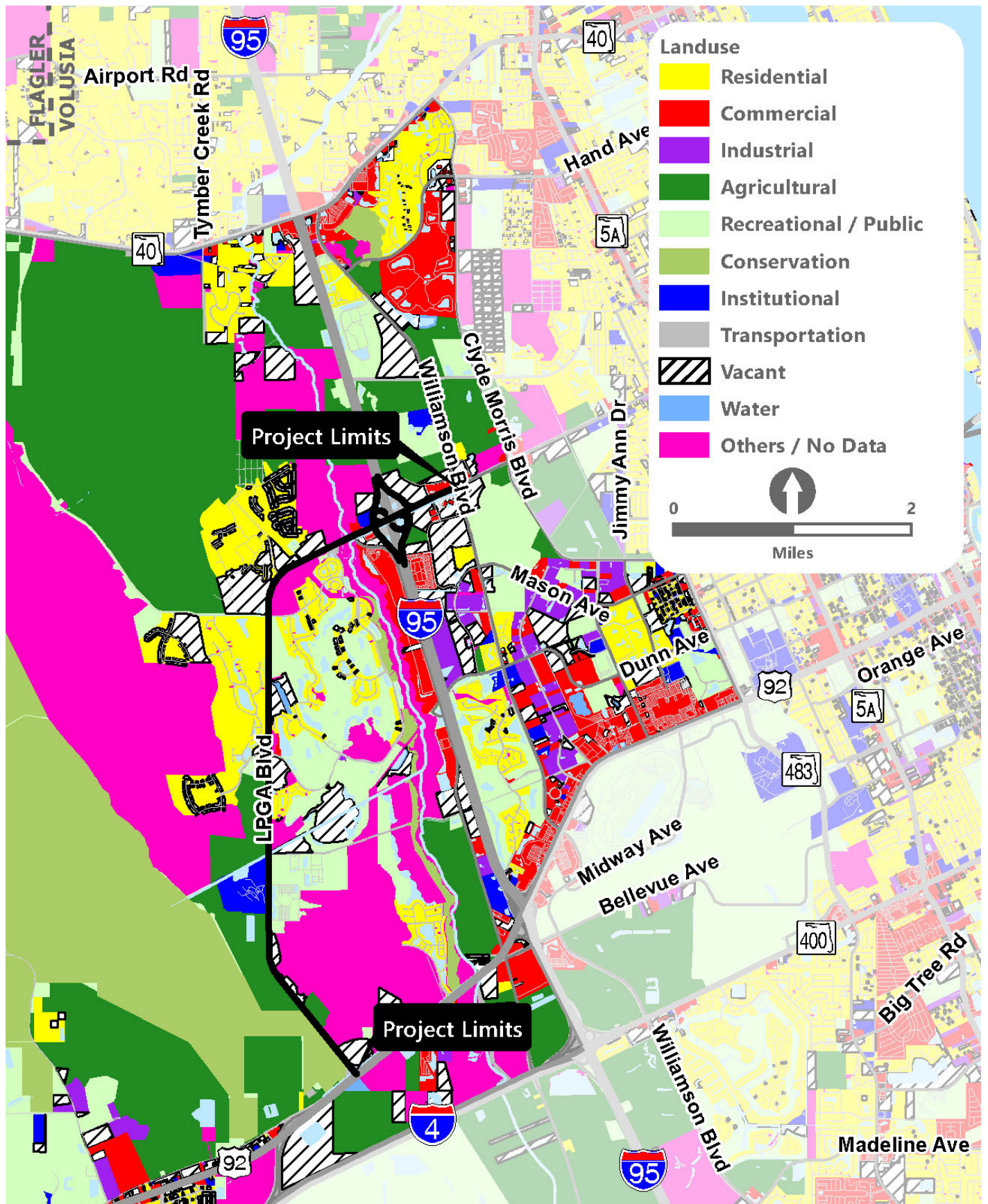


Figure 3.3.1: Existing Land Use

The Environmental Screening Tool Geographic Information System (GIS) analysis identified agriculture land within the 500-foot project buffer area under the Water Management District Agricultural Lands (FLUCCS Level 3) data layer: 38.21 acres (4.08%) of improved pastures; 5.72 acres (.61%) of field crops; and 23.07 acres (2.46%) of other open lands (rural). However, none of the lands have been identified as Prime Farmland or Farmland of Unique Importance.

The project is consistent with the future land uses designated in the City of Daytona Beach Comprehensive Plan, the Indigo Community Development District, and other community development goals within this area of Volusia County. The roadway and interchange improvements are anticipated to accommodate increased travel demand resulting from the population and employment growth in the area. Growth is projected to occur with or without the project based on BEBR population projections and planned and approved developments in the project area. The Preferred Alternative is not anticipated to induce growth. Future land use is shown in Figure 3.3.2.

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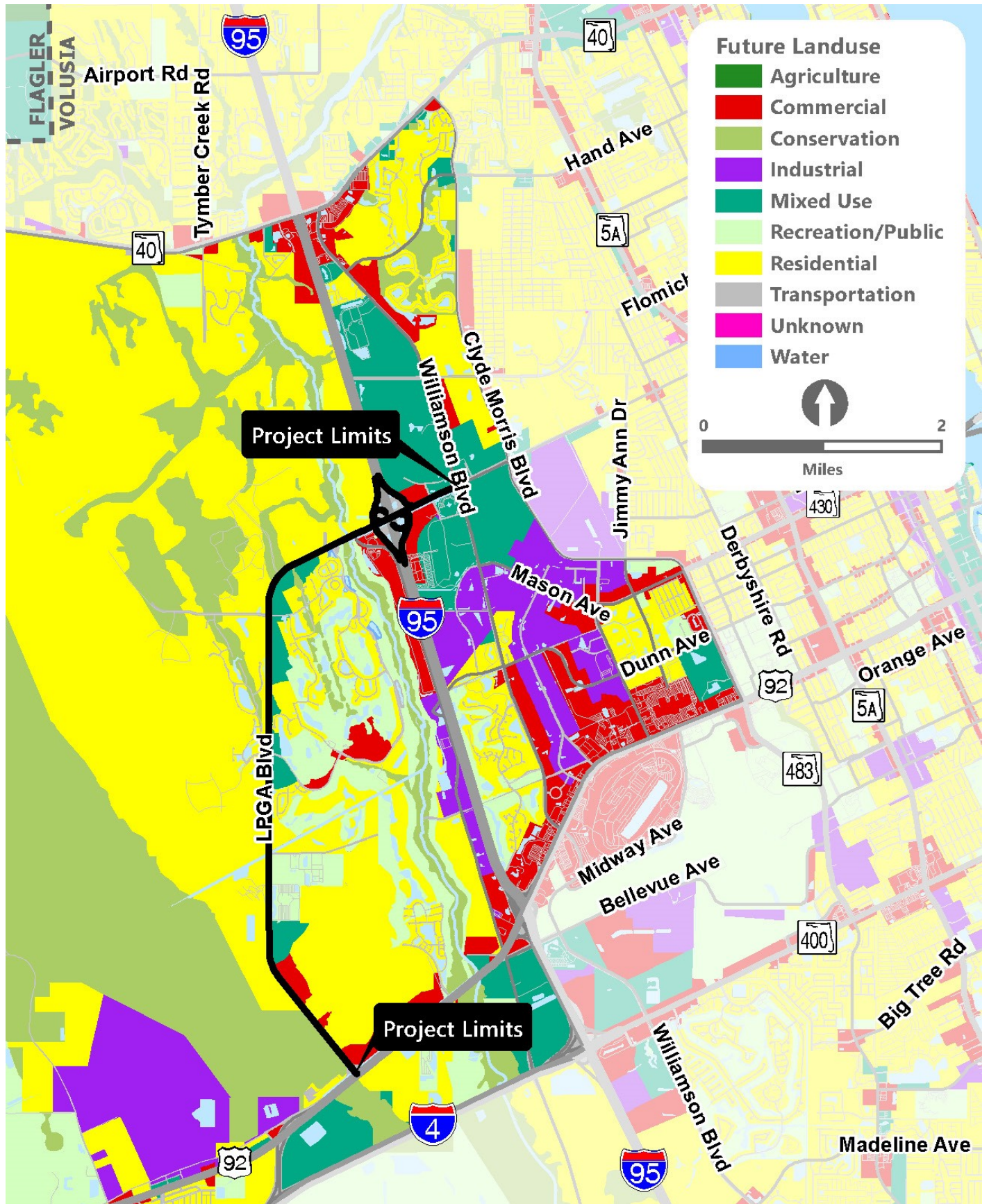


Figure 3.3.2: Future Land Use

3.4 Mobility

The project is anticipated to enhance mobility of multiple modes of transportation, including vehicular, bicycle, and pedestrian facilities. The Volusia County transit system does not operate in this area; thus, there will be no changes to transit. The traffic operational analyses show that during Design Year 2050, all study intersections for the No-Build Alternative are expected to operate at LOS F. Under the Preferred Alternative, the ramp terminal intersections at the I-95 interchange operate at LOS C or better in all analysis hours except the third hour of the PM peak period where one terminal operates at LOS D. All except three intersections operate at LOS E or better. The intersections operating at LOS F under the Preferred Alternative are due to inadequate side street capacities affecting the overall intersection operation. It should be noted that LPGA boulevard mainlines are designed to accommodate latent or unmet demand from side streets.

Currently, only limited areas of sidewalks exist between Tymber Creek Road and Williamson Boulevard. Pedestrian and bicycle accommodations will be provided on LPGA Boulevard by the addition of a 14-foot shared use path from US 92 to Tymber Creek Road, and a 12-foot shared use path from Tymber Creek Road to Williamson Boulevard. The shared use paths will be on both sides of the road and will provide safer access and improve the level of comfort for pedestrians and bicyclists along LPGA Boulevard. This project is anticipated to enhance mobility for all users within the facility.

3.5 Aesthetic Effects

The viewshed for motorists and residents is not expected to change significantly since the proposed improvements are the widening of an existing roadway. There will be tree removal associated with the stormwater pond sites. There are no scenic highways designated in the study area. 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. The existing landscape at the I-95 interchange will be impacted. Landscaping opportunities are discussed in the *Preliminary Engineering Report*. The project limits do not have existing noise barriers, and noise barriers are not recommended as part of the project. The lighting at the I-95 interchange will be relocated. Additionally, the project will require new lighting systems which will be designed to conform with the latest FDOT Design Manual requirements.

3.6 Relocation Potential

The Preferred Alternative roadway improvements and proposed stormwater ponds impact a total of 14 parcels, affecting 12 property owners, for a total of 25 acres.

Property Owner	Parcel ID	Required Areas (Acres)
Thoroughbred Classics LLC	523300000015	3.700
LAMMS Investments LLC	523200000060	2.620
Thoroughbred Classics LLC	522900000050	0.085
Galileo MP Invest LLC	522900000040	1.320
City of Daytona Beach	522900000090	1.598
Bii Volusia Holdings LLC	522000000010	1.534
Bii Volusia Holdings LLC	522900000017	0.017
Diocese Of Orlando	522901000010	0.510

City Of Daytona Beach	522800000030	2.236
EBP Properties LLC	522000000290	1.820
City of Daytona Beach	521700000070	5.816
Latitude At Daytona Beach HOA	520805000001	1.560
BOOS-TCV Daytona LLC	520800000022	2.550
95-LPGA Property Owners	520402000002	0.036
QSL-HOLD Co LLC	520304000010	0.016

Table 3.6.1: Right-of-way Needs

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, a Right of Way and Relocation Assistance Program will be carried out in accordance with 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

Lands within the project vicinity do not meet the definition of farmland as defined in 7 CFR § 658 and the provisions of the Farmland Protection Policy Act of 1981 do not apply because the entire project area is located in the urbanized area of Palm Coast-Daytona Beach-Port Orange with no designated farmlands adjacent to the project corridor.

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 04/17/2023. Therefore, FDOT, in consultation with SHPO, has determined that the proposed project will result in No Historic Properties Affected.

The SHPO concurrence letter dated April 17, 2023 with SHPO Project File Number 202301761 is attached. The SHPO concurrence letter for the Ponds Addendum dated August 14, 2023 with SHPO Project File Number 202304171 is attached.

The archaeological APE was defined to include the existing LPGA Boulevard right-of-way from US 92 (SR 600) to Williamson Boulevard, a 0.98-km (0.61-mile) section of Williamson Boulevard at LPGA Boulevard, a 2.7-km (1.7-mile) section of the I-95 corridor, a 0.11-km (0.07-mile) section of Tomoka Farms Road at LPGA Boulevard, and a 0.92-km (0.60-mile) section of US 92. The archaeological APE for ponds was limited to the proposed pond footprints. The architectural history APE was extended to the back or side property lines of parcels adjacent to the right-of-way or no more than 100 meters (330 feet) from the right-of-way line to consider viewshed effects to aboveground resources. The architectural history APE from the original CRAS covered both roadway improvements and the preferred pond sites.

Florida Master Site File (FMSF) data from October 2022 were reviewed to identify any previously recorded cultural resources within the project APE. The FMSF review indicates that 15 previous cultural resource surveys have been conducted within the current project corridor. No previously recorded resources were identified within the APE. For the archaeological APE for ponds, FMSF data from April 2023 were reviewed to identify any previously recorded cultural resources within the project APE.

The archaeological survey of the project corridor consisted of pedestrian reconnaissance and subsurface archaeological testing. In total, 96 shovel tests were excavated, nine of which contained artifacts. In addition to the excavated shovel tests, 200 "no dig" points were recorded due to extensive ground disturbing activities from buried utilities and development. Three archaeological sites (8VO10479, 8VO10480, and 8VO10481) and two archaeological occurrences (AO-1 and AO-2) were recorded as a result of this survey. FDOT determined and SHPO concurred that all three sites are ineligible for listing on the NRHP due to site disturbance, absence of dense cultural deposits and features, small and ubiquitous artifact assemblages, and lack of research potential to significantly contribute to the archaeological record of the region. No further archaeological survey is necessary for sites 8VO10479, 8VO10480, and 8VO10481 in support of the proposed LPGA Boulevard roadway improvements.

The archaeological survey of the preferred pond locations consisted of systematic shovel testing within the proposed pond footprints and pedestrian survey where field conditions precluded subsurface testing. Twenty shovel tests were excavated within the APE, and all were negative for cultural material. No further archaeological work is recommended.

The architectural survey included review of FMSF files, U.S. Geological Survey (USGS) quadrangle maps, and field survey. It resulted in the identification and evaluation of one historic resource, the Tomoka River to Bennett Swamp Canal (8VO10488), which intersects the right-of-way and Ponds 6C, 6E, and 7A. Due to its commonality and lack of notable engineering features or historical associations, FDOT determined and SHPO concurred that the Tomoka River to Bennett Swamp Canal (8VO10488) is ineligible for listing in the NRHP. No further architectural history survey is required.

No NRHP-listed or eligible cultural resources were identified within the project APE for proposed roadway improvements or the preferred pond sites. SHPO concurred that no further cultural resources work is required.

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

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

Six recreational facilities protected under Section 4(f) of the USDOT Act of 1966 are adjacent to the project: Tiger Bay State Forest, Tiger Bay WMA Rima Ridge Unit, SJRWMD Water Management Area, City of Daytona Beach Municipal Stadium / Daytona Stadium, City of Daytona Beach Florida Tennis Center / Daytona Tennis Center, and Indigo Community Development District. Section 4(f) No Determination Use Forms were approved by the Office of Environmental Management (OEM) for each resource. OEM concurrences and resource maps are attached to this document as part of the Section 4(f) Resources Form.

The Tiger Bay State Forest, Tiger Bay WMA Rima Ridge Unit, and the SJRWMD Water Management Area (referred to collectively as managed areas) all share the same boundary along the west side of LPGA Boulevard from US 92 north for approximately 0.75 miles. The 27,000-acre Tiger Bay State Forest is a multiple-use state forest owned by the Florida Department of Agriculture and Consumer Services, Division of Forestry, Florida Forest Service. The 11,438-acre Tiger Bay WMA Rima Ridge Unit is a Cooperative Area of the Florida Fish and Wildlife Conservation Commission (FWC), managed in cooperation with the Florida Forest Service and SJRWMD. The 12,283-acre SJRWMD Water Management Area is managed cooperatively with the Florida Forest Service and FWC. At the project location adjacent to the three managed areas, the proposed widening of LPGA Boulevard will occur entirely within the existing roadway right-of-way. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the east side of LPGA Boulevard, but not within the managed areas on the west side of LPGA Boulevard. No right-of-way is required from the managed areas including drainage or temporary easements. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. LPGA Boulevard adjoins but does not provide access to managed areas. There are no developed amenities, activities, features, or attributes of the managed areas accessible from LPGA Boulevard. The project will have no use or adverse impact to the Section 4(f) resources. OEM concurred with these determinations on May 17, 2023; documentation is in the project file.

The City of Daytona Beach owns the Daytona Stadium (Larry Kelly Field). The Daytona Stadium is a 50-acre stadium with 10,000 seats and 2,100 parking spaces. The stadium supports football games for multiple schools. At the project location adjacent to the Daytona Stadium, the proposed widening of LPGA Boulevard will occur within the existing roadway right-of-way. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the south side of the stadium and not within the municipal property of the stadium. The LPGA project includes a roundabout at Welshinger-Butler Circle North, and a roundabout at Welshinger-Butler Circle South. No right-of-way is required from the municipal property to construct the roundabout improvements. Improvements to Welshinger-Butler Circle are proposed by others as the future

Dunn Avenue along the south side of the stadium parcel. There are no developed amenities, activities, features, or attributes of the stadium at or accessible from LPGA Boulevard at this location. Access to the stadium will be maintained during construction. The project will have no use or adverse impact to the Section 4(f) resource. OEM concurred with this determination on May 18, 2023.

The City of Daytona Beach owns the 19-acre Florida Tennis Center / Daytona Tennis Center, which provides 24 clay courts, 20 of which are lighted for night use. The facility is open to the public and hosts tennis tournaments. At the project location adjacent to the Tennis Center, the proposed widening of LPGA Boulevard will occur within the existing roadway right-of-way. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the east side of LPGA Boulevard and not within the municipal property of the Tennis Center. The project includes a new roundabout at International Tennis Drive, along the northern edge of the municipal property. No right-of-way is required from the municipal property to construct the roundabout improvements. There are no developed amenities, activities, features, or attributes of the Tennis Center at or accessible from LPGA Boulevard at this location. The courts are near the project alignment on LPGA Boulevard, but their use / enjoyment will not be impacted due to separation from the road by a tree buffer. The edge of proposed LPGA Boulevard roadway pavement is approximately 54.5 feet from the existing right-of-way at the Tennis Center. The project will have no use or adverse impact to the Section 4(f) resource. OEM concurred with this determination on May 18, 2023.

The Indigo Community Development District is a special taxing district that owns a 305-acre property generally bounded by LPGA Boulevard, I-95, and US 92. The City of Daytona Beach Comprehensive Plan (November 2021) identifies the Future Land Use at the Tomoka River bridge as Buffer Area / Passive Park and Conservation. At the project location, the Tomoka River Bridge will be replaced with a single wider and longer bridge to accommodate widening of LPGA Boulevard and address bridge hydraulics including the effects of sea-level rise. The bridge will be constructed within the existing right-of-way. No temporary or permanent easements are required. The bridge concept plans include two 25-foot wildlife paths, one on each side, under the bridge adjacent to the river. Currently, the conceptual plans developed do not identify the drainage and stormwater runoff requirements for the bridge deck and the river below. The Tomoka River at the bridge location is not part of the designated Florida Department of Environmental Protection (FDEP) Tomoka River Paddling Trail. The Tomoka River within the project limits has a National Park Service (NPS) Nationwide Rivers Inventory (NRI) designation, which makes that segment of river eligible for listing in the National Wild and Scenic Rivers System, but the Tomoka River is not listed at this time. The project will have no use or adverse impact to the Section 4(f) resource. OEM concurred with this determination on June 6, 2023.

The proposed project does not involve a use of any property that qualifies for protection under Section 4(f) of the USDOT Act of 1966, as amended.

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.

DRAFT

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.

A protected species and habitat evaluation was conducted pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended, and Chapter 5B-40 and Chapter 68A-27, Florida Administrative Code (FAC). 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. The project was also evaluated for plant species designated as endangered, threatened, or commercially exploited in accordance with the Regulated Plant Index (5B-40.0055, F.A.C.), which is administered by the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry, pursuant to Chapter 5B-40, F.A.C. Evaluations were conducted in accordance with the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). A summary of the evaluation is included as follows.

The evaluated study area includes the existing right-of-way plus a 500-foot buffer to cover the preferred pond and floodplain compensation sites. The project will not encroach on any public lands, conservation areas, or U.S. Fish and Wildlife Service (USFWS) designated Critical Habitat for any species. It is anticipated that, by limiting the Preferred Alternative to the existing right-of-way and increasing the Tomoka River bridge horizontal clearance, impacts to wetlands and riparian uplands within the basin will be significantly reduced.

A Florida Natural Areas Inventory (FNAI) Standard Data Report, the USFWS Information for Planning and Consultation (IPaC) resource list [FWS project code 2023-0045913 (February 15, 2023)], and available GIS data were reviewed. The FNAI report and IPaC list are attached to the NRE. Field reconnaissance was performed in March 2022 within the right-of-way and January and February 2023 within the preferred pond and floodplain compensation sites. Based on the desktop research and field reviews, potentially protected fauna and flora were identified. Tables 5.1.1 and 5.1.2 list the federally and state protected species with potential to occur within the study area and their project effect determinations. Each species and their effect determinations are discussed in more detail in the following subsections. Discussion is also included for other protected species including the bald eagle, bats, and Florida black bear.

The NRE was submitted to USFWS, U.S. Army Corps of Engineers (USACE), FDEP, SJRWMD, FDACS and FWC for review and to initiate coordination/consultation for the project on June 22, 2023. On July 19, 2023, USFWS found that the proposed action is not likely to adversely affect any federally listed species or designated critical habitat and that the requirements of section 7 of the ESA are fulfilled. USACE acknowledged receipt of the NRE on July 5, 2023 and requested that impacts to USACE jurisdictional waters be separated from the State 404 program, which will be done during permitting. FDACS responded on June 22, 2023 that they will assist in locating volunteers to relocate state protected plant species. FWC responded on July 13, 2023 that they agree with the effect determinations and support the implementation measures and commitments. FWC also recommended that FDOT consider wildlife crossing features along the project corridor. Wildlife crossing features will be further investigated as part of the design. The agency letters

are attached.

Scientific Name	Common Name	Status	Probability of Occurrence in Study Area	Effect Determination
Mammals				
<i>Perimyotis subflavus</i> *	Tricolored bat	Proposed Endangered	Low	NA*
Birds				
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	Threatened	Low	No Effect
<i>Dryobates borealis</i>	Red-cockaded woodpecker	Endangered	Low	No Effect
<i>Laterallus jamaicensis jamaicensis</i>	Eastern black rail	Threatened	Low	No Effect
<i>Mycteria americana</i>	Wood stork	Threatened**	Moderate	May Affect, Not Likely to Adversely Affect
Reptiles				
<i>Caretta caretta</i>	Loggerhead sea turtle	Threatened	None	No Effect
<i>Chelonia mydas</i>	Green sea turtle	Threatened	None	No Effect
<i>Dermochelys coriacea</i>	Leatherback sea turtle	Endangered	None	No Effect
<i>Drymarchon corais couperi</i>	Eastern indigo snake	Threatened	Moderate	May Affect, Not Likely to Adversely Affect
<i>Eretmochelys imbricata</i>	Hawksbill sea turtle	Endangered	None	No Effect
Insects				
<i>Danaus plexippus</i> *	Monarch butterfly	Candidate	Moderate	NA*
Plants				
<i>Deeringothamnus rugelii</i>	Rugel's pawpaw	Endangered	None	No Effect
* Effect determinations are not applicable to candidate species.				
** FWS proposed removal from listing (88 FR 9830, February 15, 2023)				

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

Scientific Name	Common Name	Status	Probability of Occurrence in Project Area	Effect Determination
Birds				
<i>Antigone canadensis pratensis</i> *	Florida sandhill crane	Threatened	High	No Adverse Effect Anticipated
Reptiles				
<i>Gopherus polyphemus</i> *	Gopher tortoise	Threatened	High	No Adverse Effect Anticipated
Plants				
<i>Arnoglossum diversifolium</i>	Variable-leaved Indian-plantain	Threatened	Low	No Effect Anticipated
<i>Calopogon multiflorus</i>	Many-flowered grass-pink	Threatened	Low	No Effect Anticipated

<i>Carex chapmanii</i>	Chapman's sedge	Threatened	Moderate	No Adverse Effect Anticipated
<i>Centrosema arenicola</i>	Sand butterfly pea	Endangered	Low	No Effect Anticipated
<i>Conradina grandiflora</i>	Large-flowered rosemary	Threatened	Low	No Effect Anticipated
<i>Illicium parviflorum</i>	Star anise	Endangered	Moderate	No Adverse Effect Anticipated
<i>Lechea cernua</i>	Nodding pinweed	Threatened	Low	No Effect Anticipated
<i>Matelea floridana</i>	Florida spiny-pod	Endangered	Low	No Effect Anticipated
<i>Nemastylis floridana</i>	Celestial lily	Endangered	Low	No Effect Anticipated
<i>Nolina atopocarpa</i>	Florida beargrass	Threatened	Low	No Effect Anticipated
<i>Orthochilus ecristatus</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>Sarracenia minor</i> *	Hooded pitcher plant	Threatened	High	No Adverse Effect Anticipated

* Species with documented occurrences within the study areas during the PD&E field reconnaissance.

Table 5.1.2: State-designated Species Potentially Occurring within the Study Area

Tricolored bat (*Perimyotis subflavus*)

The tricolored bat was recently proposed for federal listing as endangered on September 14, 2022 [87 FR 56381]. It is the smallest bat found in Florida with an approximate nine-inch wingspan and a body length of up to two inches. It is distinguishable from other bats by its pink forearms that strongly contrast with their black wings. Their fur ranges from silver-yellow to dark orange. They are known to occur in most areas of Florida, except for the Keys, however they are rarely encountered and are considered uncommon in Florida.

Tricolored bats typically roost alone. During the winter, tricolored bats roost in caves and mines where they hibernate, but in southern states where caves are sparse, they have been found to roost in roadway culverts. During the other months of the year they are known to roost in tree foliage, tree cavities, Spanish moss and in old buildings. During the summer, tricolored bats form small maternity colonies in tree foliage and palm fronds and sometimes in man-made structures such as sheds and barns. The females give birth to two pups May through June.

All species of bat are protected during their maternity season in Florida under 68A-4.001 FAC General Prohibitions and 68A-9.010 FAC Taking Nuisance Wildlife. Bat maternity season begins April 15th and runs through August 15th. Bats are known to roost in bridges. This project involves widening the bridge over the Tomoka River (Bridge No. 794038). No bats were observed roosting beneath the bridge during the field reconnaissance. However, FDOT will complete a bat occupancy survey of the bridge prior to construction and if bats are identified roosting in the bridge FDOT will develop a bat exclusion plan in accordance with 68A-4.001 FAC. and 68A-9.010 FAC.

Roost sites for the tricolored bat can occur anywhere there are trees with foliage, culverts, or other appropriate roosting structures. Finding tricolored bat roosts is extremely difficult since they roost in foliage and frequently roost switch. The project area does include forested habitat and multiple culverts for roosting, however nighttime foraging will not be impacted, as there are expanses of foraging habitat adjacent to the project area. If the listing status of the tri-colored bat is elevated by USFWS to Threatened or Endangered prior to construction and the Preferred Alternative is located within the consultation area, FDOT commits to initiating consultation with the USFWS to determine the appropriate survey

methodology and to address USFWS regulations regarding the protection of the tri-colored bat.

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. There is no suitable habitat present within the study area. The FNAI Standard Data Report did not identify any known occurrences of the Florida scrub-jay within the vicinity of the survey 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. The FNAI Standard Data Report identified the red-cockaded woodpecker as having the potential to occur within the study area. Their distribution is dependent on remaining areas of old-growth pine forests. In north and central Florida, they prefer longleaf pine (*Pinus palustris*) flatwoods. There are no documented occurrences of the red-cockaded woodpecker in Volusia County and the only pinelands that will be affected by the project are pine plantations which do not provide suitable habitat for the red-cockaded woodpecker. Due to these conditions, 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. Male 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 these dense clumps of vegetation and are typically constructed over moist soil or shallow water. The FNAI Standard Data Report did not identify any known occurrences of the Eastern black rail within the vicinity of the survey areas and the Eastern black rail was not observed during field reconnaissance. Considering the small amount of freshwater emergent marsh present, lack of dense emergent vegetation within marshes, and previous impacts by development, 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, FWS proposed removal from listing on 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 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 USFWS data updated in 2021, there are no active wood stork nesting colonies occurring within a 15-mile radius of the project area, and there are few areas with SFH within the project area. Because project impacts to SFH are not within a Core Foraging Area of a colony site and no wood storks have been documented foraging on site, according to the USFWS Wood Stork Effect Determination Key (2008) (attached to this document), the proposed project **may affect, but is not likely to adversely affect** the wood stork.

Sea turtles

The federal statuses for loggerhead, green, leatherback, and Kemp's ridley sea turtles are threatened or endangered. They are large marine-dwelling turtles that nest on sandy beaches. They forage and occasionally shelter in estuarine environments including submerged aquatic vegetation (SAV) beds. Sea turtle nesting habitat and critical habitat are not present within the study area. The nearest suitable foraging habitat is located approximately 10 miles downstream of the proposed project. There are no known occurrences of sea turtles within the Tomoka River within the study area. Based on the lack of suitable nesting and foraging habitat in the project area and that there are no known occurrences of sea turtles within the vicinity of the study area, the proposed project will have **no effect** on federally listed sea turtles.

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 colored 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 project is located within the LPGA Boulevard corridor that consists of disturbed and maintained road right-of-way. The presence of gopher tortoise burrows has been confirmed in 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 to this document) leads to a determination that the proposed project **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.). Mowed right-of-way can contain milkweed and nectar producing plants and is considered potential habitat; however, no milkweed was directly observed during field review. 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. Consultation with USFWS is not required for candidate species. If the listing status of the monarch is elevated to Threatened or Endangered, FDOT commits to re-initiating consultation with the USFWS to determine the appropriate measures regarding the protection of the monarch butterfly.

Rugel's pawpaw (*Deeringothamnus rugelii*)

The FNAI Standard Data Report identified Rugel's pawpaw as having the potential to occur within the study area. Rugel's pawpaw is a rare flowering plant that is federally listed as endangered. It is found in open flatwoods with an understory of wiregrass and saw palmetto. It is a shrub with a woody base and non-woody shoots that die back in the winter. The flowers are yellow with six slender petals and three sepals while the fruit is yellow-green and roughly the shape of a peanut. Rugel's pawpaw is endemic to Volusia County. There is no potential habitat within the project area as the pine plantations present within the study area are not maintained with fire and do not represent the drier and open conditions that Rugel's pawpaw prefers. The FNAI Standard Data Report did not identify any known occurrences of Rugel's pawpaw

within the vicinity of the survey areas and it was not observed during field reconnaissance. Based on the lack of suitable habitat and that there are no documented occurrences within the study area, it has been determined that the project will have **no effect** on Rugel's pawpaw.

State Listed Species

Florida sandhill crane (*Antigone canadensis pratensis*)

The Florida sandhill crane is a state-designated threatened wading bird. Sandhill cranes are tall gray birds with a red crown. Sandhill cranes use a variety of habitats, preferring wet prairies, marshy lake margins, wet pastures, and marshes. Sandhill cranes nest and forage in shallow, freshwater marsh habitats. Their nests are usually sequestered within wetland interiors where disturbance is less likely.

Florida sandhill cranes were observed along LPGA Boulevard during field reviews and there are freshwater marshes and stormwater ponds located within the proposed project area. 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. Sandhill cranes breed from December through August and nest between February and April. Since the FDOT will follow the recommendations, there is **no adverse effect anticipated** on the Florida sandhill crane.

Gopher tortoise (*Gopherus polyphemus*)

The gopher tortoise is a state-designated 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. Their burrows are easily identified by the soft mound of sand at the entrance of their burrows.

Natural Resources Conservation Service Gopher Tortoise Burrowing Soil Suitability Reports were run for the survey areas and are included in the soil survey reports in the NRE, Appendices D and E. The roadway study area soil report identifies two small areas of highly suitable soils occurring southwest of the LPGA Boulevard/I-95 interchange along the roadway. In addition, two small areas of Pond 13B occur within highly suitable soils.

Two potentially occupied burrows were observed within the Preferred Pond Site 12C+13A slightly west of the areas of highly suitable soils. The mapped soil unit for this pond site is considered a less-suited soil type for gopher tortoises. It is likely that there are more gopher tortoise burrows present within the highly suited soil units east of Pond 12C+13A and within all adjacent, less suited soil units.

Prior to construction a survey of all suitable habitat will be performed. If potentially occupied burrows are located, FDOT will procure a relocation permit from the FWC. Since the FDOT will follow the Gopher Tortoise Permitting Guidelines and regulations, there is **no adverse effect anticipated** on the gopher tortoise.

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

The FNAI Standard Data Report identified variable-leaved Indian-plantain as having the potential to occur within the study area. Variable-leaved Indian-plantain is a state-designated state-designated 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 study area include a small section of a forested wetland along the Tomoka River, however there are no documented occurrences of variable-

leaved Indian plantain within Volusia County. Therefore, there is **no effect anticipated** for the variable-leaved Indian-plantain.

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

The FNAI Standard Data Report identified many-flowered grass-pink as having the potential to occur within the study area. Many-flowered grass-pink is a state-designated 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. There are no documented occurrences of the many-flowered grass-pink in Volusia County and the study area do not include any natural pinelands with a regular fire regime. Since there is no suitable habitat for the many-flowered grass-pink, there is **no effect anticipated** on the many-flowered grass-pink.

Chapman's sedge (*Carex chapmanii*)

The FNAI Standard Data Report identified Chapman's sedge as having the potential to occur within the study area. Chapman's sedge is a state-designated threatened plant. It is an herbaceous perennial with thin leaves and flowers that are arranged as spikes on the stem. It occurs in hydric hammocks and bottomland forest, typically along river floodplains. There are documented occurrences within Volusia County but not within the study area. The study area contains forested wetlands though none were observed during field reconnaissance. Considering that there have been no documented occurrences of the Chapman's sedge within the vicinity of the study area and that none were observed within the study area during field reconnaissance, there is **no adverse effect anticipated** on the Chapman's sedge.

Sand butterfly pea (*Centrosema arenicola*)

The FNAI Standard Data Report identified sand butterfly pea as having the potential to occur within the study area. Sand butterfly pea is a state-designated 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. Sand butterfly pea has been documented within Volusia County, but the study area does not include suitable habitat. Since there is no suitable habitat for the sand butterfly pea, there is **no effect anticipated** on the sand butterfly pea.

Large-flowered rosemary (*Conradina grandiflora*)

The FNAI Standard Data Report identified large-flowered rosemary as having the potential to occur within the study area. Large-flowered rosemary is a state-designated threatened plant that grows as a dense low-shrub with a minty odor and white flowers that exhibit bands of purple dots. It occurs in scrub, scrubby flatwoods, and adjacent disturbed areas. There are documented occurrences within Volusia County, however there is no suitable habitat within the study area. Therefore, there is **no effect anticipated** on the large-flowered rosemary.

Star anise (*Illicium parviflorum*)

The FNAI Standard Data Report identified star anise as having the potential to occur within the study area. Star anise is a state-designated endangered plant that grows as a shrub with smooth, evergreen leaves and exhibits woody, star-shaped fruit. It occurs in hydric hammocks, floodplain swamps, and bayheads. There are documented occurrences of star anise within Volusia County but not within vicinity of the study area. The study area contain forested wetlands however star anise was not observed within the study area during field reconnaissance. Therefore, there is **no adverse effect anticipated** on the star anise.

Nodding pinweed (*Lechea cernua*)

The FNAI Standard Data Report identified nodding pinweed as having the potential to occur within the study area. Nodding pinweed is a state-designated threatened plant that occurs within unshaded white sands of scrub and scrubby flatwoods. There are documented occurrences within Volusia County, however, the study area do not contain any suitable

habitat for the nodding pinweed. Therefore, there is **no effect anticipated** on the nodding pinweed.

Florida spiny-pod (*Matelea floridana*)

The FNAI Standard Data Report identified Florida spiny-pod as having the potential to occur within the study area. Florida spiny-pod is a state-designated 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. There are no documented occurrences within Volusia County and no suitable habitat within the study area. Therefore, there is **no effect anticipated** on the Florida spiny-pod.

Celestial lily (*Nemastylis floridana*)

The FNAI Standard Data Report identified celestial lily as having the potential to occur within the study area. Celestial lily is a state-designated 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. There are documented occurrences of celestial lily within Volusia County, however there is no suitable habitat present within the study area. Therefore, there is **no effect anticipated** on the celestial lily.

Florida beargrass (*Nolina atopocarpa*)

The FNAI Standard Data Report identified Florida beargrass as having the potential to occur within the study area. Florida beargrass is a state-designated threatened plant that grows as a rosette with long, thin leaves and a bulb-like base. It occurs in grass areas of mesic and wet flatwoods. There are documented occurrences of Florida beargrass within Volusia County and there are wet pinelands within the study area. However, these areas have been previously converted to pine plantations with dense canopies or significant undergrowth and a suppressed fire regime. Therefore, there is **no effect anticipated** on the Florida beargrass.

Giant orchid (*Orthochilus ecristatus*)

The FNAI Standard Data Report identified giant orchid as having the potential to occur within the study area. Giant orchid is a state-designated 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. There are documented occurrences of giant orchid within Volusia County, however there is no suitable habitat present in the study area. Therefore, there is **no effect anticipated** on the giant orchid.

Florida mountain-mint (*Pycnanthemum floridanum*)

The FNAI Standard Data Report identified Florida mountain-mint as having the potential to occur within the study area. Florida mountain-mint is a state-designated threatened plant. It is an 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. There are documented occurrences in Volusia County and a significant part of the study area are open, roadside ditches or swales. However, Florida mountain-mint was not observed within the study area during field reconnaissance; therefore, there is **no adverse effect anticipated** on the Florida mountain-mint.

Florida willow (*Salix floridana*)

The FNAI Standard Data Report identified Florida willow as having the potential to occur within the study area. Florida willow is a state-designated 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. There are no documented occurrences of Florida willow in Volusia County. Therefore, there is **no effect anticipated** on the Florida willow.

Hooded pitcher plant (*Sarracenia minor*)

The hooded pitcher plant is a state-designated threatened plant that was identified during field reconnaissance in two locations adjacent to a proposed pond and floodplain compensation site. It is a carnivorous, clumping plant with leaves that are rolled lengthwise, which allow it to trap insects. The top of the leaf is reddish and curved over the top of the pitcher with translucent white spots opposite the opening. The hooded pitcher plant is found in mesic and wet flatwoods, marsh ecotones, and wet ditches. One cluster of hooded pitcher plant was observed during field reconnaissance within the Preferred Floodplain Compensation Site 9E and one cluster was observed adjacent to Pond 6C. FDOT will coordinate with the FDACS regarding this species to identify opportunities to reduce impacts to it. Therefore, there is **no adverse effect anticipated** on the hooded pitcher plant.

Bald eagle

The USFWS has delisted the bald eagle; however, protection continues under the BGEPA and the MBTA. 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, there is one bald eagle nest within a one-mile radius of the project area though it has not been occupied since 2006.

A bald eagle pair and nest were observed at the Daytona Beach Municipal Stadium during field reviews. This nest is in a mature pine tree more than 660 feet from the project area, just north of Welshinger-Butler Circle beyond the chain-link fence. FDOT will survey for bald eagle nests during permitting and design. If a bald eagle nest is identified within 660 feet of the project, coordination will be initiated with the USFWS in accordance with the BGEPA and MBTA. Because this project will be consistent with the BGEPA and the MBTA, and since no bald eagle nests were identified near the project area, it is anticipated that the bald eagle will not be adversely affected.

Bats

Bats are protected during their maternity season in Florida under 68A-4.001 FAC General Prohibitions and 68A-9.010 FAC Taking Nuisance Wildlife. Bat maternity season begins April 15th and runs through August 15th. Bats are known to roost in bridges. This project involves widening the Bridge 0171 over the Tomoka River. No bats were observed roosting beneath the bridge during the field reconnaissance. However, FDOT will complete a bat occupancy survey of the bridge prior to construction and if bats are identified roosting in the bridge FDOT will develop a bat exclusion plan in accordance with 68A-4.001 FAC and 68A-9.010 FAC.

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). Based on the *Florida Black Bear Management Plan*, the project is within a Florida Black Bear Range designated as having frequent occurrences of the Florida black bear. 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 phases 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 project work area which may act as an attractant for the bear and report nuisance bears to the FWC Wildlife Alert hotline. 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.

The discharge of dredged or fill material into waters of the United States under the Clean Water Act of 1972 is regulated under the USACE for the Tomoka River portion of the project (classified as retained waters). Waters of the United States in the project area beyond the retained waters of the Tomoka River fall under the jurisdiction of FDEP. The SJRWMD also regulates activities in Tomoka River Riparian Habitat Protection Zone and wetlands within the project area under state wetland protection rules (Chapter 62-330, FAC, Environmental Resource Permitting).

Jurisdictional limits of wetlands and other surface waters were estimated for the project 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 March 2022 to estimate jurisdictional limits of wetlands and other surface waters within the roadway study area and in January and February 2023 for the selected pond and floodplain compensation sites.

Table 5.2.1 summarizes the number and acreage of wetland types and other surface waters identified in the roadway and preferred pond and floodplain compensation sites study areas. The three other surface waters include the Tomoka River, Thayer Canal, and US 92 Canal.

Type	Number of Wetlands or Other Surface Waters	Total Acreage
Roadway Study Area		
Forested Wetland	34	37.34
Herbaceous Wetland	76	54.40
Shrub Wetland	2	0.45
Other Surface Water	25	17.90
Preferred Pond and Floodplain Compensation Sites		
Forested Wetland	6	6.04
Herbaceous Wetland	4	7.16
Summary		
All Wetlands (Forested, Herbaceous, & Shrub)	122	105.39
All Other Surface Waters	25	17.9

Table 5.2.1: Wetland and Other Surface Waters Identified within the Study Areas

Table 5.2.2 summarizes the number of wetland types and other surface waters that would be impacted with total impact acreages and the corresponding Uniform Mitigation Assessment Method (UMAM) functional loss. UMAM sheets are in the NRE, which is located in the project file. A map series of wetland and other surface water impacts is attached.

Type	Number of Impact Areas	Total Impact Acreage	UMAM Functional Loss
Roadway Study Area			
Forested Wetland	28	3.26	1.62
Herbaceous Wetland	67	47.65	17.02

Shrub Wetland	2	0.19	0.07
Other Surface Water	19	15.20	NA
Preferred Pond and Floodplain Compensation Sites			
Forested Wetland	10	5.68	2.78
Herbaceous Wetland	7	3.94	1.84
Other Surface Water	3	0.03	NA
Summary			
All Wetlands (Forested, Herbaceous, & Shrub)	114	60.72	23.33
All Other Surface Waters	22	15.23	NA

Table 5.2.2: Wetland and Other Surface Waters Direct Permanent Impacts

The proposed project would result in impacts to all wetlands and other surface waters occurring within the existing right-of-way and within the preferred pond and floodplain compensation sites. The proposed roadway widening and the LPGA Boulevard/I-95 interchange modifications occur within the existing right-of-way and would result in direct permanent impacts to 97 wetlands totaling 51.10 acres and 19 other surface waters totaling 15.20 acres. The preferred pond and floodplain compensation sites (not including the LPGA/I-95 interchange ponds) would result in direct permanent impacts to 17 wetlands (including wetlands within the roadway study area) totaling 9.61 acres and three other surface waters (surface waters within the roadway study area) totaling 0.03 acres.

The UMAM per Chapter 62-330.345, FAC, was used to assess all potential wetland impact areas to provide a preliminary estimate of total wetland functional loss resulting from the project.

Short-term and long-term impacts to water quality, and the resultant effects on wetland resources caused by construction and the final project are anticipated to be low with the use of Best Management Practices (BMPs) during construction. The proposed roadway improvements and widening are those safety improvements determined to be necessary based on the development that has already occurred within the region. Every effort has been made during the preliminary design to minimize and retain impacts to within the existing FDOT right-of-way where wetland and upland habitats are only providing minimal habitat values. Impacts to wetlands will be mitigated for within the basin and therefore cumulative effects are expected to be insignificant.

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. 1344. Final mitigation requirements would be determined during permitting based on the project design, using the UMAM habitat scoring, and based on negotiations with the regulatory agencies at the time of permitting. Some mitigation banks require the use of the Wetland Rapid Assessment Procedure (WRAP) to determine mitigation requirements. The purchase of mitigation bank credits from an appropriate mitigation bank will be used to satisfy mitigation requirements or other mitigation options pursuant to Section 373.4137 may be used such as the purchase of mitigation services through SJRWMD or FDEP.

The project falls within the Halifax River Watershed and the larger Daytona-St. Augustine Basin. The following lists the mitigation banks that service the project area and their current credit availability status:

- Lake Swamp Mitigation Bank - Currently this mitigation bank has no wetland mitigation credits available.

- Port Orange - This mitigation bank currently has 141 UMAM state wetland mitigation bank credits available and 216 WRAP federal mitigation bank credits available.
- Tiger Bay Mitigation Bank - This bank has federal and state credits available. The bank uses UMAM for both. They currently have between 30 to 40 forested credits available.
- Farnton Mitigation Bank - This bank has federal and state credits available. The bank uses WRAP for wetland assessments for federal credits and UMAM for state credits. They currently have approximately 600 credits available between herbaceous and forested credits.

The NRE will be submitted to the 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.

Based on preliminary design, it has been determined that there are no practical alternatives to the proposed construction in areas of wetlands and other surface waters. Avoidance of these resources has been maximized to the greatest extent possible and the design has been limited to the existing FDOT right-of-way to avoid and minimize impacts to higher quality wetlands outside the right-of-way. 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 SJRWMD or FDEP. The use of BMPs including the use of silt screens, floating turbidity barriers, and other discharge prevention measures during construction will minimize impacts to adjacent wetlands and other surface waters within the vicinity of the project. Considering that Tomoka River is an Outstanding Florida Water (OFW), the project will need to adhere to the strict water quality standards associated with OFWs during construction.

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.

A Location Hydraulics Report (LHR) was prepared and is included as technical material in the project file. The project is partially located within areas identified as Flood Hazard Zones A, AE and AH, 100-year floodplains and floodway associated with the Tomoka River, 11 Street Canal, and Thayer Canal. The Tomoka River Floodplain is a "conveyance" floodplain and has been designated as a Federal Emergency Management Agency (FEMA) Floodway and the second floodplain is a "storage" floodplain associated with the US-92 Canal, Thayer Canal, and the existing wetland. Water flows from the west to east side of the LPGA Boulevard, and both sides of LPGA Boulevard are hydraulically connected through larger conveyances such as US-92 Canal, Thayer Canal, Tomoka River, and multiple smaller cross drains. The floodplains on the east and south side of LPGA Boulevard are mostly located in FEMA Flood Zone AH.

Roadway and bridge widening would occur in the floodplains and floodway. The floodplain acreages within the project corridor were estimated from Volusia County 2022 GIS contour map and the estimated base flood elevation (BFE). By comparison of the contour map and BFE, it's found that most of the right-of-way is above the BFE. The floodplains within right-of-way are mostly localized depressional areas, less than one foot deep. The total floodplain acreages within each floodplain area are listed in Table 5.4.1.

The roadway improvements will encroach upon most of the floodplains within right-of-way. However, the impacts will be compensated in two ways: (1) using floodplain compensation ponds; (2) utilizing roadside ditches. As the existing floodplain depth is very shallow with limited storage, a roadside ditch with a bottom elevation below the existing ground surface will provide an effective method for floodplain compensation storage. Therefore, the project will have insignificant impacts to the floodplains. Floodplain compensation sites are shown in Figure 5.6.1.

Area No.	From Station	To Station	From (Road or Canal)	To (Road or Canal)	100 Year Elevation (NAVD)	Impact Area (Acres)
1	300+00.00	412+00.00	US 92 Canal	Thayer Canal	27	2.41
2	412+00.00	455+00.00	Thyer Canal	International Tennis Dr.	26	0.18
3	455+00.00	517+00.00	International Tennis Dr.	Tournament Dr.	25	2.07
4	517+00.00	562+66.00	Tournament Dr.	Champions Dr.	23	0.73
5	562+66.00	574+00.00	Champions Dr.	N. Tomoka Farms Road	15	0.00
6	574+00.00	586+00.00	Eastbound LPGA at the east of N. Tomoka Farms Road		17	0.31
						5.70

Table 5.4.1: Floodplain Limit, BFE Elevation, and Impact Area

The Thayer Canal and Tomoka River crossings are transverse floodplain encroachments. There will be a minimal transverse encroachment in the Tomoka River Floodplain associated with replacing the bridge. At the Thayer Canal, although there is no profile change of LPGA Boulevard, slight traverse encroachment will result from the widening of LPGA Boulevard. Limited longitudinal encroachments to the canal and river are anticipated.

The existing LPGA bridge over Tomoka River will be replaced with a longer span and higher elevation bridge. The new bridge will reduce the floodplain and floodway elevation of the river slightly. Therefore, the new bridge will meet no-rise requirements for the floodway. Please refer to the Bridge Hydraulics Report for the detail recommendation of the bridge structure.

The existing LPGA Boulevard, especially the unpaved shoulder on both sides of the roadway, are wide and elevated from the 100-year flood elevation. Therefore, all floodplain encroachments resulting from the proposed widening will be minimal as the proposed improvements follow the same alignment as the existing roadway. There is no feasible alternative alignment that better avoids floodplain encroachments.

The proposed improvements will not directly or indirectly support floodplain development in a manner inconsistent with the National Flood Insurance Program, which regulates development within the base floodplain.

The proposed structure will perform hydraulically in a manner equal to or greater than the existing structure, and backwater surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has

been determined that the floodplain encroachments associated with the LPGA improvements are not significant.

5.5 Sole Source Aquifer

Volusia-Floridan Aquifer

The project is located within the boundaries of the Volusia-Floridan Sole Source Aquifer (SSA). Initial concepts of the Preferred Alternative estimate approximately 45.24 acres of additional impervious area.

During construction, erosion and sedimentation will be treated in accordance with the FDEP's National Pollutant Discharge Elimination System (NPDES) Permit and Stormwater Pollution Prevention Plan (SWPPP). After construction, wet detention stormwater ponds will treat the stormwater from LPGA Boulevard to meet state water quality and quantity standards before discharging offsite. Creation of the wet detention stormwater ponds will require excavation to a depth of five feet to meet the necessary treatment and attenuation requirements.

Preliminary data from the USGS indicate that the aquifer lays approximately -80 to -70 feet below the National Geodetic Vertical Datum (NGVD) 1929 at the project. Geotechnical borings will be conducted during the design phase of the project to verify the information. The project proposes a new bridge structure that will require new pilings for support. The depth of the piles will be dependent on the geotechnical information acquired.

A letter was submitted to the U.S. Environmental Protection Agency (USEPA) for concurrence on the finding of no adverse effect to the sole source aquifer on April 18, 2023. The coordination letter contains the sole source aquifer checklist and is attached. The USEPA sent a letter of concurrence on May 16, 2023. The concurrence letter is attached.

As a result of the letter USEPA concurrence letter, FDOT will follow the *U.S. Bureau of Reclamation Engineering Geology Field Manual, Chapter 20 Water Control* for any required dewatering. FDOT will adhere to the list of best management practices (BMPs) shown below while installing the bridge foundations:

- FDOT Design Manual Chapter 320 Stormwater Pollution Prevention Plan
- FDOT Standard Specification for Road and Bridge Construction (Section 6- Control of Materials, Section 104 - Prevention, Control, and Abatement of Erosion and Water Pollution, and Section 455 - Structures Foundations)

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 and specifically within Waterbody Identification Numbers 2634 (Tomoka River), 2653 (Unnamed Drain), and 2654 (Drainage Canals). The project crosses three surface waters including the Tomoka River, Thayer Canal, and US 92 Canal. The project study area discharges to the Tomoka River, which is an OFW and impaired waterbody for *Escherichia coli*. The study area is not located within any Basin Management Action Plans.

The existing drainage characteristics vary throughout the corridor and can be divided into 3 segments and a total of 20 basins created by existing drainage divides and on existing drainage features. The existing drainage system consists of roadsides ditches to culverts before continuing offsite.

An Environmental Look Around (ELA) meeting was held on October 28, 2022 with SJRWMD, Volusia County, and City of Daytona Beach. The meeting was held to explore stormwater needs and the potential for joint use ponds or regional ponds. The ELA meeting notes were included the SSA coordination letter and are also in the project file.

Wet detention stormwater ponds will treat the stormwater for the entire project area to meet state water quality and quantity standards before discharging offsite. An additional 50% water quality treatment volume will be provided for systems discharging into OFWs. Pre-development and post-development analysis will be compared to ensure the peak rate of discharge for the 25-year frequency; 24-hour duration storm is not exceeded in the proposed conditions. A total of 32 ponds are proposed, six of which are for floodplain compensation. The selected pond locations are based on hydraulic factors, potential wetland impacts, site availability, joint-use potential, right-of-way needs, and preliminary construction cost estimates. Tables 5.6.1 and 5.6.2 reflect the selected stormwater pond sites and floodplain compensation pond sites respectively. Figure 5.6.1 displays the proposed pond sites.

Basin Number	Pond Number	Pond Area (acres)
1	1B	1.22
2 & 3	2B+3A	2.62
4	4B	1.32
5	5B	1.39
6	6C	2.12
7	7A	1.51
8	8B	1.82
9 & 10	9C+10A	3.47
11	11A	1.56
12 & 13	12C+13A	2.48
13	13B	1.72
14	14B, 14C, 14D, 14E	3.62
15	15A, 15B, 15C, 15D	3.96
16	16A, 16B, 16C, 16D	6.67
17	17A, 17B, 17C	4.75

Table 5.6.1: Selected Stormwater Pond Locations

Location	Pond Number	Pond Area (acres)
Basin 1	1D	2.47
Basin 1	1E	2.41
Thayer Canal	6E	0.40
Basin 9	9D	2.16
Basin 9	9E	2.09
Basin 9	9F	2.08

Table 5.6.2: Selected Floodplain Compensation Locations

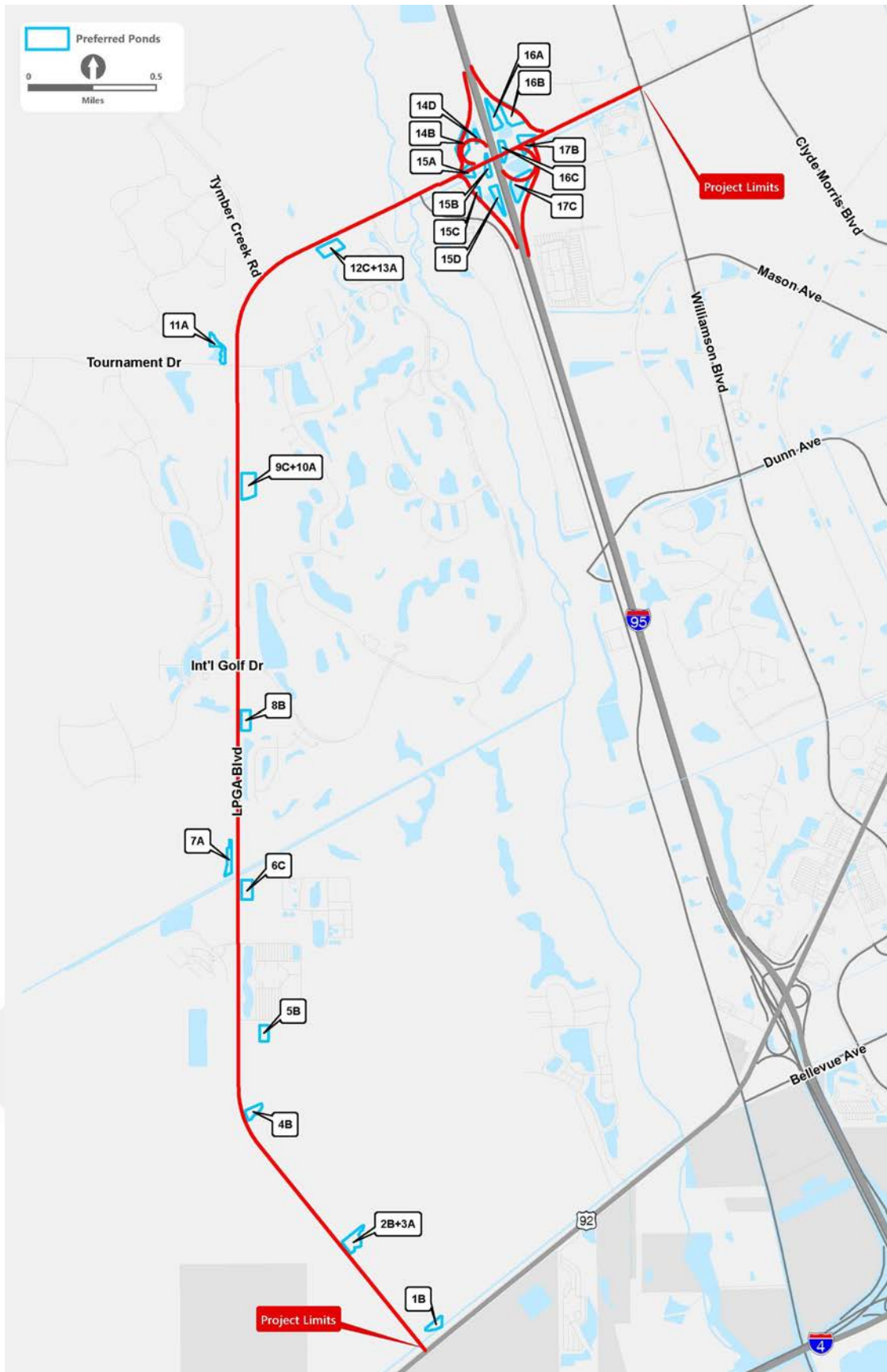


Figure 5.6.1: Proposed Pond Sites

Most of the existing culverts have exceeded the 50-year service life. All the existing culverts are recommended to be replaced with reconstruction of LPGA Boulevard. The culvert at US 92 Canal and Thayer Canal are also recommended to be replaced with larger hydraulic openings. The larger opening will be designed to convey the 50-year storm event while reducing existing head water stages. The detailed design of the bridge culvert replacement will be conducted in the design phase.

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's NPDES Permit including the preparation of a 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 Pond Siting Report (PSR), located in the project file.

5.7 Aquatic Preserves

There are no aquatic preserves in the project area.

5.8 Outstanding Florida Waters

The project includes the LPGA Boulevard crossing of the Tomoka River, which is classified as an OFW. The Tomoka River is identified in the NRE, located in the project file, as Surface Water (SW)-13. The right-of-way contains 0.1483 acres of the Tomoka River. The existing LPGA Boulevard bridge over Tomoka River will be replaced with a longer span and higher elevation bridge. The existing bridge has four intermediate piers and the proposed bridge has three. Approximately 0.0447 acres of the Tomoka River will be impacted by the project.

As previously discussed, the project study area discharges to the Tomoka River. Water quality treatment is discussed in Section 5.6. The project will be reviewed and permitted through the SJRWMD and the USACE and will have to comply with all regulatory water quality standards. Additionally, during construction a SWPPP, which includes sediment and erosion control, will be implemented.

5.9 Wild and Scenic Rivers

The Tomoka River is listed in the Nationwide Rivers Inventory (NRI). There will be no direct or adverse effects on the natural, cultural, or recreational values of the NRI River segment.

The Tomoka River is eligible for the National Wild and Scenic Rivers System but is not listed at this time. The Tomoka River is listed as part of the NRI in Florida which affords special protections from adverse impacts. It is not anticipated that the project will cause any of the following impacts:

1. Destruction or alteration of the free flow of the river: Currently there are four intermediate piers supporting the current bridge. The proposed bridge has three intermediate piers. The flow of the river will not be impeded, destroyed, or altered by the proposed design. The river flow will be improved by lengthening and raising the bridge to accommodate required drift clearance which also incorporates the effects of sea level rise.

2. Introduction of visual, audible or sensory intrusions out of character with the river setting: As the roadway and bridge are existing, these improvements will not create any additional intrusions.
3. Deterioration of water quality: The project will be reviewed and permitted through the SJRWMD and USACE and will have to comply with all regulatory water quality standards. Additionally, during construction a SWPPP, which includes sediment and erosion control, will be implemented.
4. Transfer or sale of property adjacent to an inventoried river without adequate conditions or restrictions: The project will be constructed within the existing right-of-way and no transfer or sale of adjacent property will be required.

FDOT sent the NPS a coordination letter on January 25, 2023, seeking review and concurrence that the proposed improvements at Tomoka River would not have adverse effects on the Tomoka River's designation on the NRI. The letter is attached to this document and included in the project file. To date no response has been received. Per the NPS consultation guidance, if no response is received within 30 days, then the project can proceed though efforts to avoid or mitigate potential adverse effects to the designated river will be implemented to the extent possible.

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 per 23 CFR Part 772.

One hundred thirty-five (135) receptors (representing 135 noise sensitive sites) were evaluated throughout the project area. Most of these sites are single-family homes where frequent human use would commonly occur; all of these receptors were evaluated under Activity Category B of the Noise Abatement Criteria (NAC). One school, four tennis courts and two outdoor boarding and grooming areas at the Halifax Humane Society were evaluated under Activity Category C of the NAC. One hotel pool, one outdoor office seating area and two restaurant patios were evaluated under Activity Category E of the NAC. A noise analysis map series is attached.

Predicted traffic noise levels resulting from the design year (2050) No-Build Alternative are expected to increase up to 2.0 A-weighted decibels [dB(A)] over the (2021) existing condition. As a result of the Preferred Alternative, traffic noise levels are not predicted to approach or exceed the NAC. Predicted noise levels resulting from the design year (2050) Preferred Alternative are expected to increase up to 3.7 dB(A) over the (2021) existing condition.

Noise impacts also occur when future noise levels are predicted to increase substantially over existing noise levels even if resulting noise levels do not approach or exceed the FHWA NAC. A substantial noise increase occurs when the existing noise level is predicted to increase by 15 dB(A) or more as a result of the proposed transportation improvement project. These impacts occur primarily when proposed roadway improvements are planned in the vicinity of noise sensitive areas, where existing noise levels are relatively low. The Preferred Alternative would not cause substantial noise level increases.

The Preferred Alternative would not result in a traffic noise impact. Based on the noise analyses performed to date, there appear to be no impacted areas within the project that require abatement consideration.

The construction of the proposed project would result in temporary noise and vibration increases within the project area. The noise and vibration would be generated primarily from heavy equipment used in hauling materials and building the roadway improvements. Sensitive areas located close to the construction area may temporarily experience increased noise and vibration levels. Based on FDOT's listing of construction noise and vibration sensitive sites, Father Lopez School may be a sensitive site along the corridor. Construction and demolition noise will be minimized to the greatest extent practicable through the adherence to controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*.

More information and maps about noise within the project area are located in the Noise Study Report (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 roadway study area and is in the project file. A separate CSER was prepared to evaluate potential for contamination within or adjacent to pond sites and is also located in the project file.

The CSER for the roadway study area identified 21 contamination sites. The contamination risk rating system incorporates four levels of risk: No, Low, Medium, and High. The project study area contains 0 high risk sites, 4 medium risk sites, 15 low risk sites, and 2 no risk sites. A listing of the sites, locations, and risk ratings is contained in Table 6.3.1. The Contamination Site Map is attached.

Map ID	Facility ID	Site Name	Site Location	Distance from Study Area	Risk Rating
1	ERIC_5662	Daytona Beach Stadium Site Part A-1900	LPGA Boulevard	Adjoining LPGA ROW east	Low
1A	ERIC_5872	City of Daytona Wastewater Treatment Facility Part A-1993	3651 LPGA Boulevard	Adjoining LPGA ROW east	Low
2	9802706	Gainey Transport Truck Spill	I-95 Northbound at MM 264	Within I-95 north bound mainline, approximately 260 feet south of project limit	Low
2A	9814578	Mercedes-Benz of Daytona	1188 North Tomoka Farms Road	Adjacent I-95 ROW west, approximately 500 feet southwest of project limit	Low
2B	9815385	Tiple P Transport Corp	I-95 Northbound Median MM 264	Within I-95 north bound mainline, approximately 260 feet south of project limit	Low
3	9805402	Gary Yeomans Ford/Former Gary Yeomans Nissan	1420 Tomoka Farms Road	Adjoining I-95 ROW, approximately 190 feet west	Low
4	9816708	Sams Club #8138	1460 Cornerstone Boulevard	Approximately 500 feet southeast of interchange ROW	Low
5	9815820	Racetrack #2373	2087 LPGA Boulevard	Adjoining LPGA ROW, approximately 60 feet southeast	Medium
6	9817837	Buc-ees #47	2330 Gateway N Drive	Adjoining interchange ROW northeast	Medium

7	9701014	7-Eleven Food Store #32220	2100 LPGA Boulevard	Adjoining LPGA ROW northwest	Medium
8		Latitude Margaritaville	2400 LPGA Boulevard	Adjoining LPGA ROW northwest	No
9	2006-71-4244Z	Shelton Trucking Spill Site	I-95 Northbound at LPGA Boulevard overpass	Within interchange eastbound ROW	Low
10	BF64040100	Daytona Beach Area - Areo Park Brownfield		Adjoining I-95 and LPGA ROW east	Low
11		Historical Railroad		Within interchange ROW and LPGA ROW	Medium
12	211FLA 27010924	Biological Check Station	Tomoka River at LPGA Boulevard	Adjoining LPGA ROW north	No
13	2016-71-56909Z	I-95 Spill	I-95 Southbound at MM 264 west side	Adjacent I-95 ROW approximately 110 feet west	Low
14		Potential Historic Landfill	Northwest quadrant of I-95	Adjoining interchange ROW west	Low
15		Publix Supermarket #1664	2630 LPGA Boulevard	Adjoining LPGA ROW approximately 700 feet northwest	Low
16		Father Lopez Catholic High School	3918 LPGA Boulevard	Adjoining LPGA ROW west	Low
17		Planted Pine Trees		Adjoining LPGA Boulevard, interchange ROW	Low
18	FLR0009089 4	Daytona Dodge	1520 North Tomoka Farms Road	Adjoining interchange ROW southwest	Low

Table 6.3.1: Contamination Sites (Roadway Study Area)

Note: ROW = right-of-way

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

The CSER for pond sites evaluated and assigned a risk rating for each pond site. The pond sites study area contains 0 high risk sites, 4 medium risk sites, 3 low risk sites, and 14 no risk sites. Table 6.3.2 lists the ratings and evaluation comments.

Pond	Risk Rating	Comments
1B	No	No regulatory listings were found for Pond 1B or within 500 feet. No development has occurred at Pond 1B.
2B+3A	No	No regulatory listings were found for Pond 2B+3A or within 500 feet. No development has occurred at Pond 2B+3A.
4B	No	No regulatory listings were found for Pond 4B or within 500 feet. No development has occurred at Pond 4B.
5B	Low	No regulatory listings were found for Pond 5B. Planted pine trees were identified. The half-life of forestry herbicides are typically no more than 100 days and exhibit <i>de minimis</i> conditions. The nearest offsite contamination is Map ID 1; however, there are no concerns for Pond 5B associated with Map ID 1.
6C	No	No regulatory listings were found for Pond 6C. The nearest offsite contamination is Map ID 1A; however, there are no concern for Pond 6C associated with the site.
7A	No	No regulatory listings were found for Pond 7A. The nearest offsite contamination is Map ID 1A; however, there are no concern for Pond 7A associated with the site.

8B	No	No regulatory listings were found for Pond 8B or within 500 feet. No development has occurred at Pond 8B.
9C+10A	No	No regulatory listings were found for Pond 9C+10A or within 500 feet. No development has occurred at Pond 9C+10A.
11A	Low	No regulatory listings were found for Pond 11A. Planted pine trees were identified. The half-life of forestry herbicides are typically no more than 100 days and exhibit <i>de minimis</i> conditions.
12C+13A	No	No regulatory listings were found for Pond 12C+13A or within 500 feet. No development has occurred at Pond 12C+13A.
14B	Medium	No regulatory listings were found for Pond 14B. Onsite contamination sites include Map ID 11 and Map ID 14. The nearest offsite contamination site is Map ID 9. Map ID 11 has contamination concerns for Pond 14B given the railroads proximity.
14D	Medium	No regulatory listings were found for Pond 14D. Onsite contamination sites include Map ID 11 and Map ID 14. The nearest offsite contamination site is Map ID 9. Map ID 11 has contamination concerns for Pond 14D given the railroads proximity.
15A	No	No regulatory listings were found for Pond 15A. The nearest onsite contamination site is Map ID 10. The nearest offsite contamination sites are Map IDs 9 and 11. There are no contamination concerns for Pond 15A associated with these sites.
15B	Low	No regulatory listings were found for Pond 15B. The nearest onsite contamination site is Map ID 10. The nearest offsite contamination sites are Map IDs 9 and 11. There are no contamination concerns for Pond 15B associated with these sites.
15C	No	No regulatory listings were found for Pond 15B. The nearest onsite contamination site is Map ID 10. No contamination concerns for Pond 15C are associated with this site.
15D	No	No regulatory listings were found for Pond 15B. The nearest onsite contamination site is Map ID 10. The nearest offsite contamination site is Map ID 9. There are no contamination concerns for Pond 15D associated with these sites.
16A	Medium	No regulatory listings were found for Pond 16A. The nearest onsite contamination sites are Map IDs 10 and 11. The nearest offsite contamination sites are Map IDs 6, 9, and 14. There is contamination concern for Map ID 11 given the railroads proximity to Pond 16A.
16B	Medium	No regulatory listings were found for Pond 16B. The nearest onsite contamination sites are Map IDs 10 and 11. The nearest offsite contamination site is Map ID 6. There is contamination concern for Map ID 11 given the railroads proximity to Pond 16B.
16C	No	No regulatory listings were found for Pond 16C. The nearest onsite contamination site is Map ID 10. The nearest offsite contamination site is Map ID 11.
17B	No	No regulatory listings were found for Pond 17B. The nearest onsite contamination site is Map ID 10. The nearest offsite contamination sites are Map IDs 6 and 9. There are no contamination concerns for Pond 17B associated with these sites.
17C	No	No regulatory listings were found for Pond 17C. The nearest onsite contamination site is Map ID 10. There are no contamination concerns for Pond 17C associated with this site.

Table 6.3.2: Contamination Sites (Pond Sites)

The Medium rated sites will undergo Level II assessment during the Design phase of this project. The Level II assessment can include additional file review, hazardous material surveys, soil borings, monitoring well installation, soil and groundwater sampling, laboratory testing, and the use of field instruments such as an organic vapor analyzer or ground penetrating radar. Three sites were assigned a risk rating of Medium due to their active status as retail gasoline stations. Additional file review is recommended just prior to construction to verify regulatory status. The discovery of new discharges at these sites will be considered for field testing to determine presence and extent of contamination impacts to the project. For the fourth Medium rated site (Site 11 - Historic Railroad), Level II testing is required to determine soil and groundwater contaminant concentrations related to historical railroad operations.

For the locations rated No or Low for contamination, no further action is required. These locations have been determined not to have contamination risks which warrant further evaluation at this time.

Once final design plans are available, additional review is recommended in consideration of dewatering operations that may be necessary under the *National Pollutant Discharge Elimination System Generic Permit for Stormwater Discharges from Large and Small Construction Activities*. Verification testing may be warranted for contamination issues within 500 feet of the dewatering area.

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 Utility Assessment Package has been prepared and is in the project file. Table 6.4.1 provides a list of the utility agency owners with a description of their potential conflict with the proposed improvements along LPGA Boulevard. This is a preliminary evaluation of potential utility conflicts within the project corridor based on proposed improvements under the Preferred Alternative. Additional conflicts may be identified during the final design.

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

Utility Agency/Owner	Facility Type	Potential Impacts
ATT Transmission /PEA	Communication Lines, Fiber	No facilities within project limits along LPGA Boulevard Existing ATT CORP Transmission FDC 6-11/2" HDPE running along the east side of N Williamson Blvd
Bright House Networks dba Charter/Spectrum	Cable, CATV, Fiber	Aerial cable running along the west side of LPGA Boulevard from US 92/SR 600 to Champions Drive Underground cable from Champions Drive to Tomoka Farms Road
CenturyLink FKA Level 3	Fiber	No facilities from US 92/SR 600 to the I-95 interchange BFOC 144 (3) 1.25" HDPE running along the east side of LPGA from I-95 interchange to N Williamson Blvd
City of Daytona Beach Traffic Signals, Fiber & Lighting	Fiber, Traffic Lights, Traffic Signals	Fiber aerial running along the west side of LPGA Boulevard from US 92/SR 600 to Welshinger-Butler Circle Fiber running underground along the east side of LPGA Boulevard
City of Daytona Beach W&S	Sewer, Stormwater, Water	Well lines (36") and water mains (24") running along the west side of LPGA Reuse water mains (20") and sanitary force mains (16") running along the east side of LPGA Boulevard
City of Holly Hill	Sewer, Water	Well fields, one 12" raw water main running east on LPGA Boulevard
Crown Castle (FiberNet Direct)	Fiber	Aerial strand and FOC J/U pole running along the west side of LPGA Boulevard from US 92/SR 600 to Tournament Drive No facilities from Tournament Drive to N Williamson Boulevard Underground HDPE (2) 1.5" with FOC and tracer wire running along the east side of Williamson Boulevard

Duke Energy Transmission	Electric	No facilities within project limits
Florida Gas Transmission	Gas	Existing 6.625" O.D. x 0.188" W.T., grade B, natural gas transmission pipeline (FLBOO) running underground along the north side of US 92/SR 600
Florida Power & Light - Distribution	Electric	Overhead and underground electric lines 23.2 KVA running along the west side of LPGA Boulevard and few locations crossing the road
Florida Power & Light - Transmission	Electric	Overhead electric 230kV TX line crossing LPGA Boulevard approximately 1,022' north of Tymber Creek Road
Teco People Gas	Gas	Steel gas main (6") running along the east side of LPGA Boulevard
Uniti Fiber LLC	Fiber	No facilities within project limits along LPGA Boulevard HDPE conduits (1.25") running along the east side of Williamson Boulevard

Table 6.4.1: Potential Utility Impacts

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 Geotechnical Report.

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8. Permits

The following environmental permits are anticipated for this project:

Federal Permit(s)

USACE Section 10 or Section 404 Permit

Status

To be acquired

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

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 was prepared in December 2021 and is located in the project file. Public outreach was conducted to listen to the community, business owners, and homeowner association to better understand the public's concerns regarding LPGA Boulevard. Outreach efforts included one-on-one meetings with stakeholders and homeowners, attending and presenting at the scheduled community meetings, discussing the project with elected officials, and virtual meetings with concerned citizens, business owners, and property owners. A project kickoff notification and project information handout, both located in the project file, were sent to all property owners, business owners, and organizations along the corridor on January 26, 2022. The following sections provide summaries of the Project Advisory Group (PAG) meetings and public meetings. The Comments and Coordination Report will contain a more detailed summary of each meeting, including the public comments, and will be uploaded to the project file following the public hearing.

Project Advisory Group

At the beginning of the project the PAG was formed with assistance of local governments; composed of local citizens having an active role in the community, such as representatives from impacted/interested cities, county, regional agencies, committees, and neighborhood associations or other groups within the project area. One PAG meeting has been conducted and three more are planned. A listing of the meetings is below.

Meeting #1 - March 23, 2022, Virtual

- The purpose of the meeting was to introduce PAG members to the project and the team, highlight the project purpose and considerations, and begin dialogue with PAG members. Thirty people attended. In general, the project was well received.

Meeting #2 - Tentatively scheduled for September 2023

Meeting #3 - Tentatively scheduled for December 2023

Meeting #4 - Tentatively scheduled for April 2024

Alternatives Public Open House

A hybrid alternatives public open house was held on February 28, 2023, from 5:30 p.m. to 7:30 p.m. at The Crisp Meeting Room (located at LPGA International Clubhouse, 1000 Champions Drive, Daytona Beach, FL). The open house offered in-person and virtual attendance options (webinar viewing or phone call in listen only mode).

A PowerPoint presentation, videos, and display boards were used at the meeting. The board displays included Welcome Board, Title VI Board, Project Overview, Proposed Improvement Concept Layout, Proposed Tomoka River Bridge Rendering, Proposed I-95 Interchange Rendering, Evaluation Matrix, Project Schedule, and Thank You. The PowerPoint presentation and display boards are in the Comments and Coordination Report and the project file.

Meeting notifications were sent to 786 people including property owners, tenants, elected officials, government officials, environmental resource agencies, and other interested parties. 263 people attended the meeting in-person and 88 virtually. There were 110 comments submitted during the 10-day public comment period. Forty-eight comments were submitted during the in-person open house, 14 during the virtual meeting and 48 through email or mail after the meeting.

Comments pertained to various topics such as congestion and traffic growth, schedule and timeline of constructions, construction cost, widening of the Tomoka River bridge, speed limit along LPGA, roundabouts, proposed intersection concepts at Tomoka Farms Road and Technology/Outlet Boulevard intersections, proposed interchange concept, improvement to local roads such as Dunn Avenue and Tymber Creek, pedestrian and bicycle accommodation, public meeting materials, use of golf carts, and noise abatement. Overall, the project was supported and seen as needed.

After the public open house and considering public and stakeholder comments, the LPGA Boulevard at Tomoka Farms Road intersection concept was revised from the restricted crossing U-turn to a traditional signal intersection. Additionally, the LPGA Boulevard at Technology Boulevard/Outlet Boulevard intersection was revised from thru-cut concept to traditional signal intersection.

Public Hearing

A public hearing is being scheduled for August 2023.

10. Commitments Summary

1. FDOT will adhere to the most current version of USFWS Standard Protection Measures for the Eastern Indigo Snake during construction and inspect potential eastern indigo snake refugia prior to construction.
2. If the listing status of the tri-colored bat is elevated by USFWS during to Threatened or Endangered prior to construction and the Preferred Alternative is located within the consultation area, FDOT commits to initiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tri-colored bat.
3. 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 phases of the project.
4. FDOT will survey for the presence of the hooded pitcher plant within the project area prior to the construction phase and coordinate the results with the FDACS regarding this species to identify opportunities to reduce impacts to it.
5. Wildlife shelves will be included in the bridge replacement.
6. If the listing status of the monarch is elevated to Threatened or Endangered, FDOT commits to re-initiating consultation with the USFWS to determine the appropriate measures regarding the protection of the Monarch butterfly.

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)
Cultural Resources Assessment Survey (CRAS)
Cultural Resources Assessment Survey (CRAS) Ponds Addendum
Location Hydraulics Report (LHR)
Natural Resources Evaluation (NRE)
Water Quality Impact Evaluation (WQIE)
Sole Source Aquifer Coordination Letter
Sole Source Aquifer Checklist
Contamination Screening Evaluation Report (CSER) (Drainage Sites)
Noise Study Report (NSR)
Utility Assessment Package (UAP)
Contamination Screening Evaluation Report (CSER)
Preliminary Geotechnical Report
Preliminary Engineering Report (PER)
Safety Analysis Memorandum
Project Traffic Analysis Report (PTAR)
Interchange Modification Report (IMR)
Intersection Control Evaluation
Typical Section Package
Bridge Analysis Report
Pond Siting Report
Bridge Hydraulic Report
Concept of Operations
Transportation System Management and Operations
Public Involvement Plan (PIP)

Attachments

Planning Consistency

Project Plan Consistency Documentation (STIP, TIP, LRTP)

Cultural Resources

SHPO Concurrence Letter

Section 4(f) Resources Form

SHPO Concurrence Letter Ponds Addendum

Natural Resources

Wetlands Map

NMFS Correspondence

FDEP EFH Correspondence

NPS NRI Correspondence

Wood stork Effect Determination Key

Eastern Indigo Snake Effect Determination Key

Sole Source Aquifer Concurrence Letter

FWC Species Concurrence Letter

USFWS Species Concurrence Letter

USACE NRE Response

FDACS NRE Response

Correspondence - Plant Relocation Volunteer 1

Correspondence - Plant Relocation Volunteer 2

Physical Resources

Noise Map

Potential Contamination Site Map

Public Involvement

Project Kickoff Notification Materials

Alternatives Open House Meeting Materials

Planning Consistency Appendix

Contents:

Project Plan Consistency Documentation (STIP, TIP, LRTP)

DRAFT

Planning Requirements for Environmental Document Approvals

Document Information:					
Date: <u>10/24/2022</u>		Document Type: <u>CE II</u>		Document Status: <u>Draft</u>	
Project Name: <u>LPGA Boulevard PD&E Study</u>			FM #: <u>448456-1</u>		
Project Limits: <u>from US 92 to Williamson Blvd</u>			ETDM #: <u>14332</u>		
Are the limits consistent with the plans? <u>Y</u>					
Identify MPO(s) (if applicable): <u>River to Sea Transportation Planning Organization</u>			Original PD&E FAP#: <u>N/A</u>		
Currently Adopted CFP-LRTP	COMMENTS				
Y/N	Y (Attachment 1)				
PHASE	TIP / STIP	Currently Approved	\$	FY	COMMENTS
PE (Final Design)	TIP	Yes	\$0	2023	PD&E and Design phases were funded concurrently and approved prior to 2023. Cost estimates between the TIP (Attachment 2) and STIP (Attachment 3) are consistent.
	STIP	Yes	\$67,964	2023	
R/W	TIP	Yes	\$7,000,000	>2026	Cost estimates between the TIP and STIP are consistent. (Attachments 2 & 3)
	STIP	Yes	\$7,700,000	>2026	
Construction	TIP	No			Construction funding is not programmed.
	STIP	No			

Project Segmented: N

FDOT Preparer's Name: _____

Date: _____ Phone # _____

Preparer's Signature: _____

Email: _____

*Attach: LRTP, TIP, STIP pages

Chapter 6 - Exhibit A													
Strategic Intermodal System (SIS) - Cost Feasible Projects and Costs - Year of Expenditure (YOE)													
Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		Funding Status
					Time	YOE Cost	Time	YOE Cost	Time	YOE Cost	Time	YOE Cost	
A	I-4 / SR 400	Seminole C/L	0.5 MI E of SR 472	Managed Use Lanes (6F to 8F)	Complete	\$	Complete	\$	2031-2035	\$ 36,923,000	2031-2035	\$ 901,071,000	COST FEASIBLE
	SR 472	Graves Ave	Kentucky/MLK Blvd	4D-6D									COST FEASIBLE
	Saxon Blvd	I-4	Normandy Blvd	Ramp Improvements									COST FEASIBLE
	Rhode Island Extension	Veterans Memorial Pkwy	Normandy Blvd	New Road & ML Ramps									COST FEASIBLE
B	SR 15 (US 17)	Deleon Springs	SR 40	2U-4D	Complete	\$	Complete	\$	Programmed	\$ 9,090,704	2026-2030	\$ 65,862,017	COST FEASIBLE ¹
C	SR 40	Breakaway Trails	Williamson Blvd	4D-6D	Complete	\$	Programmed	\$ 2,750,000	Programmed	\$ 365,000	2036-2045	\$ 41,175,000	COST FEASIBLE
									Programmed	\$ 2,260,000			
									2026-2030	\$ 5,955,000			
D	SR 40	W of SR 11	W of Cone Rd	2U-4D	Complete	\$	2031-2035	\$ 7,365,000	Programmed	\$ 2,411,357	2031-2035	\$ 72,370,000	COST FEASIBLE
									Programmed	\$ 429,000			
									2026-2030	\$ 181,000			
E	SR 40	SR 15 (US-17)	SR 11	2U-4D	Complete	\$	2031-2035	\$ 6,338,000	Programmed	\$ 4,206,411	2031-2035	\$ 62,279,000	COST FEASIBLE
									Programmed	\$ 880,000			
									2026-2030	\$ 319,000			
F	I-95/LPGA Blvd	Williamson Blvd	US 92	Interchange Improvement	Programmed	\$ 3,420,000	Programmed	\$ 7,000,000	2026-2030	\$ 7,000,000	2031-2035	\$ 29,480,000	COST FEASIBLE
G	I-95/Pioneer Trail New Interchange	At Pioneer Trail	Interchange / Intersection	Interchange Improvement	Programmed	\$ 4,000,000	2031-2035	\$ 2,775,000	Programmed	\$ 3,730,000	2036-2045	\$ 33,134,000	COST FEASIBLE
H	I-95/US 1 Interchange	at US-1	Interchange / Intersection	Interchange Improvement	Programmed	\$ 2,800,000	Programmed	\$ 3,300,000	2026-2030	\$ 3,300,000	2036-2045	\$ 50,148,000	COST FEASIBLE
I	SR 100	Old Kings Rd	Belle Terre Pkwy	4D-6D					2031-2035	\$ 3,170,000	2036-2045	\$ 56,775,000	COST FEASIBLE
J	I-95/SR 44	at SR 44	Interchange / Intersection	Interchange Improvement	2031-2035	\$ 2,250,000	TBD	TBD	TBD	TBD	TBD	TBD	COST FEASIBLE
K	I-95 Interchange (Farmton Interchange)	At Maytown Rd	Interchange / Intersection	Interchange Improvement	Programmed	\$ 2,550,000	Developer Funded						COST FEASIBLE - DEVELOPER FUNDED
L	Tomoka River Bridge (LPGA Blvd)	West of Champions Dr	E of Tomoka Farms Rd	Bridge to match interchange configuration	2036-2045	\$ 3,570,000	TBD	TBD	TBD	TBD	TBD	TBD	FUNDED ²

HS = State Highway System; CFP = Cost Feasible Plan; Imprv = Improvement; PDV = Present Day Value; LOPP = List of Priority Projects; SIS = Strategic Intermodal System; OA = Other Arterials
 = Undivided; D = Divided; F = Freeway; TBD = To be determined

It is anticipated that this US-17 (SR 15) widening will be a SIS-funded project. \$ 10,000,000 is identified in the OA table for funding to show local commitment and priority.

Replacement of the Tomoka River Bridge on LPGA Blvd included in Project F - I-95/LPGA Boulevard Interchange project from Williamson Blvd to US 92.

4484561

I-95 Interchange at LPGA Blvd

SIS



Work Summary: INTERCHANGE IMPROVEMENT
From: W of Champions Dr
To: Williamson Blvd
Lead Agency: Florida Department of Transportation
Length: 1.668

Phase	Fund Source	2022/23	2023/24	2024/25	2025/26	2026/27	Total
ROW	DIH	0	0	0	50,000	0	50,000
ROW	DDR	0	0	0	0	7,000,000	7,000,000
Total		0	0	0	50,000	7,000,000	7,050,000

Prior Cost < 2022/23: 12,659,243

Future Cost > 2026/27: 0

Total Project Cost: 19,709,243

Project Description: Interchange improvements for the I-95 Interchange at LPGA Boulevard from W of Champions Dr to Williamson Blvd (Note: PD&E Study limits include LPGA Blvd from US 92 to Williamson Blvd). (Reference 2045 Long Range Transportation Plan pages 2-3 to 2-5, Page 6-20, and Appendix B).



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Web Application

Federal Aid Management Sean McAuliffe - Manager

STIP Project Detail and Summaries Online Report

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

Selection Criteria	
Current STIP	Detail
Financial Project:448456 1	Related Items Shown
As Of:8/6/2023	

HIGHWAYS							
Item Number: 448456 1	Project Description: LPGA BLVD FROM US 92 (SR 600) TO WILLIAMSON BLVD						*SIS*
District: 05	County: VOLUSIA	Type of Work: PD&E/EMO STUDY			Project Length: 7.402MI		
	Fiscal Year						
Phase / Responsible Agency	<2023	2023	2024	2025	2026	>2026	All Years
P D & E / MANAGED BY FDOT							
Fund Code: ACSA-ADVANCE CONSTRUCTION (SA)	2,784,603						2,784,603
DIH-STATE IN-HOUSE PRODUCT SUPPORT	32,915	14,581	3,383				50,879
DS-STATE PRIMARY HIGHWAYS & PTO	81						81
LF-LOCAL FUNDS	500,000						500,000
Phase: P D & E Totals	3,317,599	14,581	3,383				3,335,563
PRELIMINARY ENGINEERING / MANAGED BY FDOT							
Fund Code: ARPA-AMERICAN RESCUE PLAN ACT	6,978,740		21,260				7,000,000
DIH-STATE IN-HOUSE PRODUCT SUPPORT		13,657	36,343				50,000
DS-STATE PRIMARY HIGHWAYS & PTO	473,877						473,877
Phase: PRELIMINARY ENGINEERING Totals	7,452,617	13,657	57,603				7,523,877

RIGHT OF WAY / MANAGED BY FDOT							
Fund Code:	DIH-STATE IN-HOUSE PRODUCT SUPPORT					50,000	50,000
	DS-STATE PRIMARY HIGHWAYS & PTO					4,000,000	4,000,000
Phase: RIGHT OF WAY Totals						50,000	4,000,000
Item: 448456 1 Totals		10,770,216	28,238	60,986		50,000	4,000,000
14,909,440							
Item Number: 448456 2							
Project Description: I-95 INTERCHANGE AT LPGA BLVD *SIS*							
District: 05		County: VOLUSIA		Type of Work: INTERCHANGE - ADD LANES		Project Length: 2.762MI	
Fiscal Year							
Phase / Responsible Agency	<2023	2023	2024	2025	2026	>2026	All Years
CONSTRUCTION / MANAGED BY FDOT							
Fund Code:	-TOTAL OUTSIDE YEARS					83,691,120	83,691,120
Item: 448456 2 Totals						83,691,120	83,691,120
Project Totals		10,770,216	28,238	60,986		50,000	87,691,120
Grand Total		10,770,216	28,238	60,986		50,000	98,600,560

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
 Sean McAuliffe: Sean.McAuliffe@dot.state.fl.us Or call 850-414-4564

[Reload STIP Selection Page](#)

Office Home: [Office of Work Program](#)

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Florida Department of Transportation

Consistent, Predictable, Repeatable

Cultural Resources Appendix

Contents:

SHPO Concurrence Letter

Section 4(f) Resources Form

SHPO Concurrence Letter Ponds Addendum

DRAFT



Florida Department of Transportation

RON DESANTIS
GOVERNOR

719 S. Woodland Blvd.
DeLand, FL 32720

JARED W. PERDUE, P.E.
SECRETARY

March 14, 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: Mr. Benjamin Stewart, Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey
LPGA Boulevard Project Development and Environment Study
Volusia County, Florida
Financial Management No.: 448456-1-22-01

Dear Ms. Lotane,

Enclosed please find one copy of the report titled *Cultural Resource Assessment Survey of LPGA Boulevard from US 92 (SR 600) to Williamson Boulevard Project Development and Environment Study, Volusia County, Florida*. This report presents the findings of a Phase I cultural resource assessment survey (CRAS) conducted in support of the PD&E Study. The project limits begin at US 92 (SR 600) and continue north and east along LPGA Boulevard, terminating at Williamson Boulevard. The project corridor also includes smaller sections of roadway such as Williamson Boulevard at LPGA Boulevard, the I-95 corridor at LPGA Boulevard, North Tomoka Farms Road at LPGA Boulevard, and US 92 at LPGA Boulevard, for a total distance of approximately 15.5-kilometers (km) (9.5-miles [mi]). This project is federally funded. All improvements will be constructed within the existing LPGA Boulevard and I-95 right-of-way; no additional right-of-way will be acquired.

The project archaeological Area of Potential Effect (APE) was defined as the existing LPGA Boulevard right-of-way from US 92 (SR 600) to Williamson Boulevard, a 0.98-km (0.61-mi) section of Williamson Boulevard at LPGA Boulevard, a 2.7-km (1.7-mi) section of the Interstate 95 corridor, a 0.11-km (0.07-mi) section of North Tomoka Farms Road at LPGA Boulevard, and a 0.92-km (0.60-mi) section of US 92. The architectural history APE 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 (330 feet) from the right-of-way line to consider viewshed effects to aboveground resources.

www.fdot.gov

Ms. Lotane, SHPO
FM # 448456-1-22-01
March 14, 2023
Page 2

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 studies also comply 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 2020), 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 pedestrian reconnaissance and subsurface archaeological testing. In total, 96 shovel tests were excavated, nine of which contained artifacts. In addition to the excavated shovel tests, 200 "no dig" points were recorded due to extensive ground disturbing activities from buried utilities and development. Three archaeological sites (8VO10479, 8VO10480, and 8VO10481) and two archaeological occurrences (AO-1 and AO-2) were recorded as a result of this survey. SEARCH recommends all three sites as ineligible for listing on the NRHP due to site disturbance, absence of dense cultural deposits and features, small and ubiquitous artifact assemblages, and lack of research potential to significantly contribute to the archaeological record of the region. No further archaeological survey is recommended for sites 8VO10479, 8VO10480, and 8VO10481 in support of the proposed LPGA Boulevard improvements. Archaeological occurrences are, by definition, ineligible for consideration on the NRHP. No further work is recommended.

The architectural survey resulted in the identification and evaluation of one historic resource, the Tomoka River to Bennett Swamp Canal (8VO10488). Due to its commonality and lack of notable engineering features or historical associations, the Tomoka River to Bennett Swamp Canal (8VO10488) is recommended ineligible for listing in the NRHP. No further architectural history survey is required.

Based on the results of this study, it is the opinion of the District that no NRHP-listed or eligible cultural resources were identified within the project APE. No further work is recommended.

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) 943-5411.

Ms. Lotane, SHPO
FM # 448456-1-22-01
March 14, 2023
Page 3

Sincerely,



William G. Walsh
Environmental Manager
FDOT, District Five

<p>The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Survey Report complete and sufficient and <input checked="" type="checkbox"/> concurs / <input type="checkbox"/> does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number <u>202301761</u>. Or, the SHPO finds the attached document contains _____ insufficient information.</p> <p>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.</p>	
SHPO Comments:	
<p><i>Kelly L Chase</i> <i>for</i></p>	
<p>Alissa S. Lotane, Director Florida Division of Historical Resources</p>	<p><u>4/17/2023</u> Date</p>

Section 4(f) Resources

Florida Department of Transportation

LPGA BLVD FROM US 92 (SR 600) TO WILLIAMSON BLVD

District: FDOT District 5

County: Volusia County

ETDM Number: 14332

Financial Management Number: 448456-1-22-01

Federal-Aid Project Number: D521-091-B

Project Manager: Jesse Blouin

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

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Summary and Approval

Resource Name	Facility Type	Property Classification	Owner/Official with Jurisdiction	Recommended Outcome	OEM SME Action
Tiger Bay State Forest	Park / Recreation Area, State Forest	Park/Rec Area, Multiple Use Facility	Florida Department of Agriculture and Consumer Services (FDACS), Division of Forestry, Florida Forest Service. Florida Forest Service, 4316 W. International Speedway Blvd., Daytona Beach, FL 32124-2007.	No Use	Determination 05-17-2023
Tiger Bay Wildlife Management Area (WMA) Rima Ridge Unit	Wildlife Management Area, Cooperative Unit	Wildlife/Water Fowl Refuge, Multiple Use Facility	Florida Fish and Wildlife Conservation Commission	No Use	Determination 05-17-2023
St. Johns River Water Management District Water Management Area	Water Management Area, Cooperative Unit	Wildlife/Water Fowl Refuge, Multiple Use Facility	St. Johns River Water Management District, Department of Operations and Land Resources, Division of Real Estate Services. 4049 Reid Street, Palatka, FL 32177	No Use	Determination 05-17-2023
City of Daytona Beach Municipal Stadium / Daytona Stadium	Park / Recreation Area, Municipal (City of Daytona Beach)	Park/Rec Area	City of Daytona Beach. Parks and Recreation. 301 S. Ridgewood Ave. Daytona Beach, FL 32114	No Use	Determination 05-18-2023
City of Daytona Beach Florida Tennis Center / Daytona Tennis Center	Park / Recreation Area, Municipal (City of Daytona Beach)	Park/Rec Area	City of Daytona Beach. Parks and Recreation. 301 S. Ridgewood Ave. Daytona Beach, FL 32114	No Use	Determination 05-18-2023
Indigo Community Development District	Passive Park / Buffer Area	Park/Rec Area	Indigo Community Development District, 135 W. Central Boulevard, Suite 320, Orlando, FL 32801.	No Use	Determination 06-06-2023

Tiger Bay State Forest

Facility Type: Park / Recreation Area, State Forest

Property Classification: Park/Rec Area, Multiple Use Facility

Address and Coordinates:

Address: 4316 W International Speedway Blvd, Daytona Beach, FL, 32124, USA

Latitude: 29.12119 Longitude: -81.17869

Description of Property:

Tiger Bay State Forest is a multiple-use state forest. It is located in east central Volusia County, between Interstate 4 (I-4) and State Road 40 (SR 40) and bisected by US Highway 92. Four Tiger Bay State Forest access points are located off U.S. Highway 92. The approved Management Plan (October 2010) identifies over 27,000 acres under multiple-use management of Division of Forestry, St. Johns River Water Management District, Volusia County, Florida Fish and Wildlife Conservation Commission, and Division of Historical Resources. The Tiger Bay State Forest is also subject to Lease Agreement Number 4326 (July 2001) between the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (TIITF) and the Governing Board of the St. Johns River Water Management District, collectively referred to as the Lessors, and the Florida Department of Agriculture and Consumer Services, known as the Lessee. Tiger Bay State Forest is important to aquifer recharge and surface water storage. It is a link in a regional wildlife corridor, connecting other publicly owned land. Recreational activities include: hunting, hiking, bicycling, horseback riding, camping, restrooms, water, pavilion, picnic tables, grills, canoe launch, dock, fishing, wildlife viewing, nature study, and multiple-use trails. The specific parcels are Volusia County Property Appraiser parcel numbers 523200000012, and 523300000012. Along the project alignment, the area under management of the Tiger Bay State Forest is 27,311 acres. The City of Daytona Beach shows the future land use zoning for this property as CONSV (Conservation).

Owner/Official with Jurisdiction: Florida Department of Agriculture and Consumer Services (FDACS), Division of Forestry, Florida Forest Service. Florida Forest Service, 4316 W. International Speedway Blvd., Daytona Beach, FL 32124-2007.

Relationship Between the Property and the Project

At the project location adjacent to the Tiger Bay State Forest, the proposed widening of LPGA Boulevard will occur entirely within the existing roadway right-of-way. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the east side of LPGA Boulevard, but not within the Tiger Bay State Forest on the west side of LPGA Boulevard. No right-of-way is required from the Tiger Bay State Forest including drainage or temporary easements. LPGA Boulevard forms an eastern boundary (approximately 0.75 miles) along the southeastern extent of Tiger Bay State Forest. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. LPGA Boulevard adjoins but does not provide access to Tiger Bay State Forest at this location. There are no developed amenities, activities, features, or attributes of Tiger Bay State Forest accessible from LPGA Boulevard at this location. The project will have no use or adverse impact to the Section 4(f) resource.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: 05-17-2023

Tiger Bay Wildlife Management Area (WMA) Rima Ridge Unit

Facility Type: Wildlife Management Area, Cooperative Unit

Property Classification: Wildlife/Water Fowl Refuge, Multiple Use Facility

Address and Coordinates:

Address: 4316 W International Speedway Blvd, Daytona Beach, FL, 32124, USA

Latitude: 29.12119 Longitude: -81.17869

Description of Property:

The 11,438 acre Rima Ridge Unit of Tiger Bay Wildlife Management Area (WMA) located between State Road (SR) 40 and US 92 is a Cooperative Area of the Florida Fish and Wildlife Conservation Commission, managed in cooperation with the Florida Forest Service, and the St. Johns River Water Management District. The Ridge Unit is part of the broader Tiger Bay WMA in north central Volusia County, near Daytona Beach. The area is also part of the Tiger Bay State Forest. The approved Tiger Bay State Forest Management Plan (October 2010) identifies multiple-use management of Division of Forestry, St. Johns River Water Management District, Volusia County, Florida Fish and Wildlife Conservation Commission, and Division of Historical Resources. The Tiger Bay State Forest is also subject to Lease Agreement Number 4326 (July 2001) between the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (TIITF) and the Governing Board of the St. Johns River Water Management District, collectively referred to as the Lessors, and the Florida Department of Agriculture and Consumer Services, known as the Lessee. The WMA is bisected by US 92 between Deland and Daytona. The primary access points are from Indian Lake Road off US 92, and from SR 40. Recreation opportunities include: hunting, fishing, wildlife viewing, hiking, picnicking, horseback riding, cycling, paddling, boating, and primitive camping. Hunting restrictions are explained in the Regulations Summary and Area Map (July 2022-June 2023). The specific parcels are Volusia County Property Appraiser parcel numbers 52320000012, and 52330000012 along the project alignment. The City of Daytona Beach shows the future land use zoning for this property as CONSV (Conservation).

Owner/Official with Jurisdiction: Florida Fish and Wildlife Conservation Commission

Relationship Between the Property and the Project

At the project location adjacent to the Tiger Bay WMA, the proposed widening of LPGA Boulevard will occur entirely within the existing roadway right-of-way. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the east side of LPGA Boulevard, but not within the Tiger Bay Wildlife Management Area on the west side of LPGA Boulevard. No right-of-way is required from the WMA including drainage or temporary easements. LPGA Boulevard forms an eastern boundary (approximately 10 miles) along the southeastern extent of the WMA. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. LPGA Boulevard adjoins but does not provide access to the WMA at this location. There are no developed amenities, activities, features, or attributes of the WMA accessible from LPGA Boulevard at this location. The project will have no use or adverse impact to the Section 4(f) resource.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: 05-17-2023

St. Johns River Water Management District Water Management Area

Facility Type: Water Management Area, Cooperative Unit

Property Classification: Wildlife/Water Fowl Refuge, Multiple Use Facility

Address and Coordinates:

Address: 4316 W International Speedway Blvd, Daytona Beach, FL, 32124, USA

Latitude: 29.12119 Longitude: -81.17869

Description of Property:

The St. Johns River Water Management District covers 12,283 square miles. At the project location, St. Johns River Water Management District cooperatively manages the Water Management Area Partnership Property in coordination with the Tiger Bay State Forest and Florida Fish and Wildlife Conservation Commission Wildlife Management Area. The approved Tiger Bay State Forest Management Plan (October 2010) identifies multiple-use management of Division of Forestry, St. Johns River Water Management District, Volusia County, Florida Fish and Wildlife Conservation Commission, and Division of Historical Resources. The Tiger Bay State Forest is also subject to Lease Agreement Number 4326 (July 2001) between the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (TIITF) and the Governing Board of the St. Johns River Water Management District, collectively referred to as the Lessors, and the Florida Department of Agriculture and Consumer Services, known as the Lessee. The specific parcels are Volusia County Property Appraiser parcel numbers 523200000012, and 523300000012. The LPGA project is located within the Regulatory Mitigation Basin 17 of the St. Johns River Water Management District. Along the project alignment, the area under management of St. Johns River Water Management District is 11,155 acres. The City of Daytona Beach shows the future land use zoning for this property as CONSV (Conservation).

Owner/Official with Jurisdiction: St. Johns River Water Management District, Department of Operations and Land Resources, Division of Real Estate Services. 4049 Reid Street, Palatka, FL 32177

Relationship Between the Property and the Project

At the project location adjacent to the St. Johns River Water Management District lands, the proposed widening of LPGA Boulevard will occur entirely within the existing roadway right-of-way. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the east side of LPGA Boulevard, but not within the St. Johns River Water Management District lands on the west side of LPGA Boulevard. No right-of-way is required from the water management district lands including drainage or temporary easements. LPGA Boulevard forms an eastern boundary (approximately 10 miles) along the southeastern extent of the water management district lands. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. LPGA Boulevard adjoins but does not provide access to the water management district lands at this location. There are no developed amenities, activities, features, or attributes of the water management district lands accessible from LPGA Boulevard at this location. The project will have no use or adverse impact to the Section 4(f) resource.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: 05-17-2023

City of Daytona Beach Municipal Stadium / Daytona Stadium

Facility Type: Park / Recreation Area, Municipal (City of Daytona Beach)

Property Classification: Park/Rec Area

Address and Coordinates:

Address: 3917 Lpga Blvd, Daytona Beach, FL, 32124, USA

Latitude: 29.17337 Longitude: -81.11745

Description of Property:

The City of Daytona Beach owns the 50-acre Daytona Stadium (Larry Kelly Field) which has a 10,000 seat soccer / football stadium with 2,100 parking spaces. The stadium was originally constructed in 1988. Operations are privately managed by DME Holdings. The Mainland and Seabreeze high school football teams both use the field as their home stadium. Bethune-Cookman University also plays some football games at the stadium. The City of Daytona Beach shows the future land use zoning for this property as EX-PP (Existing Potential Parks).

Owner/Official with Jurisdiction: City of Daytona Beach. Parks and Recreation. 301 S. Ridgewood Ave. Daytona Beach, FL 32114

Relationship Between the Property and the Project

At the project location adjacent to the Daytona Stadium, the proposed widening of LPGA Boulevard will occur within the existing LPGA mainline roadway right-of-way. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the south side of the stadium and not within the municipal property of the stadium. The LPGA project includes a roundabout at Welshinger-Butler Circle North, and a roundabout at Welshinger-Butler Circle South. No right-of-way is required from the municipal property to construct the roundabout improvements. Improvements to Welshinger-Butler Circle are proposed by others as the future Dunn Avenue along the south side of the stadium parcel. There are no developed amenities, activities, features, or attributes of the stadium at or accessible from LPGA Boulevard at this location. Access to the stadium will be maintained during construction.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: 05-18-2023

City of Daytona Beach Florida Tennis Center / Daytona Tennis Center

Facility Type: Park / Recreation Area, Municipal (City of Daytona Beach)

Property Classification: Park/Rec Area

Address and Coordinates:

Address: 1 Deuce Ct, Daytona Beach, FL, 32124, USA

Latitude: 29.18999 Longitude: -81.12188

Description of Property:

The City of Daytona Beach owns the 19-acre Florida Tennis Center which provides 24 clay courts, 20 of which are lighted for night use. The facility is open to the public Monday - Thursday (9 am to 9 pm), Friday - Saturday (9 am to 4 pm), and Sunday (8 am - 1 pm). The Center hosts United States Tennis Association (USTA) tournaments such as the 2022 Daytona Beach Women's Pro Tennis Championships, and local league play. Use of the property is subject to membership fee. The City of Daytona Beach shows the future land use zoning for this property as LI-U (Low Intensity Urban).

Owner/Official with Jurisdiction: City of Daytona Beach. Parks and Recreation. 301 S. Ridgewood Ave. Daytona Beach, FL 32114

Relationship Between the Property and the Project

At the project location adjacent to the Tennis Center, the proposed widening of LPGA Boulevard will occur within the existing LPGA mainline roadway right-of-way. At this location, LPGA Boulevard is a two-lane county road maintained by Volusia County. Stormwater management facilities are proposed at this location outside of the existing right-of-way on the east side of LPGA Boulevard and not within the municipal property of the Tennis Center. The LPGA project includes a new roundabout at International Tennis Drive, along the northern edge of the municipal property. No right-of-way is required from the municipal property to construct the roundabout improvements. There are no developed amenities, activities, features, or attributes of the Tennis Center at or accessible from LPGA Boulevard at this location. The courts are near the project alignment on LPGA Boulevard, but their use / enjoyment will not be impacted due to separation from the road by a tree buffer. The edge of proposed LPGA Boulevard roadway pavement is approximately 54.5 feet from the existing right-of-way at the Tennis Center.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: 05-18-2023

Indigo Community Development District

Facility Type: Passive Park / Buffer Area

Property Classification: Park/Rec Area

Address and Coordinates:

Address: Volusia County Property Appraiser Parcel 520900000027, LPGA Boulevard over Tomoka River, Daytona Beach, FL 32124

Latitude: 29.217190 Longitude: -81.108816

Description of Property:

The 305-acre property is owned by the Indigo Community Development District which is a special taxing district. The Indigo Community Development District is a local, special purpose government entity authorized by Chapter 190 of the Florida Statutes as amended and established by the Florida Land and Water Adjudicatory Commission on January 3, 1995 as an alternative method of planning, acquiring, operating and maintaining community-wide improvements in planned communities. The Indigo Community Development District has a legislative body composed of a five-member board known as the Board of Supervisors. The Indigo Community Development District is generally bounded by LPGA Boulevard, I-95, and US 92. A map is included in the attachments showing the overall master site plan of the Indigo Community Development District. The City of Daytona Beach Comprehensive Plan (November 2021) identifies the Future Land Use at the Tomoka River bridge as BA-PP (Buffer Area / Passive Park) and CONSV (Conservation).

Owner/Official with Jurisdiction: Indigo Community Development District, 135 W. Central Boulevard, Suite 320, Orlando, FL 32801.

Relationship Between the Property and the Project

At the project location, the Tomoka River Bridge will be replaced with a single wider and longer bridge to accommodate widening of LPGA Boulevard and address bridge hydraulics including sea-level rise effect. The proposed bridge typical section for the Tomoka River Bridge is based on the typical section for the segment between Tymber Creek Road and Williamson Boulevard and includes three 11-ft travel lanes in each direction, left turn lanes, and 12-ft shared use paths on both sides of the bridge to accommodate pedestrians and bicycles. The bridge will be approximately 340 feet long. The bridge will be constructed within the existing right-of-way. No temporary or permanent easements are required. The bridge concept plans identify two 25-foot wildlife paths are included on each side under the bridge adjacent to the river. Conceptual plans have not been developed at this point to understand drainage and stormwater runoff requirements for the bridge deck and the river below. The Tomoka River at the bridge location is not part of the designated Florida Department of Environmental Protection Tomoka River Paddling Trail. The Tomoka River within the project limits has a National Park Service (NPS) Nationwide Rivers Inventory (NRI) designation, which makes that segment of river eligible for listing in the National Wild and Scenic Rivers System, but the Tomoka River is not listed at this time.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

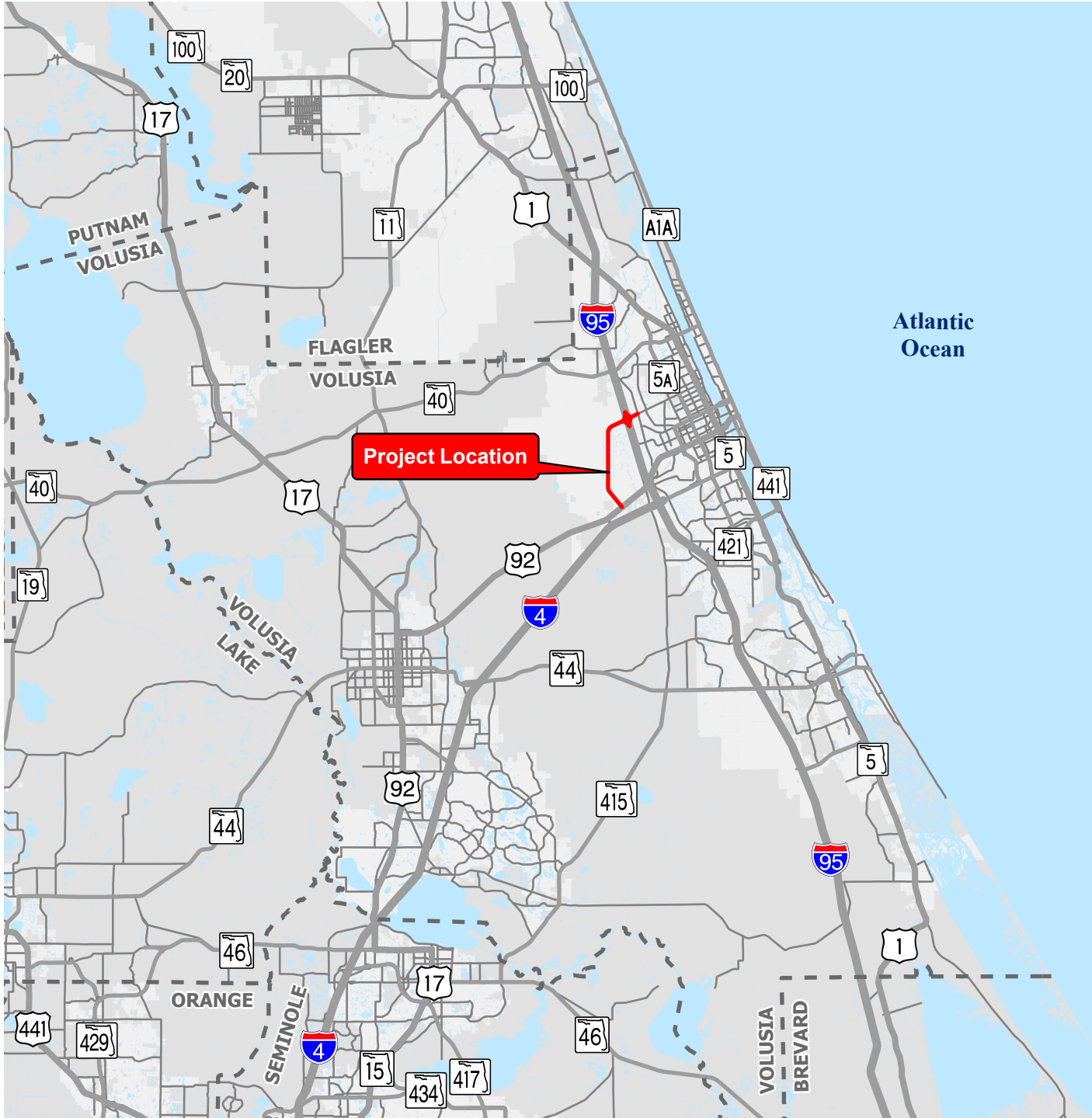
Recommended Outcome: No Use

OEM SME Determination Date: 06-06-2023

Project-Level Attachments

Project Location and Vicinity Maps

DRAFT



**VOLUSIA COUNTY
FLORIDA**

LEGEND

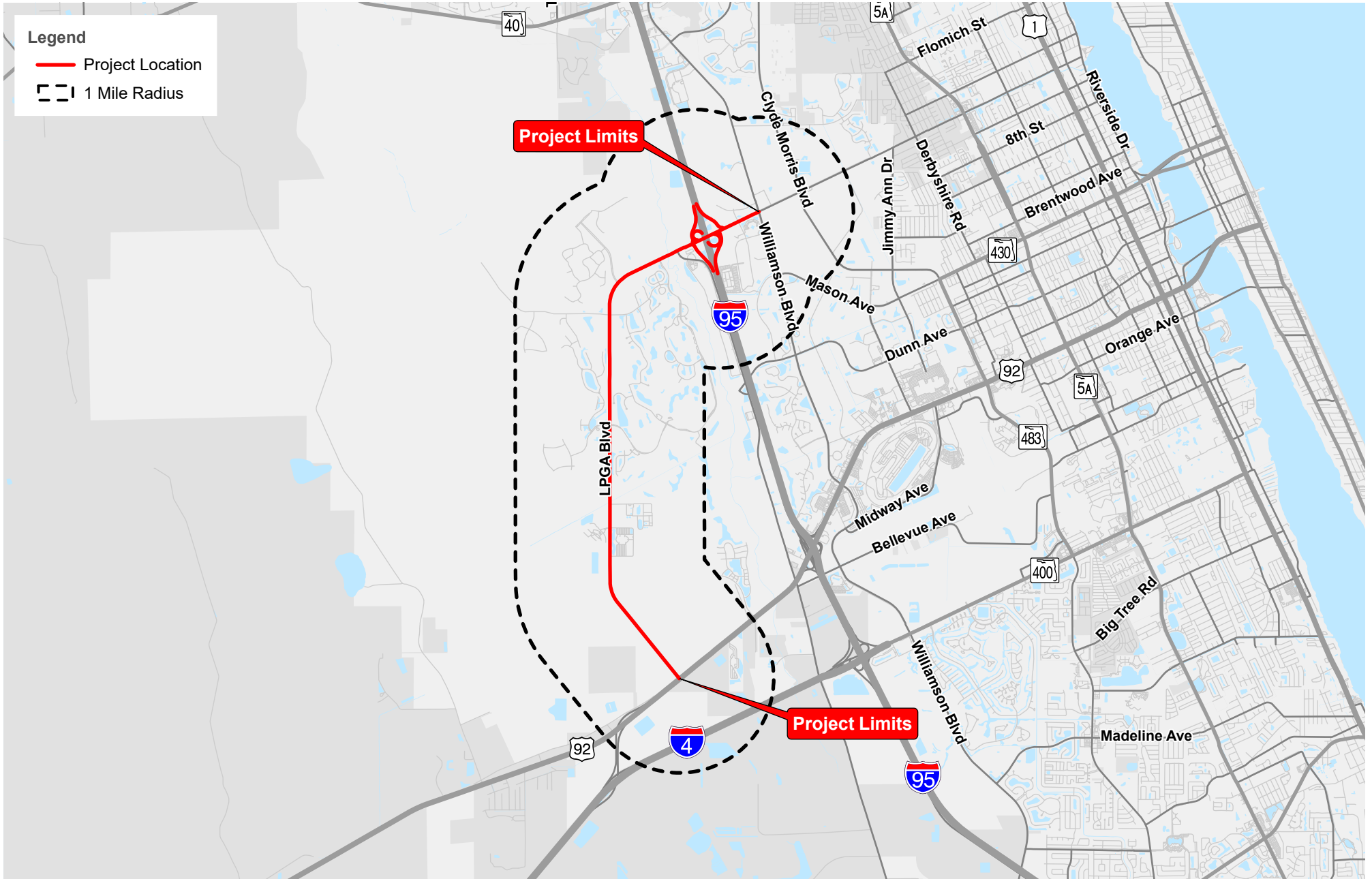
 Project Location

(DISCLAIMER) MAP INFORMATION WAS COMPLETED FROM THE BEST AVAILABLE SOURCES. NO WARRANTY IS MADE FOR ITS ACCURACY OR COMPLETENESS.

**PROJECT LOCATION MAP
LPGA BOULEVARD
FROM US 92 (SR 600) TO
WILLIAMSON BOULEVARD
PD&E STUDY
VOLUSIA COUNTY, FLORIDA**



FPID: 448456-1-22-01



Legend

- Project Location
- - - 1 Mile Radius



VICINITY MAP
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

Resource Attachments

Tiger Bay State Forest

Tiger Bay State Forest maps

Tiger Bay Wildlife Management Area (WMA) Rima Ridge Unit

Tiger Bay Wildlife Management Area maps

St. Johns River Water Management District Water Management Area

St Johns River Water Management District maps

City of Daytona Beach Municipal Stadium / Daytona Stadium

City of Daytona Beach Municipal Stadium maps

City of Daytona Beach Florida Tennis Center / Daytona Tennis Center

City of Daytona Beach FL Tennis Center maps

Indigo Community Development District

Indigo Development Districts maps

Tiger Bay State Forest

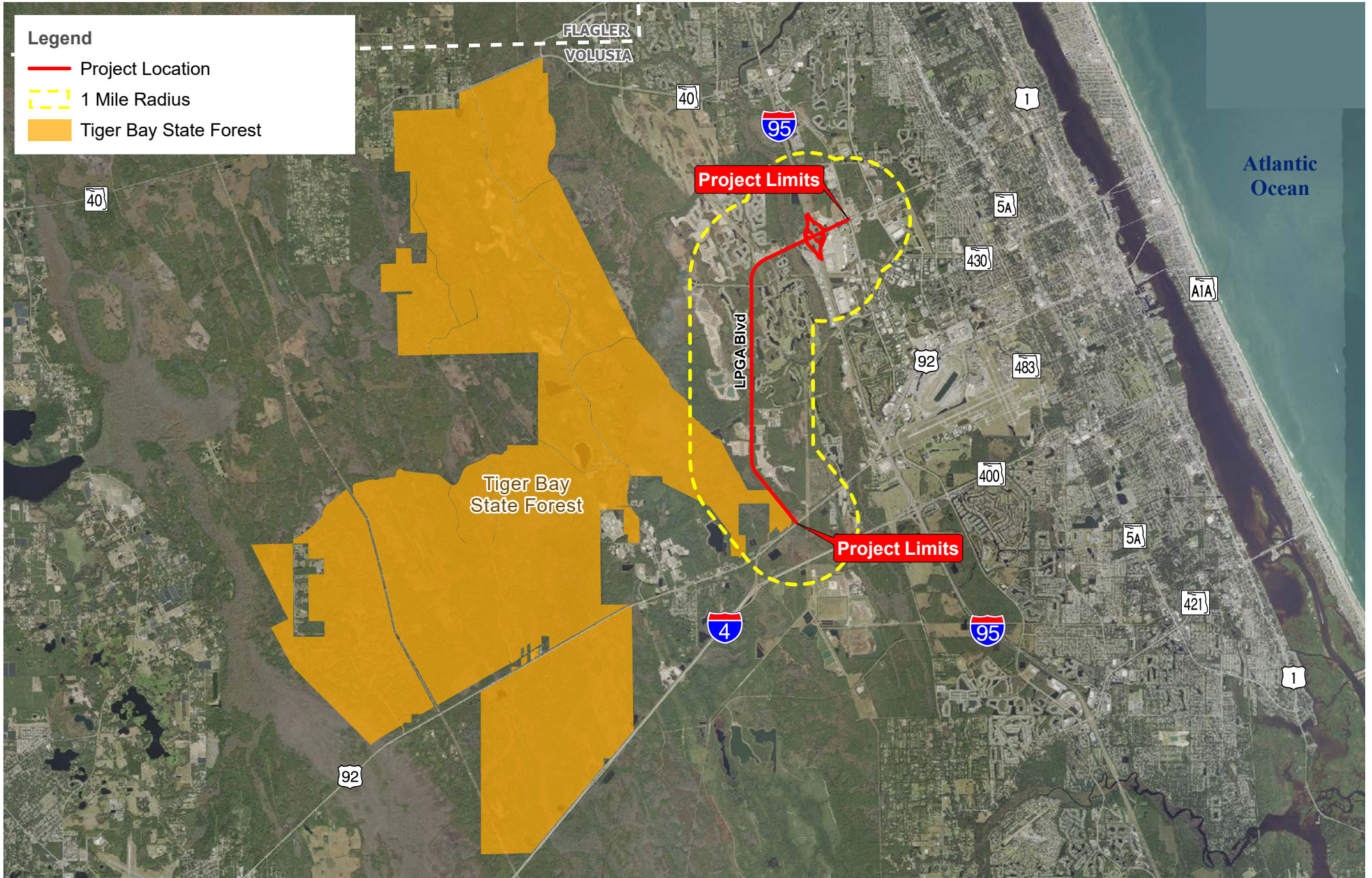
Contents:

Tiger Bay State Forest maps

DRAFT

Tiger Bay State Forest Resource Maps

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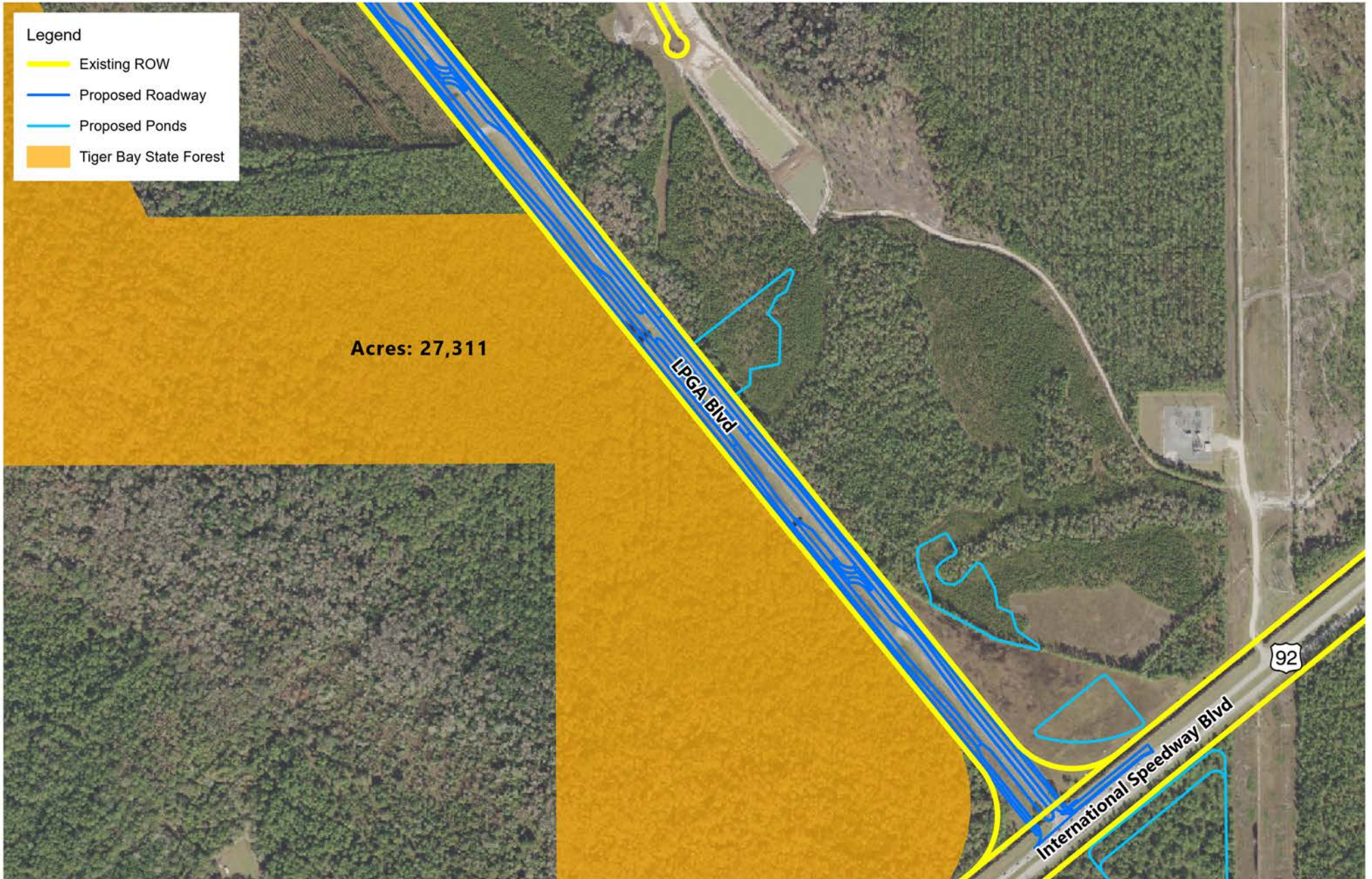


Legend

- Project Location
- 1 Mile Radius
- Tiger Bay State Forest



TIGER BAY STATE FOREST
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA



- Legend**
- Existing ROW
 - Proposed Roadway
 - Proposed Ponds
 - Tiger Bay State Forest

Acres: 27,311

LPGA Blvd

International Speedway Blvd

92



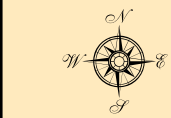
TIGER BAY STATE FOREST
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01



Tiger Bay State Forest

27,395 Acres



← To Barberville

FLAGLER
VOLUSTA



Area of Detail

Tiger Bay Tract

Clark Bay Tract

Equestrian Trail
Parking Area



Yellow
Trail

Blue
Trail

Purple
Trail

Rima Ridge Tract

Buncombe Hill
Hiking Trail ~2 M.

Indian Lake
Recreation Area

Indian Lake
Recreation Area



Tiger Bay
Office Site



Pershing Highway
Interpretive Trail ~2. M.

Old Daytona Rd.

Rattlesnake Pond
Hiking Trail ~0.5 M.

Legend

	Recreation Site		Picnic
	State Forest Office		Primitive Camping
	Kiosk		Fishing
	Restrooms		Gate
	Hiking		Multi-Use Trail
	Equestrian Parking		Roads
	Cycling		State Forest
	Equestrian Camping		

Tiger Bay Wildlife Management Area (WMA) Rima Ridge Unit

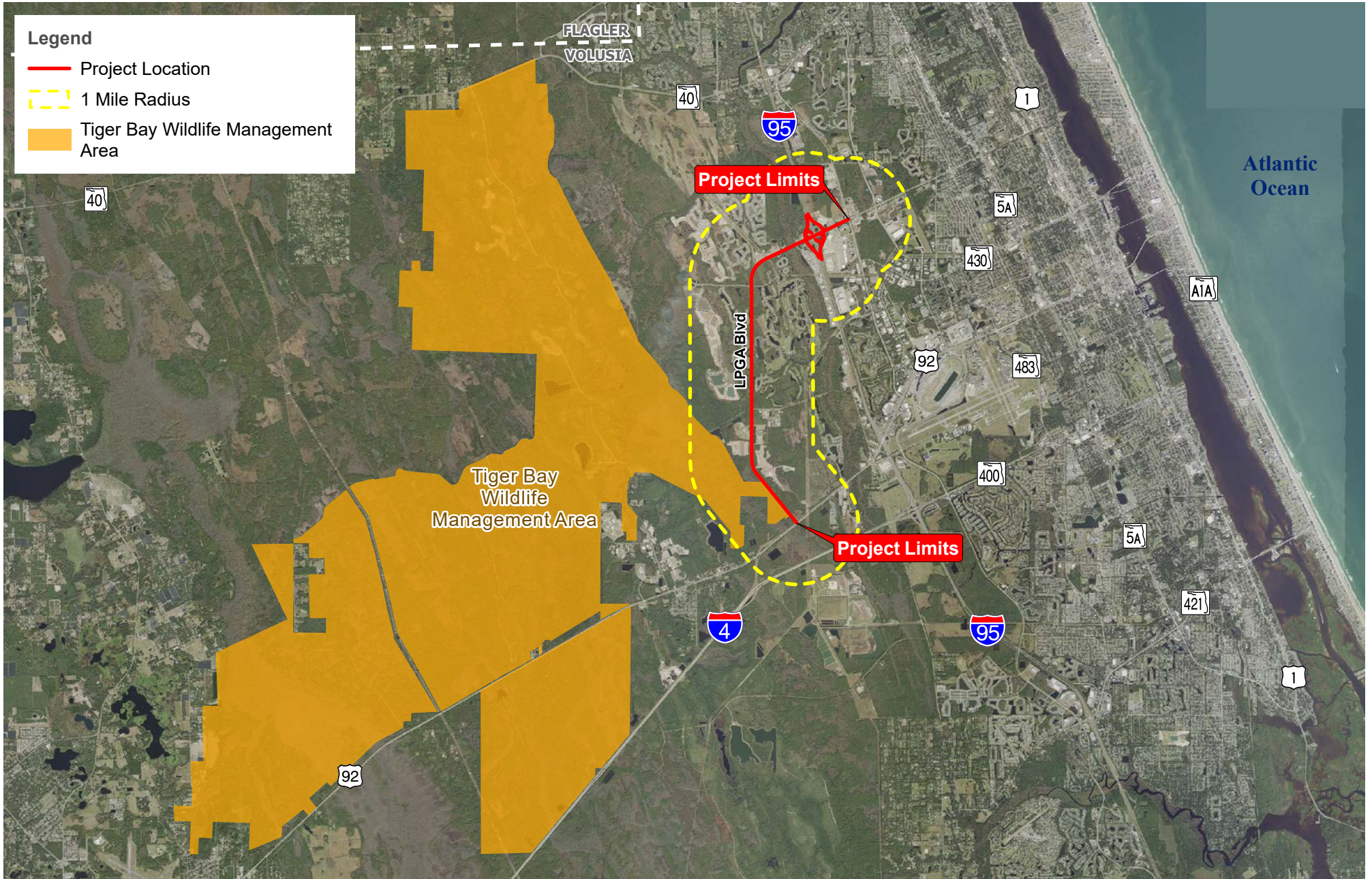
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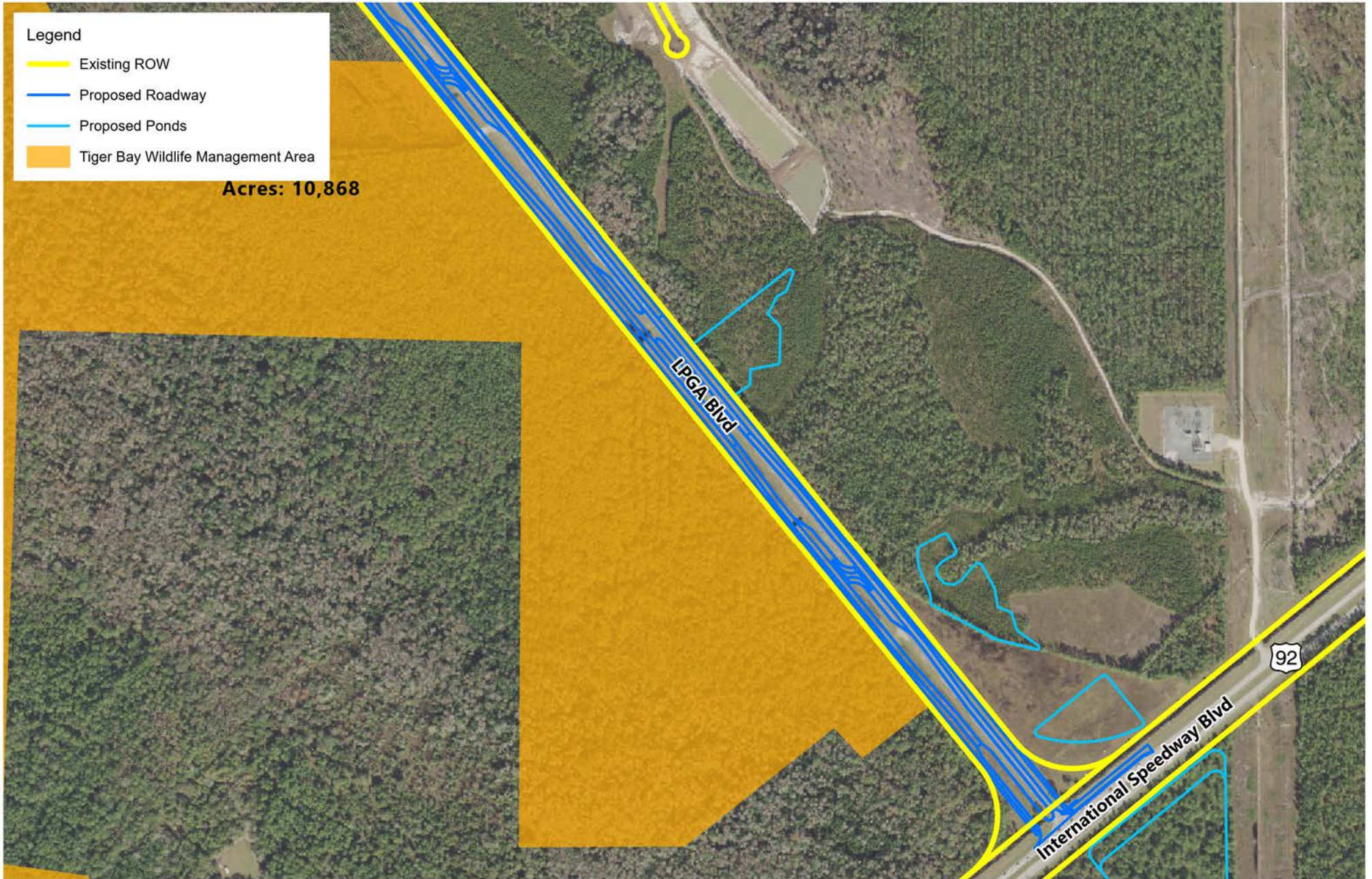
Tiger Bay Wildlife Management Area maps

DRAFT

Tiger Bay Wildlife Management Area Resource Maps

DRAFT





- Legend**
- Existing ROW
 - Proposed Roadway
 - Proposed Ponds
 - Tiger Bay Wildlife Management Area

Acres: 10,868

LPGA Blvd

International Speedway Blvd

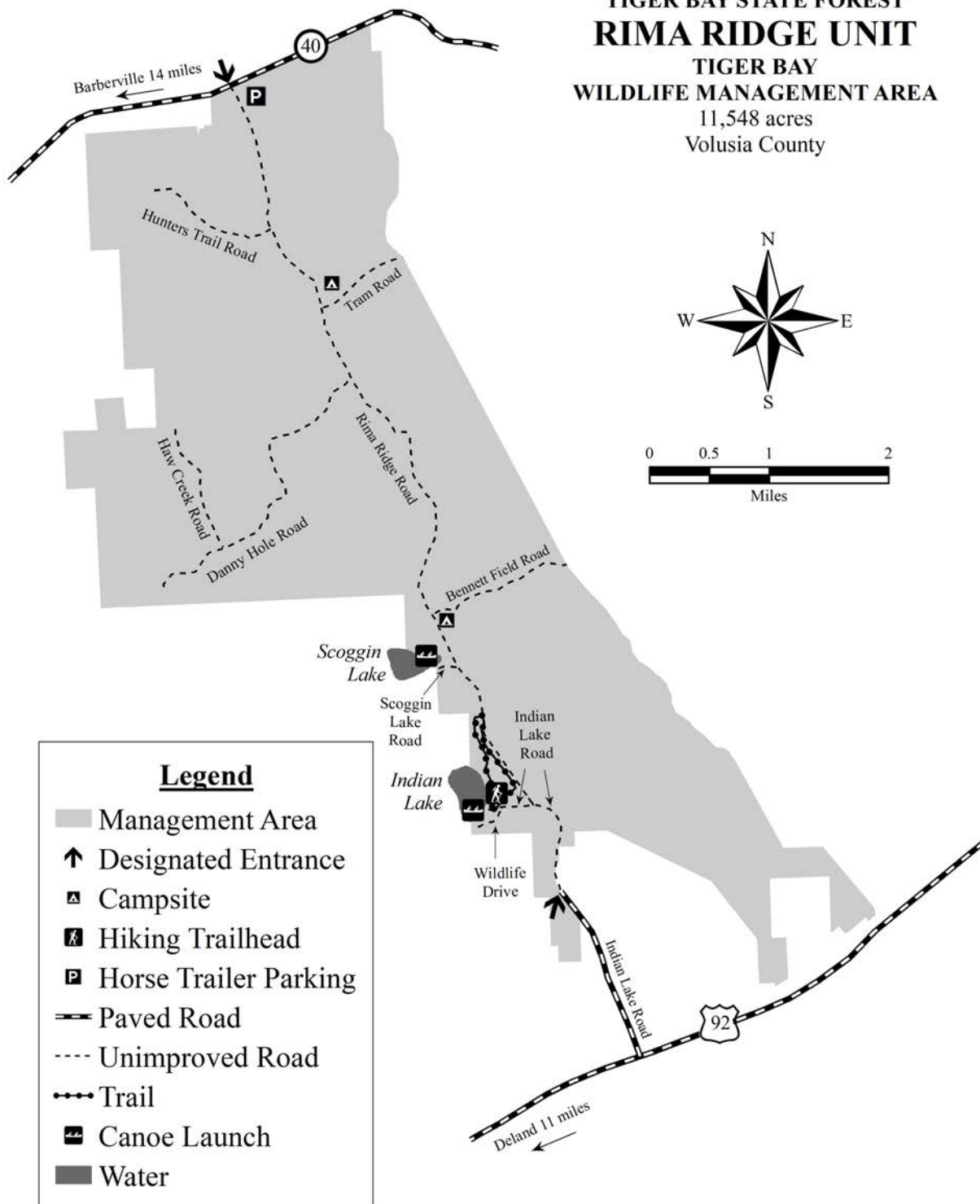
92



TIGER BAY WILDLIFE MANAGEMENT AREA
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01

**TIGER BAY STATE FOREST
RIMA RIDGE UNIT**
TIGER BAY
WILDLIFE MANAGEMENT AREA
11,548 acres
Volusia County

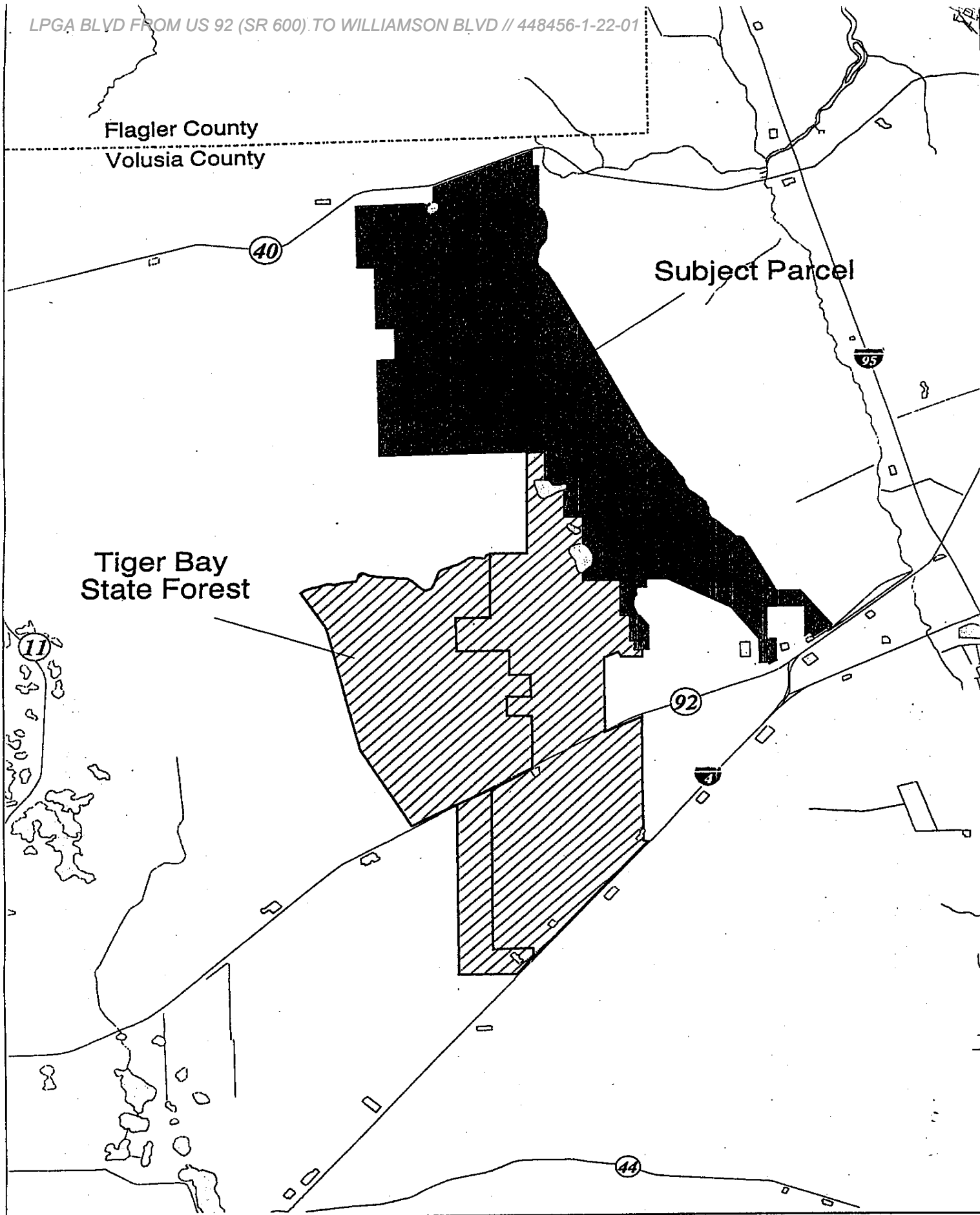


DISCLAIMER: This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

Flagler County
Volusia County

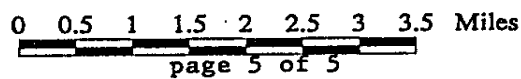
Subject Parcel

Tiger Bay
State Forest



- County Boundaries
- Major Roads
- Water Bodies
- ▨ Tiger Bay State Forest
- Subject Parcel

Exhibit A Tiger Bay State Forest



St. Johns River Water Management District Water Management Area

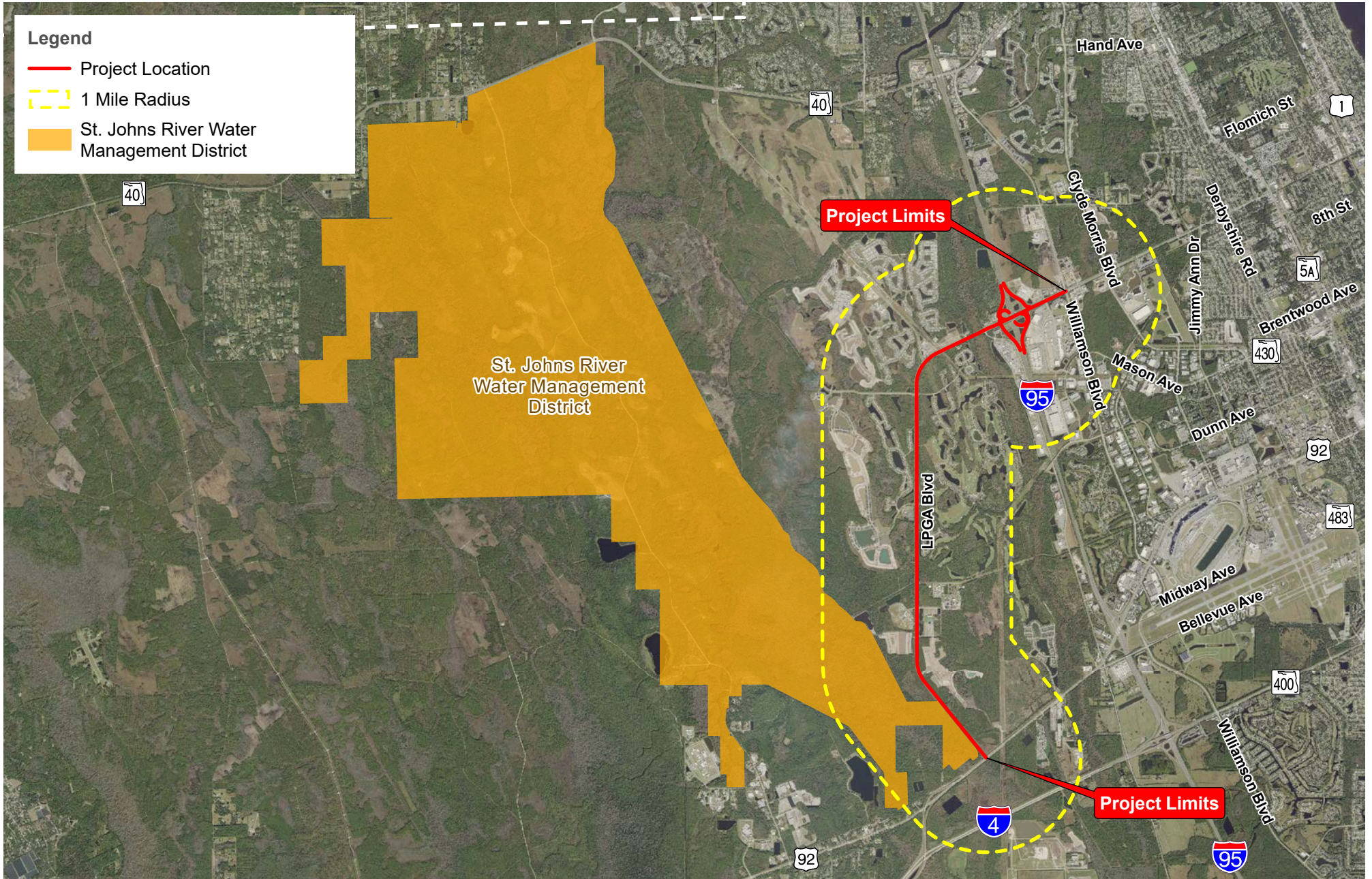
Contents:

St Johns River Water Management District maps

DRAFT

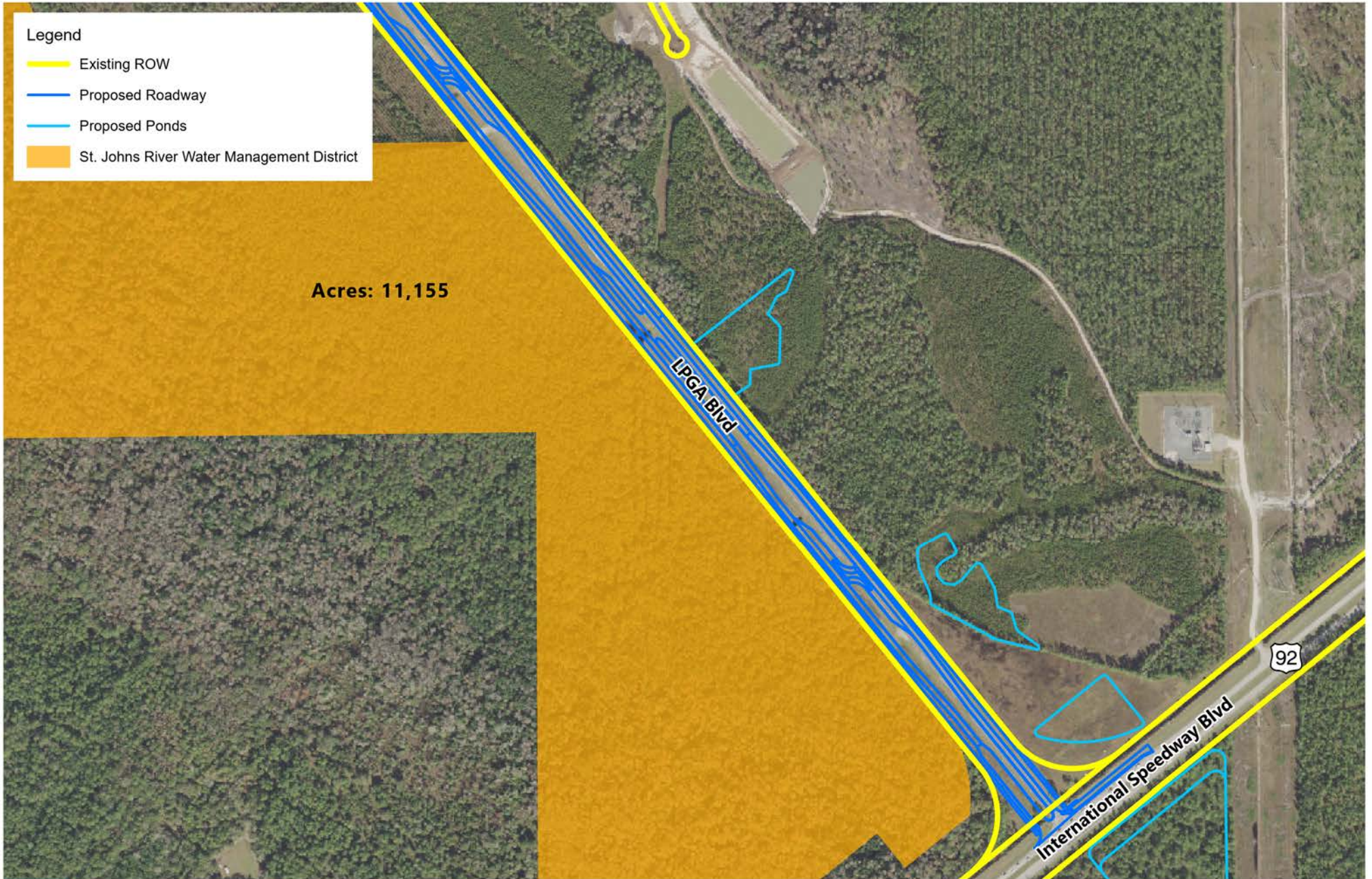
St. Johns River Water Management District Resource Maps

DRAFT



ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01



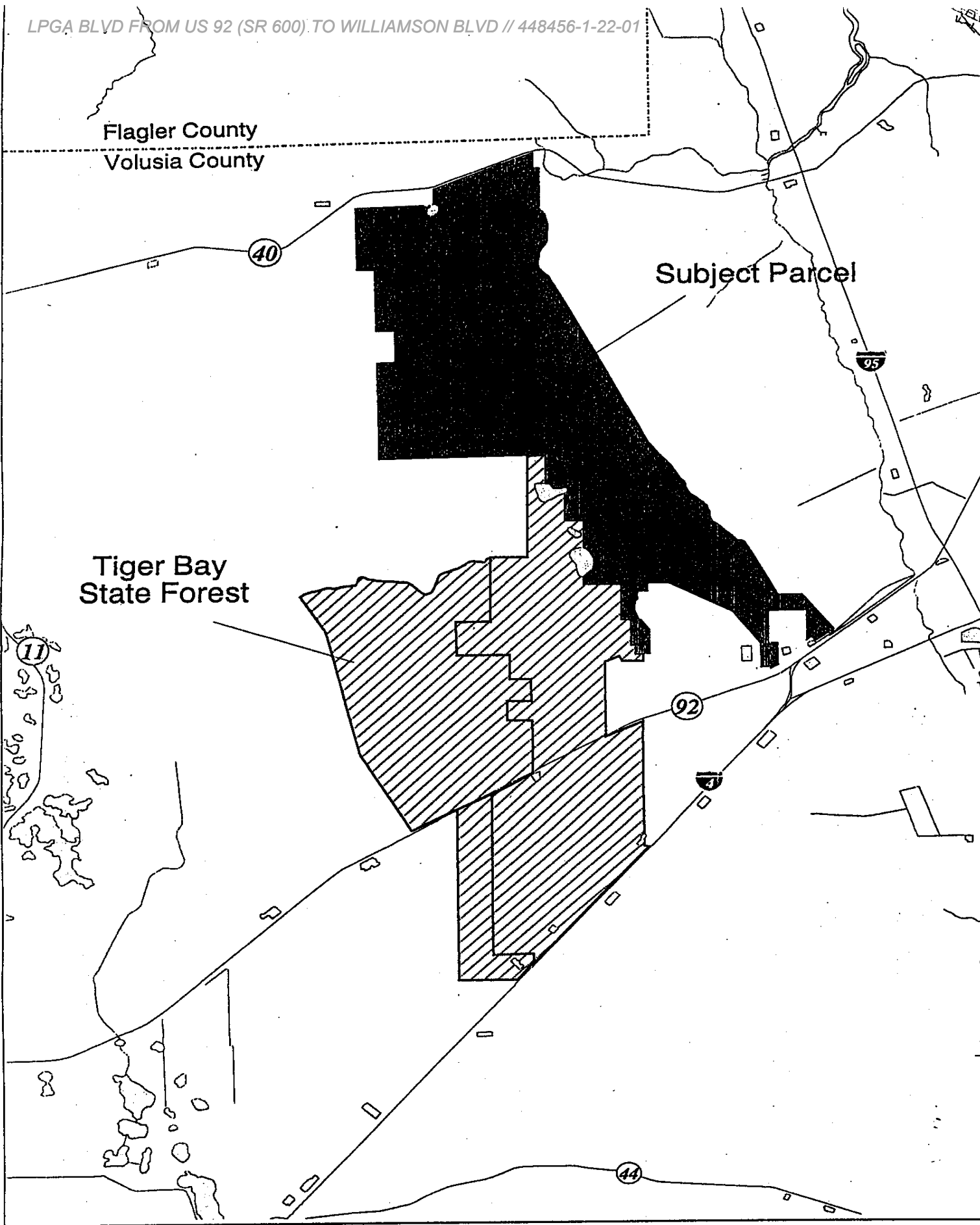
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01

Flagler County
Volusia County

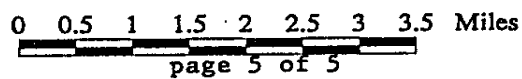
Subject Parcel

Tiger Bay
State Forest



- County Boundaries
- Major Roads
- Water Bodies
- ▨ Tiger Bay State Forest
- Subject Parcel

Exhibit A Tiger Bay State Forest



City of Daytona Beach Municipal Stadium / Daytona Stadium

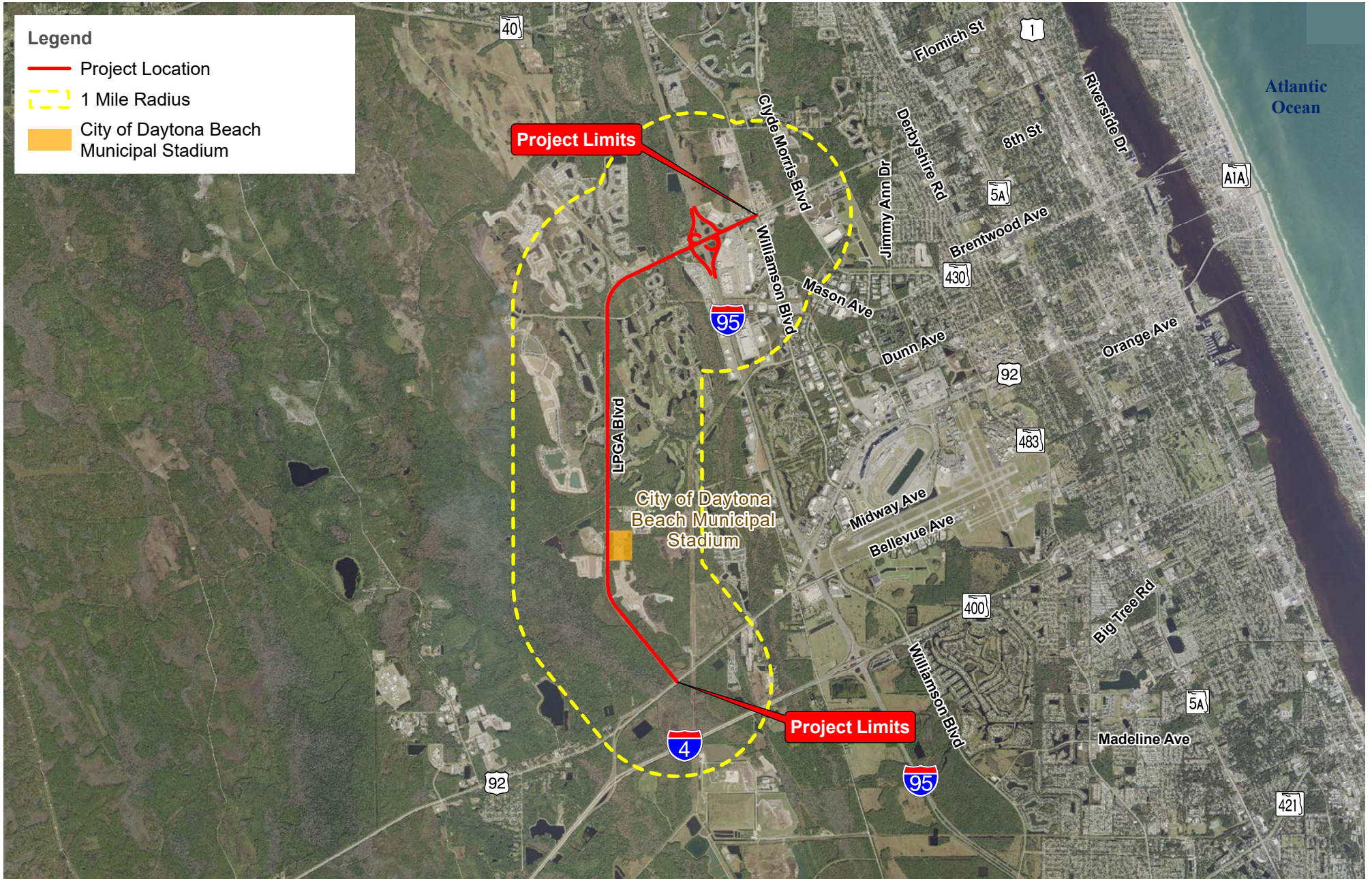
Contents:

City of Daytona Beach Municipal Stadium maps

DRAFT

City of Daytona Beach Municipal Stadium Resource Maps

DRAFT



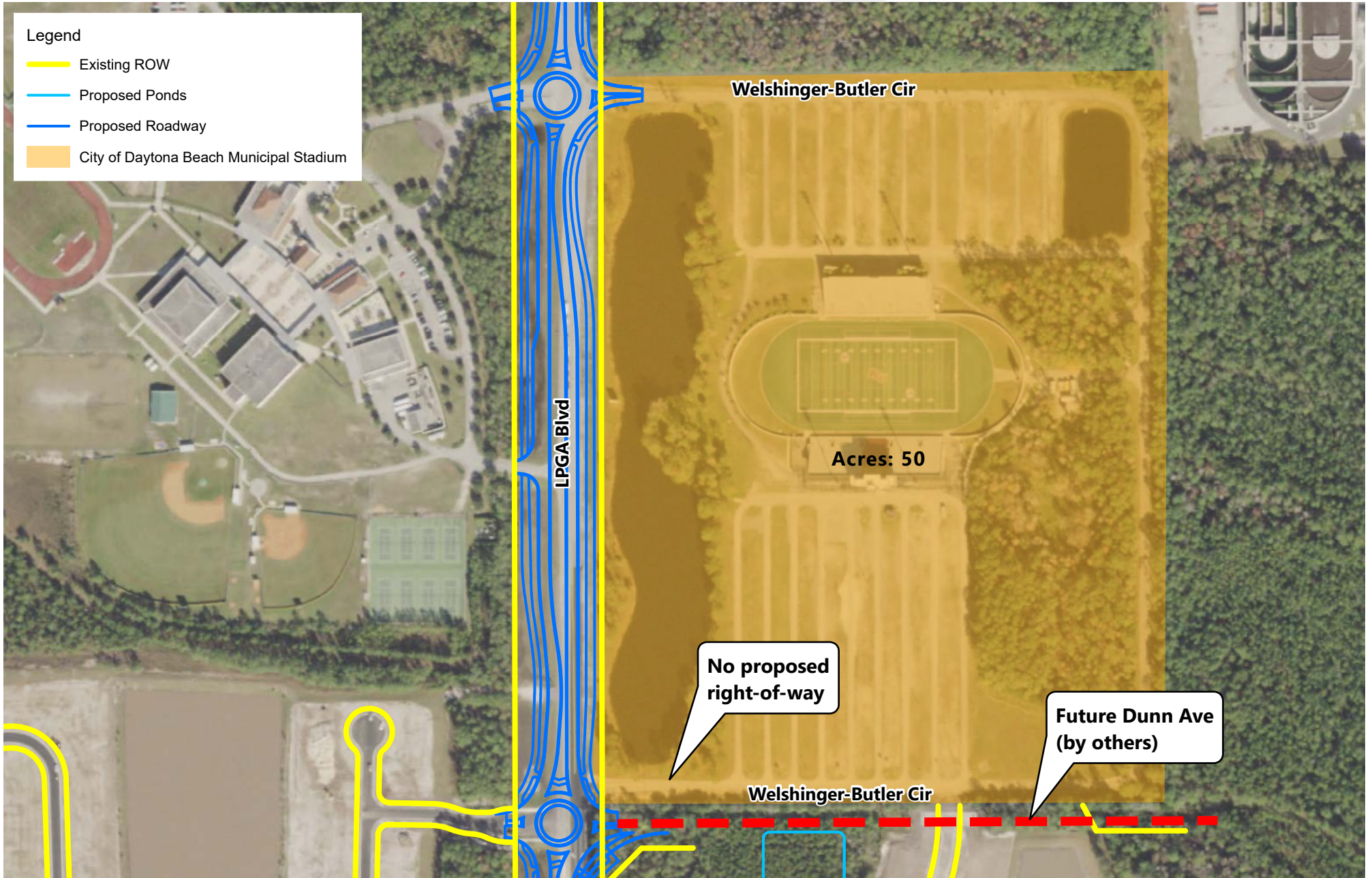
Legend

- Project Location
- - - 1 Mile Radius
- City of Daytona Beach Municipal Stadium



CITY OF DAYTONA BEACH MUNICIPAL STADIUM
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01



CITY OF DAYTONA BEACH MUNICIPAL STADIUM
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01

City of Daytona Beach Florida Tennis Center / Daytona Tennis Center

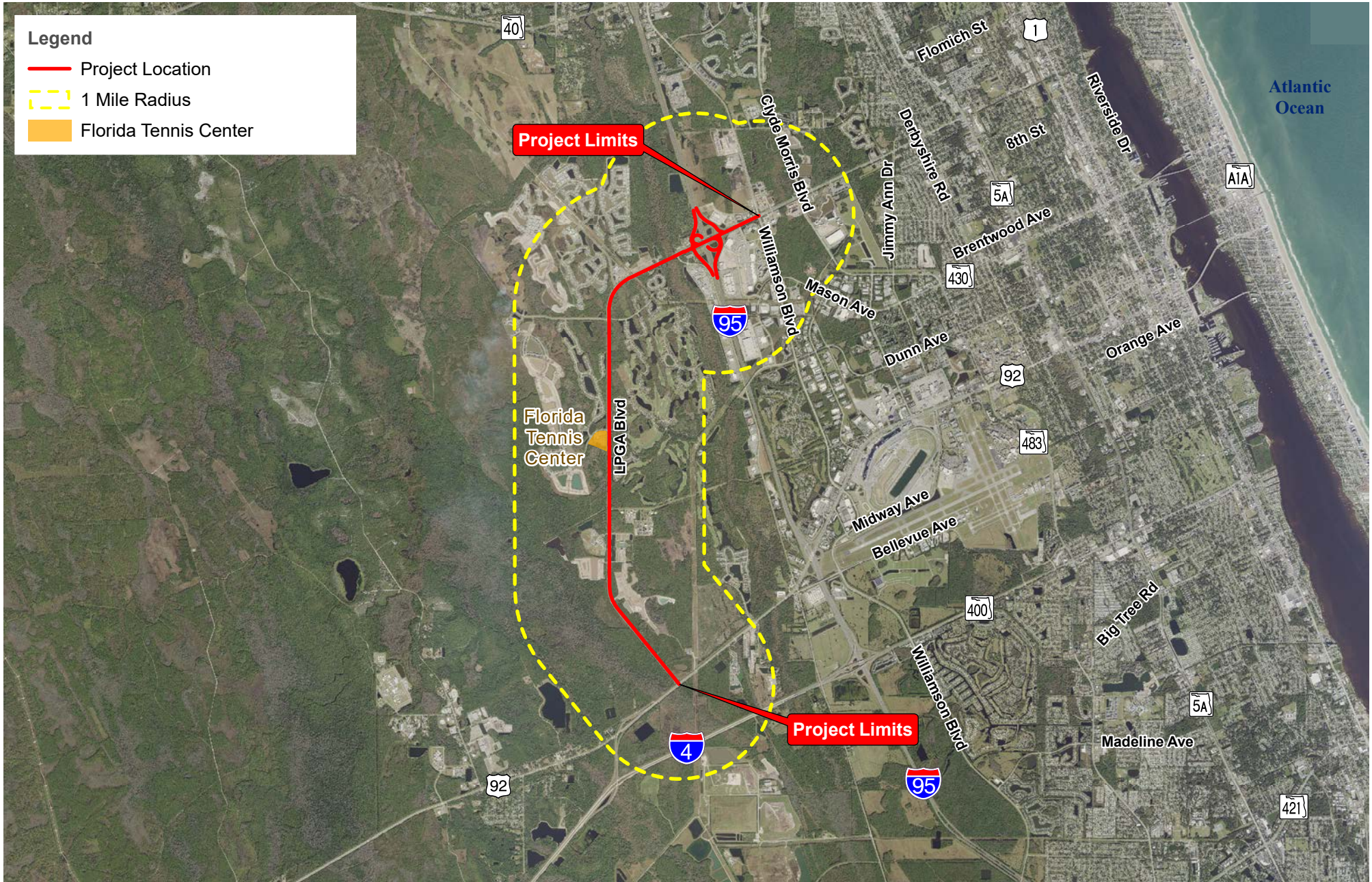
Contents:

City of Daytona Beach FL Tennis Center maps

DRAFT

City of Daytona Beach Tennis Center Resource Maps

DRAFT



FLORIDA TENNIS CENTER
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01



- Legend
- Existing ROW
 - Proposed Ponds
 - Proposed Roadway
 - Florida Tennis Center

International Tennis Dr

Acres: 19

LPGA Blvd

54.5 ft



FLORIDA TENNIS CENTER
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01

Indigo Community Development District

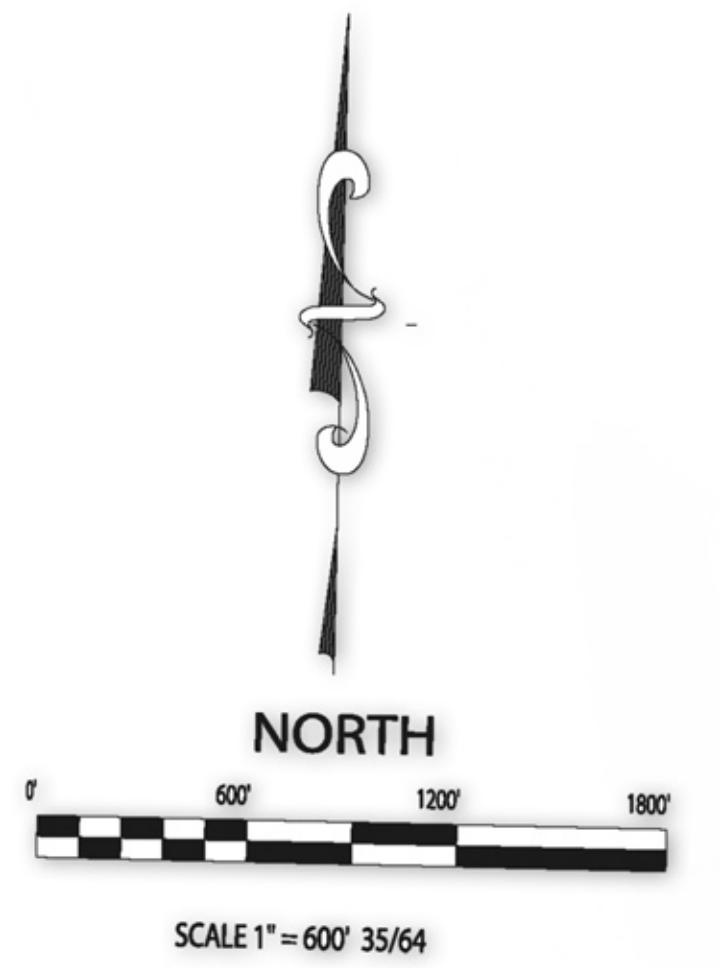
Contents:

Indigo Development Districts maps

DRAFT

Indigo Development District Master Site Plan

DRAFT



BPF
DESIGN INCORPORATED
Brian P. Fredley, President
207 Fairview Avenue
Daytona Beach, FL 32114
Phone: 386/257-0502
Fax: 386/257-1050
Email: bpfdesign@cfi.fl.com
Website: www.bpfdesign.net

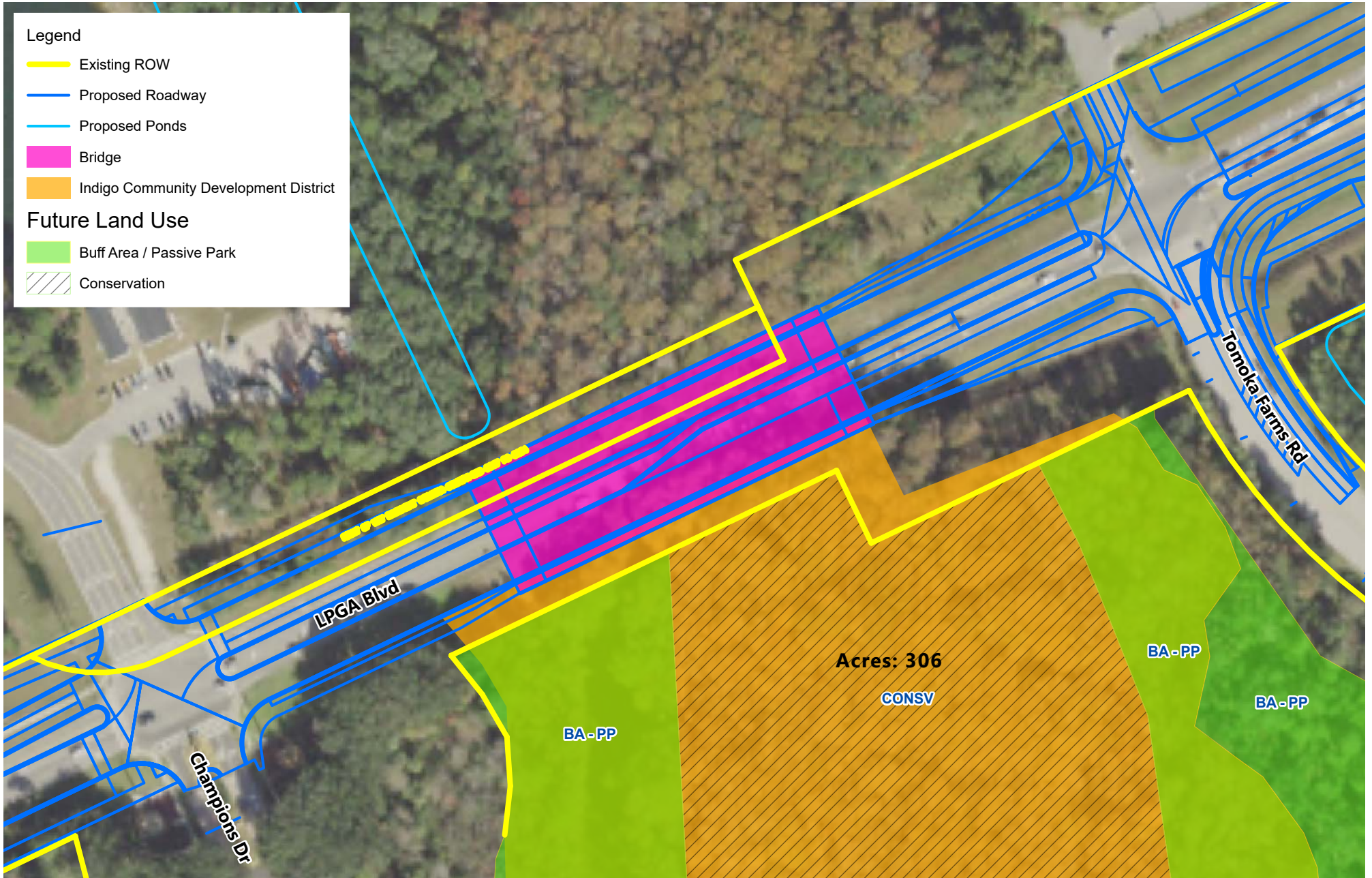
LPGA Development Master Site Plan

Project Boundries: LPGA blvd, I-95

3D
GRAPHICS
Gordon LaPlante
Cell: 386/295-6013
Email: Gordon@3digraphics.com
Website: www.3digraphics.com

Indigo Development District at LPGA Project with Future Land Use Zoning

DRAFT



Legend

- Existing ROW
- Proposed Roadway
- Proposed Ponds
- Bridge
- Indigo Community Development District

Future Land Use

- Buff Area / Passive Park
- Conservation

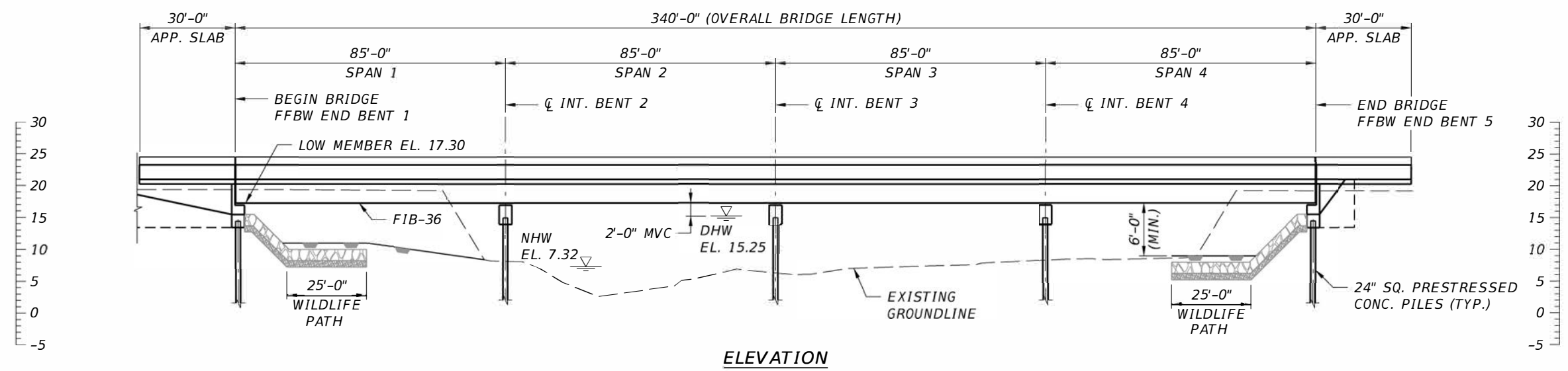
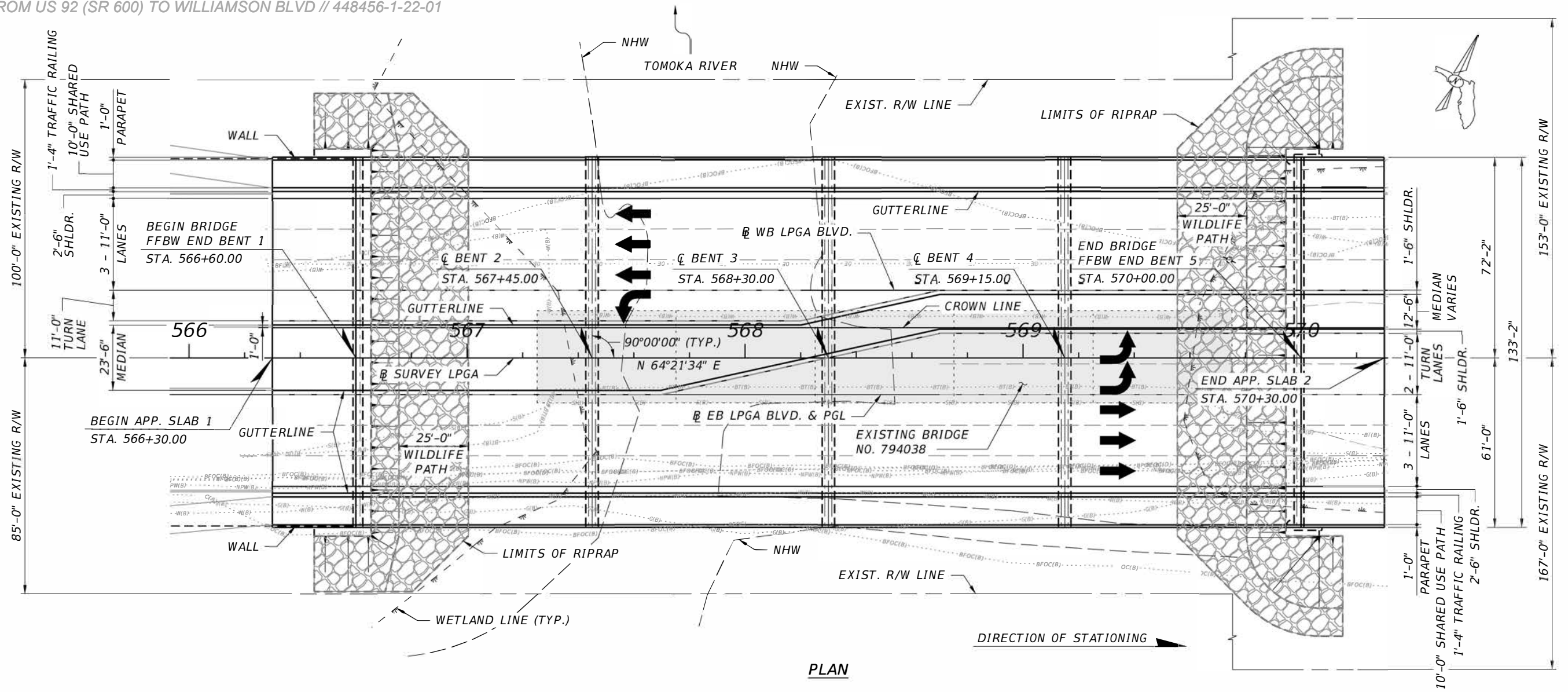


INDIGO COMMUNITY DEVELOPMENT DISTRICT
LPGA BOULEVARD FROM US 92 (SR 600) TO WILLIAMSON BOULEVARD PD&E STUDY
VOLUSIA COUNTY, FLORIDA

FPID: 448456-1-22-01

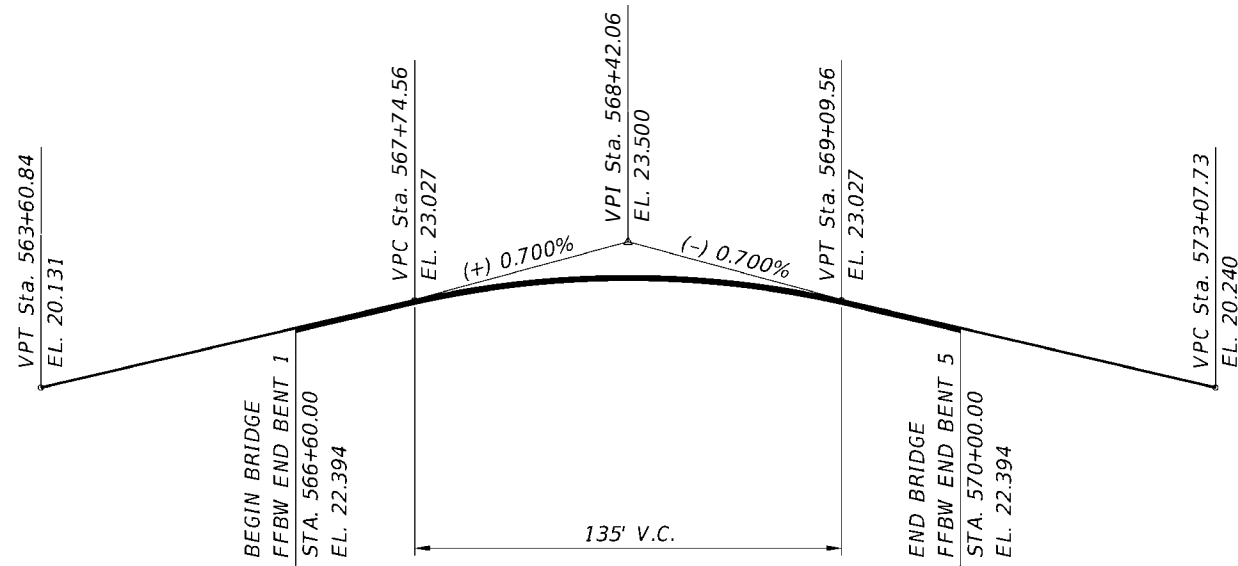
Conceptual Bridge Plans

DRAFT



BRIDGE NO. XXXXX

REVISIONS						Robert S. Turnage, P.E. P.E. LICENSE NUMBER 78204 HDR Engineering, Inc. 315 E Robinson Street, Suite 400 Orlando, FL 32801	Drawn By: JRC 12-22 Checked by: RST 12-22 Designed by: RST 12-22 Checked by: TED 12-22	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: TOMOKA RIVER BRIDGE PLAN AND ELEVATION (1 OF 2)		REF. DWG. NO.
Date	By	Description	Date	By	Description			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME: LPGA BLVD. PD&E STUDY		SHEET NO.
									VOLUSTA				



VERTICAL CURVE DATA

TRAFFIC DATA

CURRENT YEAR = 2021 AADT = 37,000
 OPENING YEAR = 2030 AADT = 36,000
 DESIGN YEAR = 2050 AADT = 56,000
 K = 8.5% D = 58.6% T = 4.6% (24 HOUR)
 DESIGN HOUR T = 4.6%
 DESIGN SPEED = 35 MPH
 POSTED SPEED = 35 MPH

BRIDGE NO. XXXXX

REVISIONS					
Date	By	Description	Date	By	Description

Robert S. Turnage, P.E.
 P.E. LICENSE NUMBER 78204
 HDR Engineering, Inc.
 315 E Robinson Street, Suite 400
 Orlando, FL 32801

Drawn By:
 JRC 12-22
 Checked by:
 RST 12-22
 Designed by:
 RST 12-22
 Checked by:
 TED 12-22

STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	VOLUSTA	

SHEET TITLE:

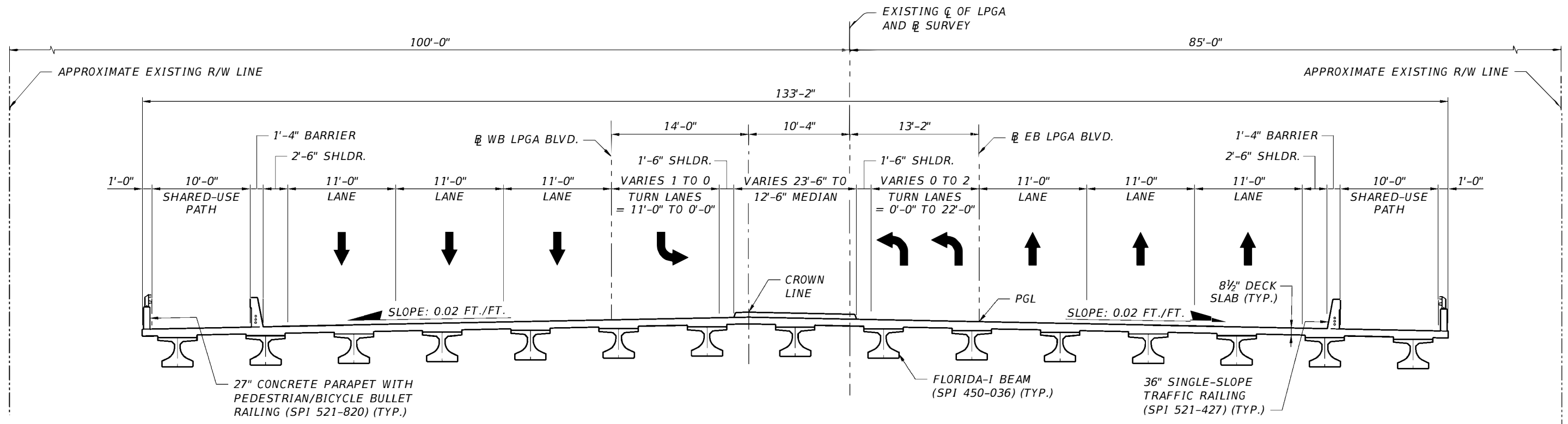
TOMOKA RIVER BRIDGE PLAN AND ELEVATION (2 OF 2)

PROJECT NAME:

LPGA BLVD. PD&E STUDY

REF. DWG. NO.

SHEET NO.



TYPICAL SECTION

BRIDGE NO. XXXXX

REVISIONS					
Date	By	Description	Date	By	Description

Robert S. Turnage, P.E.
P.E. LICENSE NUMBER 78204
HDR Engineering, Inc.
315 E Robinson Street, Suite 400
Orlando, FL 32801

Drawn By:
JRC 12-22
Checked by:
RST 12-22
Designed by:
RST 12-22
Checked by:
TED 12-22

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	VOLUSTA	

SHEET TITLE:	TOMOKA RIVER BRIDGE TYPICAL SECTION	REF. DWG. NO.	
PROJECT NAME:	LPGA BLVD. PD&E STUDY	SHEET NO.	



Florida Department of Transportation

RON DESANTIS
GOVERNOR

719 S. Woodland Blvd.
DeLand, FL 32720

JARED W. PERDUE, P.E.
SECRETARY

July 11, 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: Mr. Benjamin Stewart, Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey
LPGA Boulevard Project Development and Environment Study Ponds Addendum
Volusia County, Florida
Financial Management No.: 448456-1-22-01

Dear Ms. Lotane,

Enclosed please find one copy of the report titled *Cultural Resource Assessment Survey of LPGA Boulevard from US 92 (SR 600) to Williamson Boulevard Project Development and Environment Study Ponds Addendum, Volusia County, Florida*. This report presents the findings of a Phase I cultural resource assessment survey (CRAS) for 28 preferred pond locations associated with a Project Development & Environment Study for LPGA Boulevard in Volusia County, Florida. The Florida Department of Transportation, District 5, is proposing to construct 28 ponds for the LPGA Boulevard project from US 92 (State Road 600) to Williamson Boulevard. This survey serves as an addendum to *Cultural Resource Assessment Survey of LPGA Boulevard from US 92 (SR 600) to Williamson Boulevard Project Development & Environment Study Volusia County, Florida* (Florida Master Site File Survey Number pending; Kinchen et al. 2023). The current survey is limited to archaeological and architectural history survey of 28 preferred pond locations. The total area for the current survey is 42.23 acres (18.83 hectares). This project is federally funded.

The project archaeological Area of Potential Effect (APE) was limited to the proposed pond footprints. The architectural history APE included the proposed pond footprints and was extended to no more than 100.0 feet (30.5 meters) from the proposed footprint to consider viewshed effects to aboveground resources.

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 studies also comply with Chapter 267 of the Florida Statutes and Rule

www.fdot.gov

Ms. Lotane, SHPO
FM # 448456-1-22-01
July 11, 2023
Page 2

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 2020), 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 systematic shovel testing within the proposed pond footprints; pedestrian survey was conducted where field conditions precluded subsurface testing. Twenty shovel tests were excavated within the APE, and all were negative for cultural material. No further archaeological work is required.

The architectural resources within the APE were recorded and evaluated during the previous report for which this report serves as an addendum (Kinchen et al. 2023). As such, no architectural history work was completed for the current survey. No further architectural history survey is required.

Based on the results of this study, it is the opinion of the District that no NRHP-listed or eligible cultural resources were identified within the project APE. No further cultural resources work is recommended.

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,



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

Ms. Lotane, SHPO
FM # 448456-1-22-01
July 11, 2023
Page 3

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 202304171. 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 A Chase
for

Alissa S. Lotane, Director
Florida Division of Historical Resources

8.14.2023
Date

Natural Resources Appendix

Contents:

Wetlands Map
NMFS Correspondence
FDEP EFH Correspondence
NPS NRI Correspondence
Wood stork Effect Determination Key
Eastern Indigo Snake Effect Determination Key
Sole Source Aquifer Concurrence Letter
FWC Species Concurrence Letter
USFWS Species Concurrence Letter
USACE NRE Response
FDACS NRE Response
Correspondence - Plant Relocation Volunteer 1
Correspondence - Plant Relocation Volunteer 2

DRAFT

Physical Resources Appendix

Contents:

Noise Map

Potential Contamination Site Map

DRAFT

Public Involvement Appendix

Contents:

Project Kickoff Notification Materials

Alternatives Open House Meeting Materials

DRAFT