

Project Environmental Impact Report

SR 417 (Seminole Expressway) Sanford Airport Connector
From SR 417 to Red Cleveland Boulevard
Project Development and Environment (PD&E) Study

Central Florida Expressway Authority



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The logo for the Central Florida Expressway Authority features the organization's name in a bold, serif font. The words "CENTRAL", "FLORIDA", and "AUTHORITY" are in black, while "EXPRESSWAY" is in orange. The text is centered between two horizontal orange bars.

CFX Project No.: 417-246A

Contract No.: 002067

September 2025

1.0 Project Description and Purpose and Need:

a. Project Information

Project Name:	SR 417 Sanford Airport Connector
Project Limits:	From SR 417 (Seminole Expressway) To Red Cleveland Boulevard
County:	Seminole County
CFX Project Number / CFX Contract Number:	417-246A

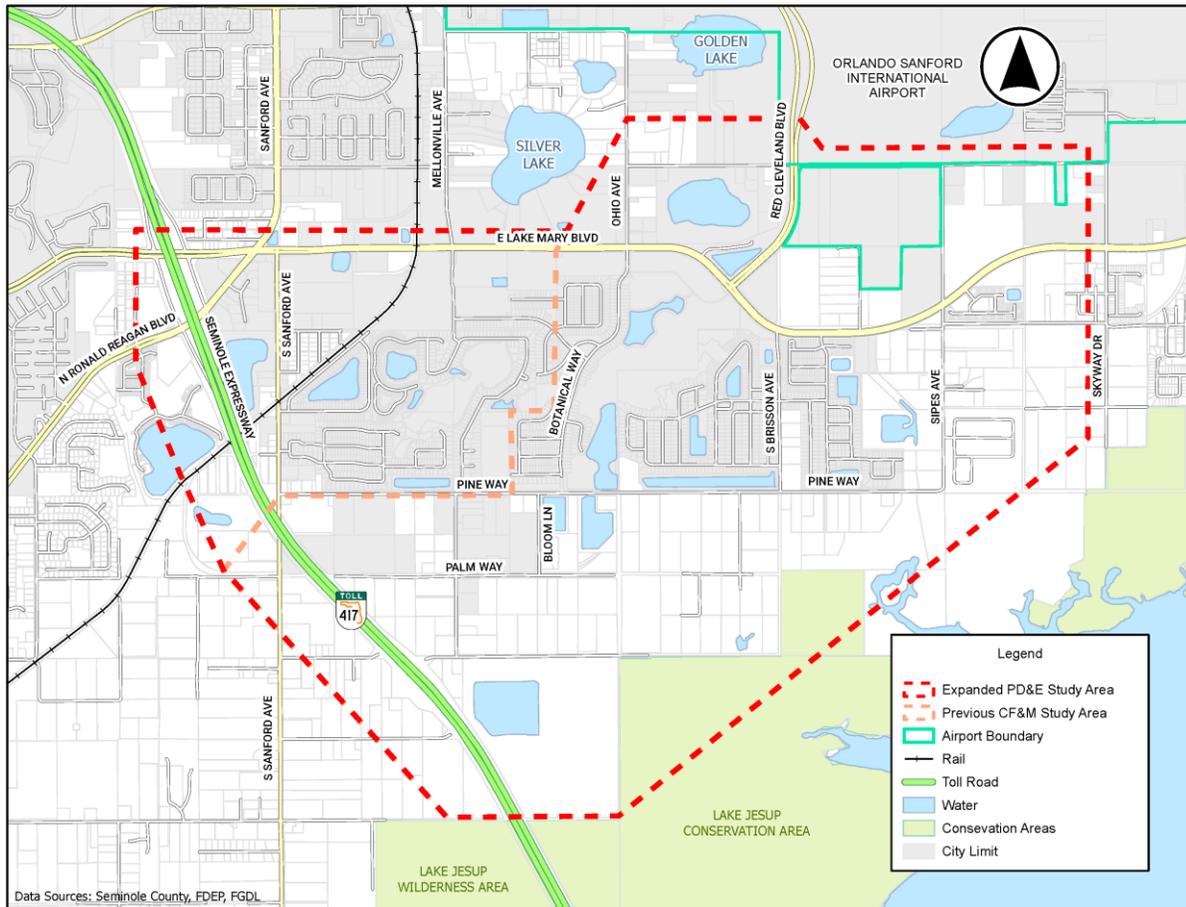
b. Proposed Improvements:

The study will identify and recommend improvements that provide better connectivity from SR 417 to the Sanford Orlando International Airport (SFB) and help address roadway capacity needs associated with anticipated future traffic growth. The project study area is shown below in **Figure 1**. This study includes an evaluation of the physical, natural, social, and cultural environment, right-of-way considerations, and cost estimates, as well as the following goals:

- Identify transportation mobility options and promote regional connectivity
- Enhance direct access from SR 417 (Seminole Expressway) to the Orlando Sanford International Airport
- Enhance mobility for the area’s growing population and economy
- Provide consistency with local plans and policies
- Fulfill the recommendation of the Seminole Board of County Commissioners to re-evaluate this corridor

The project proposes a two-lane divided roadway with a grassed median, paved shoulders, and landscaping strips on each side. Retaining walls are proposed adjacent to the roadway, separated from a wildlife fence by grass on each side. The proposed alternative will require a minimum of 150 feet of right-of-way, which will accommodate future widening. The project includes a proposed interchange at East Lake Mary Boulevard, as well as bridges over local roadways and existing ponds.

Figure 1: Project Study Area



c. Purpose and Need:

The purpose of the proposed SR 417 (Seminole Expressway) Sanford Airport Connector is to provide a direct, limited access connection between SR 417 and SFB to provide better connectivity and accommodate future traffic growth in the area. The primary access to the airport is along East Lake Mary Boulevard via Red Cleveland Boulevard, which extends north from the airport entrance to the airport terminal. A proposed connector would provide a

limited access connection directly to SFB from SR 417, thereby reducing the demand along East Lake Mary Boulevard and improving travel time for all users. The proposed improvements are to 1) enhance regional connectivity, 2) accommodate anticipated transportation demand, 3) provide additional capacity, 4) improve safety, 5) support modal connectivity, and 6) serve social and economic growth.

Enhance Regional Connectivity

SFB is a designated Strategic Intermodal System (SIS) Strategic Growth Commercial Service Airport. SR 417 serves as a SIS Highway Corridor providing regional connectivity west of the airport and connects to two designated SIS Strategic Growth Highway Connectors: East Lake Mary Boulevard between SR 417 and Red Cleveland Boulevard and Red Cleveland Boulevard between East Lake Mary Boulevard and Airport Boulevard. Airport passengers using East Lake Mary Boulevard are intermixed with local, non-airport traffic. For example, northbound SR 417 traffic exiting the interchange at Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard, travel through three signalized intersections within 0.3 miles of the SR 417 northbound off-ramp, impeding traffic flow and increasing travel time for airport users. In addition to the designated SIS route, airport access to the passenger terminal is also provided via Airport Boulevard from SR 46/Sanford Avenue.

Results from traffic analyses conducted for the Concept Feasibility and Mobility (CF&M) Study are summarized throughout this section and are presented in a memorandum titled “SR 417 to Orlando Sanford International Airport Connector Concept Traffic Analysis Memorandum” (CDM Smith 2023). A desktop travel time analysis was conducted to compare travel times between the existing route from SR 417 northbound to SFB via East Lake Mary Boulevard and the proposed connector to SFB. Both routes started on northbound SR 417 at the Lake Jesup mainline toll plaza and terminated at the SFB terminal building. The analysis found that the proposed connector could reduce the travel distance by 28% and reduce travel time to SFB by as much as 51% during the PM peak period. In addition, travel time savings are expected to be higher in future conditions when traffic demand is anticipated to increase, and congestion worsens at the SR 417 and Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard interchange. A direct connection from SR 417 to SFB is expected to enhance regional connectivity by improving access to the airport, increasing mobility options, and providing enhanced system linkage between the SIS facilities.

Accommodate Anticipated Transportation Demand

As part of the CF&M traffic analysis, an origin and destination evaluation was performed to identify travel patterns for trips originating from SR 417 south and north of the Ronald Reagan

Boulevard (CR 427) and East Lake Mary Boulevard interchange to the SFB terminal, using data from StreetLight Data, Inc. Review of the one-way 2022 Average Annual Daily Traffic indicates that 5% of the trips from northbound SR 417 access the airport terminal through either Airport Boulevard (2%) and Red Cleveland Boulevard (3%), while 9% continue travel on East Lake Mary Boulevard, east of Red Cleveland Boulevard. Origin and destination data indicate that no trips from southbound SR 417 enter the airport terminal but that 3% of the trips continue on East Lake Mary Boulevard, east of Red Cleveland Boulevard. It is expected that 17% (or 4,400 vehicles per day one-way) of northbound and southbound SR 417 trips would potentially be diverted to the proposed connector if it was in place in year 2022. Based on the traffic analysis, the Annual Average Daily Traffic (AADT) along SR 417, south of the Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard interchange, is anticipated to increase from 61,150 in year 2022 to 118,100 by 2050 (93% increase). In addition, AADT at SR 417 and Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard interchange ramps to/from the south is anticipated to increase from 17,750 to 33,100 by 2050 (87% increase). The analysis also indicates that the proposed connector could potentially divert as much as 51% (17,000 AADT) of traffic in year 2050 from the SR 417 and Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard interchange ramps to/from the south, thereby reducing congestion and improving operations at the existing interchange.

The traffic analysis also indicates that AADT along East Lake Mary Boulevard, west of Red Cleveland Boulevard, is anticipated to increase from 23,800 to 36,500 by 2050 (53% increase). However, the analysis indicates that the proposed connector is anticipated to reduce traffic demand along this segment of East Lake Mary Boulevard, by as much as 46% (or 17,000 AADT) in 2050. East of Red Cleveland Boulevard, the AADT along East Lake Mary Boulevard is anticipated to increase from 23,000 in 2022 to 35,400 in 2050 (54% increase). The proposed connector is also anticipated to divert 3,800 trips from Airport Boulevard, east of Sanford Avenue, as well as 17,000 trips from Ronald Reagan Boulevard (CR 427), south of Lake Mary Boulevard, in 2050.

As documented in the 2021 Airport Master Plan Update for SFB, the number of passengers in 2017 was 1,436,224. The plan also forecasts the number of passengers to nearly double to 2,747,325 by 2037, further indicating that traffic demand along East Lake Mary Boulevard and Red Cleveland Boulevard is likely to increase in future years. The plan also notes that the air freight tonnage through the airport in 2017 totaled 332 tons, with an expected increase to 1,671 tons by the year 2037 (WS Atkins, Inc. 2021).

The FDOT Florida Traffic Online website indicates that the 2021 Average Annual Daily Truck Traffic along Airport Boulevard is 274 or 6% of total traffic, and 2860 or 13% along East Lake

Mary Boulevard (FDOT n.d.). Based on the forecasted increase in air freight tonnage through the airport, it is anticipated that truck traffic will also increase.

Provide Additional Capacity

The existing traffic demand (2022) analysis shows that westbound East Lake Mary Boulevard (west of Red Cleveland Boulevard) experiences a Level of Service D Volume to Capacity ratio of 0.8 during the AM peak hour, which increases to 0.9 east of Red Cleveland Boulevard. The existing traffic operations analysis also indicates extended delays and long queues during peak periods at the SR 417 and Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard interchange. The adjacent intersections at East Lake Mary Boulevard at Ronald Reagan Boulevard (CR 427) and Sanford Avenue (CR 425) also operate unacceptably and impact operations at the interchange. Congestion mostly occurs along the facilities approaching and within the interchange footprint including the SR 417 northbound off-ramp, East Lake Mary Boulevard and Ronald Reagan Boulevard (CR 427). Providing additional capacity with a direct connection from SR 417 to the airport is anticipated to alleviate congestion at the existing interchange.

Review of the future 2050 No-Action analysis indicates that the Volume to LOS D Maximum Service Volumes ratio during the PM Peak Hours at SR 417 for the northbound exit ramp at the Ronald Reagan Boulevard (CR 427) and East Lake Mary Boulevard interchange is 1.0. The future 2050 Build analysis indicates that the proposed connector is expected to divert northbound traffic away from the interchange and reduce the Volume to LOS D MSV ratio to 0.5 in 2050, and further indicates that the proposed connector could reduce traffic along the following arterial segments:

- Lake Mary Boulevard, west of Red Cleveland Boulevard
- Airport Boulevard, east of Sanford Avenue
- CR 427, south of Lake Mary Boulevard

The future 2050 No-Action analysis indicates the Volume to LOS D MSV ratios at these arterial segments are expected to be between 1.1 to 1.2. However, the future 2050 Build analysis indicates that the Volume to LOS D MSV ratios are expected to be reduced to between 0.6 and 0.9.

The future 2050 No-Action analysis indicates that the westbound through movements for the East Lake Mary Boulevard and Red Cleveland Boulevard intersection are expected to operate at LOS F during the AM peak period. However, the future 2050 Build indicates that the overall operations are expected to operate at an LOS E during the AM peak period. Because of the existing constrained capacity and expected increase in traffic volumes, additional capacity is anticipated to be needed for satisfactory traffic operations in future years.

Improve Safety

Because of the three signalized intersections within 0.3 miles of the SR 417 northbound off-ramp, traffic at the SR 417 northbound off-ramp occasionally backs up onto the SR 417 mainline, impacting safety and operations along SR 417. The proposed connector would divert traffic from the SR 417 and Ronald Reagan Boulevard (CR 427) and Lake Mary Boulevard interchange, thereby enhancing safety and operations at the interchange.

Support Modal Connectivity

The U.S. Department of Transportation Federal Aviation Administration National Plan of Integrated Airport Systems 2023-2027 published September 30, 2022, designates SFB as a Small Hub, Primary Commercial Service airport facility. Primary Commercial Service airports are publicly owned airports that receive scheduled air carrier service with 10,000 or more passenger boardings per year. Small Hub airports are defined as accounting for 0.05% and 0.25% of total U.S. passengers. The 2021 Airport Master Plan Update for SFB forecasts enplanements to increase 91%, and air freight tonnage to increase 400% by the year 2037. The proposed connector is anticipated to support mobility to other modes of travel at SFB.

Serve Social and Economic Growth

According to the University of Florida's Bureau of Economics and Business Research (BEBR) Florida Population:

2020 Census Summary, Seminole County's population grew from 422,718 in 2010 to 470,856 in 2020, or 11.4%. The BEBR data also showed that the city of Sanford experienced a 14% increase in population over the same period (BEBR 2021). Further, BEBR estimates that Seminole County's population is projected to grow approximately 21% by the year 2050 (BEBR 2022).

Land use in the area is primarily comprised of residential, agricultural and undeveloped lands. However, a review of planned developments in the study area shows that the region is undergoing extensive land use changes, resulting in increased traffic generators. As of July 2023, the city of Sanford's Building Division Online Permitting Service noted there are 10 residential, commercial and industrial planned developments in the study area (City of Sanford, 2023). These planned developments account for 55% of the undeveloped lands in the study area, or 349 acres of 637 acres of undeveloped lands. Of the planned developments, five are residential developments, which are expected to create an additional 849 single-family houses and townhomes in the study area.

As a result, local traffic along East Lake Mary Boulevard and surrounding roadways is expected to increase. The proposed connector is expected to divert traffic from East Lake

Mary Boulevard, providing local traffic with increased mobility to and from the existing and planned development in the area.

2.0 Environmental Analysis

Issues/Resources	Substantial Impacts				Supporting Information
	Yes	No	Enhance	No Involvement	
A. Social and Economic					
1. Social		X			See Attachment 1, Section 1. A.1
2. Economic			X		See Attachment 1, Section 1. A.2
3. Land Use Changes		X			See Attachment 1, Section 1. A.3
4. Mobility			X		See Attachment 1, Section 1. A.4
5. Aesthetic Effects		X			See Attachment 1, Section 1. A.5
6. Relocation Potential		X			See Attachment 1, Section 1. A.6
B. Cultural					
1. Historic Sites/Districts		X			See Attachment 1, Section 1. B.1
2. Archaeological Sites		X			See Attachment 1, Section 1. B.2
3. Recreational Areas and Protected Lands		X			See Attachment 1, Section 1. B.3
C. Natural					
1. Wetlands and other Surface Waters		X			See Attachment 1, Section 1. C.1
2. Aquatic Preserves and Outstanding FL Waters				X	See Attachment 1, Section 1. C.2
3. Water Resources		X			See Attachment 1, Section 1. C.3
4. Wild and Scenic Rivers				X	See Attachment 1, Section 1. C.4
5. Floodplains		X			See Attachment 1, Section 1. C.5
6. Coastal Barrier Resources				X	See Attachment 1, Section 1. C.6

7. Protected Species and Habitat		X			See Attachment 1, Section 1. C.7
8. Essential Fish Habitat				X	See Attachment 1, Section 1. C.8
D. Physical					
1. Highway Traffic Noise		X			See Attachment 1, Section 1. D.1
2. Air Quality		X			See Attachment 1, Section 1. C.2
3. Contamination		X			See Attachment 1, Section 1. D.3
4. Utilities and Railroads		X			See Attachment 1, Section 1. D.4
5. Construction		X			See Attachment 1, Section 1. D.5
6. Bicycles and Pedestrians				X	See Attachment 1, Section 1. D.6
7. Navigation				X	See Attachment 1, Section 1. D.7
Substantial Impacts - Quick Definitions					
Yes: Substantial Impact Enhance: Enhancement					
No: No Substantial Impact No Inv: Issue absent, no involvement					

3.0 Anticipated Permits

Table 1 below summarizes the five permits that are anticipated for the project.

Table 1 – Anticipated Permits

Anticipated Permit	Agency
Standard Dredge and Fill 404 Permit	USACE
Individual Environmental Resource Permit	SJRWMD
National Pollutant Discharge Elimination System Permit	FDEP
Gopher Tortoise Relocation Permit	FWC
Bald Eagle Incidental Disturbance Take Permit	USFWS

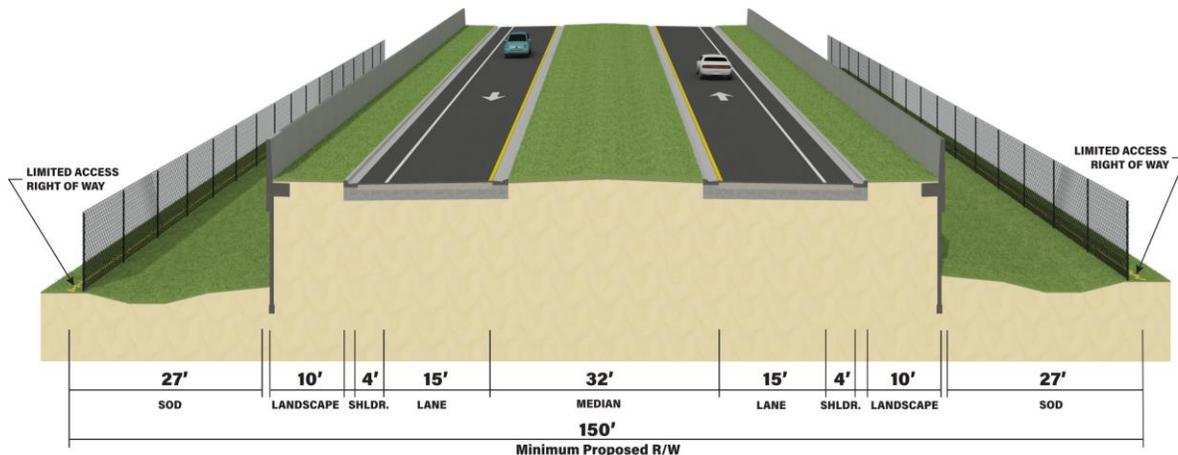
4.0 Engineering Analysis

As part of the PD&E Study, an engineering analysis was conducted to evaluate the existing and future conditions, develop alternatives for the proposed improvements, and provide a

comparison between Build Alternatives and the No-Build alternative. The following is a brief summary of the Build Alternatives analyzed during the PD&E Study.

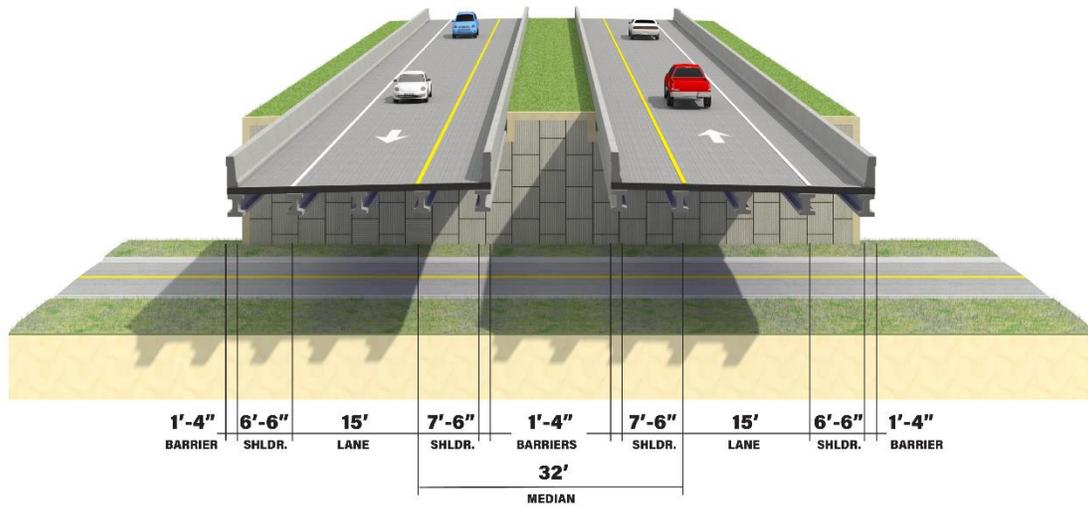
One typical section was evaluated for the length of the project and is shown in **Figure 2**. The proposed typical section consists of a divided roadway with two 15-foot travel lanes, a grassed 32-foot median, 4-foot outside paved shoulders, and 10-foot landscaping strips on each side of the roadway. Retaining walls run adjacent to the roadway and are separated from a wildlife fence by 27 feet of grass on each side. This typical section is expandable to four lanes (two in each direction) in the future, with widening to the median. It should be noted that adequate right-of-way to accommodate future expandability will be acquired in the initial phase of the project.

Figure 2: Proposed Connector Typical Section (2-Lane)



The proposed bridge typical section consists of two separate bridges with one 15-foot travel lane, a 6-foot 6-inch outside shoulder, a 7-foot 6-inch inside shoulder, and a 1-foot 4-inch barrier on both sides of each bridge. This typical section is expandable to four lanes (two in each direction) in the future with widening to the median and is shown in **Figure 3**.

Figure 3: Proposed Bridge Typical Section (2-Lane)



In 2023, the Central Florida Expressway Authority (CFX) completed a CF&M Study to evaluate a new direct expressway connection between SR 417 and SFB. During that study, four corridor alternatives were developed and evaluated, and each of these four alternatives was found to be feasible based on a fatal flaw analysis.

This CFX PD&E Study began in May 2024. The project team evaluated the four alternatives that were recommended by the CF&M Study team, plus a fifth alternative, an elevated viaduct that runs along East Lake Mary Boulevard. A sixth alternative was also presented to the public and evaluated during this study. The alternatives evaluated during this study are described below.

No-Build Alternative

The No-Build Alternative assumes that no transportation improvements will be made to SR 417 to provide direct access from SR 417 at the Lake Jessup Toll Plaza to SFB other than routine maintenance. The primary advantages of the No-Build Alternative are that it does not directly require any capital or expenditure, and it produces no physical, natural, or social impacts.

The No-Build Alternative will remain under consideration throughout the alternatives analysis and evaluation process.

Advantages of No-Build

Certain advantages would be associated with the implementation of the No-Build Alternative:

- No acquisition of right-of-way

- No design, right-of-way, or construction costs
- No inconvenience to the traveling public and property owners during construction
- No impacts to utilities
- No impacts to the adjacent natural, physical, and human environment

Disadvantages of No-Build

The potential disadvantages of the No-Build Alternative include:

- Does not meet the project's Purpose and Need
- Does not improve connectivity from SR 417 to SFB
- Does not address roadway capacity needs associated with anticipated future growth

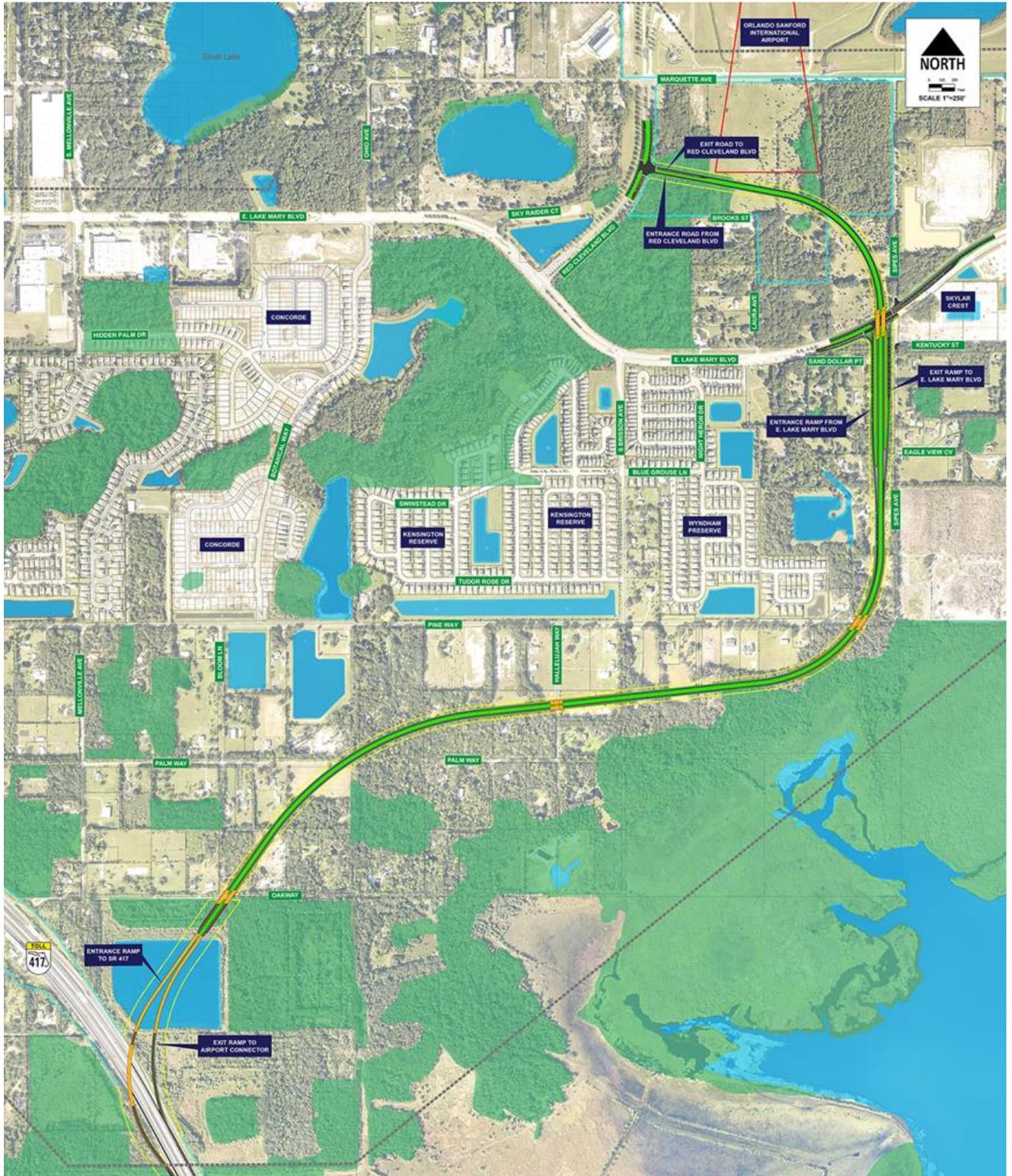
Alignment 1

Alignment 1 is the longest alignment and has the fewest direct residential impacts. Alignment 1 is shown in **Figure 4**, and travels from SR 417 south of the Lake Jesup Toll Plaza east-bound to East Lake Mary Boulevard east of Sipes Avenue and connects at Red Cleveland Boulevard south of SFB.

Alignment 1 was eliminated for the following reasons:

- Longest overall route with second highest overall cost
- Highest right-of-way costs
- Highest number of residential and non-residential parcels impacted
- Issues with the new road adjacent to the Airport's Runway Protection Zone

Figure 4: Alignment 1



Alignment 2

Alignment 2 is the shortest alignment and is located farther away from the Lake Jesup Conservation Area than Alignments 1, 3A and 3D. Alternative 2 travels from SR 417 north of the Lake Jesup Toll Plaza to the north and east and connects to East Lake Mary Boulevard at Red Cleveland Boulevard. Alternative 2 has the least anticipated environmental impacts and is shown in **Figure 5**.

Alignment 2 is proposed to be further evaluated for:

- Shortest and most direct route
- Lowest overall cost
- Second lowest overall number of residential parcels impacted
- Connection to SR 417 farther from Lake Jesup Conservation Area than other alignments

Alignment 2 Refinement (Alignment 2A)

Alignment 2 moved the interchange with SR 417 away from the Lake Jesup Conservation Area and utilized the pavement and right of way at the toll plaza. A refinement of Alignment 2 was considered that moves the connection to SR 417 farther south, but still north of the Lake Jesup Conservation Area, to provide a more direct connection from SR 417 to Red Cleveland Boulevard. This change was considered significant enough that it should be considered as a new alternative, designated as Alignment 2A. **Figure 6** depicts Alignment 2A.

Figure 5: Alignment 2

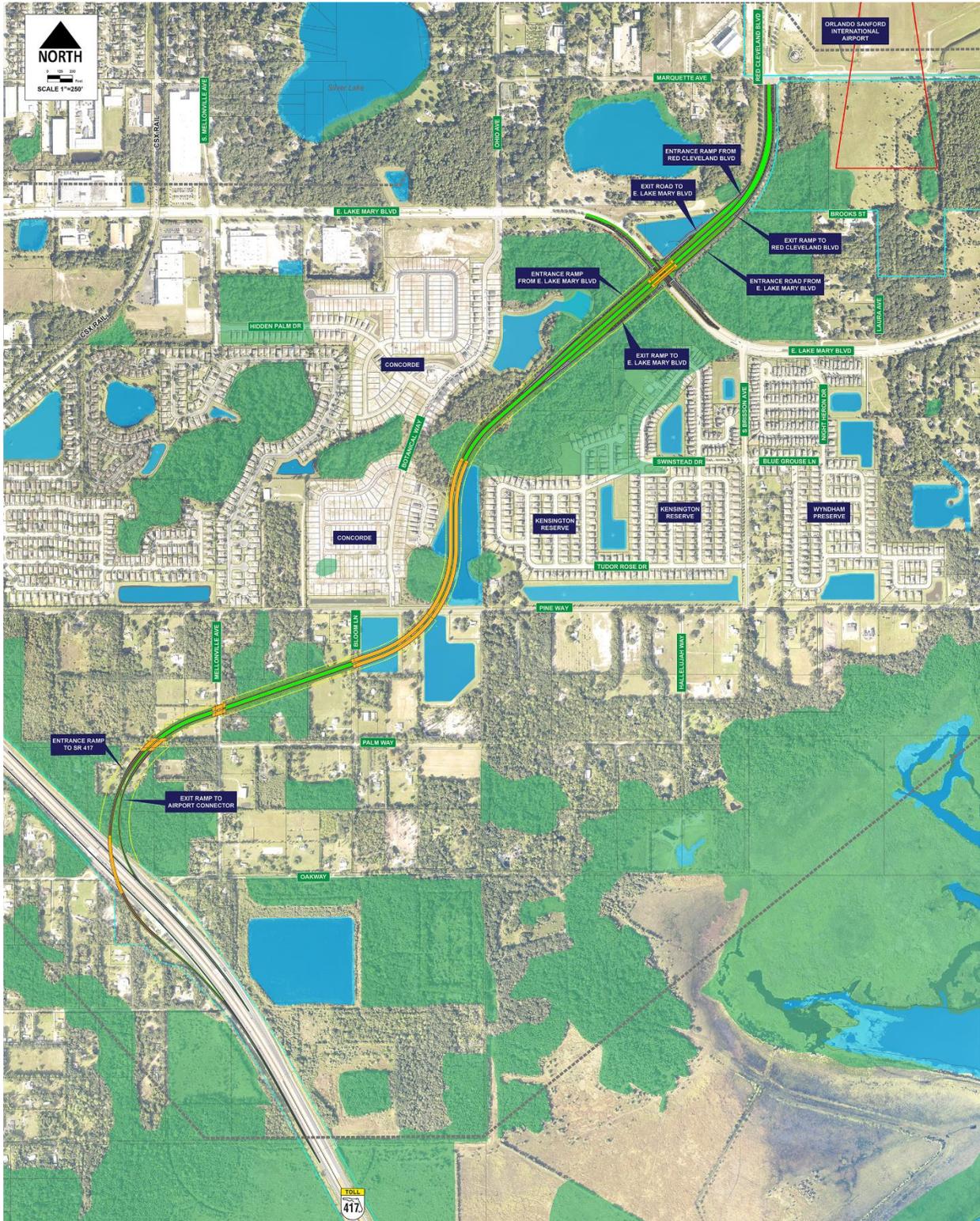
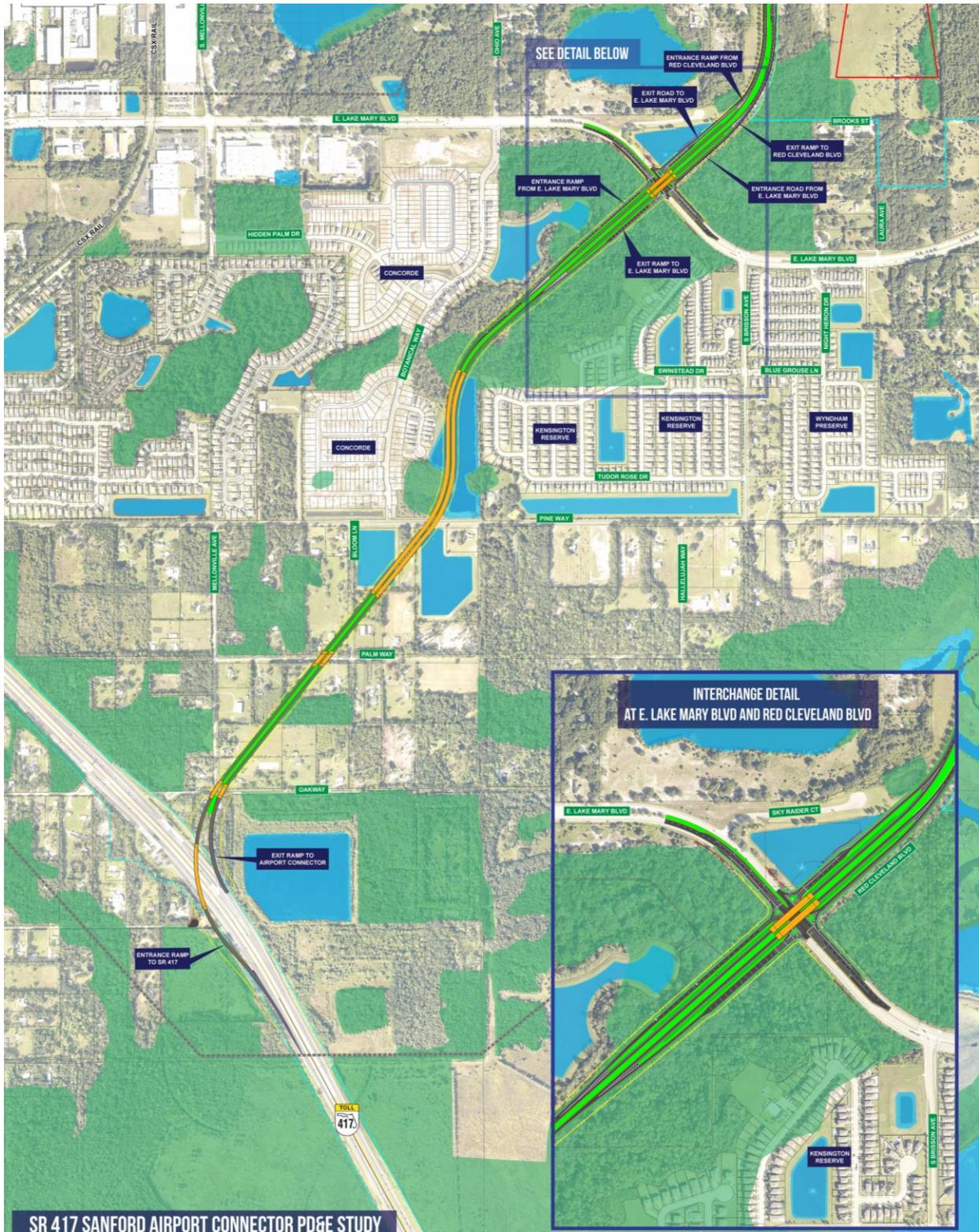


Figure 6: Alignment 2A



Alignments 3A and 3D

Alignments 3A and 3D attempt to balance the direct impacts to the existing and planned residential developments as well as environmentally sensitive land. They both begin at SR 417 south of the Lake Jesup Toll Plaza and head north to connect to East Lake Mary Boulevard at Red Cleveland Boulevard. Alignment 3A is located west of Alignment 3D and has the potential to impact residences north of Pine Way, but avoids impacts to the existing stormwater ponds south of Pine Way. Alignment 3D is located east of Alignment 3A and avoids direct residential impacts north of Pine Way. Alignments 3A and 3D are shown on **Figures 7 and 8**.

Alignment 3A was eliminated for the following reasons:

- Second most residential parcels impacted
- Directly impacts new houses in Concorde development
- Higher cost than Alignment 2
- Connection to SR 417 closer to Lake Jesup Conservation Area than Alignment 2

Alignment 3D was eliminated for the following reasons:

- Higher cost than Alignments 2 and 3A
- Requires more bridges over private retention ponds than Alignment 3A
- Connection to SR 417 closer to Lake Jesup Conservation Area than Alignment 2

Alignment 4

Alignment 4 is a viaduct, or a raised bridged roadway, that would begin at SR 417 in the area of the existing interchange with CR 427 and Lake Mary Boulevard and run east along the median of East Lake Mary Boulevard to Red Cleveland Boulevard. Alignment 4 attempts to utilize the existing East Lake Mary Boulevard roadway corridor to minimize impacts to the environment and residences. Alignment 4 is shown on **Figure 9**.

Alignment 4 was eliminated for the following reasons:

- Significantly higher cost than all other alternatives
- Significantly lower projected ridership than all other alternatives

Figure 7: Alignment 3A

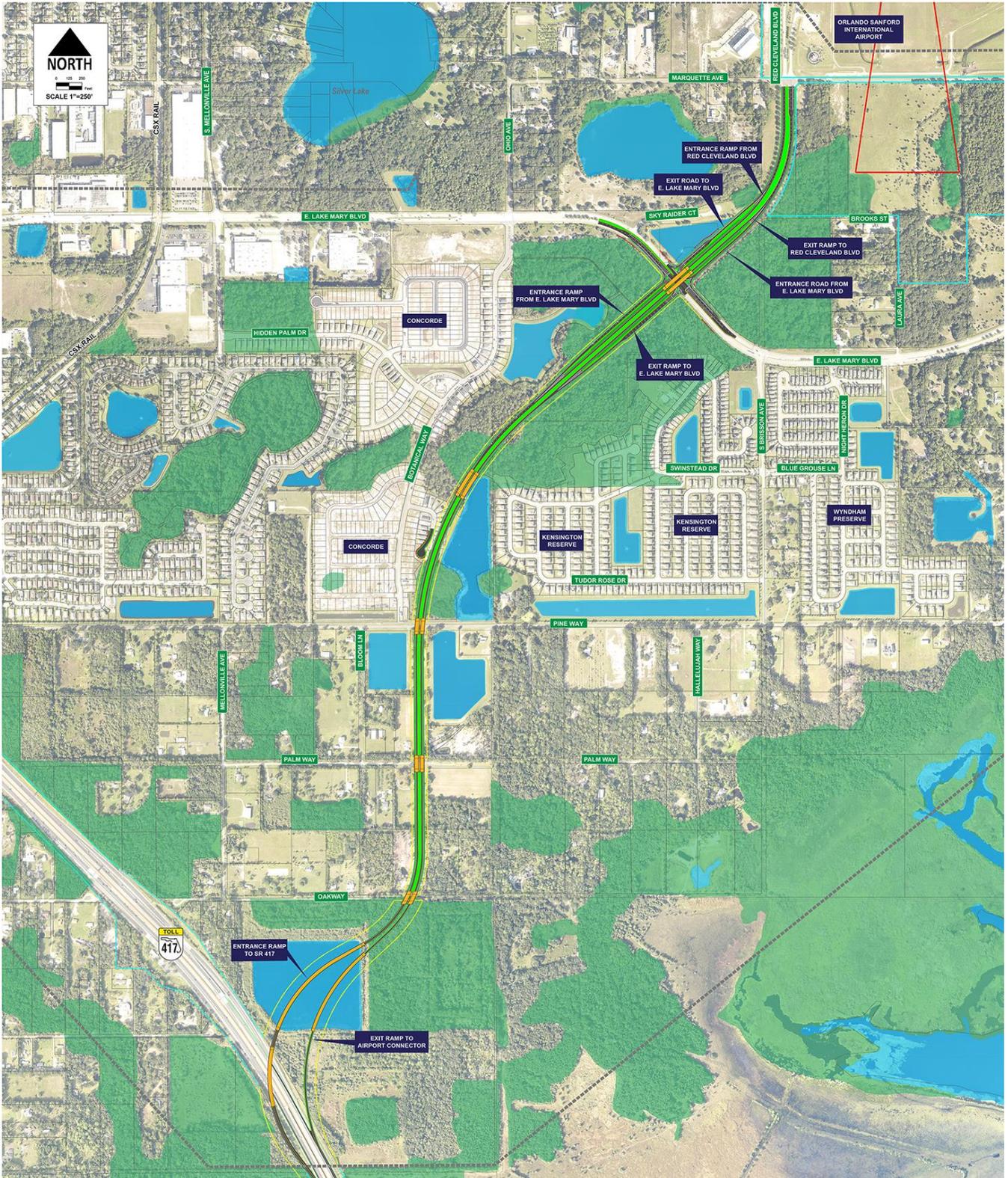


Figure 8: Alignment 3D

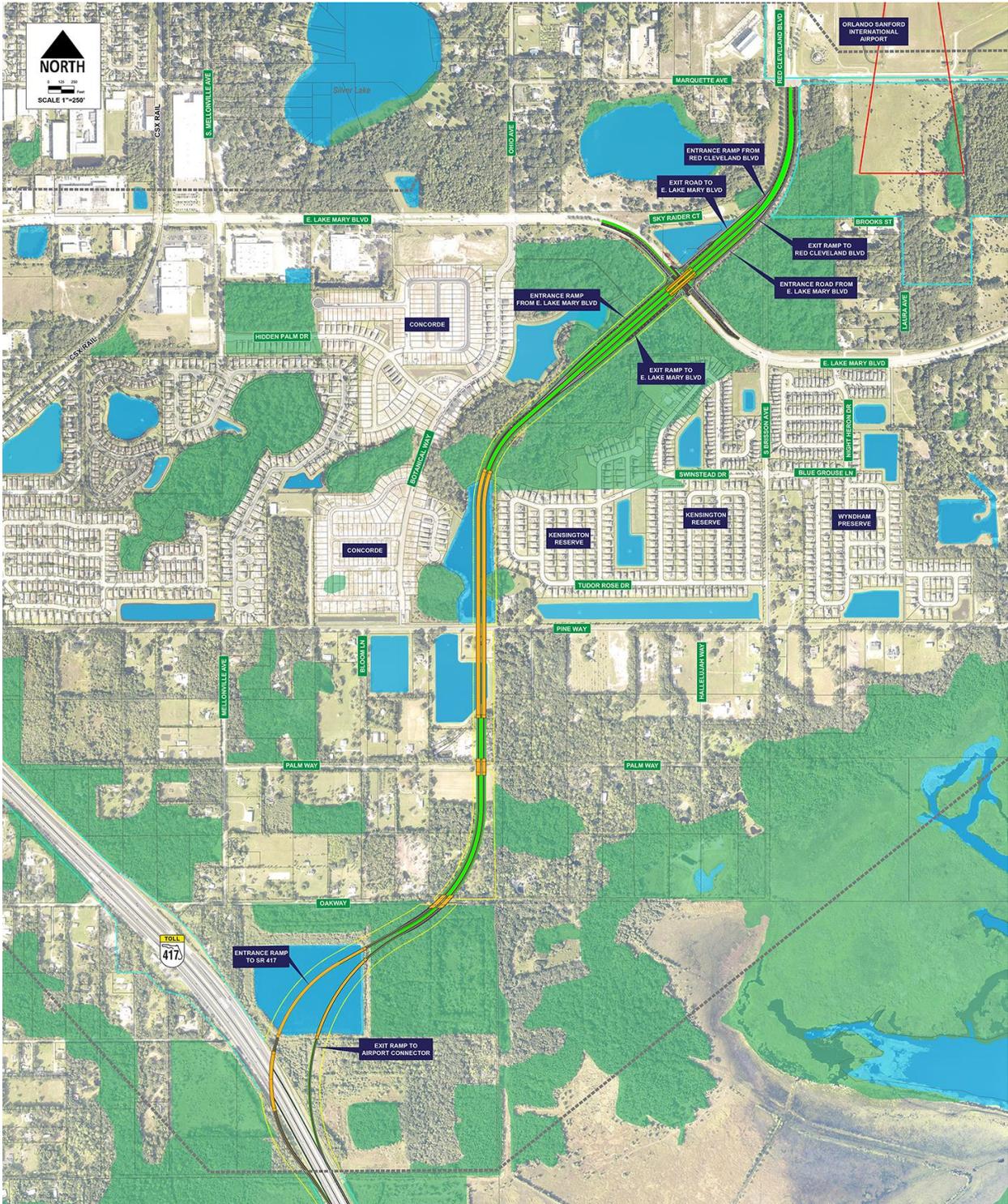


Figure 9: Alignment 4



5.0 Commitments

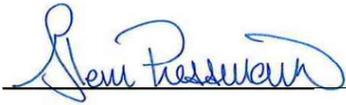
CFX commits to the following:

1. The most recent version of the USFWS Standard Protection Measures for the Eastern Indigo Snake will be adhered to during construction of the proposed project.
2. Avoidance and minimization of wetland and listed species impacts will continue to be evaluated during the final design, permitting and construction phases of this project and all possible and practicable measures to avoid or minimize these impacts during design, construction and operation will be incorporated.
3. Any species-specific surveys will first be coordinated with USFWS and FWC, then conducted as agreed upon with USFWS and FWC during the permitting phase.
4. Surveys for gopher tortoise burrows, as well as commensal species, will be conducted during the design phase, and permits to relocate tortoises and commensals as appropriate will be obtained from the FWC.
5. Best Management Practices (BMPs) to control erosion and sedimentation in accordance with Standard Specifications for Road and Bridge Construction will be implemented.
6. CFX commits to re-evaluate the Noise Study during the Design Phase of the project.
7. CFX commits to conducting an additional public meeting during the Design Phase of the project.
8. CFX is committed to preserving Florida's Turnpike Enterprise (FTE)'s toll collection and revenue at the Lake Jesup Plaza and proposes the following:
 - Relocation of the Lake Jesup Plaza south of the Connector on SR 417 – Should this option be preferred, CFX commits to conducting an environmental evaluation of the relocation of the toll plaza and/or toll gantries and preparing a Toll Siting Technical Memorandum (TSTM) in accordance with FTE's General Tolling Requirements (GTR). The environmental evaluation, as part of a PD&E Study re-evaluation, and the TSTM will be completed prior to or during the design phase for the Connector.

6.0 Preferred Alternative

Alignment 2A was selected as the Preferred Alternative because it is the shortest and most direct route, has the lowest impact on wetlands, and includes an optimized roadway geometry to improve safety. Alignment 2A also allows for the future addition of ramps to and from the north on SR 417 and received support from stakeholders such as SFB, Seminole County, and Florida’s Turnpike Enterprise. The City of Sanford, Seminole County Chamber of Commerce, and the Orlando Economic Partnership have also provided general support for a direct connection between SR 417 and the airport.

7.0 Approved for Public Availability



CFX Designee Signature

06/27/2025

Date

8.0 Public Involvement

1. A public hearing is not required.
2. A public hearing will be held on July 15, 2025 (virtual) and July 17, 2025 (in-person). This draft document is publicly available, and comments can be submitted to CFX until July 31, 2025.

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3. A public hearing was held on July 15, 2025 (virtual) and July 17, 2025 (in-person), and a meeting summary is available.
4. An opportunity for a public hearing was afforded and was documented on (insert date).
5. Other public engagement opportunity(ies) provided:

9.0 Approval of Final Document

This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.

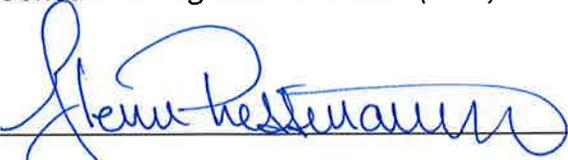
The final Level 2 PEIR reflects consideration of the Planning Development and Environment Study and Public Involvement.



Jay Patel, PE
Consultant Engineer of Record (EOR)

9/17/2025

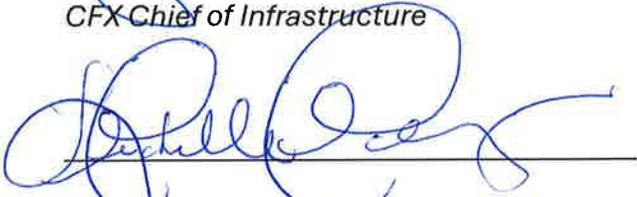
Date



CFX Chief of Infrastructure

10/14/2025

Date



CFX Executive Director

11/04/2025

Date

Attachment 1: Environmental Analysis

The following sections summarize the results of the socio-economic, cultural, natural, and physical environmental data collection and analysis conducted as part of this PD&E Study.

A. Social and Economic

The Preferred Alternative is not anticipated to have significant social and economic impacts. Below is a summary of the evaluation performed.

1. Social

The Environmental Screening Tool (EST) Sociocultural Data Report (SDR) was used for demographic data (the SDR can be found within the Community Coordination section of the EST). The SDR uses the Census 2018-2022, American Community Survey (ACS) data and reflects the approximation of the population based on the project study area intersecting the Census Block Groups along the project corridor.

The SDR identified the population within the project study area as 58.8% minority population. This is higher than the 42.94% identified in Seminole County. The population age 65 and over is 9.98% of the study area, and 3.88% of the population is below the poverty level. Additionally, 8.17% of the population 20 to 64 years of age have a disability. Among households in the study area that are limited English speaking, eight speak Spanish, four speak Indo-European, and 18 speak Asian and Pacific Island languages.

Community focal points are public or private locations or organizations important to local residents and communities. Community focal points include schools, places of worship, community centers, civic centers, cultural centers, parks, cemeteries, fire stations, law enforcement facilities, government buildings, healthcare facilities, hospitals, daycares, and social service facilities.

Within the project study area, there is one place of worship, Iglesia Cristiana Bethel. Just outside of the project study boundary is one recreation center (Boombah Recreation Park), one school (Galileo School for Gifted Learning), and the Sanford Army Reserve Center. **Figure 10** identifies the existing community facilities.

There are two existing recreational trails, the Lake Jesup Conservation Area Trail and the Lake Mary Boulevard Trail, within the project study area. The Lake Jesup Conservation Area is designated as a Florida Natural Areas Inventory (FNAI) state-managed conservation land. Local Florida parks and recreational facilities located within the study area include the Lake Jesup Park and Wilderness Area and the Marl Bed Flats Tract Trailhead.

Figure 10: Existing Community Features



No changes to the population or demographic characteristics of the study area are anticipated to result from the project as the proposed corridor traverses through mostly undeveloped land. Based on the analysis, the project will not cause disproportionately high and adverse effects on any special populations.

2. Economic

The Preferred Alternative with a direct connection to the Orlando Sanford International Airport supports the City of Sanford’s Comprehensive Plan 2018-2030, Policy M 1.1.21 Ensure Access to the Orlando Sanford International Airport and Policy M 1.1.22 Minimize Impacts to Adjacent Airport Roadways. Planned developments in the area that have been approved and/or have begun construction are listed in the Land Use section. The proposed connector is anticipated to enhance economic activity within the project study area by providing direct access from SR 417 to the Orlando Sanford International Airport and helping to alleviate congestion on local roadways.

3. Land Use Changes

Existing generalized land uses within the project study area mainly consist of residential (37.9%), vacant residential (16.66%), public/semi-public (10.69%), agricultural (10.44%), and vacant nonresidential (5.82%), with remaining land uses made up of small percentages of other types.

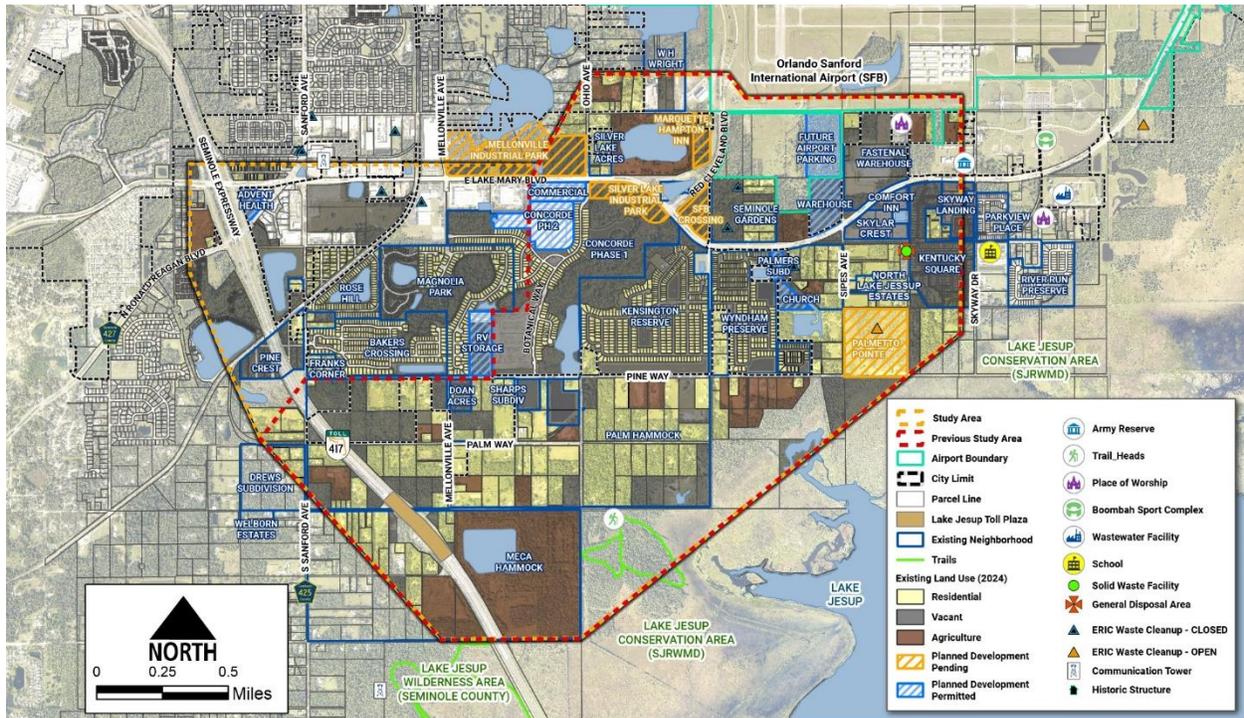
The Seminole County Future Land Use Map identifies the following dominant land uses within the study area: Suburban Estates (SE), Preservation/Managed Lands (PML), and Low Density Residential (LDR).

The northeast portion of the study area near the Orlando Sanford International Airport is under the jurisdiction of the City of Sanford. Future land uses designated by the City of Sanford within the project area include: Low Density Residential (LDR), Suburban Estates (SE), Resource Protection (RP), and General Commercial (GC).

The following developments are under construction or have been approved by the City of Sanford for future construction within the project study area: Sylvestri Estates (Concorde Phase 2), Park View Place Phase 3 (Skyway Townhomes), Comfort Inn, and Skylar Crest. Existing land uses, neighborhoods, and planned developments are shown on **Figure 11**.

Due to the current and planned development, the Preferred Alternative is not anticipated to cause substantial changes to the land use within the study area.

Figure 11: Existing Land Use and Developments



4. Mobility

The U.S. Department of Transportation Federal Aviation Administration National Plan of Integrated Airport Systems 2023-2027 published September 30, 2022, designates SFB as a Small Hub, Primary Commercial Service airport facility. Primary Commercial Service airports are publicly owned airports that receive scheduled air carrier service with 10,000 or more passenger boardings per year. Small Hub airports are defined as accounting for 0.05% and 0.25% of total U.S. passengers. The 2021 Airport Master Plan Update for SFB forecasts enplanements to increase 91%, and air freight tonnage to increase 400% by the year 2037. The proposed connector is anticipated to support mobility to other modes of travel at SFB.

The Preferred Alternative is anticipated to enhance mobility by assessing the feasibility of the proposed SR 417 (Seminole Expressway) to Orlando Sanford International Airport Connector to improve access to the airport to meet the growing air passenger and flight demands. The proposed connector is also anticipated to help alleviate traffic conditions along East Lake Mary Boulevard by redirecting airport traffic onto the proposed connector and away from local roadways.

As a result of increased development within the study area, local traffic along East Lake Mary Boulevard and surrounding roadways is expected to increase. The proposed connector is

expected to divert traffic from East Lake Mary Boulevard, providing local traffic with increased mobility to and from the existing and planned development in the area.

5. Aesthetic Effects

The study area is primarily undeveloped and rural. However, an increase in planned developments and construction is quickly changing the existing landscape. Existing developments near the proposed expressway may experience impacts to natural viewsheds; however, the Preferred Alternative is not anticipated to cause substantial impacts to the aesthetics within the study area.

There are no scenic highways or byways located within the project study area.

6. Relocation Potential

The project involves a new roadway corridor that will require additional right-of-way. The Preferred Alternative will require approximately 35 acres of right-of-way (not including pond sites). The project is anticipated to impact 12 residential parcels and 20 non-residential parcels. Specific information related to displacements is not available at this time. However, should it be determined that displacements are necessary as a result of this project, CFX will carry out the procedures as identified in its Property Acquisition, Disposition, and Permitting Procedures Manual.

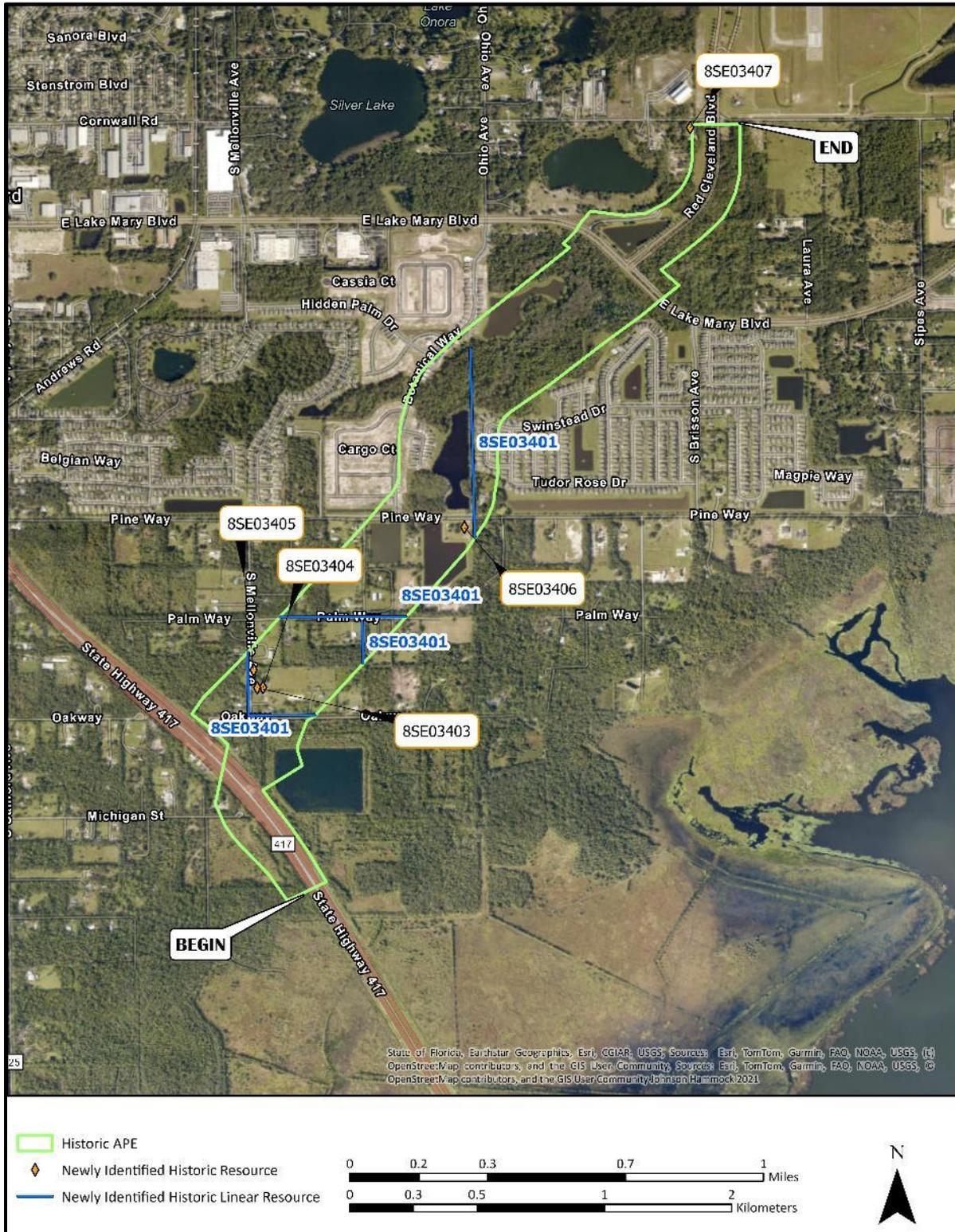
B. Cultural

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

1. Historic Sites/Districts

A Cultural Resource Assessment Survey (CRAS) (June 2025), conducted in accordance with 36 CFR Part 800, was performed for the project. Background research revealed that no historic resources were previously recorded within the Area of Potential Effect (APE). As a result of the historic/architectural field survey, six historic resources (8SE03401, 8SE03403, 8SE03404, 8SE03405, 8SE03406, and 8SE03407) were newly identified, recorded, and evaluated within the APE. Identified resources are shown on **Figure 12**. These include one linear resource, the Palm Hammock Allotment Drainage System (8SE03401), four Frame Vernacular style buildings (8SE03403, 8SE03404, 8SE03405, and 8SE03407), and one mobile home with no style (8SE03406), constructed between ca. 1910 and ca. 1972. Overall, the newly identified buildings have been altered, lack sufficient architectural features, and are not significant embodiments of a type, period, or method of construction.

Figure 12: Location of Historic Resources within the APE



Background research did not reveal any historic associations with significant persons and/or events. In addition, the newly identified linear resource is a common example of drainage systems found throughout Florida without unique design or engineering features and background research did not reveal any historic associations with significant persons and/or events. As such, the segments within the APE do not appear eligible for listing in the NRHP, either individually or as a part of a historic district; however, there is insufficient information to evaluate NRHP eligibility for the resource as a whole as the drainage system extends outside of the APE.

2. Archaeological Sites

Archaeological background research, including a review of the Florida Master Site File (FMSF) and the NRHP digital databases, indicated that no previously recorded archaeological sites are within the APE, but one site has been recorded within one mile. The Cardinal Site (8SE01769) is a campsite dating to the St. Johns period (700 BCE-1500 CE) that was determined ineligible for listing in the NRHP by the State Historic Preservation Officer (SHPO). A review of relevant site locational information for environmentally similar areas within Seminole County and the surrounding area indicated a variable probability for pre-Contact and historic archaeological sites within the APE. Background research also indicated that sites, if present, would most likely be small lithic/artifact scatters, or possibly sites associated with the naval stores or timber industries during the early 20th century. As a result of the field survey, which included surface reconnaissance and the excavation of 35 shovel tests, no archaeological sites were discovered. Of the 35 shovel tests excavated, two were completed by Janus Research in 2006, 12 by ACI in 2020, and 21 by ACI in 2025.

3. Recreational Areas and Protected Lands

Data from the SJRWMD Geospatial Open Data platform, Seminole County Property Appraiser, and Florida Forever Conservation and Recreation Land Acquisition Program show several Regulatory Conservation Easements and protected land areas within the study area. **Table 2** summarizes the existing conservation easements and protected lands within the study area. The proposed connector is not anticipated to cause substantial impacts to recreational areas or protected lands within the study area.

Table 2: Existing Conservation Easements Within the SR 417 Study Area

Easement Type	Parcel Number	Permit Number
SJRWMD Regulatory Conservation Easement	1320305090N000000	96997-1
SJRWMD Regulatory Conservation Easement	1820315070L000000, 1820315070I000000, 820315070H000000, 1820315060D000000, 0720315VZO1000000, 1820315070K000000	71069-1
SJRWMD Regulatory Conservation Easement	1820315060E000000, 1820315060B000000, 1820315060C000000, 1820315060D000000	65100-1
SJRWMD Regulatory Conservation Easement	0720315VZ0C000000, 0720315VZ0D100000, 0720315VZ0O100000, 0720315VZ0D000000, 0720315VZ0G000000	22290-1
SJRWMD Regulatory Conservation Easement	172031300004M0000	21900-9
SJRWMD Conservation Area (Lake Jesup)	172031300004J0000, 20203130000100000	N/A

C. Natural

The Preferred Alternative is not anticipated to have significant impacts to natural resources. Below is a summary of the evaluation performed.

1. Wetlands and Other Surface Waters

Ecologists performed a limited wetland evaluation of the study area. The wetland evaluation relied on literature reviews and a field survey to identify the location, extent, and functional value of wetlands in the study area; the potential direct, indirect, or cumulative effects of the project's actions to those wetlands; and available mitigation options to satisfy permit requirements from regulatory agencies. This wetland evaluation was performed in accordance with the Presidential Executive Order (EO) 11990 ("Protection of Wetlands"); U.S. Department of Transportation Order 5660.1A ("Preservation of the Nation's Wetlands"); Federal Highway Administration Technical Advisory T6640.8A regarding the preparation of environmental documents; the Wetlands and Other Surface Waters chapter of the FDOT's PD&E Manual.

Wetlands and other surface waters with potential to be affected by the proposed project were identified within the Preferred Alternative and are shown in **Figures 13 and 14**.

It is anticipated that the Preferred Alternative, including the preferred pond sites, will result in approximately 20.1 acres of wetland impacts and approximately 4.1 acres of other surface water impacts, most of which are not anticipated to require mitigation. Additionally, under the Preferred Alternative, it is anticipated that two St. Johns River Water Management District (SJRWMD) regulatory conservation easements will be directly impacted, with a total of approximately 12 acres of direct impacts to conservation easements. The proposed direct wetland impacts result in an approximate functional loss of 11.89 UMAM units. The proposed impacts to existing conservation easements will result in approximately 0.52 UMAM units. Mitigation will be addressed pursuant to Chapter 373.4137, FS in order to satisfy all mitigation requirements of Part IV, Chapter 373, FS and 33 U.S.C. 1344.

Table 3 summarizes the proposed impacts to the SJRWMD regulatory conservation easements from the Preferred Alternative. However, the roadway is bisecting the impacts to properties under a SJRWMD Regulatory Easement, which will require a vote by the SJRWMD governing board to release the easements, along with compensatory mitigation, and regulatory action.

Figure 13: Wetlands and Other Surface Waters Within the Preferred Alternative (North)

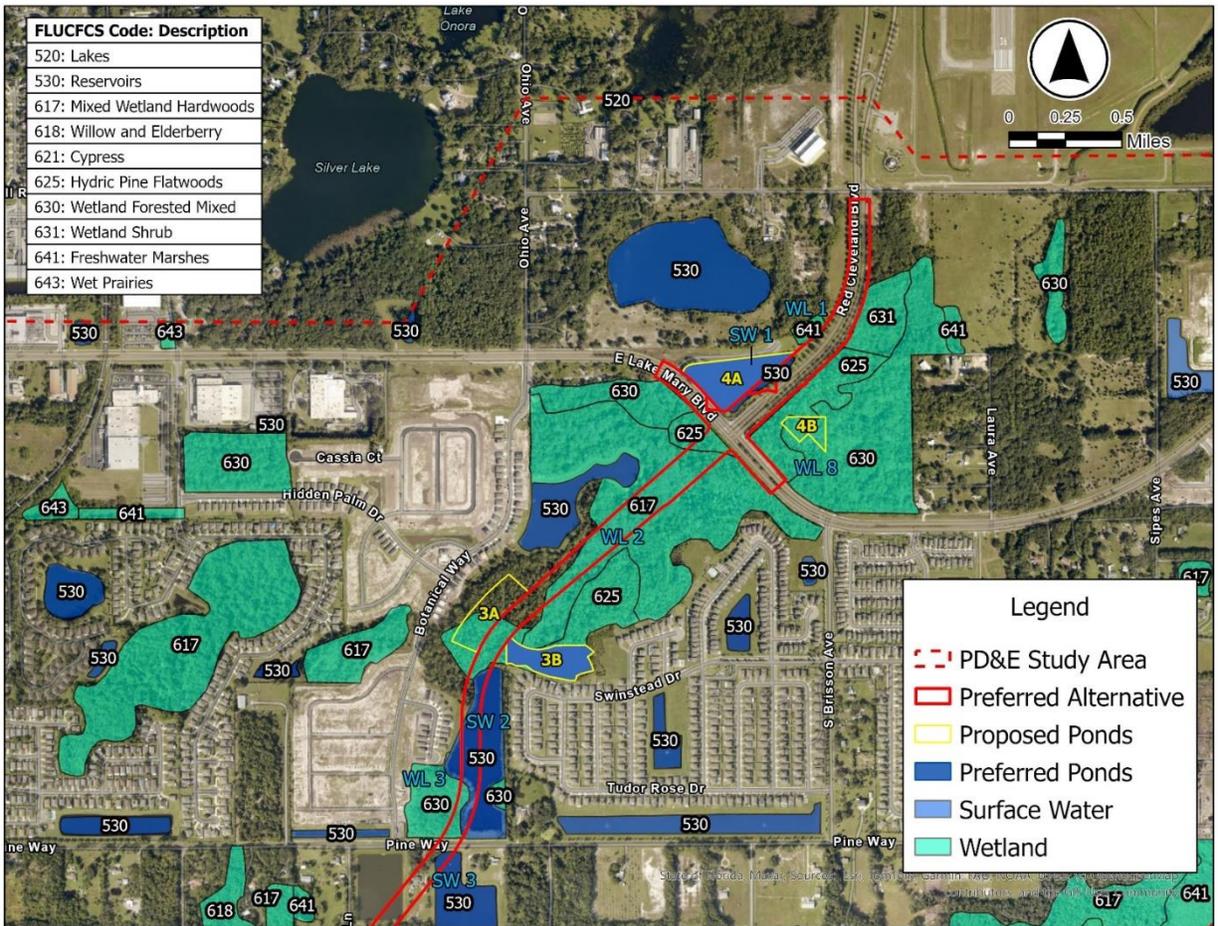


Figure 14: Wetlands and Other Surface Waters Within the Preferred Alternative (South)

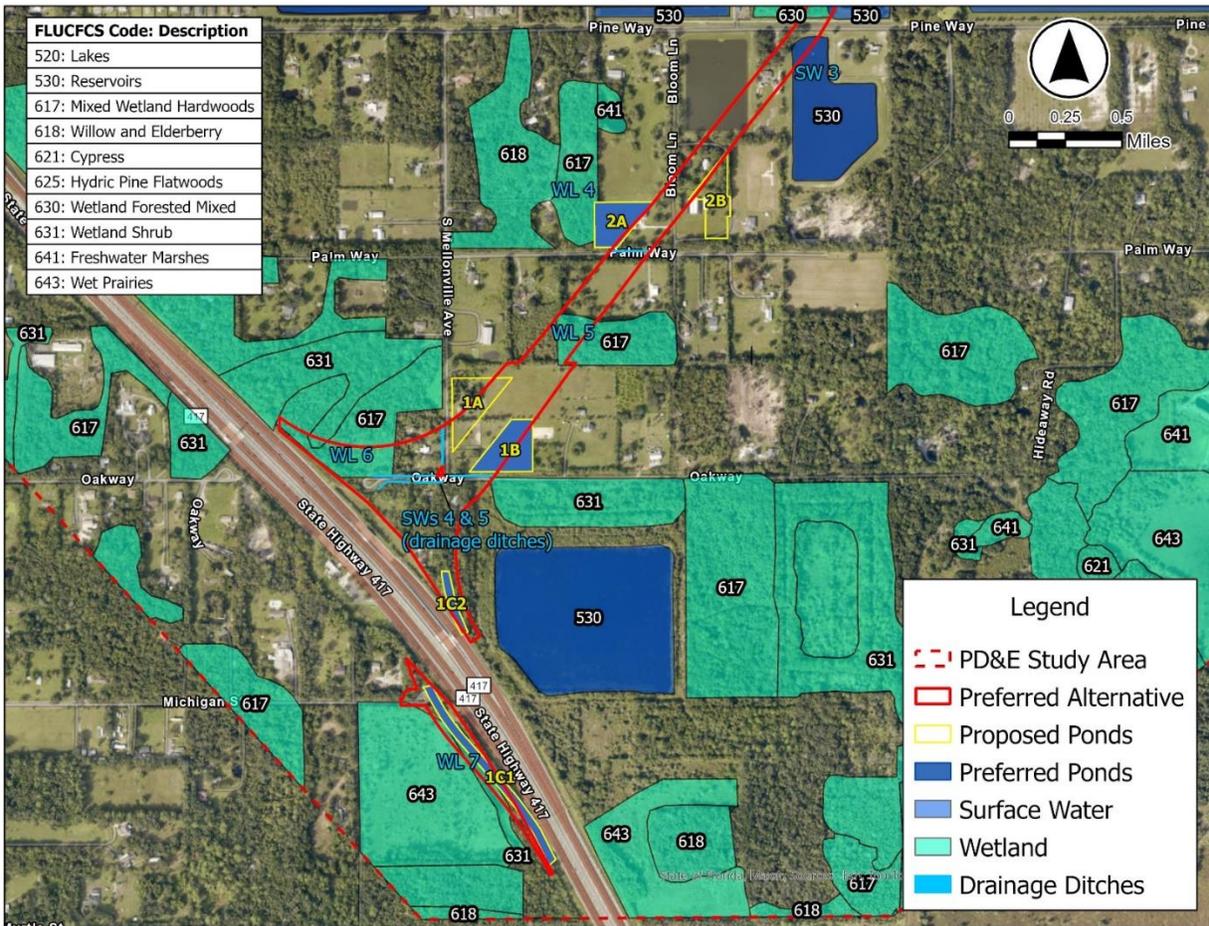


Table 3: Proposed Impacts to SJRWMD Easements from the Preferred Alternative

Wetland ID	FLUCFCS Code	Easement Type	Parcel No.'s	Permit No.	Approximate Acres of Impact
WL 2	625,617	SJRWMD Regulatory	0720315VZ0D000000	22290-1	10.9
WL 3	630	SJRWMD Regulatory	0720315VZ0G000000	22290-1	1.0
Preferred Pond Sites					
WL 2 Pond 3A	625	SJRWMD Regulatory Conservation Easement	0720315VZ0D000000	22290-1	3.0
Total Direct Impacts					14.9

2. Aquatic Preserves and Outstanding Florida Waters

There are no aquatic preserves or Outstanding Florida Waters within the study area. Therefore, there is no involvement with either of these resources.

3. Water Resources

A Water Quality Impact Evaluation (WQIE) checklist was completed for the project to comply with the Clean Water Act and is available under separate cover. The results of the WQIE indicate that the project will not result in significant effects to water quality. The project will meet all applicable SJRWMD criteria related to water quality. The project is currently a non-federal action receiving no federal monies; therefore, concurrence from the United States Environmental Protection Agency (USEPA) is not required according to the Safe Drinking Water Act. Best Management Practices (BMPs) that would control erosion, sediment release, and storm water runoff to minimize adverse impacts on surface water resources will be implemented during design, permitting, and construction.

The Pond Siting Report (PSR) prepared for this project identified four drainage basins and two pond sites for each basin. The basin area includes the alignment corridor right-of-way, which was divided into several sub-basins along hydraulic boundaries from the existing topography or proposed roadway bridge crossings. Assumptions were made concerning the proposed basin divides for stormwater management as the proposed mainline roadway profiles were preliminary. Each sub-basin is designed to be treated and attenuated by one pond.

Within this PD&E effort, it is assumed that each of the pond volume parameters are “stacked” instead of taking credit for any possible volume overlapping; this provides a conservative estimate which can be further evaluated during the final design phase.

Design considerations for each pond site location included a desktop review of the best available data, which included hydraulic data, hydrology (land use cover, soil types, SHGWT, etc.), contamination sites, wetland extents, wildlife areas, archaeological or historical sites, and conservation areas. No site-specific investigations have been performed or used in this analysis, including field survey, geotechnical testing, wetland delineation, threatened and endangered species observations, archaeological/cultural resources investigations, or contamination screenings. A summary of pond sites and the preferred ponds is provided in **Table 4**.

Table 4: Preferred Pond Summary

Pond Site	Preferred Pond	Wetland Impact (ac)	Conservation Easement	Wildlife Habitat	Contamination Risk	Archaeological Resources Impacts	Cultural Resources Impacts	Access Issues	Number of Parcels/Property Owners	Pond Right-of-way Area (ac)
Pond 417-1A (Option 1)		0	None	Low	None	Low	High	None	3/2	1.75
Pond 417-1B (Option 2)	✓	0	None	Low	None	Low	Low	None	1/1	1.75
Pond 417-1C1, Pond 417-1C2	✓	0.34	None	Low	None	Low	Low	None	N/A (2)	1.60
Pond 417-2A (Option 1)	✓	0.11	None	Low	None	Low	Low	None	1/1	1.45
Pond 417-2B (Option 2)		0	None	Low	None	Low	Low	None	2/1	1.45
Pond 417-3A (Option 1)		1.66 ⁽¹⁾	Yes	High – Eagle Nest <330ft	Yes	Moderate	Low	None	1/1	3.44
Pond 417-3B (Option 2)	✓	3.44	None	High – Eagle Nest @ 330ft	None	Low	Low	None	1/1	3.44
Pond 417-4A (Option 1)	✓	0	None	High – Eagle Nest @660ft	None	Low	Low	None	1/1	4.70
Pond 417-4B (Option 2)		1.35	None	Low	High	Low	Low	None	1/1	1.35

4. Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers or other protected rivers in the project area and therefore, there is no involvement with this resource.

5. Floodplains

The Federal Emergency Management Agency (FEMA) has determined the 100-year floodplain extents within the study area with an effective date of September 28, 2007. Alignment 2A does not encroach on any FEMA 100-year floodplain, and therefore, no floodplain impacts are anticipated. **Figure 15** depicts the FEMA Floodplain Map

The Preferred Alternative is within the Navy Canal basin which discharges to Lake Jesup. The entire study area is within the Lake Jesup HUC12 030801011105 basin and is included in the Lake Jesup Basin Management Action Plan (BMAP). See **Figure 16**, Waterbody ID (WBID) Map.

In order to mimic existing drainage conditions, proposed cross drains are preliminarily located and sized based on the best available information to convey offsite flows through the Alignment 2A corridor and demonstrate no adverse impacts to offsite properties. Detailed investigations of the upstream and downstream condition were performed to assess existing cross drains, flows, and patterns in order to determine the best available information for estimation of proposed cross drain sizes. During the design phase, the analysis will be re-evaluated with site-specific design information to ensure hydraulic adequacy. Four cross drains for Alignment 2A were located and sized and utilized the Rational Method for flow estimation and Federal Highway Administration (FHWA) HY-8 software for headwater stages.

Figure 15: FEMA Floodplain Map

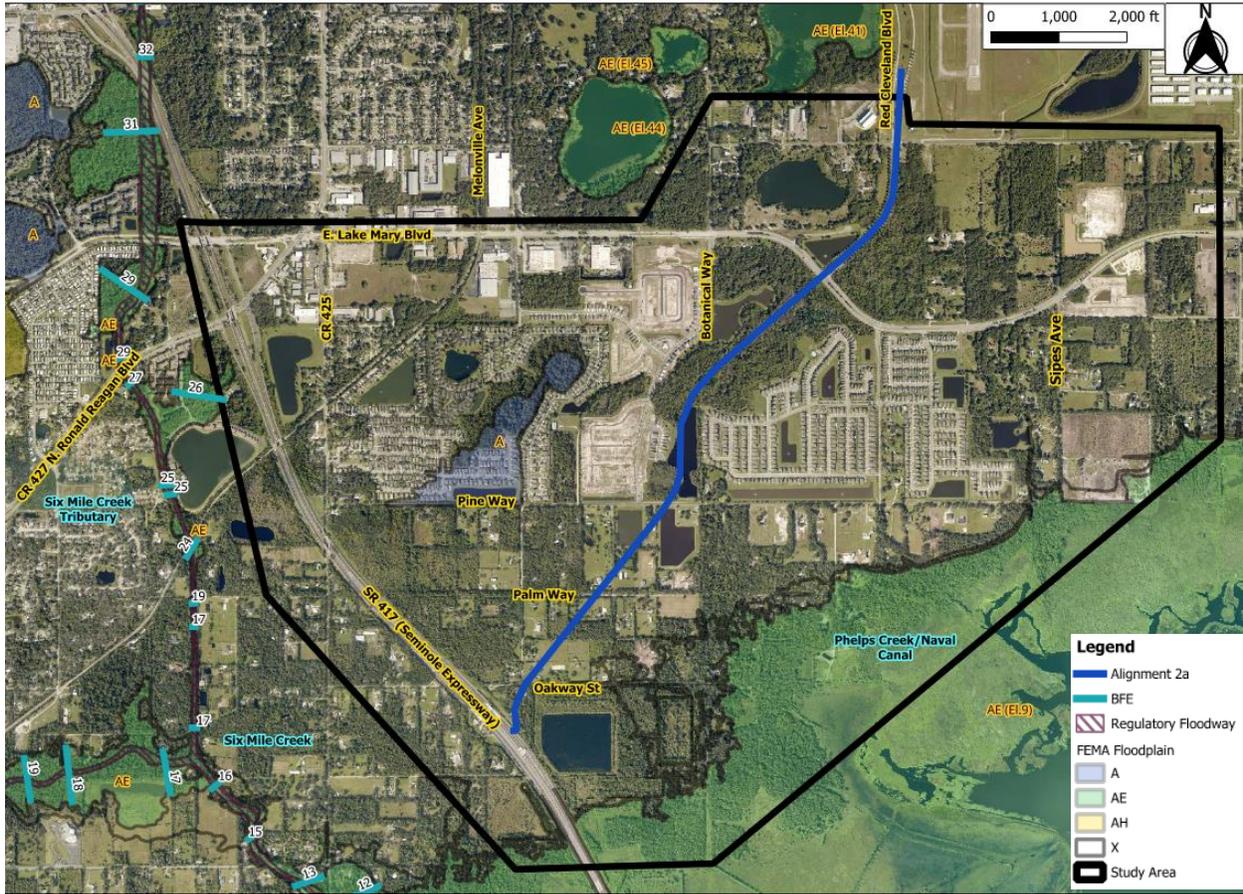
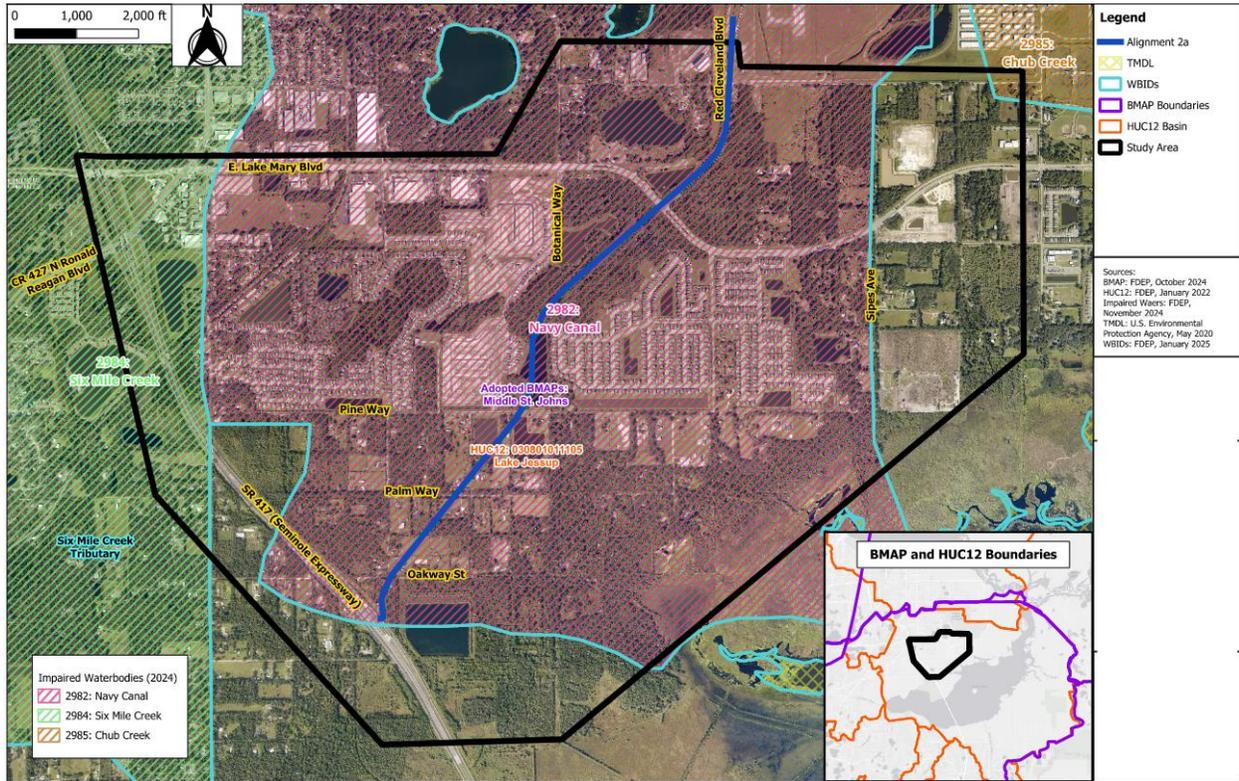


Figure 16: Waterbody ID (WBID) Map



The project is classified as having minimal encroachment. The proposed structures will perform hydraulically in a manner equal to or greater than the existing structures, 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 services or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

There are four proposed cross drains for Alignment 2A. All proposed cross drains are located within Zone X, therefore, there will be no encroachment into the FEMA 100-year floodplain. The hydrologic soil groups for the proposed cross drain basins include Type A and Type A/D. Proposed cross drains for Alignment 2A are listed in **Table 5**.

Table 5: Alignment 2A Proposed Cross Drains

Cross Drain	Culvert Size	Flow Direction	Total Basin Area (acres)	Peak Flow Methodology	Within Flood Zone?	Peak Design Storm Flow (cfs)
CD-01_PR	36" RCP	Southeast	13.43	Rational	No	19.63
CD-02_PR	9-ft x 5-ft	Southeast	69.15	Rational	No	122.97
CD-03_PR	8-ft x 6-ft	South	95.23	Rational	No	140.68
CD-04_PR	6-ft x 3-ft	Southeast	40.43	Rational	No	53.74

6. Coastal Barrier Resources

There are no Coastal Barrier Resources in the project area and therefore, there is no involvement with this resource.

7. Protected Species and Habitat

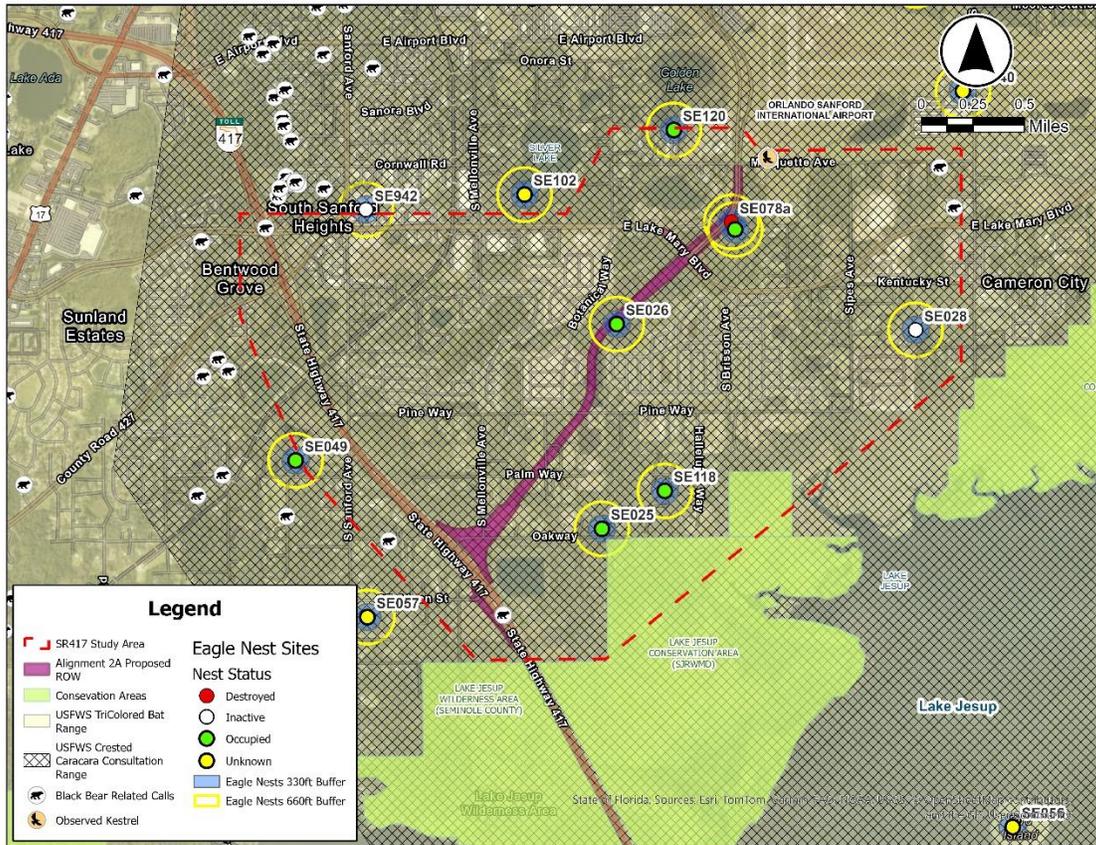
A Natural Resources Evaluation (NRE) Report (June 2025) was prepared for this study. Ecologists used online resources and field surveys to determine whether protected species occur or have the potential to occur in the Preferred Alternative corridor. The term protected species refers to those species that are protected by law, regulation, or rule. Specifically, the term protected species refers to those species listed under the Endangered Species Act (ESA) of 1973, as amended; those species listed under Florida's Endangered and Threatened Species List, Chapter 68A-27, F.A.C.; or those species listed under the Preservation of Native Flora of Florida, Chapter 5B-40, F.A.C. Florida also affords protection to federally-listed species, thus all federally-listed species are also state listed, pursuant to Chapter 68A-27.003(1)(b). The study area was also evaluated for the occurrence of Critical Habitat as defined by the ESA of 1973, as amended and 50 CFR Part 424.

According to the information obtained during the preliminary data collection, shown in **Table 6**, twenty-eight protected species have the potential to occur in the Preferred Alternative corridor. Potentially occurring state and federally listed species or listed species that were observed during the field investigation are also shown in **Figure 17**.

Table 6: Protected Species with Potential to Occur on the SR 417 Study Area

Scientific Name	Common Name	Status	Effect Determination
Birds			
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	FT	Low
<i>Athene cunicularia floridana</i>	Florida burrowing owl	ST	Low
<i>Caracara plancus audubonii</i>	Audubon's Crested caracara	FT	Moderate
<i>Falco sparverius paulus</i>	Southeastern American kestrel	ST	Observed
<i>Egretta caerulea</i>	Little blue heron	ST	High
<i>Egretta rufescens</i>	Reddish egret	ST	Low
<i>Egretta tricolor</i>	Tricolored heron	ST	Moderate
<i>Grus canadensis</i>	Florida sandhill crane	ST	High
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGEPA/MBTA	Observed
<i>Laterallus jamaicensis jamaicensis</i>	Eastern black rail	FT	Low
<i>Mycteria americana</i>	Wood stork	FT	Observed
<i>Platalea ajaj</i>	Roseate spoonbill	ST	Moderate
<i>Rostrhamus sociabilis</i>	Everglade Snail kite	FE	Low
Insects			
<i>Danaus plexippus</i>	Monarch butterfly	P	High
Mammals			
<i>Ursus americanus floridanus</i>	Florida black bear	M	Moderate
<i>Perimyotis subflavus</i>	Tricolored bat	P	High
Reptiles			
<i>Drymarchon couperi</i>	Eastern indigo snake	FT	Medium
<i>Gopherus polyphemus</i>	Gopher tortoise	ST	High
<i>Pituophis melanoleucus</i>	Pine snake	ST	Low
Plants			
<i>Carex chapmannii</i>	Chapman's sedge	ST	Moderate
<i>Centrosema arenicola</i>	Sand butterfly pea	SE	Low
<i>Chionanthus pygmaeus</i>	Pgymy fringe-tree	FE	Low
<i>Coelorachis tuberculosa</i>	Piedmont jointgrass	ST	Low
<i>Cucurbita okeechobeensis ssp.</i>	Okeechobee Gourd	FE	Moderate
<i>Hartwrightia floridana</i>	Hartwrightia	ST	Moderate
<i>Illicium parviflorum</i>	Star anise	SE	Moderate
<i>Lechea cernua</i>	Nodding pinweed	ST	Low
<i>Nemastylis floridana</i>	Celestial lily	SE	Moderate
<i>Nolina atopocarpa</i>	Florida beargrass	ST	Moderate
<i>Pteroglossaspis ecristata</i>	Giant orchid	ST	Low
<i>Salix floridana</i>	Florida willow	SE	Moderate
FE = Federally Endangered FT = Federally Threatened M = Managed SE = State Endangered P = Proposed ST = State Threatened BGEPA = Bald and Golden Eagle Protection A MBTA = Migratory Bird Treaty Act			

Figure 17: Listed Species Within the SR 417 Study Area



Nine federally listed species were evaluated for impacts as a result of the Preferred Alternative. The listed species and their preliminary effect determination are listed in **Table 7**.

Table 7: Federally Listed Species Preliminary Effect Determination

Common Name	Preliminary Effect Determination	Federal Status
Audubon's Crested Caracara	<i>No Effect</i>	FT
Eastern Black Rail	<i>No Effect</i>	FT
Everglades Snail Kite	<i>No Effect</i>	FE
Eastern Indigo Snake	<i>May Affect, Not Likely to Adversely Affect</i>	FT
Florida Scrub-Jay	<i>No Effect</i>	FT
Tricolored Bat	N/A	P (E)
Monarch Butterfly	N/A	P (T)
Wood Stork	<i>May Affect, Not Likely to Adversely Affect</i>	FT
FT = Federally Threatened FE = Federally Endangered P = Proposed		

8. Essential Fish Habitat

There is no Essential Fish Habitat in the project area and therefore, there is no involvement with this resource.

D. Physical

The Preferred Alternative is not anticipated to have significant impacts to physical resources. Below is a summary of the evaluation performed.

1. Highway Traffic Noise

The traffic noise impact analysis conducted for this project is consistent with Title 23, Code of Federal Regulations (CFR), § 772, Part II, Chapter 18 of the FDOT PD&E Manual, and Chapter 335, Section 335.17, Florida Statutes. This assessment also adheres to current FHWA traffic noise analysis guidelines contained in FHWA-HEP-10-025. The FHWA Traffic Noise Model (TNM) - version 2.5 was used to predict traffic noise levels for this project, following guidelines set forth in the FDOT Traffic Noise Modeling and Analysis Practitioners Handbook.

Noise levels for the 2024 existing condition and the 2050 No-Build and Build Alternatives were predicted for 160 receptor locations representing 207 residential and two nonresidential Special Land Use (SLU) sites. Project noise levels for one residence, Southbound (SB)1-01, are predicted to meet or exceed the FDOT Noise Abatement Criteria (NAC) for the Design Year 2050 Build Alternative. The Build Alternative is also predicted to have a substantial noise increase at residential receptor SB4-06.

Both impacted receptors require consideration of abatement measures to mitigate the impacts. However, the impacted residences are considered "isolated," meaning that no other impacted receptors are near them. FDOT and CFX policy require two impacted receptors to receive a 5 dB(A) noise reduction for a noise barrier to be considered feasible. Consequently, a noise barrier is not considered a feasible abatement measure for an isolated impacted residence.

Based on the noise analyses performed to date, there are no feasible solutions available to mitigate the noise impacts at the two impacted receptors, SB1-01 and SB4-06. However, CFX commits to re-evaluate the Noise Study during the Design Phase of the project.

2. Air Quality

As of March 2020, the Florida Department of Environmental Protection (FDEP) announced that Florida meets all National Ambient Air Quality Standards (NAAQS) statewide under the Clean Air Act.

Construction activities will cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized whenever possible.

The proposed project is located in Seminole County, which is currently designated as being in attainment for the following Clean Air Act National Ambient Air Quality Standards (NAAQS): ozone, nitrogen dioxide, particulate matter (2.5 microns in size and 10 microns in size), sulfur dioxide, carbon monoxide (CO), and lead. Because the county is in attainment, the Clean Air Act conformity requirements do not apply to the project.

In conclusion, this project is not expected to create adverse impacts on air quality because the project area is in attainment for all NAAQS and would not contribute to any exceedance of any NAAQS.

3. Contamination

A desktop Contamination Screening Evaluation Technical Memorandum (June 2025) was prepared for the study area using limited elements of Chapter 20 of the FDOT PD&E Manual dated July 31, 2024, and is available under separate cover. Other relevant sources of information including USGS Quadrangle Maps of Oviedo, Osteen, Sanford, and Casselberry, Florida, National Resource Conservation Service (NRCS) Soil Survey, and Limited FDEP Map Direct and Nexus Information Portal file research were performed for the sites of concern identified within the study area.

Based on the results of the contamination screening activities, GEC assigned Contamination Risk Ratings (CRRs) to potential contamination sites in the Study Area. The CRR system was developed by FDOT and incorporates four levels of risk: No, Low, Medium and High.

The potential contamination sites are listed in **Table 8** and, pond site potential contamination risk ratings are shown in **Table 9**.

Table 8: Potential Contamination Site Summary

Site No.	Facility Name and Address	Facility ID	Concerns	Risk Rating
1	Seminole County Main Expressway Plaza 875 Oakway Avenue	9400810	This site maintains a 500-gallon aboveground emergency generator diesel tank. No complaints, violations, or discharges have been recorded at this site.	Low

Site No.	Facility Name and Address	Facility ID	Concerns	Risk Rating
20	Marquette Shores Borrow Pit C&D Marquette Avenue and Ohio Avenue	27164	This site was a construction demolition debris disposal site, that received a No Further Action status. Debris may remain on-site.	Medium
21	Sanford Airport FUDS Site	FL49799F467500	This site is a former Naval Air Station with the potential for soil and groundwater impacts.	Medium
22	Brisson Road/Avenue Landfill/Dump 2861 East Lake Mary Boulevard	ERIC_8881; ERIC_5591; ERIC_5562; 83721	This site is an abandoned landfill. An April 2015 Supplemental Site Assessment Report found high methane soil exceedances, metal groundwater exceedances and remaining solid waste debris on-site. An October 2015 Addendum recommends a No Further Action for the groundwater due to low levels of exceedances. Landfill debris remains on-site. Additional areas of contamination impacts could exist.	High
25	Historical Citrus Groves and Row Crops	N/A	Typical concerns associated with citrus groves and row crops include pesticide/ herbicide storage and usage, grove heating during cooler winter months (smudge pots and other grove heating equipment), tractor and equipment maintenance and fueling, underground and aboveground fuel	Medium

Site No.	Facility Name and Address	Facility ID	Concerns	Risk Rating
			storage tanks, irrigation pumps and maintenance, and asbestos irrigation lines.	
27	Sunland Park Debris Staging Area 180 Collins Drive	98048	This is an inactive disaster debris management area with no recorded contamination impacts.	Low

Table 9: Pond Potential Risk Rating

Pond Name	Location	Concerns	Risk Rating
Pond 417-1A	Northeast corner of the Mellonville Avenue and Oakway intersection	Historically Pond 417-1A consisted of row crop farming prior to 1986, when the site was developed with a horse pasture. In 2023, a pile of brush and tree debris is visible in the southeast corner. The potential for agricultural impacts may remain on site.	Medium
Pond 417-1B	Northeast corner of the Mellonville Avenue and Oakway intersection	Historically Pond 417-1B consisted of row crop farming and a residence. The row crops became fallow by 1986. The potential for agricultural impacts may remain on site.	Medium
Pond 417-2A	Northwest corner of the Palm Way and Bloom Lane intersection	Historically undeveloped wooded land. Currently the site contains a residence with a covered car port and a garage building.	Low
Pond 417-2B	Northeast corner of the Palm Way and Bloom Lane intersection	Historically Pond 417-2B consisted of row crop farming until developed with six large horticulture grow houses. The potential for agricultural impacts may remain on site.	Medium
Pond 417-3A	Around 300 feet southeast of the corner of Botanical Way and Hidden Palm Drive	Historically undeveloped wooded land located on a natural conservation area.	Low

Pond 417-3B	Around 470 feet northwest of the Swinstead Drive and Tudor Rose Drive intersection	Historically undeveloped wooded land located on a natural conservation area.	Low
Pond 417-Existing 1	North corner of the East Lake Mary Boulevard and Red Cleveland Boulevard intersection	Historically undeveloped wooded land until developed with the existing pond location.	Low
Pond 417-4B	East corner of the East Lake Mary Boulevard and Red Cleveland Boulevard intersection	Historically undeveloped wooded land. This site is located about 500 feet from a closed landfill with known soil contamination impacts and residual landfill debris. (Site No. 22).	High

Level II ICAs will be recommended for the High-Risk pond site (Pond 417-4B) adjacent to Site No. 22, and the Medium-Risk pond sites (Ponds 417-1A, 1B, and 2B) with historical agricultural concerns.

4. Utilities and Railroad

A Utility Assessment Package was prepared and is available under separate cover. All of the utility providers and operators within the study area were contacted in May 2025 and were provided aerial maps of the project for review. Based on the aerial maps, UAOs were asked to assist in locating and identifying their existing and planned facilities within the area of study. Through mark-ups and/or verbal descriptions, most utility providers or operators provided information on the location and type of existing facilities and information on the planned facilities anticipated in the future. At the time of utility contact efforts, none of the UAOs indicated any future planned facilities or upgrades to existing facilities within the project limits. A description of the existing facilities and associated relocation costs are outlined in **Table 10**. There is one at-grade CSX railroad crossing on East Lake Mary Boulevard within the study area located west of Mellonville Avenue.

Table 10: Existing Utilities

Company	Description	Relocation Cost
AT&T Florida-Distribution	<ul style="list-style-type: none"> • Buried 24 Fiber on north and south side of E Lake Mary Blvd. • Buried 24 Fiber on east side of Red Cleveland Blvd. 	\$500,000
Charter/Spectrum	<ul style="list-style-type: none"> • Overhead TV cable on the south side of Oakway and the east side Mellonville Ave, North of SR 417. • Overhead TV cable along the south side of Palm Way. • Buried TV cable along the north side of Pine Way, near Botanical Way. • Buried fiber optic along south side of E Lake Mary Blvd. • Overhead TV cable on the North side of Marquette Ave, crossing Red Cleveland Blvd. 	\$450,000
City of Sanford Public Works-Lighting	<ul style="list-style-type: none"> • No Facilities 	\$0
City of Sanford-Utilities Water/Sewer/Reclaimed	<ul style="list-style-type: none"> • 8” Water main on the west side of Botanical Way, North of Pine Way. 8” Reclaim Water main on the west side of Botanical Way, North of Pine Way. • 12” Water main along North side of E Lake Mary Blvd. • 12” Reclaim Water main along South side of E Lake Mary Blvd. • 6” Force main along south side of E Lake Mary Blvd. • 12” Water main along the west side of Skyraider Ct and Red Cleveland Blvd. • 20” Force main along the west side of Skyraider Ct and Red Cleveland Blvd. • 12” Water Main on south side of Marquette Ave, from Red Cleveland Blvd to 250’ West. • 6” Force Main on south side of Marquette Ave, from Red Cleveland Blvd to 170’ West. • 12” Water Main on west side of Red Cleveland Blvd from South of Marquette Ave to 80’ north of Marquette Ave, then crossing Red Cleveland Blvd to 370’ East of Red Cleveland Blvd. • 20” Force Main on the west side of Red Cleveland Blvd, from South of Marquette Ave to 40’ North of Marquette Ave, then crossing Red Cleveland Blvd to 350’ East of Red Cleveland Blvd. • 12” Water Main on the west side of Red Cleveland Blvd, from 80’ North of Marquette Ave to 270’ North of Marquette Ave. • 12” Force Main on the west side of Red Cleveland Blvd, from 40’ North of Marquette Ave to 330’ North of Marquette Ave. 	\$1,000,000

Florida Power & Light-Distribution	<ul style="list-style-type: none"> • Overhead Electric line along South side of Michigan St, West of SR 417. • Overhead Electric line along South side of Oakway, from East of Mellonville Ave to West of Mellonville Ave and crossing SR 417 at 300' West of Mellonville Ave and a Lateral line going South of Oakway, at 210' West of Mellonville Ave. • Overhead Electric line along East side of Mellonville Ave, from South side of Oakway, crossing Oakway to North of Oakway. • Overhead Electric line along South side of Palm Way, from West of Bloom Ln to East of Bloom Ln. • Overhead Electric line along West side of Bloom Ln, from 200' South of Palm Way to North of Palm Way. • Overhead Electric line along North side of Pine Way, from West of Botanical Way to East of Botanical Way. • Overhead Electric line crossing from North side of Palm Way to the South, at 200' East on Botanical Way, due South toward Palm Way, between ponds (possible easements) with additional lateral lines to properties. • Overhead Electric line along North side of Palm Way to the East, up to (possible easement) that is between pond and rear of properties of Swinstead Dr. • Overhead Electric line crossing from the South side of E Lake Mary Blvd to the North side and along the East side of Red Cleveland Blvd. • Overhead Electric line and Underground feeder lines on the South side of E Lake Mary Blvd, from West of E Lake Mary Blvd, crossing Red Cleveland Blvd, to the East of E Lake Mary Blvd. 	\$1,560,000
Florida Power & Light-Transmission	<ul style="list-style-type: none"> • No Facilities 	\$0
Florida Public Utilities Gas	<ul style="list-style-type: none"> • 4" PE gas main along the South side of E Lake Mary Blvd, from West of E Lake Mary Blvd, crossing Red Cleveland Blvd, to the East of E Lake Mary 	\$120,000
Florida's Turnpike Enterprise	<ul style="list-style-type: none"> • No Response; Fiber and buried electric along both sides of SR 417 	\$0
Seminole County Environmental Services	<ul style="list-style-type: none"> • 8" fire line and 3" water service at the Lake Jessup Toll Plaza. 	\$85,000
Seminole County-Traffic Eng. (Not a UAO)	<ul style="list-style-type: none"> • Not a UAO-part of the roadway project, but sent UG fiber info-GIS map. • Underground Fiber along the South side of E Lake Mary Blvd, from West of E Lake Mary Blvd, crossing Red Cleveland Blvd, to the East of E Lake Mary Blvd. • Underground Fiber crossing E Lake Mary Blvd, West of Red Cleveland Blvd, from South side of E Lake Mary Blvd to the North side, then crossing Red Cleveland 	\$0

	<p>Bldv form West to the East, then going North along the East side of Red Cleveland Blvd.</p> <ul style="list-style-type: none"> • Underground Fiber along the East side of Red Cleveland Blvd and crossing Marquette Ave to North of Marquette Ave. • Underground Fiber along the South side of Marquette Ave, from East side of Red Cleveland Blvd, due further East. 	
Uniti Fiber	<ul style="list-style-type: none"> • No Facilities 	\$0
Zayo	<ul style="list-style-type: none"> • No Facilities 	\$0

Due to the nature of the existing conditions throughout the project corridor, it is anticipated that the Preferred Alternative will impact the existing utility facilities on the project. Mitigation measures will be taken during the design phase of the project to minimize impacts to the existing utilities to the fullest extent possible.

Since relocations of facilities located in easements would likely be eligible for reimbursement if impacted, all measures will be taken to avoid impacting facilities identified in lands of compensable interest.

5. Construction

Construction activities for the proposed improvements will have temporary air, noise, water quality, traffic flow, and visual impacts for those residents and travelers within the immediate vicinity of the project. The air quality impact will be temporary and will primarily be in the form of emissions from diesel powered construction equipment and dust from embankment and haul road areas. Air pollution associated with the creation of airborne particles will be effectively controlled using watering or the application of calcium chloride in accordance with Standard Specifications for Road and Bridge Construction.

The contractor will adhere to the most current version of the Standard Specifications for Road and Bridge Construction to minimize or eliminate potential construction noise and vibration impacts.

Water quality impacts resulting from erosion and sedimentation will be controlled in accordance with the Standard Specifications for Road and Bridge Construction and using BMPs.

Maintenance of Traffic and Sequence of Construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used as appropriate to provide notice of lane closures and other pertinent information to the traveling public. Most of the

temporary traffic control efforts will be focused at locations where the new corridor will interface with existing roadways at overpasses and interchanges.

By following Standard Specifications for Road and Bridge Construction, no substantial impacts from construction are anticipated.

6. Bicycle and Pedestrians

The SR 417 Sanford Airport Connector is a proposed limited-access facility; therefore, there is no involvement with bicycle or pedestrian facilities along the expressway.

7. Navigation

There are no navigable waterways located within the study area and therefore, there is no involvement with this resource.