PRELIMINARY ENGINEERING REPORT

Florida Department of Transportation

Florida's Turnpike Enterprise

Central Polk Parkway East PD&E Study

From US 17/92 to Poinciana Connector (SR 538)

Polk County, Florida

Financial Management Number: 451419-1

ETDM Number: 14524

Prime Consulting Firm:

RS&H

Consulting Project Manager:

Nathan Silva, PE, AICP

November 2025

Preliminary Engineering Report

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PROFESSIONAL ENGINEER CERTIFICATION

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This Preliminary Engineering Report contains engineering information that fulfills the purpose and need for the Central Polk Parkway East Project Development & Environment Study from US 17/92 to Poinciana Connector (SR 538) in Polk County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with RS&H, and that I have prepared or approved the evaluation, findings, opinions, conclusions or technical advice for this project.

This item has been digitally signed and sealed by Nathan Silva, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

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1.0 Project Summary

1.1 Project Description

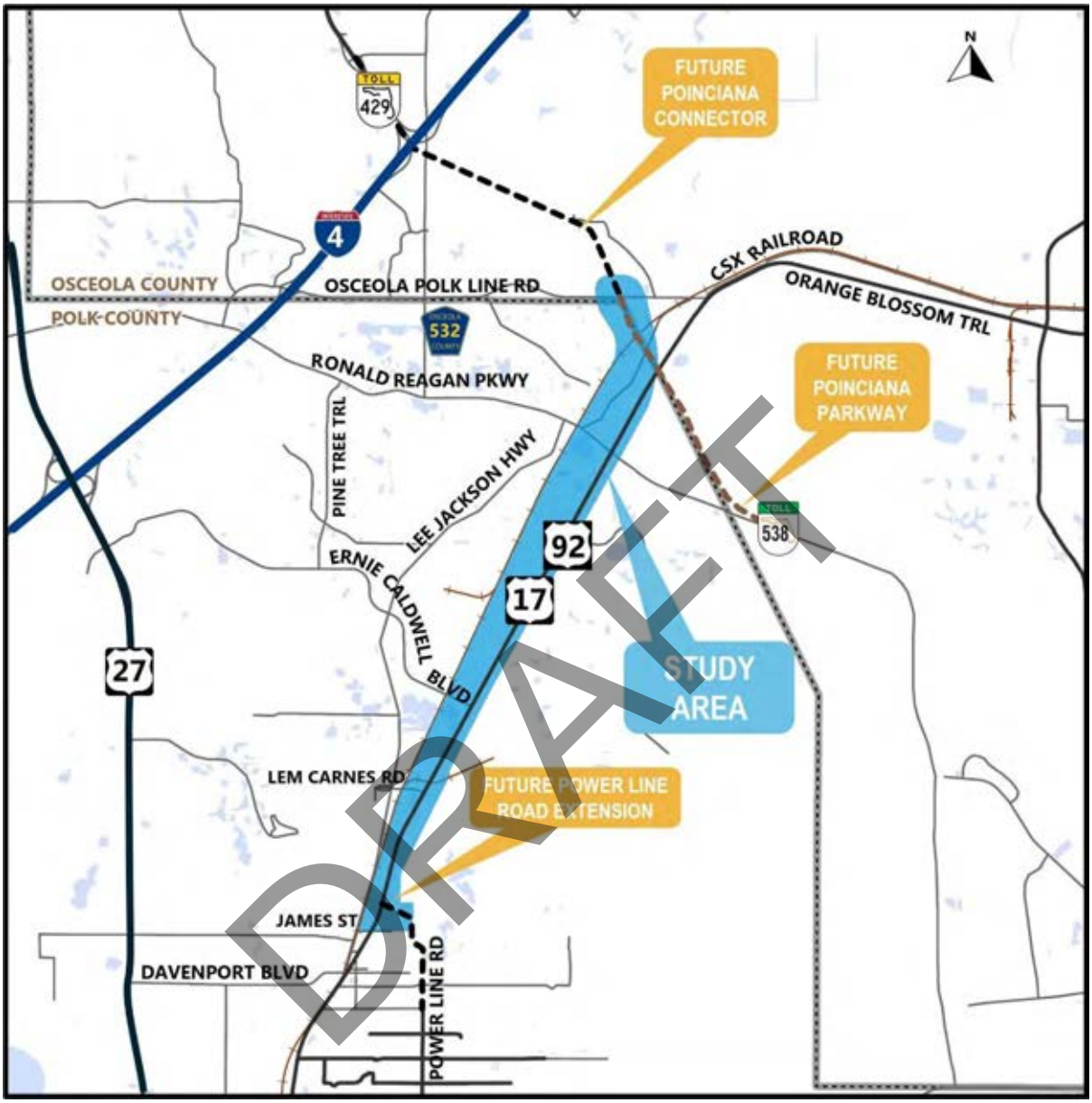
The Florida Department of Transportation (FDOT) Florida's Turnpike Enterprise (Enterprise) is conducting a Project Development and Environment (PD&E) Study to evaluate an approximately eight-mile new tolled, multi-lane, limited access highway referred to as the Central Polk Parkway (CPP) East. The PD&E study area extends from US 17/92, south of the Power Line Road extension, to the future Poinciana Connector (State Road (SR) 538), with the CSX railroad delineating the western study area boundary. The Poinciana Connector, under development by FDOT, will be a new tolled limited access highway extending from CR 532 to Interstate 4 (I-4) and SR 429. Once completed it will provide a regional link between the Poinciana Parkway in Osceola County, currently under design by the Central Florida Expressway Authority (CFX) and I-4 at the SR 429 interchange. Access points to/from CPP East will be evaluated at US 17/92, the future Poinciana Connector, and at a potential intermediate location. Multi-modal transportation improvements including a shared use path will be evaluated. Most of the study area is located in northeast Polk County, with a small section extending into Osceola County as shown on Figure 1.1.1.

1.2 Purpose and Need

The purpose of this project is to meet existing and future regional travel demands by providing an additional north-south facility that will enhance mobility and increase accessibility to the regional roadway network and improve emergency evacuation and response times.

The need for the CPP East includes accommodating population growth and the associated travel demands, improving regional connectivity and overall system linkage, enhancing freight mobility and economic competitiveness, and enhancing safety, emergency evacuation, and response.

Figure 1.1.1: Project Location Map



1.2.1 Project Status

The project is listed in the FDOT's State Transportation Improvement Program (STIP) with funding for PD&E in fiscal years prior to 2025, 2025, 2026, preliminary engineering in fiscal year 2026. Right-of-way acquisition and construction are not currently funded. Polk County's Transportation Planning Organization (TPO) Transportation Improvement Program (TIP) shows funding for the PD&E in fiscal years prior to 2026 and 2026 and preliminary engineering in fiscal year 2026. The project is not included in the Polk County TPO's Momentum 2045 Long Range Transportation Plan (LRTP) Cost Feasible Roadway Plan. As a state funded project, this project does not require planning consistency.

1.2.2 System Linkage

This project is anticipated to improve connectivity to the regional transportation network by connecting Polk and Osceola Counties, and serving residents, commuters, tourists, employers, businesses and freight travel between the two counties. In addition, this facility will improve connections to other major east-west and north-south transportation corridors, as well as residential and employment centers, other regional activity centers such as Haines City and Davenport, tourist destinations in Polk County, and eastward to the Orlando Metropolitan area. This project, along with Poinciana Parkway and Poinciana Connector will connect regional Strategic Intermodal Systems (SIS) facilities and provide an alternative corridor to travel on US 17/92, US 27, and the local roadway network. The SIS is a statewide network of highways, railways, waterways, and transportation hubs that handle most of Florida's passenger and freight traffic. Highways that are part of the SIS provide for the movement of goods and people at high speeds and high traffic volumes. SR 60 and I-4, which are part of the SIS, provide coast to coast traffic movement across Central Florida, while SIS facilities, such as I-95 and I-75, provide north-south movement throughout the state and beyond. The addition of the CPP East, Poinciana Parkway, and Poinciana Connector connecting these regional roadways would relieve congestion by distributing traffic, improving connectivity, and enhancing mobility in Polk County and west central Florida.

1.2.3 Transportation Demand

According to the Momentum 2045 Polk County LRTP, "Polk County is expected to experience major growth over the next 20 years, which is anticipated to put tremendous strain on already congested roadways, such as I-4 and US 27. Daily travel volumes on US 27 south of I-4 were over 63,000 vehicles per day in 2019 and are expected to exceed 100,000 vehicles per day by 2045." The Florida Bureau of Economic and Business Research (BEBR) population 2045 forecast for Polk County is 1,043,400 people (2045 Polk County LRTP) with an employment total of approximately 348,903 employees. This represents an increase in population of 410,348 people and employment of 153,648 employees from 2015 to 2045 or 65% population growth and 79% employment growth from 2015 to 2045. Much of this growth will be related to new trips in the central part of Polk County; however, others will come from the residents in eastern Polk County who will travel to or through the central Polk County area. Also, the significant growth of trips originating from outside Polk County and traveling to or through areas of central Polk County will further increase demand on the roadway network, especially in northeast Polk County. According to the 2045 MetroPlan Orlando, Central Florida grew from about 1.1 million residents in 1990 to 2.2 million residents in 2018; Osceola County is Central Florida's fastest growing county, at 4.5% per year and employment growth rates in the region exceed the statewide average of 2.1% per year since 1990.

CPP East is anticipated to support the increased travel demands expected from the continued residential and employment growth projected within the county and throughout the entire region. The addition of a north-south facility to the network will reduce traffic congestion, including truck traffic, on several corridors in central Polk County and particularly parallel facilities such as US 98, US 17/92, and US 27. Central and eastern Polk County especially will need to address the transportation needs from the projected employment and residential growth; as well as increased freight traffic as the CSX Intermodal Logistics Center (ILC) continues to spur economic development in the area. The CPP East will provide access to regional industrial, manufacturing, freight distribution, and freight activity centers in Polk County. This project also will improve the overall circulation of freight and goods, providing access to local agricultural and ranching operations.

1.2.4 Safety

There is a need to evaluate a new highway and/or modified access points to provide for emergency evacuation, incident management, and population/employment growth. The CPP East will be a designated evacuation route by the Florida Division of Emergency Management and will connect to other existing and future evacuation routes. The expansion of the project segment will improve hurricane evacuation and emergency response and evacuation times. In addition, recent hurricane seasons have shown the need for additional route options to accommodate area residents and those fleeing from coastal locations in Florida to inland locations in Central Florida, when seeking shelter. The addition of this facility will provide another option to distribute traffic and to provide connections to other regional and local routes thereby increasing mobility during an emergency event and enhancing emergency response times.

1.3 Commitments

To minimize the impacts of this project to the social, cultural, natural, and physical environment, the Enterprise has identified the following commitments:

1. FDOT will implement the following commitments for the tricolored bat:
    a. Upon listing of the tricolored bat, if the project contains suitable habitat and requires tree trimming and/or clearing, FDOT will not conduct tree trimming/ clearing activities during the tricolored bat pup season (May 1st to July 15th) and when bats may be in torpor (when temperatures are below 45 degrees Fahrenheit).
    b. Upon listing of the tricolored bat, if the project contains suitable habitat and FDOT needs to trim or clear trees or perform work on bridges/culverts during the maternity season and/or when the temperature is below 45 degrees Fahrenheit, then FDOT will survey the project area for evidence of the tricolored bat. The Indiana Bat and Northern Long-eared Bat Survey Guidance, Appendix J of the NRE, (USFWS), acoustic survey protocol in the year-round range (mist netting is not being conducted in Florida at this time), will be used for areas with tree trimming/clearing. For bridges and culverts, the Indiana Bat and Northern Long-

eared Bat Survey Guidance, Appendix K of the NRE, Assessing Bridges and Culverts for Bats, will be used.

i. If the surveys result in no tricolored bats detected, then FDOT can proceed with the project activities. Negative results from bridge/culvert surveys are valid for two years. Negative results for acoustic surveys are valid for five years. However, negative results for either survey may be invalidated if additional tricolored bat survey data is submitted to USFWS showing presence of the species within the vicinity of the project area. Additional survey work by FDOT, or application of the avoidance and minimization measures noted in commitment #4 below, may be required if updated detections are reported, and may result in reinitiation of consultation with USFWS.

ii. If the surveys result in positive detections of the tricolored bat, FDOT will implement conservation measures such as: not conducting tree trimming/clearing activities during the tricolored bat pup season (May 1st to July 15th) when pups are not volant and not able to escape disturbance; similarly avoid tree trimming/clearing activities when the temperatures are below 45 degrees Fahrenheit when bats may be in torpor and unresponsive to disturbance.

2. A survey will be conducted for Audubon's crested caracara and Everglade snail kite, per USFWS protocol during the design phase.
3. A survey will be conducted for the Florida bonneted bat within the limits of construction activities that are within the Florida bonneted bat Consultation Area. If any signs of the Florida bonneted bat are observed (e.g., tree cavities, new potential man-made roosting habitat), the Enterprise is committed to coordinating with USFWS regarding the most updated survey protocols for the Florida bonneted bat.
4. If the Monarch butterfly is listed by USFWS as Threatened or Endangered and the project may affect the species, the Enterprise commits to re-initiating consultation with USFWS to

determine appropriate avoidance and minimization measures for protection of the newly listed species.

5. During the replacement of bridge culvert 160019 at Horse Creek, The Enterprise commits to the implementation of wildlife features such bridges with shelves, specially designed culverts, enlarged culverts or drainage culverts and exclusionary devices such as fencing, walls or other barriers, or some combination of these features at Horse Creek.
6. FTE is committed to the construction of feasible and reasonable noise abatement measures. Four potentially feasible and reasonable noise barrier systems have been identified for this project contingent upon the following conditions:
    a. Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
    b. Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;
    c. Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
    d. Community input supporting types, heights, and locations of the noise barrier(s) is provided to FTE; and
    e. Safety and engineering aspects have been reviewed, and any conflicts or issues resolved.

1.4 Alternatives Analysis Summary

A No-Build and two Build Alternatives were developed and evaluated for this PD&E Study.

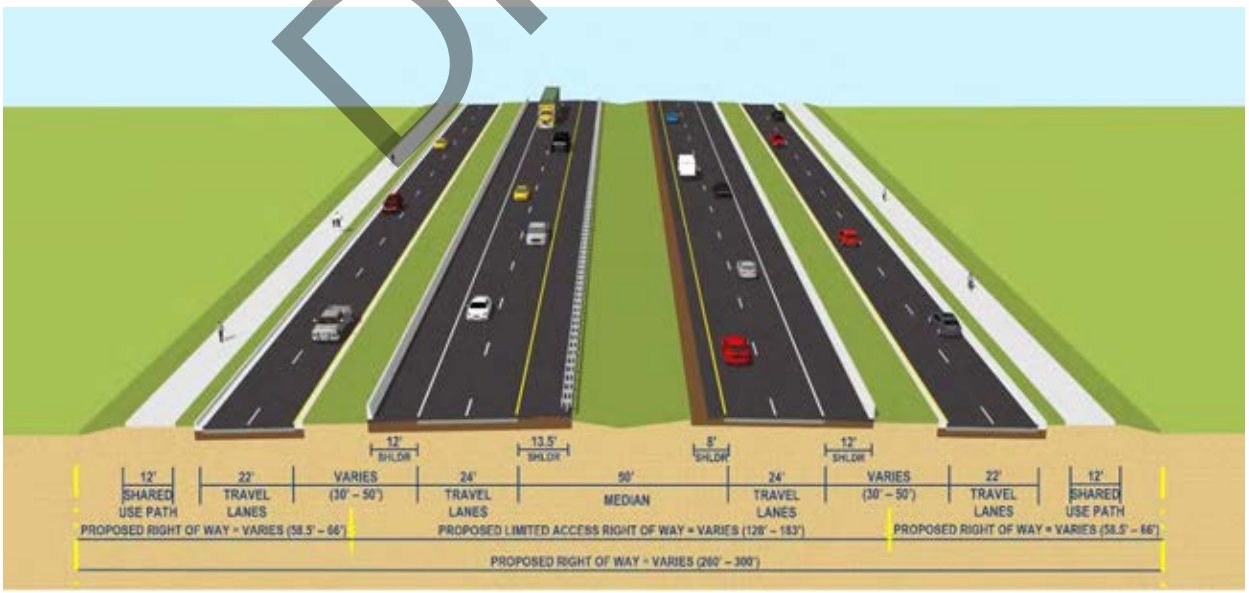
The No-Build Alternative retains the existing roadways and intersections in the study area. Under this scenario, CPP East would not be constructed. This alternative represents forecasted conditions in the project's design year (2050) if the project is not implemented, but other transportation improvements that are planned and programmed are completed. Due to the area's existing and future traffic demands, the No-Build Alternative does not meet the project's purpose and need and therefore is considered neither viable nor a practical alternative, but it will be considered throughout the PD&E Study.

Two viable Build Alternatives were evaluated for this PD&E Study: *Alternative 1: Co-located with US 17/92* and *Alternative 2: New Alignment*. Both Build Alternatives meet the project's purpose and need. Appendix A shows roll plots of the Build Alternatives.

1.4.1 Alternative 1: Co-located with US 17/92

The proposed typical section shown in Figure 1.4.1 features a four-lane limited access facility (CPP East) flanked by two-lane, at-grade frontage roads (US 17/92). CPP East consists of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median. In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder with barrier wall. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder with barrier wall. A 30- to 50-foot-wide buffer, measured from edge-of-travel to edge-of-travel separates the limited access facility (CPP East) from the frontage roads. The frontage roads feature two 11-foot-wide travel lanes in each direction with curb and gutter. A 6.5-foot-wide buffer separates the outside frontage road travel lane from the 12-foot-wide shared use path in both directions. The proposed right-of-way width for this alternative varies from 260 feet to 300 feet.

Figure 1.4.1: Typical Section – Alternative 1: Co-located



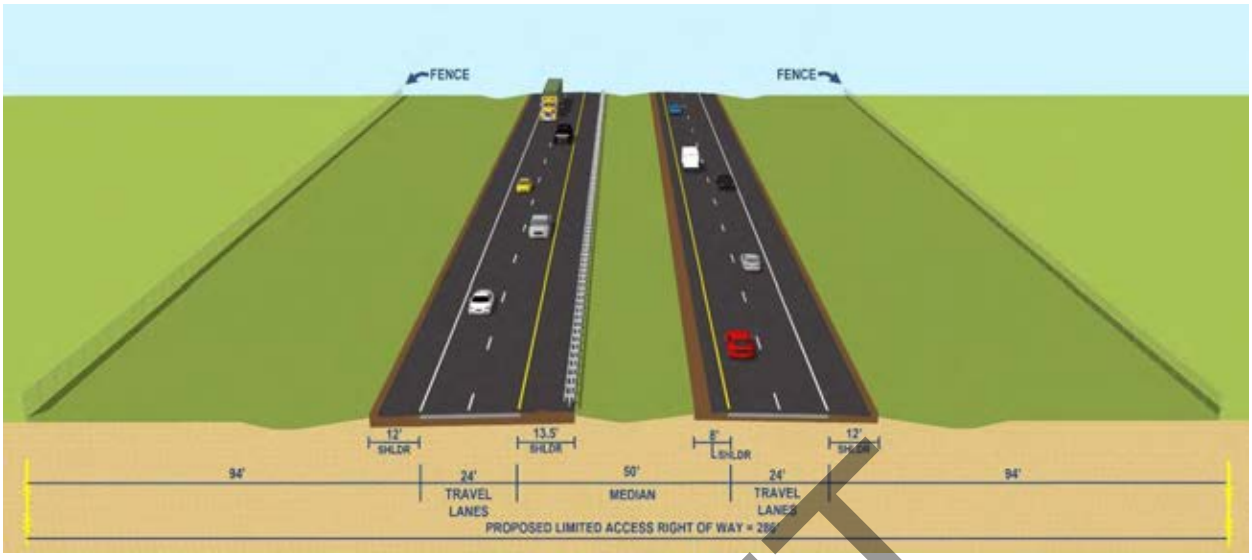
Alternative 1: Co-located with US 17/92 begins near the Power Line Road extension intersection with US 17/92 and extends approximately 7.1 miles along US 17/92 to the Poinciana Connector. The southern terminus is an at-grade connection to US 17/92. The limited access facility begins/ ends approximately 0.7 miles north of the Power Line Road extension intersection with US 17/92. In the northbound direction, a third lane is developed on US 17/92 at the Power Line Road intersection. CPP East is created through a slip ramp with the inside two lanes, the middle lane is a "choice" lane for vehicles to either enter the limited access highway or continue onto US 17/92. The outer lane and middle "choice" lane continue to the relocated northbound US 17/92. In the southbound direction, the limited access highway tapers into the southbound US 17/92 lanes to create four travel lanes. The northern terminus consists of direct ramp connections tying into the outside lanes of the Poinciana Connector in the vicinity of the CR 532 overpass.

Additional right-of-way will be required on both sides of US 17/92 to construct the proposed highway. Alternative 1: Co-located with US 17/92 impacts 228 parcels for a total of 186.5 acres for roadway improvements. Forty-one residential relocations, seven business relocations, one governmental parcel relocation (Polk County Fire Rescue Station 20), and two utility parcel relocations are anticipated as a result of this alternative.

1.4.2 Alternative 2: New Alignment

The proposed typical section for Alternative 2: New Alignment, shown on Figure 1.4.2, features a four-lane limited access facility (CPP East). CPP East is comprised of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median, including the inside shoulders. In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder. The proposed limited access right-of-way is 286 feet, including 94 feet of border width on either side. A 12-foot-wide shared use path is being evaluated between the US 17/92 and Power Line Road intersection and Ernie Caldwell Boulevard. An additional 50 feet of right-of-way is required for the shared use path footprint.

Figure 1.4.2: Typical Section – Alternative 2: New Alignment



The total length of Alternative 2: New Alignment is approximately 7.3 miles. The alternative begins at US 17/92 near the Power Line Road extension as described for Alternative 1: Co-located with US 17/92. Alternative 1: Co-located with US 17/92 and Alternative 2: New Alignment are identical for approximately 0.8 miles from Power Line Road to 0.7 miles south of Ernie Caldwell Boulevard. At this point, Alternative 2: New Alignment curves to the west, and the alignment follows the CSX railroad line for approximately 1.4 miles before curving back towards US 17/92. The alignment crosses over US 17/92 near the Providence neighborhood and parallels US 17/92 on the east side until north of Ronald Reagan Parkway. The alternative ends with a connection to the future Poinciana Connector. North of Ronald Reagan Parkway, CPP East is located along the east side of US 17/92. Approximately 2,000 feet north of Ronald Reagan Parkway, CPP East curves to the north, crossing over US 17/92 and then the northbound and southbound lanes diverge. Northbound CPP East crosses over the future Poinciana Connector to tie into the outside lanes in the vicinity of the CR 532 overpass and CPP East southbound is created with a ramp that forms just south of CR 532 and crosses over US 17/92.

Additional right-of-way will be required to construct the proposed highway. Alternative 2: New Alignment impacts 221 parcels for a total of 253.8 acres for the roadway. Thirty-eight residential

relocations, five business relocations, and two utility parcel relocations are anticipated as a result of this alternative.

1.5 Description of the Preferred Alternative

The Preferred Alternative will be presented at the Public Hearing in December 2025 and is further described in *Section 7.0 Preferred Alternative*. Appendix B shows the roll plots of the Preferred Alternative.

The proposed typical section for the Preferred Alternative from north of Power Line Road to north of Lem Carnes Road, shown in Figure 1.5.1, features CPP East flanked by US 17/92. CPP East consists of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median (including the inside shoulders). In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder with barrier wall. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder with barrier wall. A 30- to 50-foot-wide buffer, measured from edge-of-travel to edge-of-travel separates CPP East from US 17/92. US 17/92 features two 11-foot-wide travel lanes in each direction with curb and gutter. A 6.5-foot buffer separates the outside US 17/92 travel lane from the 12-foot-wide shared use path. The proposed right-of-way width for this alternative varies from 260 feet to 300 feet. The limited access right-of-way for CPP East varies from 128 feet to 183 feet. The proposed design and posted speed limit for CPP East is 70 mph. The proposed design and posted speed limit for US 17/92 is 45 mph.

The proposed typical section for the Preferred Alternative north of Lem Carnes Road, shown on Figure 1.5.2, features CPP East as a four-lane limited access facility comprised of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median, including the inside shoulders. In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder. The proposed limited access right-of-way is 286 feet, including 94 feet of border width on either side. A 12-foot-wide shared use path is being evaluated between

the US 17/92 and Power Line Road intersection and Ernie Caldwell Boulevard. The proposed design and posted speed limit for CPP East is 70 mph.

Figure 1.5.1: Typical Section From North of Power Line Road to North of Lem Carnes Road

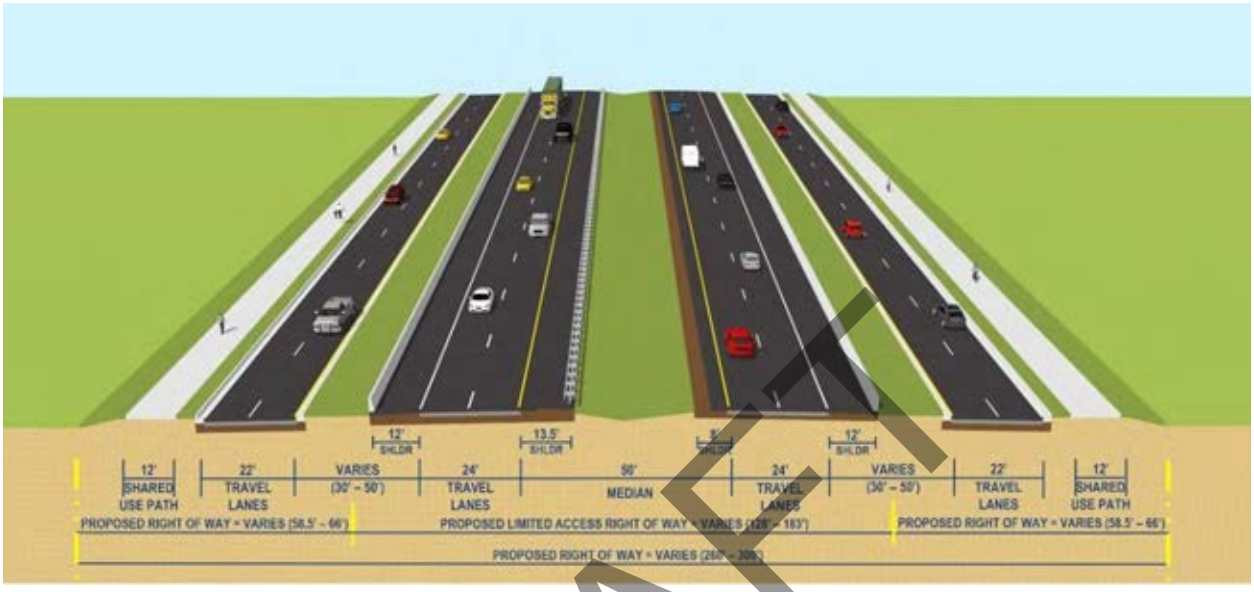
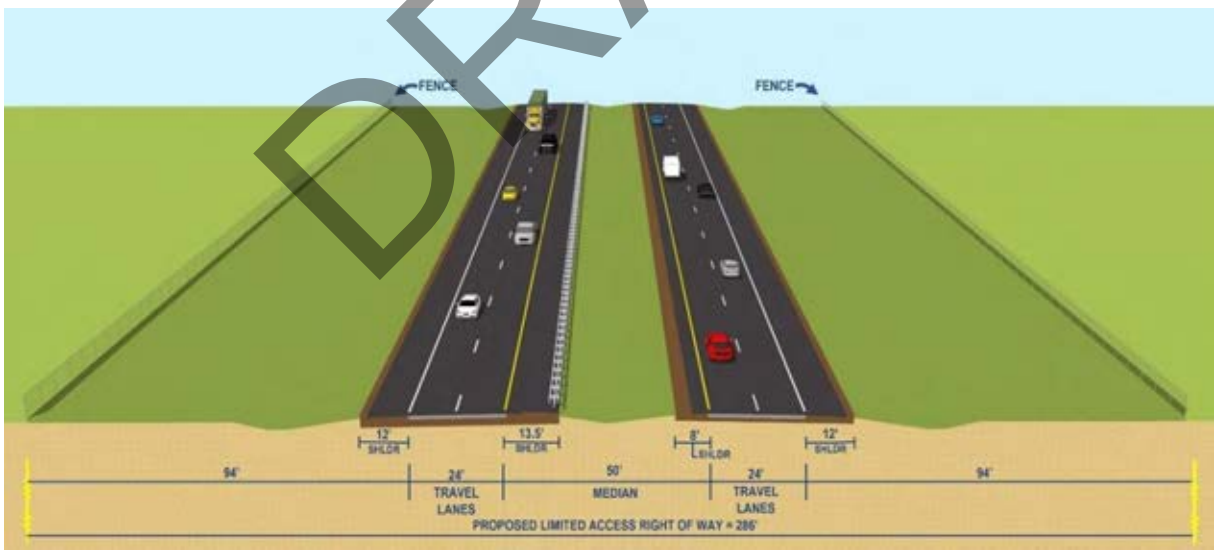


Figure 1.5.2: Typical Section North of Lem Carnes Road



Three interchanges are proposed along CPP East: the south ingress / egress with US 17/92 north of Power Line Road, an intermediate interchange to connect CPP East with US 17/92 north of Ernie Caldwell Boulevard, and the north ingress / egress at Poinciana Connector. Five signalized

intersections along US 17/92 are proposed at Power Line Road, Lem Carnes Road, Ernie Caldwell Boulevard, the CPP East ramp intersection, and Providence Boulevard.

The Preferred Alternative overpasses Lem Carnes Road, the CSX railroad spur, Ronald Reagan Parkway, US 17/92, Parker Road, Old Kissimmee Road, the CSX railroad, the future Poinciana Parkway, and wetlands. The Preferred Alternative also passes under Ernie Caldwell Boulevard, which will require the extension of the existing Ernie Caldwell Boulevard bridge over the CSX railroad.

The Preferred Alternative roadway improvements impact 216 parcels for a total of 311 acres and requires 38 residential, five business, and two utility parcel relocations. Preferred ponds have not been determined and are therefore not included in this estimate.

No design variations or exceptions are anticipated for the Preferred Alternative.

The total estimate cost for the Preferred Alternative is $1.4 billion.

1.6 List of Technical Documents

Table 1.6.1 lists the technical documents that were prepared as part of this PD&E Study.

Table 1.6.1: Technical Documents Prepared for this Study

Report	Date Completed
Air Quality Technical Memorandum	September 2025 (Draft)
Bridge Analysis Report	Expected October 2025
Comments and Coordination Report	Expected February 2026
Contamination Screening Evaluation Report	April 2025
Concept of Operations	Expected October 2025
Conceptual Stage Relocation Plan	Expected October 2025
Cost Risk Assessment and Value Engineering Report	August 2025 (Draft)
Cultural Resource Assessment Survey	Expected October 2025
Cultural Resource Assessment Survey Pond Addendum	Expected November 2025

Report	Date Completed
Lighting Memorandum	Expected October 2025
Location Hydraulics Report	September 2025 (Draft)
Natural Resource Evaluation	September 2025 (Draft)
Noise Study Report	Expected October 2025
Pond Siting Report	September 2025 (Draft)
Project Traffic Analysis Report	Expected October 2025
Project Traffic Forecast Memorandum	July 2025 (Draft)
Public Involvement Plan	September 2024
Sociocultural Effects Evaluation	September 2025 (Draft)
State Environmental Impact Report	September 2025 (Draft)
TSM&O Technical Memorandum	Expected October 2025
Toll Siting Technical Memorandum	September 2025 (Draft)
Utilities Assessment Package	September 2025 (Draft)
Water Quality Impact Evaluation	September 2025 (Draft)

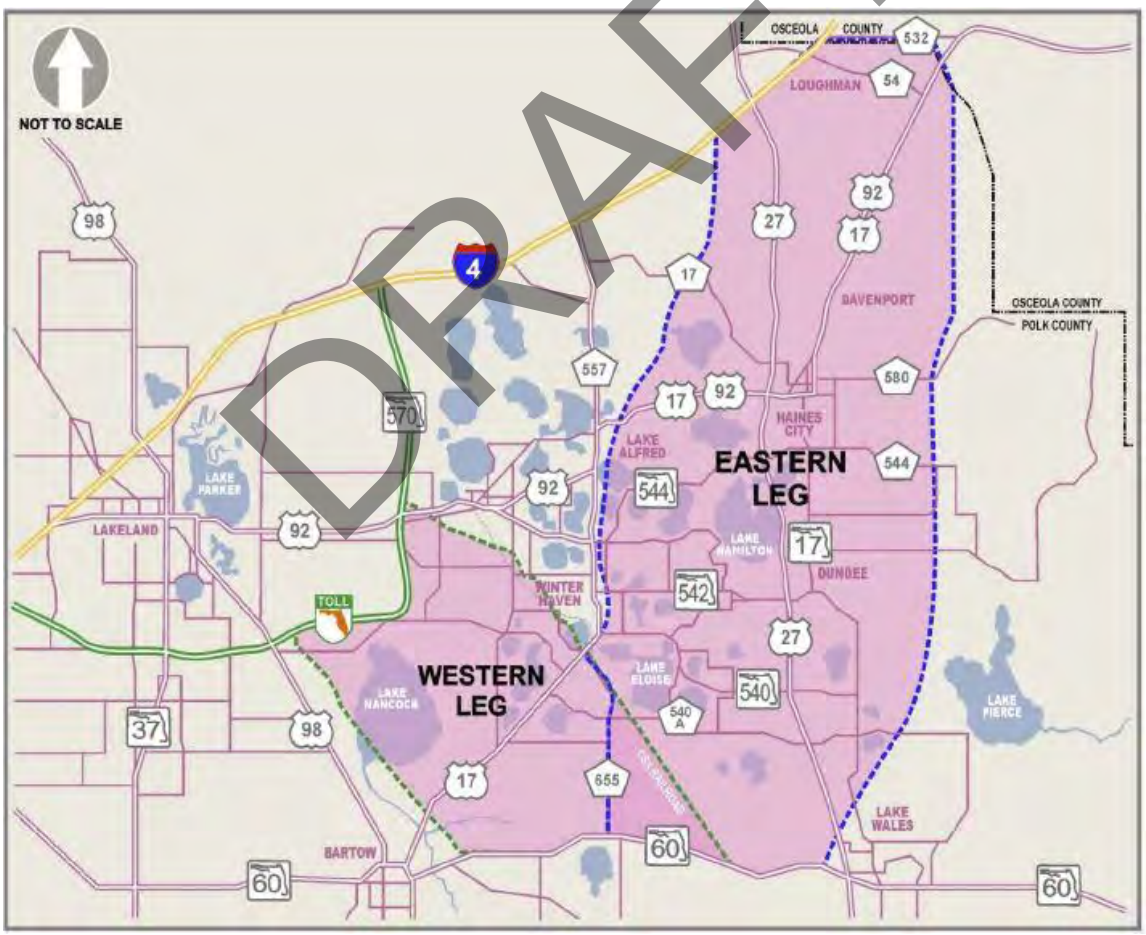
2.0 Existing Conditions

2.1 Previous Planning Studies

Central Polk Parkway from SR 60 to Polk Parkway (SR 570) and SR 60 to I-4 (FPID No. 423601-1)

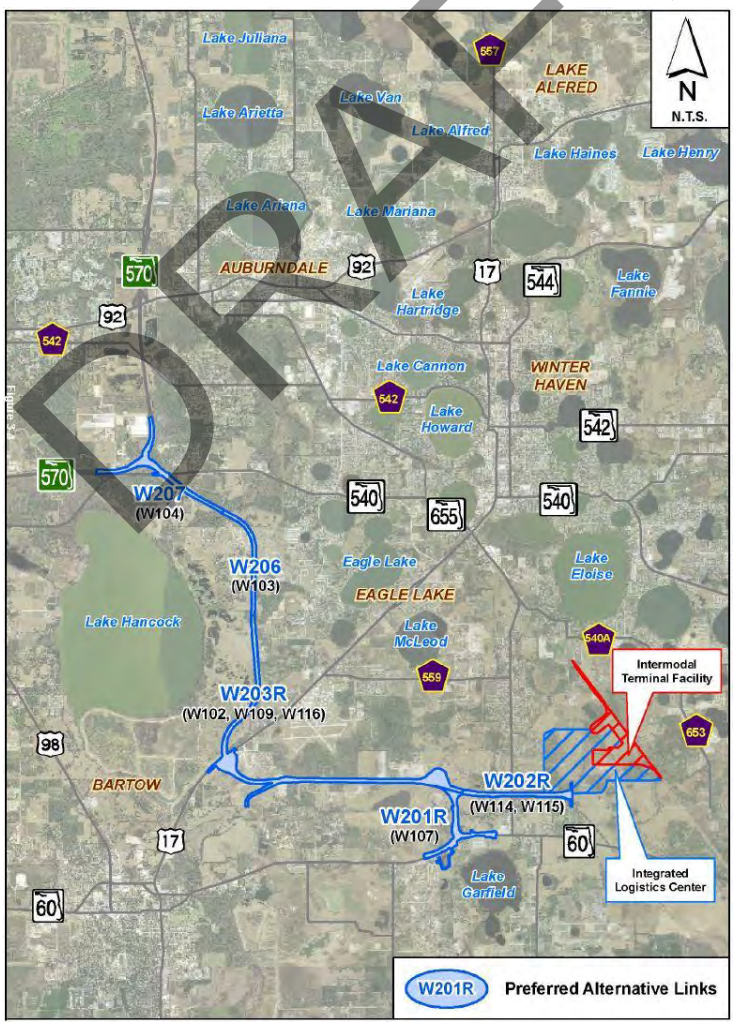
FDOT District One completed a PD&E Study for CPP from SR 60 to SR 570 and SR 60 to I-4 in 2011 with the approval of a State Environmental Impact Report (SEIR). The PD&E Study proposed a new limited access facility for a western leg (from SR 60 to SR 570) and an eastern leg (from SR 60 to I-4 near the Polk/Osceola County line) in order to provide an additional north-south facility that will enhance mobility and increase accessibility on the regional roadway network. Figure 2.1.1 shows the study areas for the western and eastern legs of the PD&E Study.

Figure 2.1.1: CPP PD&E Study Area from SR 60 to SR 570 and SR 60 to I-4



The western leg Preferred Alternative was a 13.4-mile new alignment roadway that began at a fully directional interchange with SR 60 near Wingate Road. The Preferred Alternative included a 2.1-mile spur to Pollard Road and the Integrated Logistics Center via a trumpet and diamond interchange and continued west through Clear Springs with a partial interchange at the Bartow Northern Connector. The Preferred Alternative then intersected US 17 with a partial cloverleaf interchange and proceeded north past Gordonville and Bartow, avoiding key developments and conservation areas, before connecting to a modified interchange at SR 540 and SR 570, improving access and traffic flow with new dual-lane ramps and a half diamond interchange. Figure 2.1.2 shows the Preferred Alternative for the western leg.

Figure 2.1.2: CPP PD&E Study from SR 60 to SR 570 and SR 60 to I-4 – Western Leg Preferred Alternative



The eastern leg Preferred Alternative was a new 27-mile alignment that began at a three-level interchange with SR 60 near Scenic Park Road and ended at I-4 via a system interchange with collector/distributor (C/D) roads. It included several interchanges, such as a trumpet interchange to a 3.6-mile spur to Pollard Road, Single Point Urban Interchanges (SPUIs) at US 27, CR 544, and CR 580, and a partial cloverleaf at US 17/92, all designed to minimize relocations and environmental impacts. The route had been refined throughout to reduce right-of-way needs and improve connectivity while avoiding sensitive areas like Snell and Horseshoe Creeks. Figure 2.1.3 shows the Preferred Alternative for the eastern leg.

Figure 2.1.3: CPP PD&E Study from SR 60 to SR 570 and SR 60 to I-4 – Eastern Leg Preferred Alternative

The western and eastern leg Preferred Alternatives were then broken into the following eight segments:

1. Polk Parkway (SR 570) to US 17
2. US 17 to East Pollard Road
3. East Pollard Road to SR 60
4. East CPP to East of US 27
5. East of US 27 to CR 544
6. CR 544 to CR 580
7. CR 580 to US 17/92
8. US 17/92 to I-4

The eight design segments were transferred from FDOT District One to the Enterprise in 2017 through a Polk TPO Resolution. Design began for Segment 1, with limits from SR 570 to US 17, in February 2018. Currently, this segment is under construction and is anticipated to open to traffic in 2028. The Enterprise also conducted a PD&E Study to extend the parkway, with limits from US 17/SR 35 to SR 60, in September 2018. The PD&E Study was completed in August 2021 and construction is expected to continue through 2029.

Poinciana Parkway Extension Connector (FPID 446581-1)

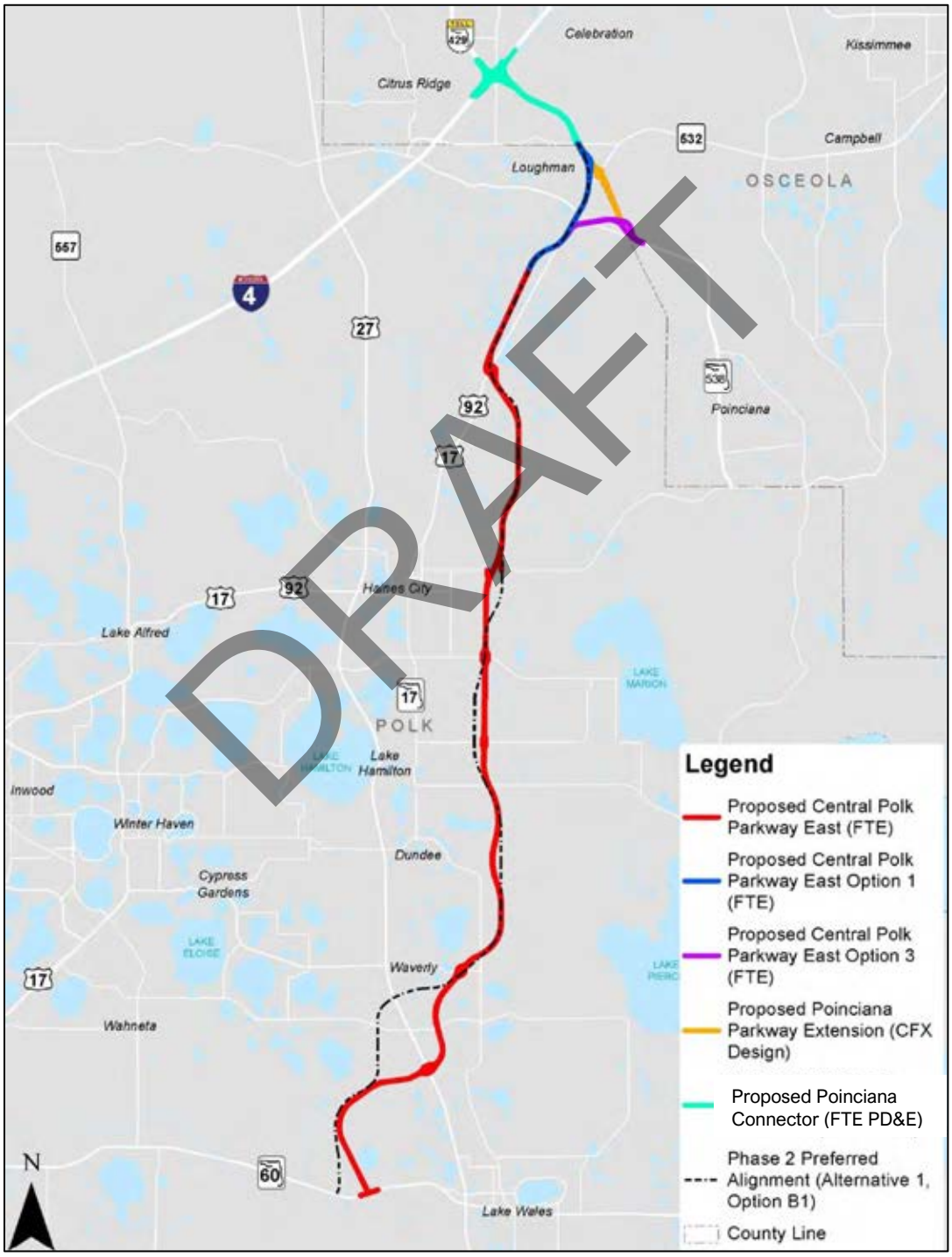
The Enterprise conducted a PD&E Study, to extend Poinciana Parkway from CR 532 to I-4, allowing the CPP East alignment to connect with the Poinciana Parkway and provide access to I-4 and SR 429 (the Western Beltway). The PD&E Study was completed and approved in November 2023. The Poinciana Parkway Extension Connector is shown in Figure 2.1.4.

Central Polk Parkway East Concept Evaluation (FPID No. 442805-1)

In April 2018, the Enterprise initiated a feasibility study to evaluate the addition of limited access general toll lanes on US 27. The study concluded that the toll lanes were not cost feasible; therefore, Segments 3 through 7, referred to as CPP East, were advanced for further evaluation, and are shown in Figure 2.1.4. In response to rapid development along the proposed alignment, the Enterprise conducted a Concept Evaluation in 2022 for approximately 30 miles of CPP East,

from SR 60 to Poinciana Parkway, to refine the preferred alignment. Segment 8 was removed from consideration as the proposed connection to I-4 was along a congested section of I-4 and would not be approved by the Federal Highway Administration (FHWA).

Figure 2.1.4: CPP East Concept Evaluation Alignment



Based on updated permit data and field reviews, the Enterprise shifted portions of the alignment, particularly south of Waverly Road, to minimize impacts to new developments, wetlands, and Peace Creek. The portion of the corridor from SR 60 to US 17/92 overlapped the 2011 SEIR corridor and was determined eligible to advance as a SEIR re-evaluation. The segment from US 17/92 to Poinciana Parkway did not overlap the previous alignment and would require a new PD&E Study**.** Two interchange options at Poinciana Parkway were evaluated and determined feasible for further study. The concept evaluation recommended phasing construction from north to south and identified the need for continued refinement of design features, such as bridges, drainage, right-of-way, and tolling, through coordination with local agencies and stakeholders.

Following completion of Part 1 of the CPP East Concept Evaluation, the Enterprise coordinated with local agencies to gather input on proposed improvements, which led to alignment adjustments documented in Part 2. Part 2, completed in 2022, also included the development and evaluation of alternative interchange concepts for US 27 and CR 580 (East Johnson Avenue / Marion Creek Road), focusing on the segment from SR 60 to US 17/92. Interchange concepts explored included a Diverging Diamond Interchange and Partial Cloverleaf for US 27, and multiple variations of Partial Cloverleaf designs for CR 580. Additionally, local agency coordination identified seven potential interchange locations from SR 60 to US 17/92.

As part of the FPID No. 442805-1 project, the Enterprise developed preliminary concept plans for a potential CPP East alignment and initiated coordination with Polk County, as well as local cities and towns. Those efforts are documented in the CPP East Concept Evaluation Technical Memorandum Parts 1 and 2, dated July 2022 and June 2023, respectively. Through local agency coordination, it was determined there are challenges with finding right-of-way for the potential alignment that minimizes impacts to established and planned communities in the area. Impacts created by the proposed corridor alignment could not be minimized through portions of Lake Wales, the Town of Dundee, and Haines City. In response, the Enterprise explored shifting the alignment further east, from Swan Road to Adair Road, to reduce community impacts. This shift required additional evaluations: an Alternative Corridor Evaluation (ACE), tentatively scheduled for

completion by the end of 2025, to identify corridor alternatives for a new tolled, limited-access highway for CPP East from SR 60 to US 17/92; and a new PD&E Study to determine a preferred alignment extending CPP East from US 17/92 to the future extension of Poinciana Parkway (SR 538). The new PD&E Study represents the current study documented in this report.

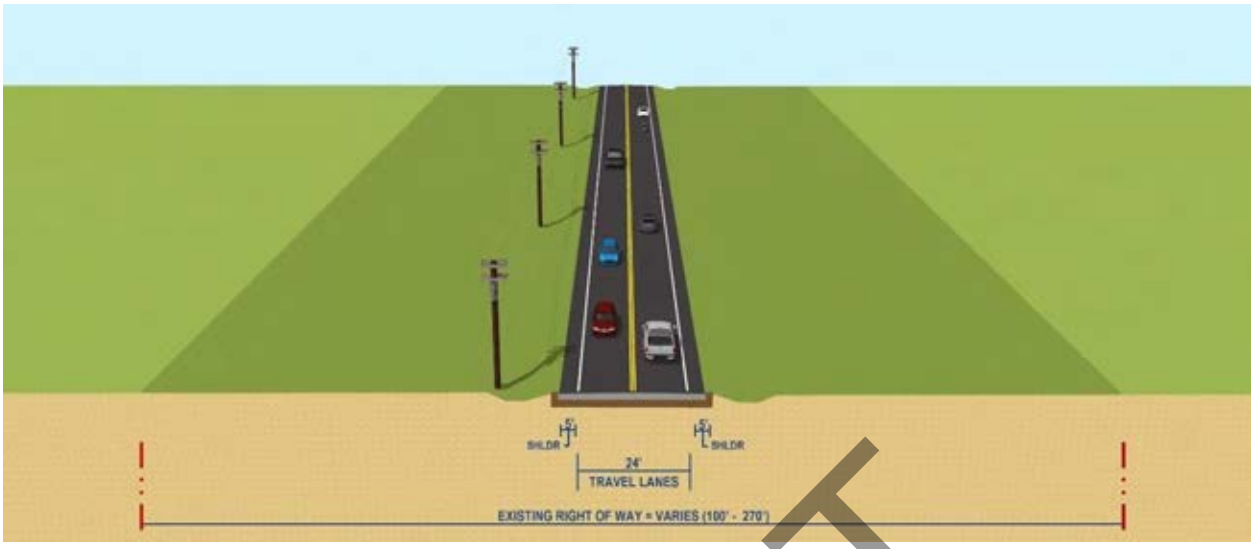
2.2 Existing Roadway Conditions

CPP East is a proposed tolled, limited access highway, as such, there are no existing conditions related to CPP East. This section will document the existing conditions of US 17/92 and the general study area features.

2.2.1 Roadway Typical Sections

The typical section of US 17/92 from James Street to CR 532 (Osceola Polk Line Road), consists of a two-lane undivided arterial with a 12-foot-wide travel lane and five-foot-wide paved outside shoulder in each direction. Discontinuous five- to six-foot-wide sidewalk is located along the east and west sides of US 17/92. Along the west side of the corridor, sidewalks are present from James Street to West Redding Street and from Ernie Caldwell Boulevard to approximately 355 feet north of the intersection. Sidewalks are present on the east side of US 17/92, from Deer Run Drive for approximately 0.2 miles north and for approximately 0.2 miles south of Ronald Reagan Parkway. Six-foot-wide sidewalks are present on both sides of US 17/92 for approximately 0.3 miles north of Ronald Reagan Parkway. Six-foot-wide sidewalks are also present on both sides of Ernie Caldwell Boulevard and Ronald Reagan Parkway. Designated five-foot-wide bicycle lanes are located on both sides of US 17/92 nearing the Ronald Reagan Parkway intersection. US 17/92 is located within 100 to 270 feet of right-of-way. The posted speed limit for this portion of US 17/92 varies between 40 to 55 mph as discussed in *Section 2.2.7 Existing Design and Posted Speeds*. The typical section for US 17/92 is shown in Figure 2.2.1.

Figure 2.2.1: Existing US 17/92 Typical Section



2.2.2 Roadway Functional and Context Classification

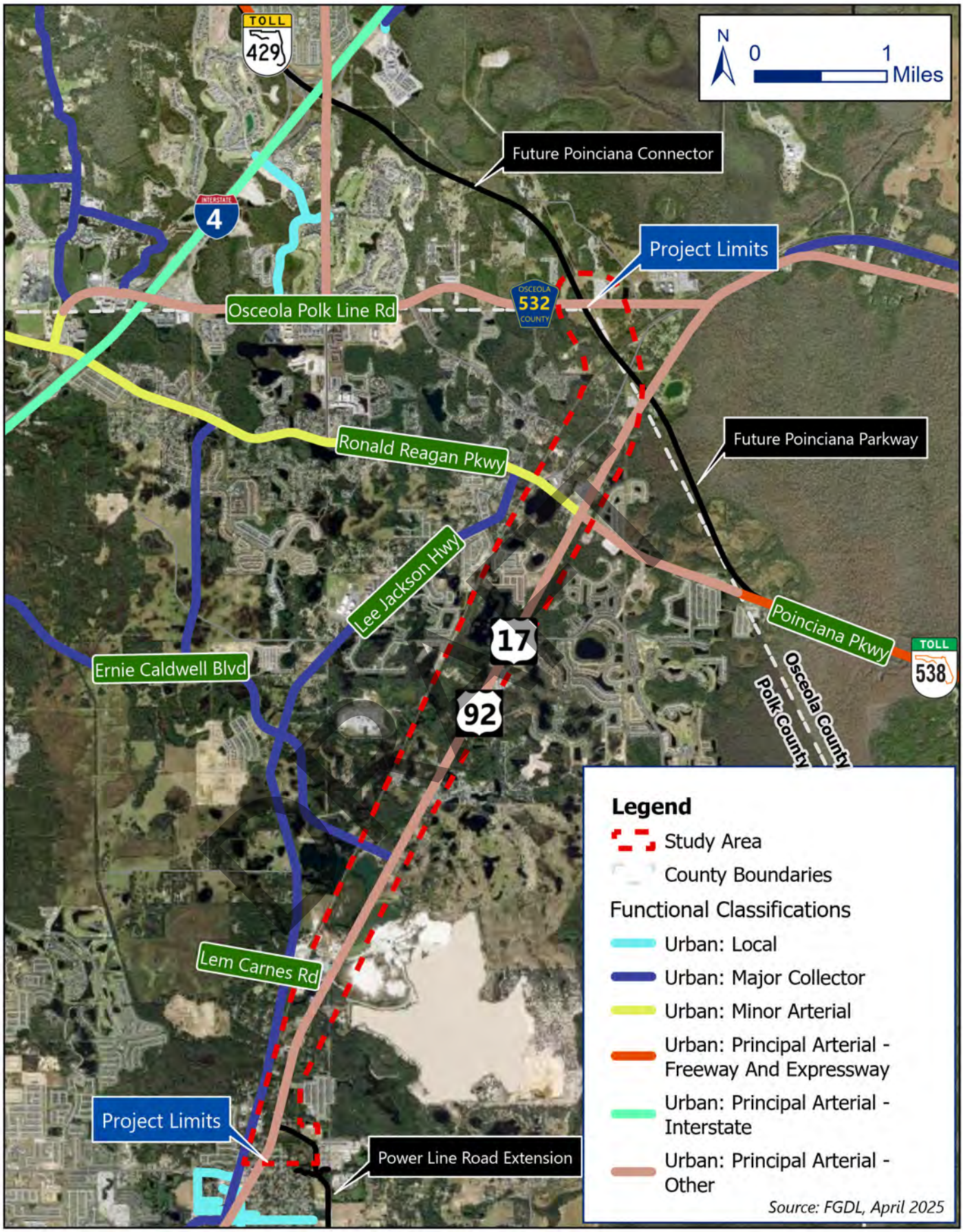
Within the project limits, US 17/92 is functionally classified as an Urban: Principal Arterial – Other. The major crossroads found along the corridor include the Power Line Road extension (under construction), Lem Carnes Road, Ernie Caldwell Boulevard, Ronald Reagan Parkway, and Osceola Polk Line Road. The functional classifications for the roadways on the FDOT road system are listed below and shown in Figure 2.2.2.

- Ernie Caldwell Boulevard – Urban: Major Collector
- Ronald Reagan Parkway – Urban: Minor Collector
- Osceola Polk Line Road – Urban: Principal Arterial – Other
- Future Poinciana Connector[1] – Urban: Principal Arterial – Freeways & Expressways
- Future Poinciana Parkway[1] – Urban: Principal Arterial – Freeways & Expressways

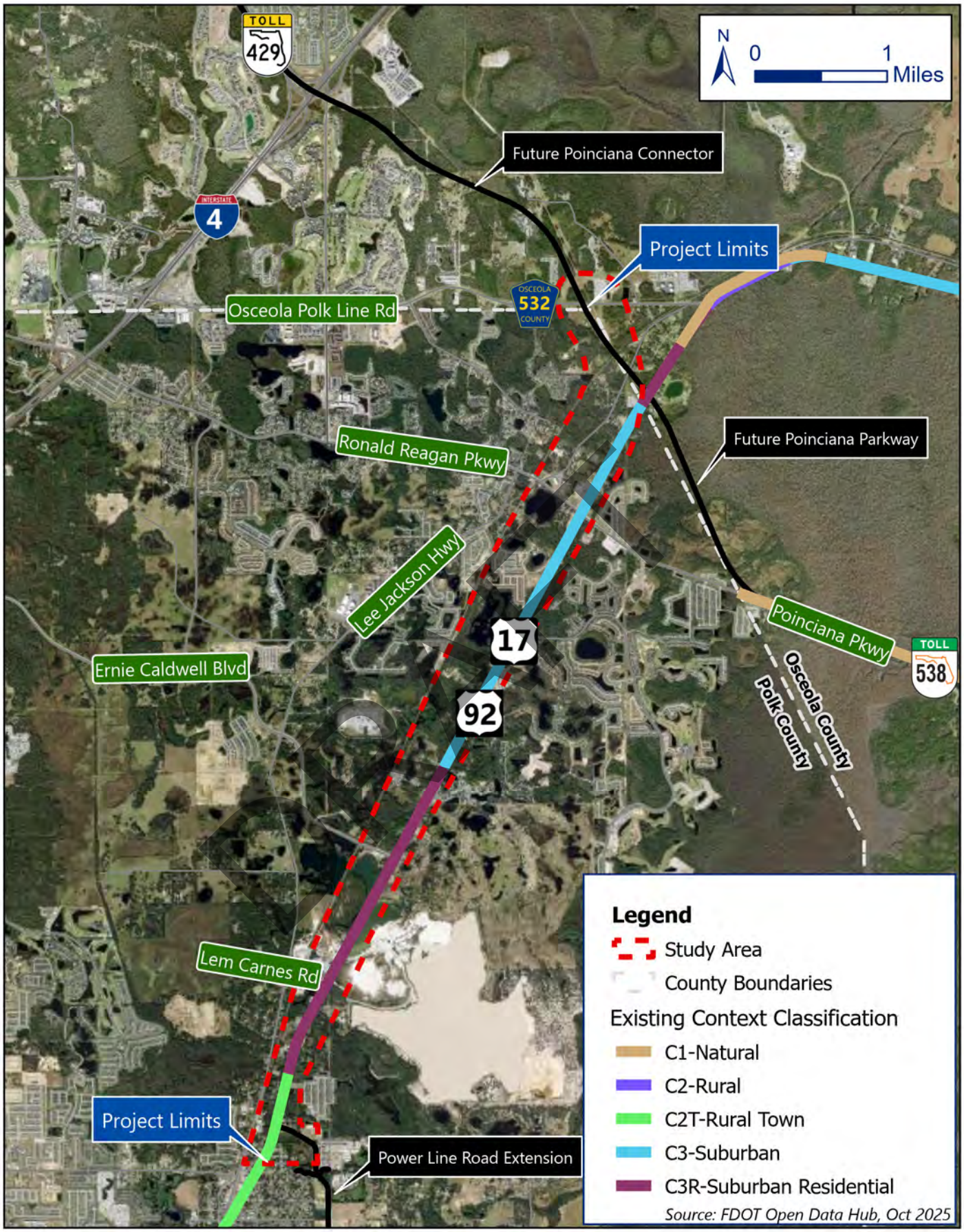
The context classification for US 17/92 is described below and shown in Figure 2.2.3.

- C2T – From James Street to Bargain Barn Road
- C2 – From Bargain Barn Road to west of Church Road
- C3R – From west of Church Road to Osceola Polk Line Road

[1] This figure is currently in Final Design, and therefore, is not included in Figure 2.2.2.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.2: Existing Functional Classifications**	**Page Number: 2-9**



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.3: Existing Context Classifications**	**Page Number: 2-10**

The C2T - Rural Town classification for James Street to Bargain Barn Road is due to the small concentrations of developed areas immediately surrounded by rural and natural areas in the City of Davenport. The majority of the project segment is classified as C2 – Rural due to the sparsely settled lands which include agricultural and industrial lands and wetlands. The C3R – Suburban Residential from west of Church Road to Osceola Polk Line Road is assigned due to mostly residential properties surrounding the roadway within large blocks and a disconnected roadway network.

US 17/92 is not a SIS corridor; however, it serves as a hurricane evacuation route. Osceola Polk Line Road is designated as a SIS connector for the Poinciana SunRail Station. The future Poinciana Connector will provide a limited-access connection between Osceola Polk Line Road and SR 429 via I-4, which is a designed SIS corridor.

2.2.3 Access Management Classification

The access management classification of US 17/92 from James Street to Fuller Street is Class 6: Non-Restrictive, meaning there are no medians that physically prevent vehicles from crossing. Connection spacings may be placed every 245 feet, and signals may be placed every 1,320 feet for speed limits less than 45 mph. The access management classification from Fuller Street to Osceola Polk Line Road is Class 4: Non-Restrictive. Connection spacing may be placed every 440 feet when the speed limit is 45 mph and every 660 feet when the speed limit is greater than 45 mph. Signals may be placed every 2,640 feet. The existing signal spacing along US 17/92 is summarized in Table 2.2.1.

Table 2.2.1: Existing Signal Spacing

Side Road/Description	Existing Signal Spacing (feet)
Power Line Road*	
	11,590
Ernie Caldwell Boulevard*	
	10,525
Providence Boulevard	
	5,150
Ronald Reagan Parkway	
	9,740
Osceola Polk Line Road	
*Note: Future Signal	

2.2.4 Right-of-Way

The existing right-of-way was surveyed and its widths throughout the project limits varied between 100 feet and 115 feet. Within the intersection of Ernie Caldwell Boulevard, the right-of-way widens to 120 feet and then tapers back down to the 100 feet to 115 feet range before widening again at the Ronald Reagan Parkway intersection with 140 feet of right-of-way width. The right-of-way transitions back to a range of 100 feet to 115 feet until reaching a maximum width of 270 feet at the Osceola Polk Line Road intersection.

A 100-foot utility easement belonging to Duke Energy exists adjacent to US 17/92, along the substation located at the southwest corner of Labor Camp Road and US 17/92. A conservation easement managed by the South Florida Water Management District (SFWMD), is located east of US 17/92 at the Osceola/Polk County line. This parcel is part of the Upper Reedy Creek Management Area and is located at the eastern edge of the study area.

2.2.5 Adjacent Land Use

The study area is in portions of the City of Davenport, Loughman (a census-designated place), and unincorporated areas of Polk County, with scattered homes, neighborhoods, and new developments throughout the surrounding area. A one-mile buffer was set from the project corridor which was used to determine the percentages of land use types. According to the 2022 parcel data, residential is the largest land use type within the study area (30%). Agricultural

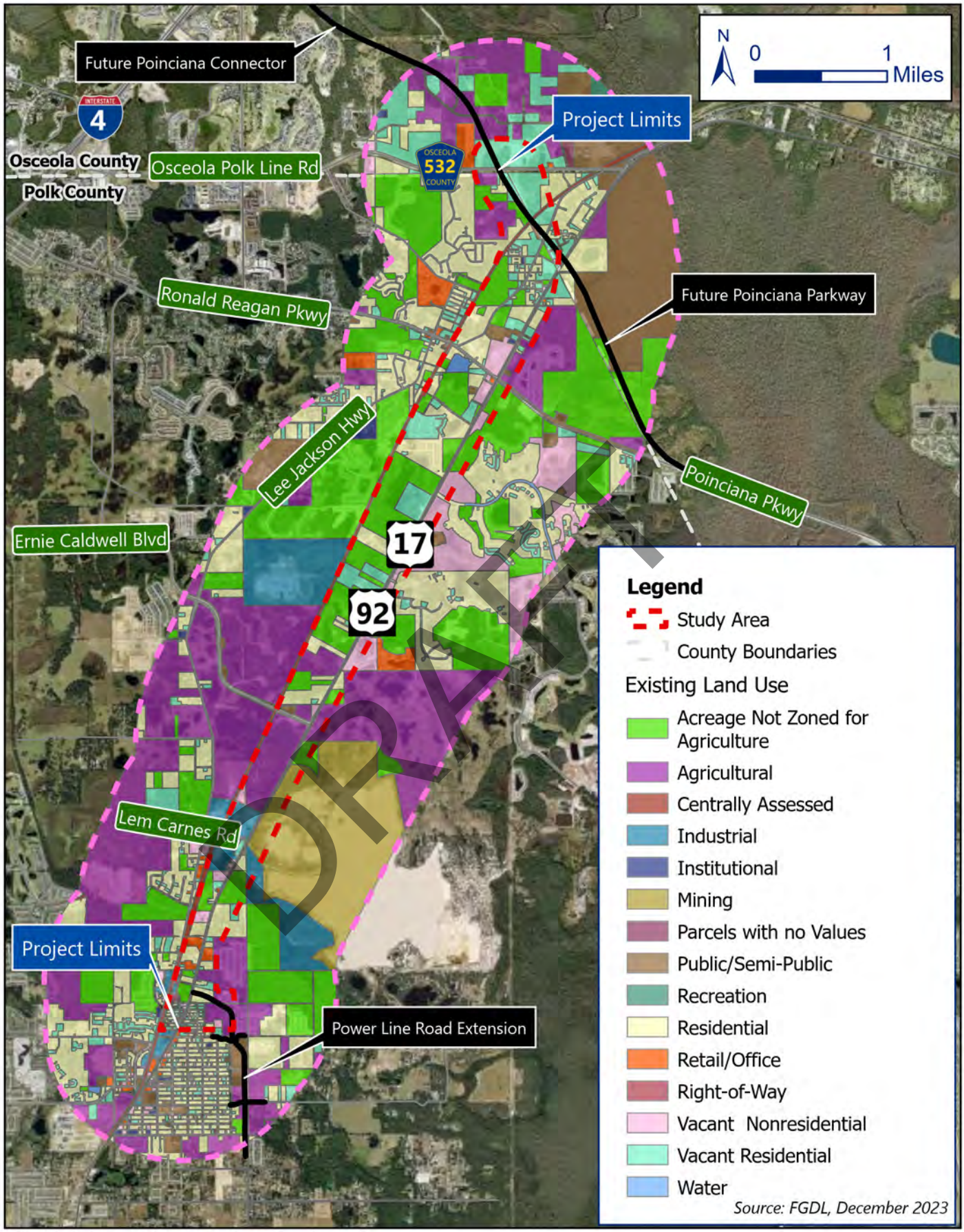
(20.5%), acreage not zoned for agriculture (15.2%), and public/semi-public (8.6%) make up the next largest land use types. Figure 2.2.4 shows the existing land use map for the project study area.

2.2.6 Pavement Type and Condition

A pavement condition survey was not completed for this PD&E Study; however, the FDOT Office of Transportation Data and Analytics (TDA) Roadway Characteristics Inventory (RCI) shapefiles for Pavement Conditions were reviewed. The Pavement Conditions file was last updated June 2024. The US 17/92 corridor has varying pavement condition categories ranging from 3.5 to 4, indicating that the pavement is in 'Good' condition. Ernie Caldwell Boulevard and Ronald Reagan Parkway have a pavement condition value of 3.5, while the Osceola Polk Line Road has a value of 5. Table 2.2.2 shows the pavement condition scale.

Table 2.2.2: Pavement Condition Scale

Value	Pavement Condition
<1.0	Very Poor
1.0 to 2.0	Poor (Large potholes, deep cracks exist)
2.0 to 3.0	Fair (Rutting, cracking, and extensive patching)
3.0 to 4.0	Good (First class ride, slight deterioration)
4.0 to 5.0	Very Good (New or nearly new)



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.4: Existing Land Use**	**Page Number: 2-14**

2.2.7 Existing Design and Posted Speeds

The posted speed limit for US 17/92 varies along the corridor, and is described below:

- James Street to Hibiscus Road – 40 mph;
- Hibiscus Road to east of Bradley Drive – 45 mph;
- East of Bradley Drive to east of Caffrey Road – 50 mph;
- East of Caffrey Road to east of Hart Road – 55 mph;
- East of Hart Road to Ronald Reagan Parkway – 45 mph; and
- Ronald Reagan Parkway to Osceola Polk Line Road – 55 mph.

Figure 2.2.5 shows the speed limits throughout the corridor.

A review of the US 17/92 As-Built Plans for FM No. 422391-1-52-01, show the design speed for US 17/92 as 60 mph throughout the study area.

2.2.8 Horizontal Alignment

US 17/92 is generally a north to south corridor within the study area. Below is a brief description of the existing roadway geometry based on the US 17/92 As-Built Plans.

- Starting north of James Street (STA 214+76.97), a 1,073-foot curve deflects the corridor to the north with a 3,819-foot radius and a 0.036 superelevation rate;
- A 540-foot tangent (STA 220+17.11) directs the corridor in the N29°49'28"E direction;
- A 1,467-foot curve (STA 257+39.96) deflects the corridor to the northeast with a 5,729-foot radius and a 0.029 superelevation rate;
- A 737-foot tangent (STA 264+77.79) directs the corridor in the N13°43'37"E direction;
- A 2,233-foot curve (STA 533+83.01) deflects the corridor to the northeast with a 28,647-foot radius; and
- A 1,117-foot tangent (STA 545+00.24) directs the corridor in the N28°24'11"E direction through the end of the study area.

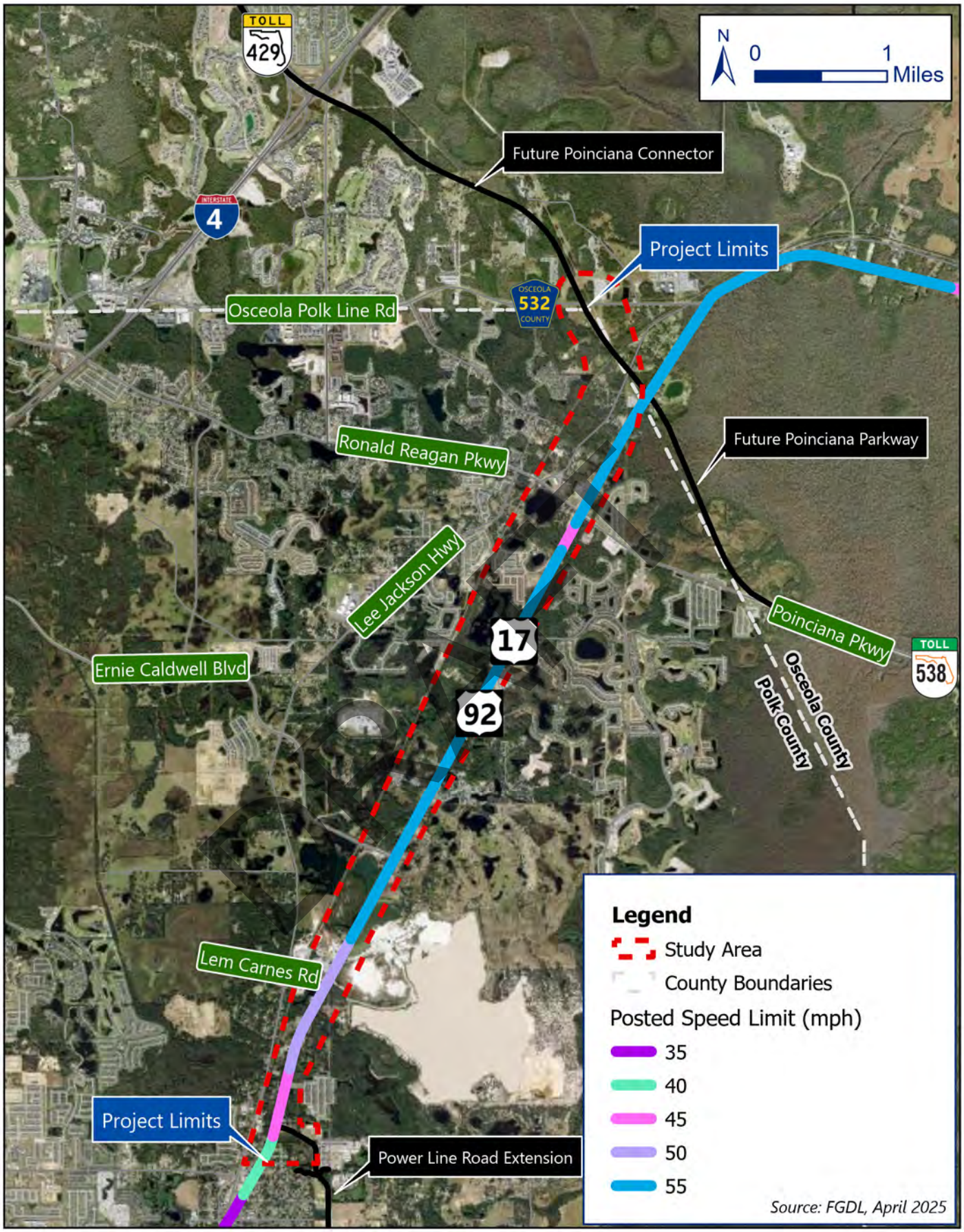


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Figure 2.2.5: Existing Posted Speed Limits

2.2.9 Vertical Alignment

The vertical alignment of US 17/92 was obtained using Google Earth. The corridor is relatively flat, with elevations ranging from approximately 110 feet to 120 feet between James Street and Caffney Road (1.7 miles). Continuing 0.4 miles north of Caffney Road, the elevation increases to approximately 137 feet. The elevation then decreases to around 117 feet at Ernie Caldwell Boulevard (0.6 miles), drops again to 106 feet at Providence Boulevard (2.0 miles), and continues to decline to about 77 feet at Osceola Polk Line Road (2.8 miles).

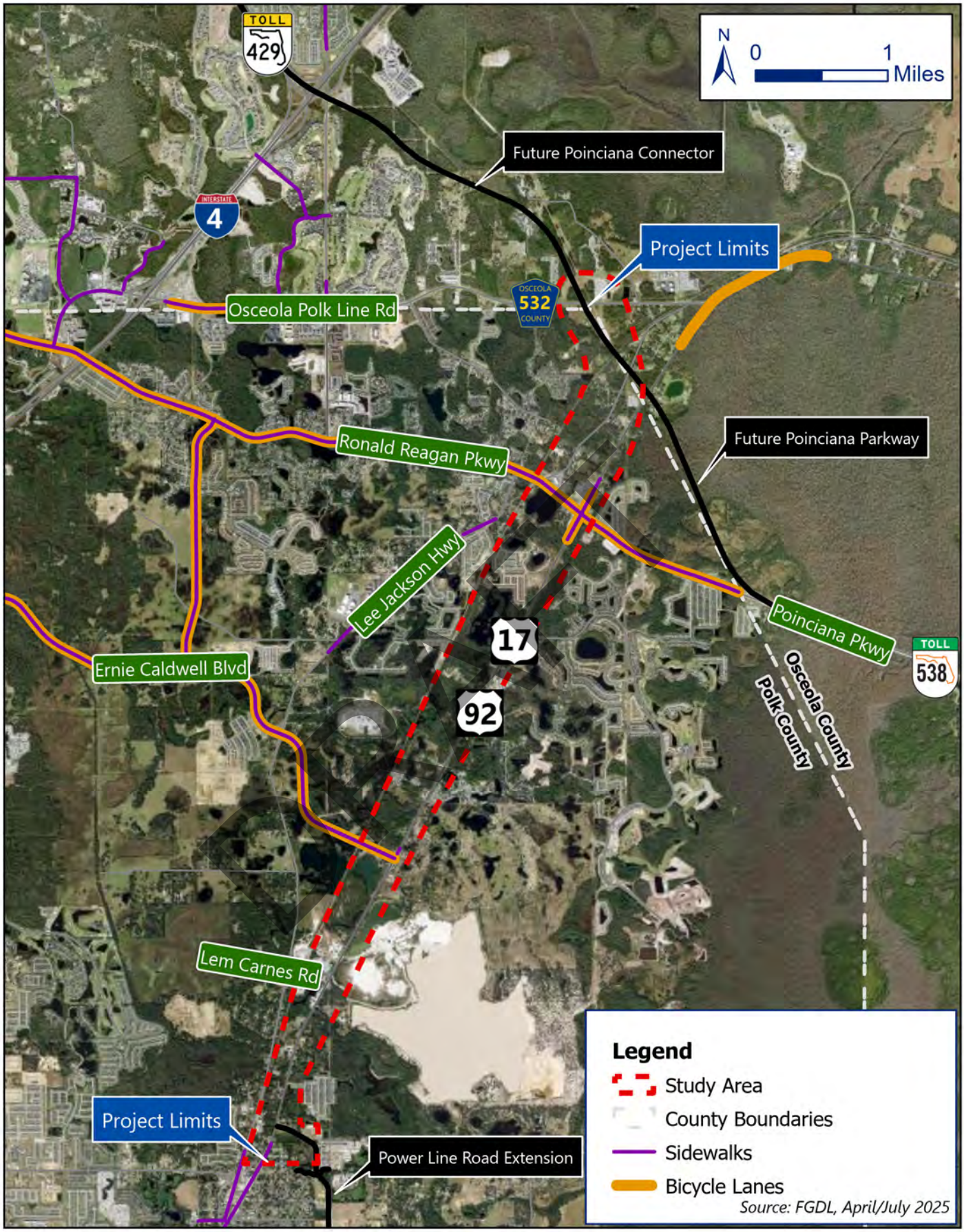
2.2.10 Multimodal Facilities

Pedestrian and Bicycle Facilities

The majority of the study area does not have pedestrian or bicycle accommodations. Discontinuous five- to six-foot-wide sidewalk is located along the east and west sides of US 17/92. Along the west side of the corridor, sidewalks are present from James Street to West Redding Street and from Ernie Caldwell Boulevard to approximately 355 feet north of the intersection. Sidewalks are present on the east side of US 17/92, from Deer Run Drive for approximately 0.2 miles north and for approximately 0.2 miles south of Ronald Reagan Parkway. Six-foot-wide sidewalks are present on both sides of US 17/92 for approximately 0.3 miles north of Ronald Reagan Parkway. Six-foot-wide sidewalks are also present on both sides of Ernie Caldwell Boulevard and Ronald Reagan Parkway. Designated five-foot-wide bicycle lanes are located on both sides of US 17/92 nearing the Ronald Reagan Parkway intersection. Figure 2.2.6 shows the sidewalks and bicycle lanes within the project limits.

Transit Facilities

The Citrus Connection operates the transit service for Polk County. There are two bus routes, route 19X and 20X, that run along US 17/92. Route 20X runs between Haines City and the City of Davenport and runs along US 17/92 from James Street until it turns onto Fuller Street to loop into CR 547. Route 19X runs along US 17/92 from Ronald Reagan Parkway to Osceola Polk Line Road. Figure 2.2.7 and Figure 2.2.8 show the Citrus Connection routes near the project limits.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.6: Existing Sidewalks and Bike Lanes**	**Page Number: 2-18**

Source: Citrus Connection, August 2021

FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.7: Citrus Connection Route 19X**	**Page Number: 2-19**

FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.8: Citrus Connection Route 20X**	**Page Number: 2-20**

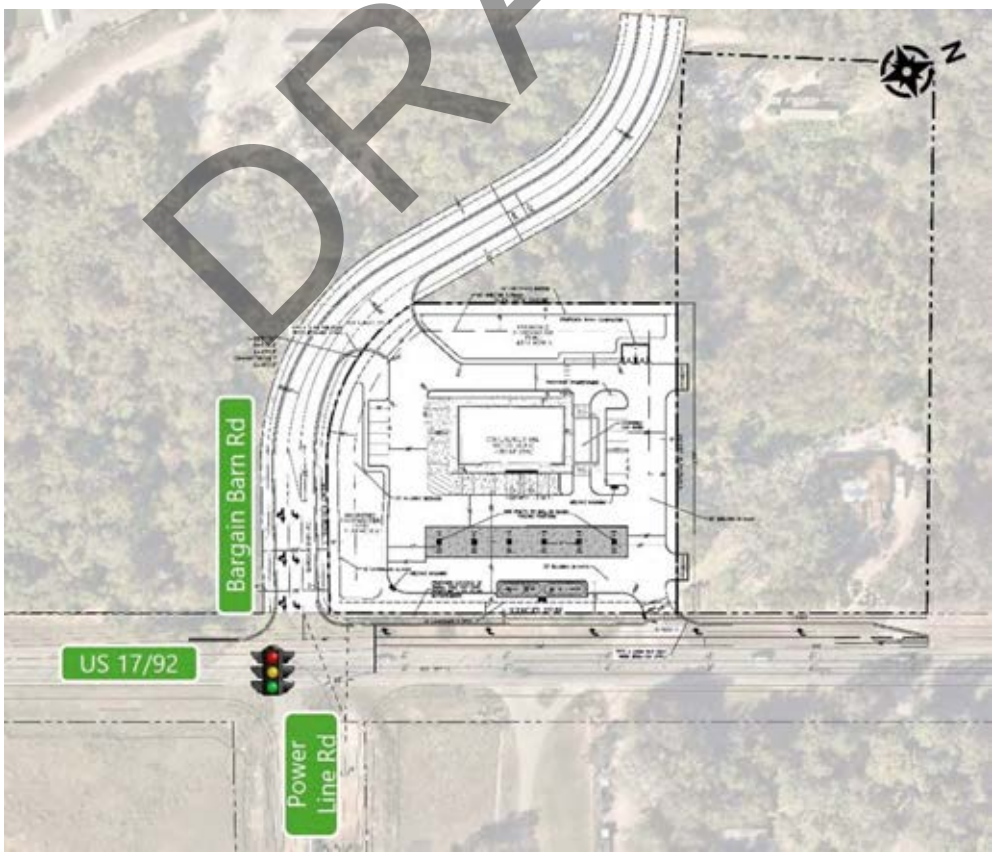
2.2.11 Intersections

There are five signalized intersections within the project limits and are described below:

US 17/92 and Power Line Road Extension / Bargain Barn Road

The Power Line Road extension is being completed by the City of Davenport and Bargain Barn Road is being realigned by a developer in cooperation with the City of Davenport. Figure 2.2.9 shows the proposed realignment for Bargain Barn Road. Once construction for the Power Line Road extension is completed and Bargain Barn Road is realigned, US 17/92 will be a four-lane undivided arterial at this four-leg intersection. US 17/92 in the northbound direction consists of two through lanes. US 17/92 in the southbound direction consists of two left turn lanes, one through lane, and one right turn lane. Bargain Barn Road consists of a shared through-right lane and a dedicated left turn lane. Power Line Road consists of one left turn lane, one through-left lane, and one right turn lane.

Figure 2.2.9: Bargain Barn Road Realignment



US 17/92 and Ernie Caldwell Boulevard

The existing Ernie Caldwell Boulevard intersection with US 17/92 is unsignalized but there are plans for a signal in the future. US 17/92 is a two-lane undivided arterial at this three-leg intersection. US 17/92 in the northbound direction consists of one left turn lane and one through lane. US 17/92 in the southbound direction consists of one right turn lane and one through lane. Ernie Caldwell consists of one left turn lane and one right turn lane. Future improvements, planned by Polk County, include signalization of the intersection and a planned extension of Ernie Caldwell Boulevard to create a four-leg intersection with US 17/92.

US 17/92 and Providence Boulevard

US 17/92 is a two-lane undivided arterial at this three-leg intersection. US 17/92 in the northbound direction consists of one through lane and one right turn lane. US 17/92 in the southbound direction consists of one through lane and one left turn lane. Providence Boulevard consists of one left turn lane and one right turn lane.

US 17/92 and Ronald Reagan Parkway

US 17/92 is a four-lane divided arterial at this four-leg intersection. Both the northbound and southbound direction of US 17/92 consist of two left turn lanes, two through lanes, and one right turn lane. Ronald Reagan Parkway eastbound consists of one left turn lane and two through lanes. Ronald Reagan Parkway westbound consists of two left turn lanes, two through lanes, and one right turn lane.

US 17/92 and Osceola Polk Line Road

US 17/92 is a two-lane undivided arterial at this three-leg intersection. US 17/92 in the northbound direction consists of one through lane and one left turn lane. US 17/92 in the southbound direction consists of one through lane and one right turn lane. Osceola Polk Line Road consists of one left turn lane and one right turn lane.

There are 21 unsignalized cross streets along US 17/92 from James Street to Osceola Polk Line Road, as listed below:

- James Street;
- Fuller Street;
- Murphy Street;
- Redding Street;
- Hibiscus Street;
- Bargain Barn Road;
- Tiny Flower Road;
- Bradley Drive;
- Hayden Loop;
- Lem Carnes Road;
- Caffney Road;
- Scholfield Lane;
- Sunny Acres Road/Garman Avenue;
- Deer Run Drive;
- Orange Cosmos Boulevard;
- Wynell Drive;
- Hart Road;
- Parker Road;
- Labor Camp Road;
- Ivy Mist Lane; and
- Sundown Drive.

2.2.12 Physical or Operational Restrictions

Right-of-way is a physical constraint for this project. As mentioned in *Section 2.2.4 Right-of-Way*, the existing right-of-way on the US 17/92 corridor varies mostly from 100 feet to 115 feet.

The Sea Board Coast Line Railroad, owned by CSX, runs parallel to the west side of US 17/92. Just north of Lem Carnes Road, a branch spur crosses US 17/92 where it enters the Cemex Davenport Sand Mine. The at-grade railroad crossing poses a physical constraint for this project.

There are three Duke Energy Florida Inc. electrical substations adjacent to the corridor:

- East of US 17/92 just south of Lem Carnes Road consisting of 0.69 acres;
- East of US 17/92 approximately 0.4 miles north of Ronald Reagan Parkway consisting of 7.49 acres; and
- West of US 17/92 just south of Labor Camp Road consisting of 8.22 acres.

The Duke Energy Intercession City Plant is also located just northwest of the Osceola Polk Line Road and US 17/92 intersection. Transmission power lines cross US 17/92 from the substation south of Lem Carnes Road and turn into Lem Carnes Road. Transmission lines also run along the west side of US 17/92 from Ronald Reagan Parkway to the Intercession City Plant. Figure 2.2.10 shows where the substations and power plant are located within the project limits. The substations and transmission lines pose a physical constraint for this project.

2.2.13 Traffic Data

Traffic data collection was conducted in two phases: the first phase, conducted in February 2023, included hose counts and turning movement data for major intersections, while the remaining turning movement data was collected in September 2024. Analysis of the existing traffic operational conditions are summarized in the Project Traffic Forecast Memorandum (PTFM), available in the project file.

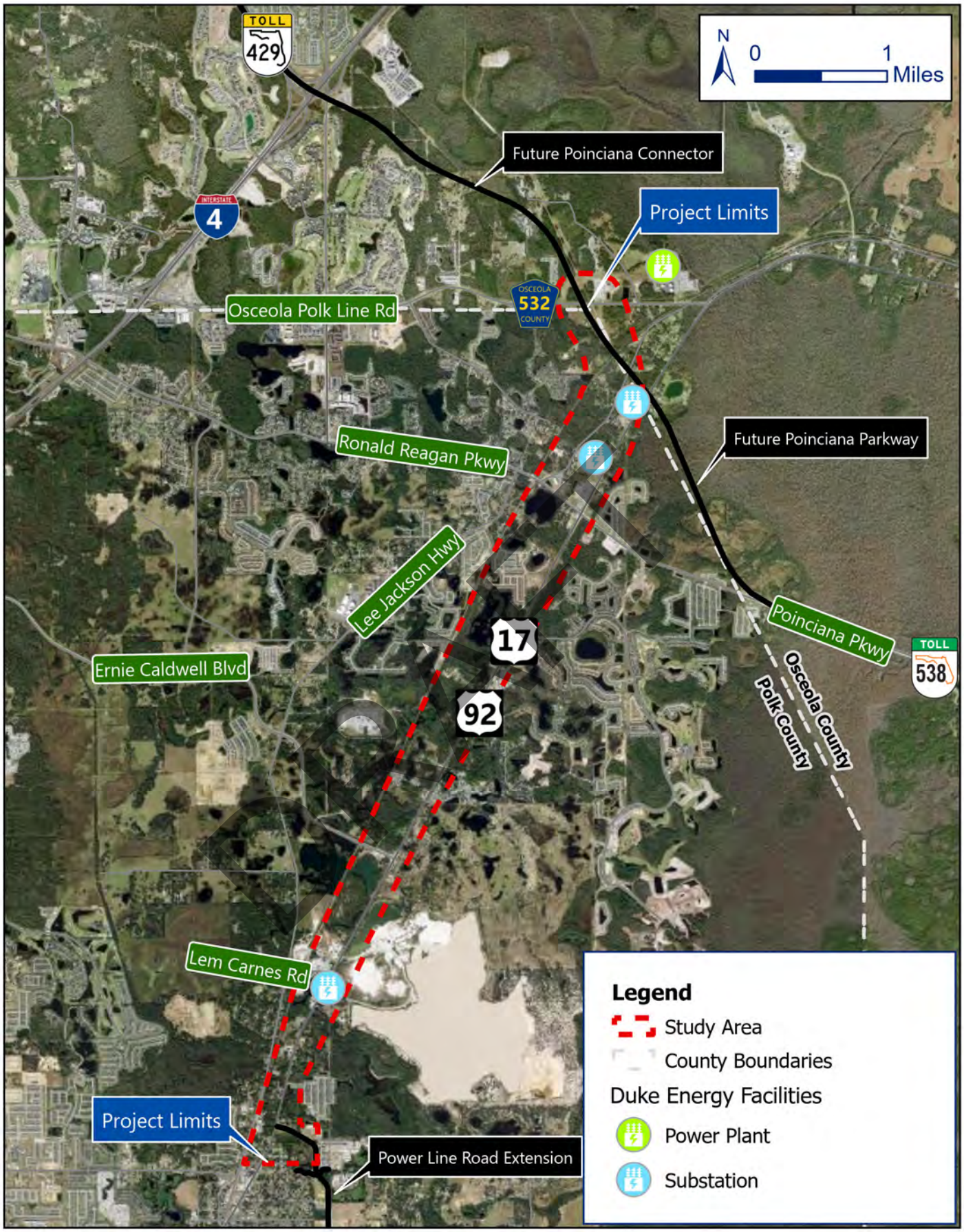


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Figure 2.2.10:
Duke Energy Substations and Power Plant

2.2.13.1 Daily Traffic

The 2024 existing annual average daily traffic (AADT) for US 17/92 were calculated based on the daily counts and the four highest consecutive 15-minute periods in the morning and evening. Seasonal and axle adjustment factors were applied to the data where necessary. Growth rates estimated from historical data were used where applicable. The data was then aggregated and balanced for continuity of flow and consistency. The existing 2024 AADTs are summarized in Table 2.2.3.

Table 2.2.3: Existing Year 2024 AADTs

Major Road	Location Description	AADT	
US 17/92	South of Bargain Barn Road	7,900	
	South of Tiny Flower Road	8,100	
	South of Lem Carnes Road	8,700	
	South of Ernie Caldwell Boulevard	8,900	
	South of Sunny Acres Road/Garman Avenue	8,400	
	South of Polk County Rescue Station	8,400	
	South of Providence Boulevard	9,200	
	South of Hart Road	9,800	
	South of Ronald Reagan Parkway	10,100	
	North of Ronald Reagan Parkway	8,000	
Cross Streets	Bargain Barn Road	**W of US 17/92**	**E of US 17/92**
		1,000	50
	Tiny Flower Road	-	1,100
	Lem Carnes Road	360	-
	Ernie Caldwell Boulevard	4,000	-
	Sunny Acres Road	50	-
	Garman Avenue	-	60
	Orange Cosmos Boulevard	-	200
	Polk County Rescue Station	10	-
	Elementary School	-	2,300
	Providence Boulevard	-	3,100
	Hart Road	500	-
	Ronald Reagan Parkway	12,500	8,500

2.2.13.2 Peak Hour Traffic

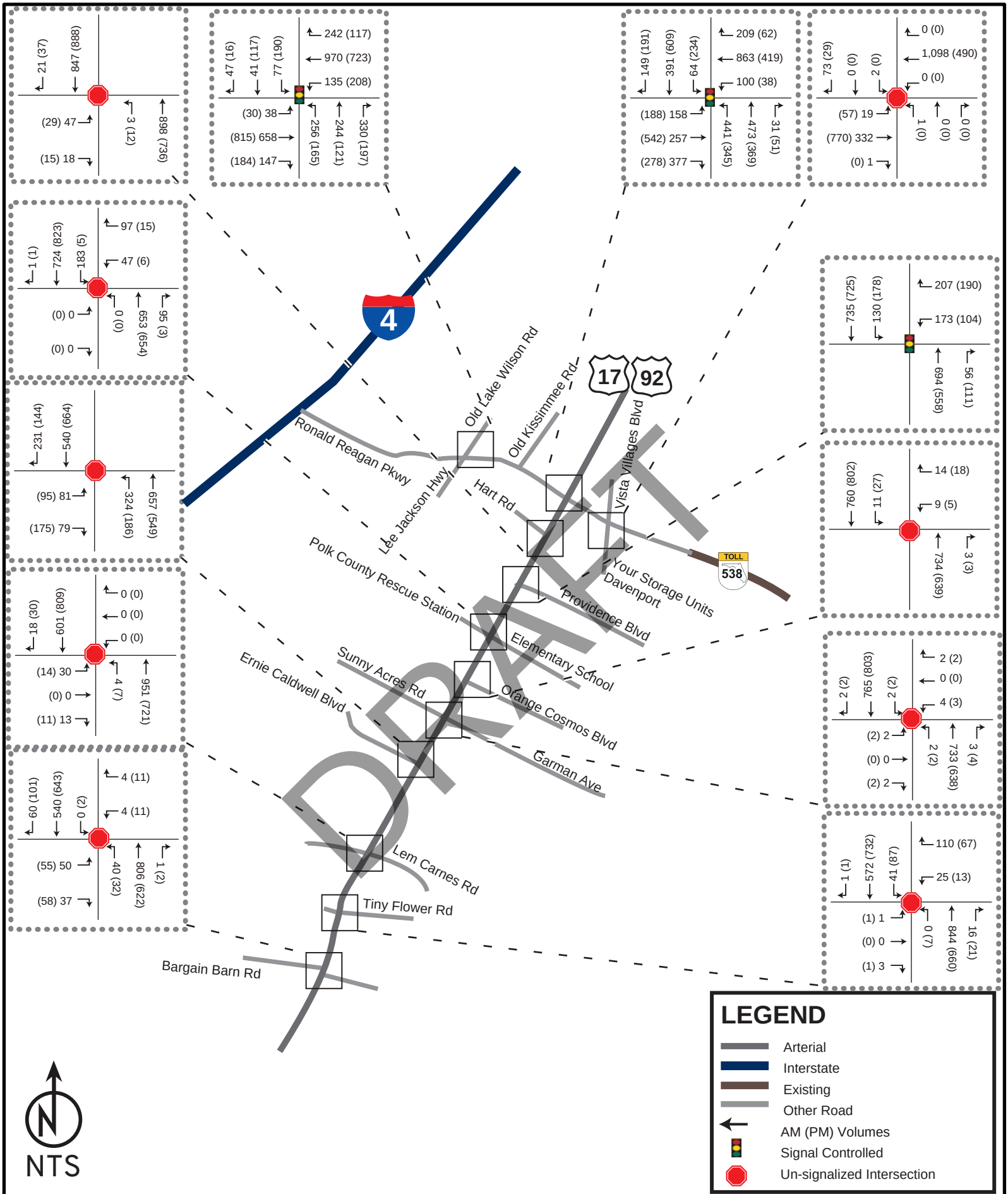
The 2024 existing peak hour volumes for US 17/92 were calculated based on the daily counts and the four highest consecutive 15-minute periods in the morning and evening. Seasonal and axle

adjustment factors were applied to the data where necessary. Growth rates estimated from historical data were used where applicable. The data was then aggregated and balanced for continuity of flow and consistency. Figure 2.2.11 shows the study intersection peak hour volumes.

2.2.14 Roadway Operational Conditions

The PTFM includes the 2024 traffic operational analysis for the US 17/92 corridor, as well as the surrounding roads and intersections within the PD&E study area. The US 17/92 corridor experiences peak traffic northbound in the morning and southbound in the afternoon. The results show that in the AM peak, the segment between Loughman Oaks Elementary School and Providence Boulevard and the segment between Orange Cosmos Boulevard and Loughman Oaks Elementary School had a Level of Service (LOS) F. Observations from the simulation model indicate that a queue forms in the morning along US 17/92 northbound between Providence Boulevard, a signalized intersection, and the area south of Orange Cosmos Boulevard.

Field observations attribute part of this queue to vehicles slowing down near Loughman Oaks Elementary School, located across the street from the Polk County Fire Rescue station. Additionally, school buses contribute to the congestion since US 17/92 is a single-lane arterial in each direction, causing traffic to stop while students are picked up. This queue impacts left-turn movements at minor intersecting streets and driveways. Drivers must first wait for a gap in one direction of traffic and then for another gap in the opposing direction to complete their turn or cross the intersection, essentially requiring two separate gap acceptance maneuvers. This issue also occurs in Ernie Caldwell Boulevard, a major arterial. As previously discussed, despite its high traffic volume, the intersection remains stop-sign controlled, leading to long queues for left-turn movements, particularly during the AM peak. However, Polk County's development plans include future signalization of this intersection, which is expected to improve both traffic flow and safety.



FLORIDA'S TURNPIKE	**Central Polk Parkway East** **PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.11:** **Existing (2024) Peak Hour Volumes**	**Page Number:** **2-28**

Southbound US 17/92 experiences peak traffic flow during the PM peak. The PM peak experiences improved traffic flow on US 17/92 as school closures eliminate the morning's queueing issues. However, the segment north of Ronald Reagan Parkway operates at LOS E, impacted by PM return commute heading towards Ronald Reagan Parkway and Davenport.

2.2.14.1 Existing Conditions Intersection Analysis

Three signalized intersections were evaluated under existing conditions: the intersection of US 17/92 and Ronald Reagan Parkway, the intersection of US 17/92 and Providence Boulevard, and the intersection of Ronald Reagan Parkway and Lee Jackson Parkway. During the AM peak period, the intersections at US 17/92 and Ronald Reagan Parkway and at US 17/92 and Providence Boulevard operated at LOS F, while the intersection at Ronald Reagan Parkway and Lee Jackson Parkway operated at LOS E. In the PM peak period, operational performance was generally better, with the intersections at US 17/92 and Ronald Reagan Parkway and at Ronald Reagan Parkway and Lee Jackson Parkway operating at LOS E, and the intersection at US 17/92 and Providence Boulevard improving to LOS D.

Table 2.2.4 and Table 2.2.5 show that the results from Synchro and Highway Capacity Software (HCS) align with field observations, confirming that most minor approaches with high volumes and left-turn movements experience a LOS of F. However, this situation improves during the PM peak, as traffic flows more smoothly on the southbound US 17/92. With schools closed at that time, long queues are not observed.

2.2.15 Managed Lanes

No managed lanes are located within the study area.

Table 2.2.4: Existing AM Peak Hour Intersection LOS/Delay (seconds)

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	Lee Jackson Parkway / Old Lake Wilson Road	Volume		38	658	147	135	970	242	256	244	330	77	41	47	F (80.9)
		LOS (Delay)	Movement	C (29.5)	E (56.5)		F (88.3)	F (116.5)		C (24.9)	C (27.8)			F (228.9)		
			Approach	E (55.3)			F (113.7)			C (26.9)			F (228.9)			
		Queue Length 95th (ft)	Movement	43	$456		#194	#782		187	501			#328		
	Vista Villages Boulevard	Volume		19	332	1		1,099					2		73	
		LOS (Delay)	Movement													
			Approach	B (11.2)			A (8.0)			F (70.3)			D (29.3)			
		Queue Length 95th (ft)	Movement	2.5			0				2.5			40		
US 17/92	Ronald Reagan Pkwy	Volume		158	1,660	377	100	863	209	441	473	31	64	391	149	E (55.3)
		LOS (Delay)	Movement	F (81.6)	D (48.8)		D (43.6)	D (45.4)	A (5.2)	F (111.3)	D (52.0)	A (0.3)	E (73.4)	E (67.3)	B (10.0)	
			Approach	F (109.5)						A (0.1)						
		Queue Length 95th (ft)	Movement	238	306		70	498	58	#465	302	0	59	250	61	
	Hart Road	Volume		47		18				3	898			847	21	
		LOS (Delay)	Movement		F (109.5)					A (10.0)	A (0.0)					
			Approach	F (09.5)						A (0.1)						
		Queue Length 95th (ft)	Movement		129.5					0						
	Providence Boulevard	Volume					173		207		694	56	130	735		F (85.9)
		LOS (Delay)	Movement				D (47.4)		A (8.3)		F (224.5)	A (5.6)	B (14.7)	B (15.0)		
			Approach				C (27.1)			F (208.1)			B (14.9)			
		Queue Length 95th (ft)	Movement				161		56		#928	26	65	463		
	Elementary School / Polk County Rescue Station	Volume					47		97		653	95	183	724	1	
		LOS (Delay)	Movement				F (2,695.0)		C (19.4)	A (9.6)			B (11.6)	A (2.2)	A (2.2)	
			Approach				F (892.7)			A (0.0)			A (4.1)			
		Queue Length 95th (ft)	Movement				502.5	0	35				30			
	Orange Cosmos Boulevard	Volume					9		14		734	3	11	760		
		LOS (Delay)	Movement				E (41.9)		B (14.7)				A (9.4)	A (0.1)		
			Approach				D (25.3)						A (0.3)			

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
		Queue Length 95th (ft)	Movement				7.6	0	2.5				0	0		
	Ernie Caldwell Boulevard	Volume		81		79				324	657			540	231	
		LOS (Delay)	Movement	F (3,023.1)		B (13.8)				B (13.6)	A (3.1)					
			Approach	F (1,5737.2)						A (6.6)						
		Queue Length 95th (ft)	Movement	803.4		16.2				66.5						
	Lem Carnes Road	Volume		30		13				4	951		1	601	18	
		LOS (Delay)	Movement		F (64.3)					A (9.5)	A (0.1)					
			Approach	F (64.3)						A (0.1)						
		Queue Length 95th (ft)	Movement		71.6					0						
US 17/92	Tiny Flower Road	Volume		1		3	25		110		844	16	41	572	1	
		LOS (Delay)	Movement		D (29.9)			F (88.1)		A (8.8)	A (0.0)		B (10.3)	A (0.6)	A (0.6)	
			Approach	D (29.9)			F (88.1)			A (0.0)			A (1.2)			
		Queue Length 95th (ft)	Movement		2.5			207.5		0			5			
	Bargain Barn Road	Volume		50		37	4		4	40	806	1		540	60	
		LOS (Delay)	Movement		F (102.5)			D (33.6)		A (9.1)	A (0.4)	A (0.4)	A (9.8)	A (0.0)	A (0.0)	
			Approach	F (102.5)			D (33.6)			A (0.9)			A (0.0)			
		Queue Length 95th (ft)	Movement		309.9			7.6		5			0			

Synchro Version 12 used for signalized intersections.
LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect
~: Volume exceeds capacity, queue is theoretically infinite

Table 2.2.5: Existing PM Peak Hour Intersection LOS/Delay (seconds)

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	Lee Jackson Parkway / Old Lake Wilson Road	Volume		30	815	184	208	723	117	165	121	197	190	117	16	E (69.6)
		LOS (Delay)	Movement	C (22.9)	F (88.5)		F (132.4)	D (35.7)		C (25.3)	B (18.0)			F (136.8)		
			Approach	F (86.5)			D (54.9)			C (20.5)			F (136.8)			
		Queue Length 95th (ft)	Movement	35	#621		#317	409		132	209			#512		
	Vista Villages Boulevard	Volume		57	770			490							29	
		LOS (Delay)	Movement													
			Approach	A (8.7)			A (9.5)						B (11.9)			
		Queue Length 95th (ft)	Movement	5			0							5		
US 17/92	Ronald Reagan Pkwy	Volume		188	1,660	278	38	419	62	345	369	51	234	609	191	E (55.4)
		LOS (Delay)	Movement	E (70.7)	D (54.8)		E (73.0)	E (70.8)	A (0.7)	D (53.5)	D (39.0)	A (0.2)	E (76.5)	E (68.3)	A (4.9)	
			Approach	E (57.7)			E (62.6)			D (43.0)			E (58.4)			
		Queue Length 95th (ft)	Movement	271	460		42	280	0	227	205	0	161	355	39	
	Hart Road	Volume		29		15				12	736			888	37	
		LOS (Delay)	Movement		E (39.0)					B (10.0)	A (0.2)					
			Approach	E (39.0)						A (0.3)						
		Queue Length 95th (ft)	Movement		30.5					2.5						
	Providence Boulevard	Volume					104		190		558	111	178	725		B (15.6)
		LOS (Delay)	Movement				E (64.7)		B (14.3)		C (24.2)	A (1.7)	A (6.4)	A (6.8)		
			Approach				C (32.1)			C (20.5)			A (6.7)			
		Queue Length 95th (ft)	Movement				136		68		#550	21	56	289		
		Volume					6		15		654	3	5	823	1	

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	Elementary School / Polk County Rescue Station	LOS (Delay)	Movement				E (44.3)		B (13.1)	A (9.5)	A (0.0)		A (8.9)	A (0.0)	A (0.0)	
			Approach				C (22.0)			A (0.0)			A (0.1)			
		Queue Length 95th (ft)	Movement				5		2.5	0			0			
	Orange Cosmos Boulevard	Volume					5		18		639	3	27	802		
		LOS (Delay)	Movement				D (34.8)		B (13.0)				A (9.1)	A (0.2)		
			Approach				C (17.8)						A (0.5)			
		Queue Length 95th (ft)	Movement				5.5		5.1				2.5			
	Ernie Caldwell Boulevard	Volume		95		175				186	549			664	144	
		LOS (Delay)	Movement	F (500.2)		C (18.8)				B (11.1)	A (1.6)					
			Approach	F (188.2)						A (4.0)						
		Queue Length 95th (ft)	Movement	403		54				26.6						
	Lem Carnes Road	Volume		14		11				7	721			809	30	
		LOS (Delay)	Movement		D (29.4)					B (10.2)	A (0.1)					
			Approach	D (29.4)						A (0.2)						
US 17/92		Queue Length 95th (ft)	Movement		16.4					0						
	Tiny Flower Road	Volume		1		1	13		67	7	660	21	87	732	1	
		LOS (Delay)	Movement		D (38.2)			D (28.3)		A (9.2)	A (0.1)					
			Approach	D (38.2)			D (28.3)			A (0.2)			A (1.7)			
		Queue Length 95th (ft)	Movement		2.5			40		0			7.5			
	Bargain Barn Road	Volume		55	2	58	11		11	32	632	2	2	643	101	
		LOS (Delay)	Movement		E (44.2)			D (29.1)		A (9.5)	A (0.4)	A (0.4)	A (8.9)	A (0.0)	A (0.0)	
			Approach	E (44.2)			D (29.1)			A (0.8)			A (0.1)			

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
		Queue Length 95th (ft)	Movement		91.4			12.7		2.5			0			

Synchro Version 12 used for signalized intersections.
LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect
~: Volume exceeds capacity, queue is theoretically infinite

2.2.16 Crash Data

Crash data for the existing facilities within the study area were collected from Signal Four Analytics and FDOT's Crash Analysis Reporting System (CARS Online), covering the years 2019 through 2023. The data were analyzed for US 17/92, intersecting arterials, and intersections. According to the Highway Safety Manual, the area within 250 feet of each intersection center is considered as the intersection's influence area. Detailed crash reports (long/short forms) were reviewed to verify the accuracy of the information obtained from the database.

A total of 459 crashes were reported within the project limits during the five-year study period from 2019 through 2023, as presented in Table 2.2.6. Among these crashes, 2% were fatal, 39% involved injuries, and 59% resulted in property damage only. Table 2.2.7 presents the distribution of crashes by location. The majority (56%) occurred at intersections, while 33% occurred along the US 17/92 corridor, and 5% were reported on intersecting arterials. Figure 2.2.12 graphically illustrates crash density across the project area of influence, which highlights higher crash density along intersections. Notable intersections with higher crash density include US 17/92 at Ronald Reagan Parkway, Providence Boulevard, Ernie Caldwell Boulevard, and Bargain Barn Road, as well as Ronald Reagan Parkway at Lee Jackson Highway. Among these, the stop-controlled intersections of US 17/92 at Bargain Barn Road and Ernie Caldwell Boulevard are notable for their high crash rates, raising safety concerns. Between 2019 and 2023, a total of nine fatal crashes occurred, with five taking place in 2023 alone, indicating a substantial increase in fatal crashes that year.

Table 2.2.6: Number of Crashes and Crash Severity by Year

Crash Severity	2019	2020	2021	2022	2023	Total	Percentage of Total Crashes
Fatality	1	3	0	0	5	9	2%
Injury	27	30	51	40	29	177	39%
Property Damage Only	39	41	58	59	76	273	59%
Total Crashes	**67**	**74**	**109**	**99**	**110**	**459**	**100%**

FLORIDA'S TURNPIKE	**Central Polk Parkway East** **PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.12:** **Crash Density** **(2019 - 2023)**	**Page Number:** **2-36**

Table 2.2.7: Number of Crashes by Location and Year

Roadway Element	2019	2020	2021	2022	2023	Total	Percentage of Total Crashes
US 17/92	28	33	45	32	39	177	39%
Arterials	4	2	7	6	6	25	5%
Intersections	35	39	57	62	64	257	56%
Total	**67**	**74**	**109**	**100**	**109**	**459**	**100%**

A total of 177 crashes were reported along US 17/92, excluding intersection-related crashes, over the five-year analysis period from 2019 to 2023, with an average of 35 crashes per year. A total of 202 intersection crashes were reported along US 17/92. The intersections analyzed were:

- US 17/95 at Bargain Barn Road/Future Power Line Road;
- US 17/92 at Lem Carnes Road;
- US 17/92 at Ernie Caldwell Boulevard;
- US 17/92 at Orange Cosmos Boulevard;
- US 17/92 at Elementary School/Polk County Rescue Station;
- US 17/92 at Providence Boulevard;
- US 17/92 at Hart Road; and
- US 17/92 at Ronald Reagan Parkway.

Table 2.2.8 show the study area crash rates and safety ratios. The safety ratio is calculated as the actual crash rate divided by the critical crash rate, and a ratio greater than one indicates a potential safety deficiency, as shown in red in the table.

Table 2.2.8: Study Area Crash Rates and Safety Ratios (2019-2023)

Roadway Element	Total Crashes	Actual Crash Rate	Avg. Crash Rate	Critical Crash Rate	Safety Ratio
Roadway Segments					
North of Future Intersection of Poinciana Pkwy Extension	27	2.14	0.6980	2.12	1.01
Future Poinciana Pkwy Extension Intersection	1	0.34	0.6980	4.05	0.08
North of Ronald Reagan Pkwy	38	1.24	0.6980	1.57	0.79

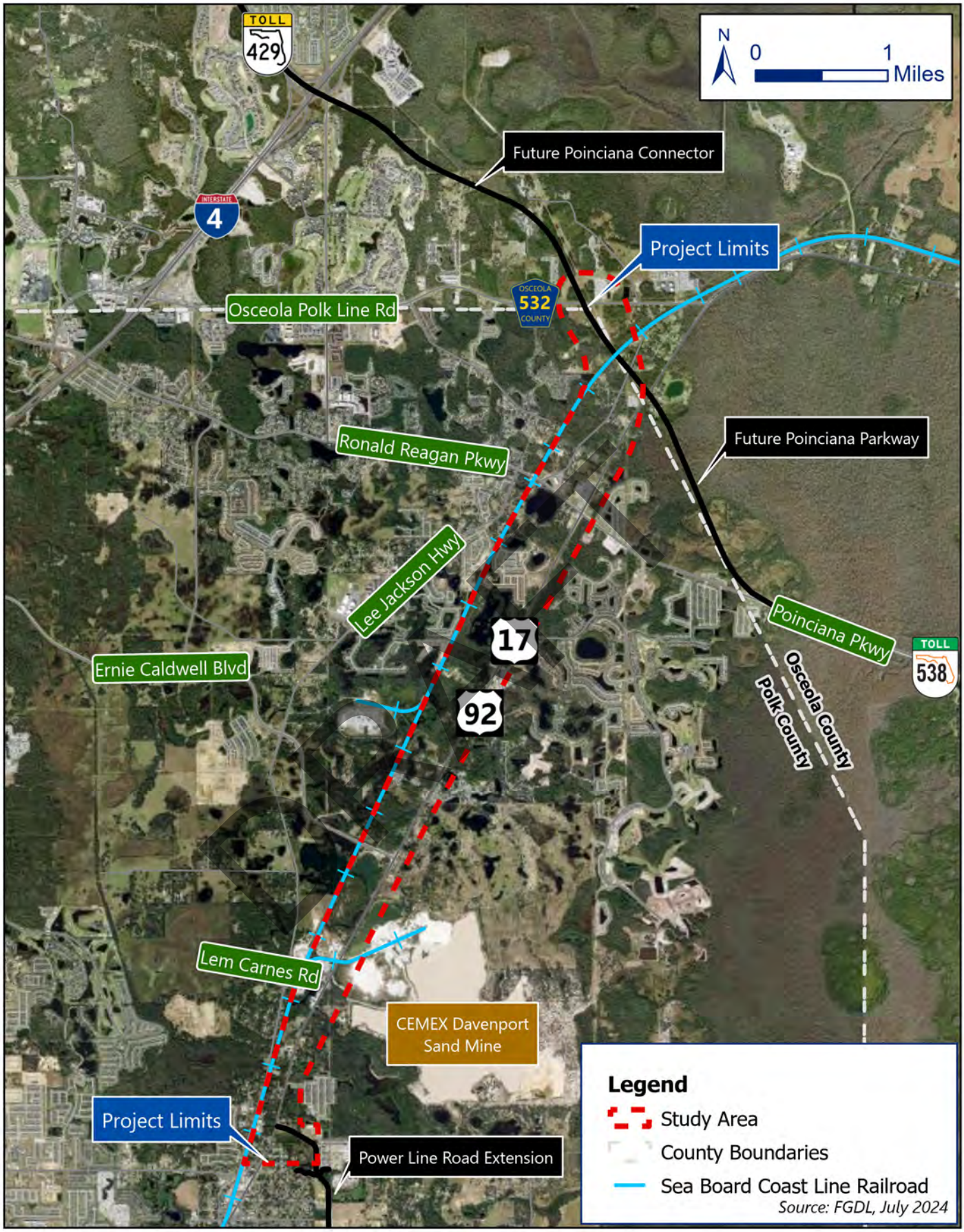
Roadway Element	Total Crashes	Actual Crash Rate	Avg. Crash Rate	Critical Crash Rate	Safety Ratio
Between Ronald Reagan Pkwy & Hart Rd	16	1.64	0.6980	2.34	0.70
Between Hart Rd & Providence Blvd	4	0.25	0.6980	1.94	0.13
Between Providence Blvd & Elementary School	5	0.59	0.6980	2.49	0.24
Between Elementary School & Orange Cosmos Blvd	5	0.51	0.6980	2.34	0.22
Between Orange Cosmos Blvd & Ernie Caldwell Blvd	29	0.77	0.6980	1.47	0.52
Between Ernie Caldwell Blvd & Lem Carnes Rd	17	0.57	0.6980	1.58	0.36
Between Lem Carnes Rd & Tiny Flower Rd	15	0.59	0.6980	1.66	0.36
Between Tiny Flower Rd & Bargain Barn Rd	3	0.48	0.6980	2.85	0.17
South of Bargain Barn Rd/Future Power Line Rd Intersection	17	1.75	0.9260	2.79	0.63
Ronald Reagan Pkwy West of US 17/92	23	0.93	1.5088	2.90	0.32
Ronald Reagan Pkwy East of US 17/92	1	0.32	1.5088	5.89	0.05
Ernie Caldwell Blvd	1	0.42	0.4747	3.86	0.11
Intersections					
US 17/92 & Ronald Reagan Pkwy	82	1.22	0.5504	1.06	1.15
US 17/92 & Hart Rd	7	0.21	0.3104	0.88	0.23
US 17/92 & Providence Blvd	46	1.10	0.5000	1.13	0.97
US 17/92 & Elementary School	4	0.11	0.8560	1.72	0.06
US 17/92 & Orange Cosmos Blvd	1	0.03	0.5000	1.21	0.02
US 17/92 & Ernie Caldwell Blvd	13	0.33	0.5000	1.15	0.29
US 17/92 & Lem Carnes Rd	16	0.48	0.2240	0.72	0.66
US 17/92 at Bargain Barn Rd/Future Power Line Rd Intersection	33	0.93	0.2240	0.71	1.32
Ronald Reagan Pkwy and Lee Jackson Hwy/Old Lake Wilson Rd	55	0.95	0.5504	1.10	0.87

During the analysis period, one pedestrian and two bicycle crashes occurred within the study area. Of these, one crash happened at the intersection of Ronald Reagan Boulevard and Lee Jackson Highway/Old Lake Wilson Road, while the other two occurred on US 17/92. None of these crashes resulted in fatalities.

The pedestrian crash occurred at Old Lake Wilson Road involving a vehicle traveling northbound (RN: 25406776). Another crash occurred on US 17/92 near James Street between a vehicle and a bicyclist (RN: 89372852). The driver, heading south, noticed the bicyclist moving from the bike lane into the vehicle through lane as if to cross the road. She sounded the horn and turned left to avoid the bicyclist but still hit the bike with the front right side of her vehicle and windshield. The driver was unharmed and declined medical assistance. The bicyclist, who crossed outside a crosswalk, did not see the car until he was in the middle of the road. The bicyclist was transported to a medical center with minor injuries. The investigation determined the bicyclist was at fault. A hit-and-run involving a bicyclist occurred on US 17/92 near Providence Boulevard (RN: 26058114). A vehicle heading north hit a bicyclist, who was riding his bike in the same direction. The impact knocked him off his bike. The bicyclist only suffered minor scratches and no serious injuries.

2.2.17 Railroad Crossings

The Sea Board Coast Line Railroad, owned by CSX, and currently used by freight trains runs parallel on the west side to US 17/92. Just north of Lem Carnes Road, a branch spur crosses US 17/92 running parallel to Caffney Road where it enters the Cemex Davenport Sand Mine. The railroad line is shown in Figure 2.2.13.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.13: Sea Board Coast Line Railroad**	**Page Number: 2-40**

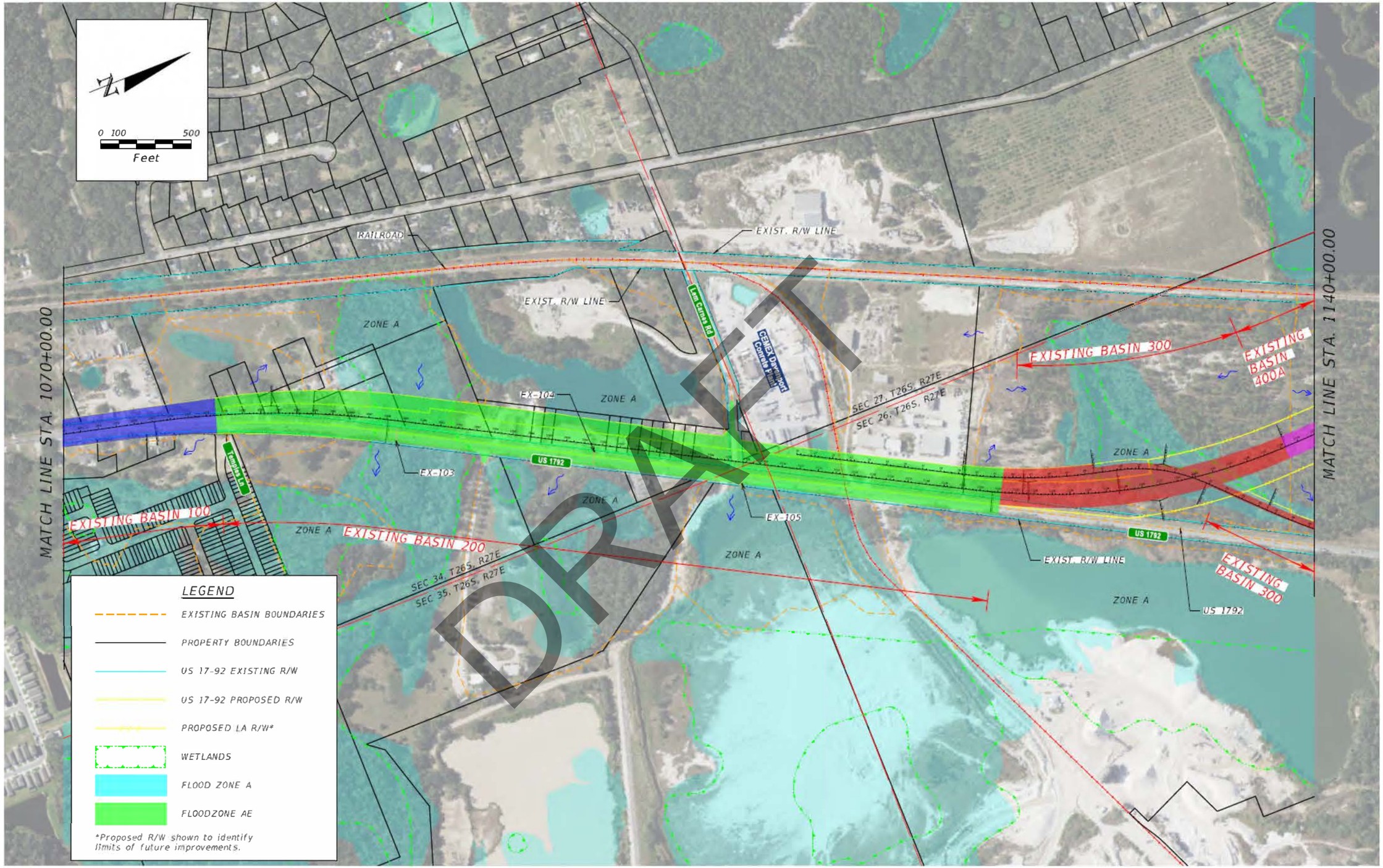
2.2.18 Drainage

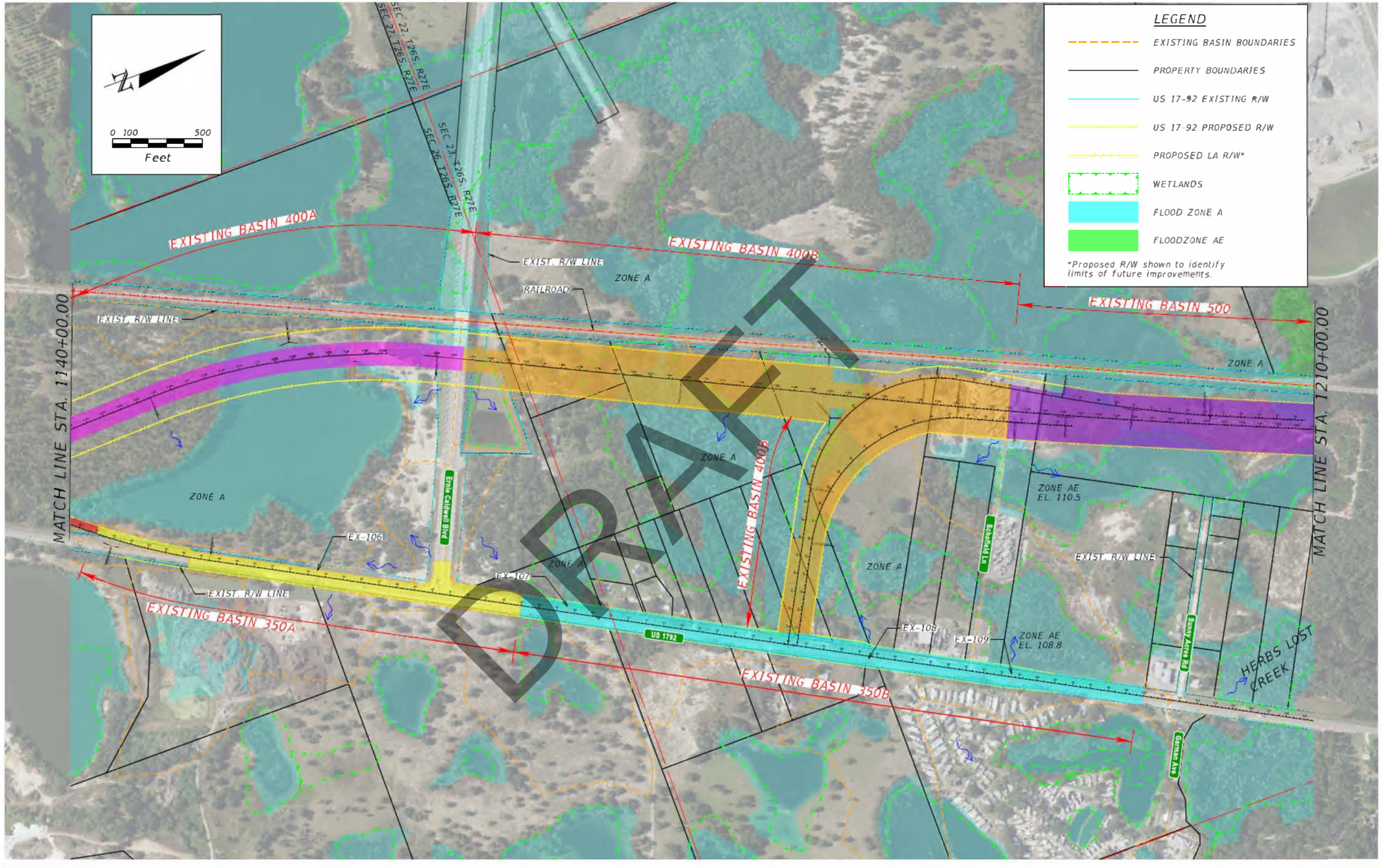
As shown in Table 2.2.9, 14 drainage basins have been identified within the limits of the study area. The outfall locations vary along the corridor but the discharge for each basin is always into one of the wetland areas or existing borrow pits. None of these outfall locations are classified as Outstanding Florida Waters (OFW). All outfalls are considered Open, except for Basin 300 and Basin 400A. Basin 300 and 400A are contributing stormwater runoff discharges into an existing borrow pit which does not appear to have any outfall associated with it. The overall topography within the study corridor varies between flat and gently sloping and the overall movement of stormwater runoff is from west to east towards the large wetland areas surrounding Reedy Creek east of US 17/92. The corridor includes upland areas surrounded by depressional or wetland areas as well as lakes and borrow pits. Most of the upland areas are already developed or currently under development. Figure 2.2.14 shows the existing drainage map.

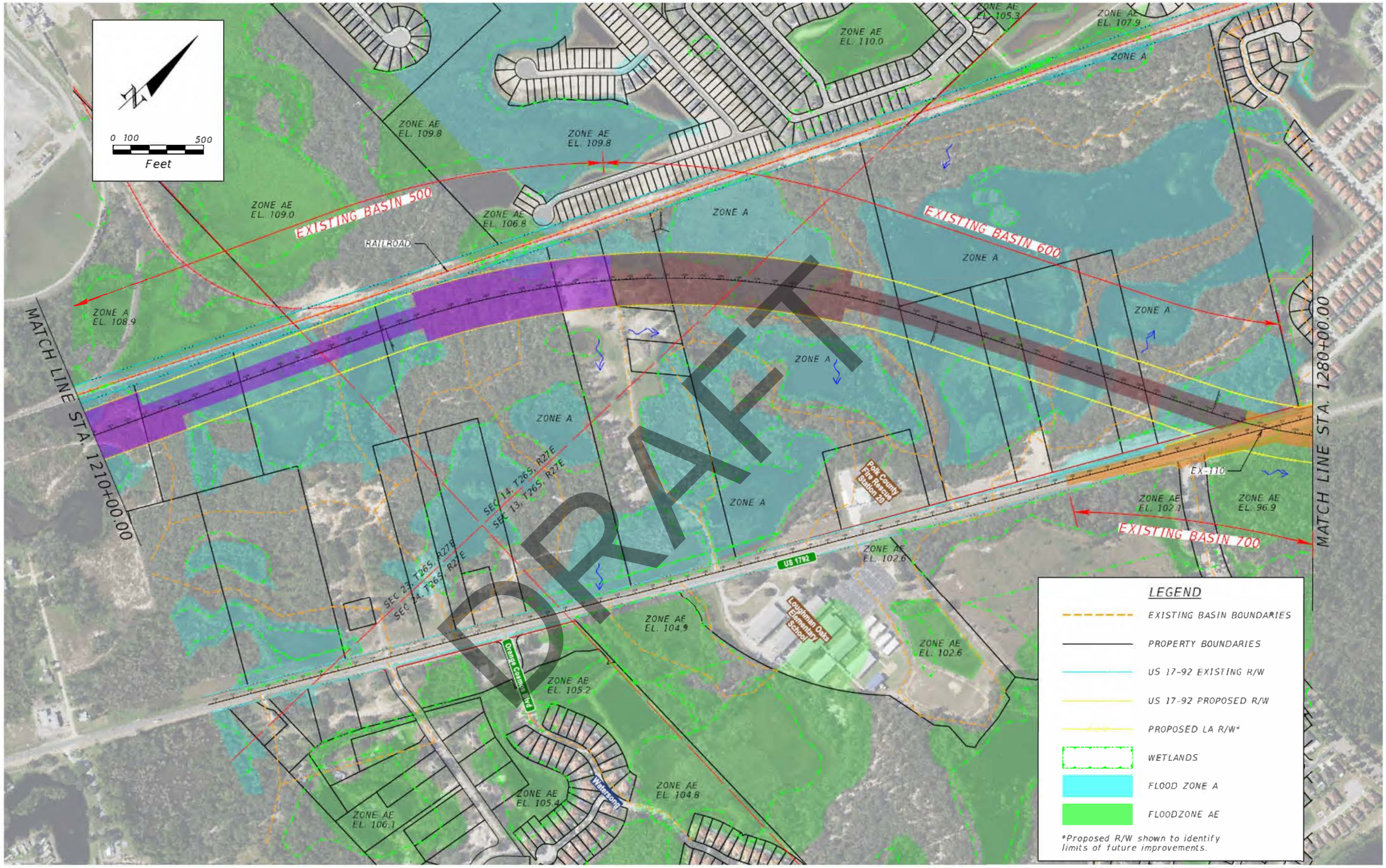
US 17/92 is an older road and based on research, there are no existing permits on US 17/92 except for a small section of US 17/92 that was included as part of the Ernie Caldwell Boulevard improvements (App. No. 696330/Permit No. 43032513.006). As part of the Ernie Caldwell Boulevard design, a section of US 17/92 was collected and conveyed into a pond located adjacent to Ernie Caldwell Boulevard and west of US 17/92. There are also no existing Enterprise drainage connection permits along the corridor.

Additional information on existing drainage conditions can be found in the Pond Siting Report (PSR) and Location Hydraulics Report (LHR).


0 100 500
Feet
ZONE AE
EL. 112.4
ZONE AE
EL. 110
ZONE A
RAILROAD
BEGIN PROJECT
STA. 1024+25.50
EXIST. R/W LINE
Lee Jackson Hwy
42nd St
Bargain Barn Rd
US 1792
EX-102
EX-160019
EX-101
HORSE CREEK
EXISTING BASIN 100
ZONE AE
EL. 127.9
MATCH LINE STA. 1070+00.00
DRAFT
LEGEND
EXISTING BASIN BOUNDARIES
PROPERTY BOUNDARIES
US 17-92 EXISTING R/W
US 17-92 PROPOSED R/W
PROPOSED LA R/W*
WETLANDS
FLOOD ZONE A
FLOODZONE AE
*Proposed R/W shown to identify limits of future improvements.


0 100 500
Feet
RAILROAD
EXIST. R/W LINE
EXIST. R/W LINE
Lena Cypress Rd
CEMEX Davenport Concrete Facility
ZONE A
EX-104
ZONE A
EX-103
ZONE A
EX-105
ZONE A
ZONE A
ZONE A
US 1792
US 1792
US 1792
EXISTING BASIN 100
EXISTING BASIN 200
EXISTING BASIN 300
EXISTING BASIN 400A
SEC 27, T26S, R27E
SEC 26, T26S, R27E
SEC 34, T26S, R27E
SEC 35, T26S, R27E
MATCH LINE STA. 1070+00.00
MATCH LINE STA. 1140+00.00
LEGEND
EXISTING BASIN BOUNDARIES
PROPERTY BOUNDARIES
US 17-92 EXISTING R/W
US 17-92 PROPOSED R/W
PROPOSED LA R/W*
WETLANDS
FLOOD ZONE A
FLOODZONE AE
*Proposed R/W shown to identify limits of future improvements.
DRAFT


LEGEND
EXISTING BASIN BOUNDARIES
PROPERTY BOUNDARIES
US 17-92 EXISTING R/W
US 17-92 PROPOSED R/W
PROPOSED LA R/W*
WETLANDS
FLOOD ZONE A
FLOODZONE AE
*Proposed R/W shown to identify limits of future improvements.
0 100 500
Feet
EXISTING BASIN 400A
EXISTING BASIN 400B
EXISTING BASIN 500
EXISTING BASIN 350A
EXISTING BASIN 350B
EXIST. R/W LINE
RAILROAD
ZONE A
ZONE AE
EL. 110.5
ZONE AE
EL. 108.8
EX-106
EX-107
EX-108
EX-109
Emie Caldwell Blvd
Schofield Ln
Sunny Acres Rd
Gorman Ave
US 17/92
HERBS LOST CREEK
MATCH LINE STA. 1140+00.00
MATCH LINE STA. 1210+00.00
SEC 22, T26S, R27E
SEC 27, T26S, R27E
SEC 23, T26S, R27E
SEC 26, T26S, R27E
DRAFT


0 100 500
Feet
ZONE AE EL. 110.0
ZONE AE EL. 105.3
ZONE AE EL. 107.9
ZONE A
ZONE AE EL. 109.8
ZONE AE EL. 109.8
ZONE AE EL. 109.0
EXISTING BASIN 500
ZONE AE EL. 106.8
RAILROAD
ZONE A
EXISTING BASIN 600
ZONE A
ZONE A EL. 108.9
MATCH LINE STA. 1210+00.00
ZONE A
ZONE A
ZONE A
SEC 14, T26S, R27E
SEC 13, T26S, R27E
Polk County Fire Rescue Station 20
EX-110
ZONE AE EL. 102.1
ZONE AE EL. 96.9
EXISTING BASIN 700
MATCH LINE STA. 1280+00.00
US 17-92
ZONE AE EL. 102.6
Loughman Oaks Elementary School
ZONE AE EL. 104.9
ZONE AE EL. 102.6
Orange County Blvd
ZONE AE EL. 105.2
Watersong
ZONE AE EL. 105.4
ZONE AE EL. 104.8
ZONE AE EL. 106.1
LEGEND
EXISTING BASIN BOUNDARIES
PROPERTY BOUNDARIES
US 17-92 EXISTING R/W
US 17-92 PROPOSED R/W
PROPOSED LA R/W*
WETLANDS
FLOOD ZONE A
FLOODZONE AE
*Proposed R/W shown to identify limits of future improvements.


ZONE A
ZONE AE
EL. 98.6
0 100 500
Feet
EXISTING BASIN 800B
EX-11
EXIST. R/W LINE
US 1792
MATCH LINE STA. 1280+00.00
MATCH LINE STA. 118+60.00
ZONE AE
EL. 96.9
ZONE AE
EL. 90.4
ZONE AE
EL. 78.0
EXISTING BASIN 700
ZONE AE
EL. 88.6
ZONE AE
EL. 89.0
ZONE AE
EL. 86.0
ZONE AE
EL. 66.0
EXISTING BASIN 800A
ZONE AE
EL. 98.0
SEC 12, T26S, R27E
SEC 13, T26S, R27E
SEC 07, T26S, R28E
SEC 28, T26S, R28E
DRAFT
Hart Rd
Ronald Reagan Pkwy
Gaines Ave
Poinciana Pkwy
Vista Villages Blvd
Publix
Burger King
LEGEND
EXISTING BASIN BOUNDARIES
PROPERTY BOUNDARIES
US 17-92 EXISTING R/W
US 17-92 PROPOSED R/W
PROPOSED LA R/W*
WETLANDS
FLOOD ZONE A
FLOODZONE AE
*Proposed R/W shown to identify limits of future improvements.


0 100 500
Feet
ZONE A
ZONE AE EL. 98.6
ZONE AE EL. 96.9
ZONE AE EL. 90.4
ZONE AE EL. 89.0
ZONE AE EL. 88.6
ZONE AE EL. 86.0
ZONE AE EL. 78.0
ZONE AE EL. 66.0
ZONE AE EL. 98.0
EXISTING BASIN 800B
EXISTING BASIN 700
EXISTING BASIN 800A
EXIST. R/W LINE
US 17-92
Lake Rd
Gaines Ave
Ronald Reagan Pkwy
Publix
EX-111
Burger King
Dental Care of Loughman Crossing
7-Eleven Gas Station
Poinciana Pkwy
Vista Villages Blvd
Vista Way
MATCH LINE STA. 1280+00.00
MATCH LINE STA. 118+60.00
SEC 12, T26S, R27E
SEC 13, T26S, R27E
SEC 07, T26S, R28E
SEC 28, T26S, R27E
LEGEND
EXISTING BASIN BOUNDARIES
PROPERTY BOUNDARIES
US 17-92 EXISTING R/W
US 17-92 PROPOSED R/W
PROPOSED LA R/W*
WETLANDS
FLOOD ZONE A
FLOODZONE AE
*Proposed R/W shown to identify limits of future improvements.

Table 2.2.9: Existing US 17/92 Corridor Basin Summary

Basin	Receiving Waterbody	Open/ Closed
Basin 100	Existing wetland area	Open
Basin 200	Existing wetland area	Open
Basin 300	Existing wetland/borrow pit	Closed
Basin 350A	North into Ernie Caldwell Blvd. Pond	Open
Basin 350B	Existing wetland area and Lost Herbs Creek	Open
Basin 400A	Existing borrow pit	Closed
Basin 400B	Existing wetland area	Open
Basin 500	Existing wetland and lake area	Open
Basin 600	Existing wetland and lake area	Open
Basin 700	Existing wetland area	Open
Basin 800A	Existing wetland area	Open
Basin 800B	Existing wetland area	Open
Basin 900	Existing wetland area	Open
Basin 1000	Existing wetland area	Open

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) for Polk and Osceola Counties and SWFWMD floodplain maps were reviewed to determine the extent of the floodplains within project limits. Multiple Letters of Map Revision (LOMR) were found within the project limits. These letters revise the current FIRM to document changes in floodplains, floodways, or flood elevations. The applicable Flood Insurance Studies (FIS) for this project are in Polk County FIS (effective September 28, 2012) and Osceola County (effective May 7, 2001). There are no regulatory floodways within this corridor. Table 2.2.10 provides a summary of the floodplains within the project limits.

Table 2.2.10: Floodplains Within Study Area

ID	Centerline / Baseline	From Station	To Station	Side	Floodplain / Waterbody Name	FIRM Panel No.	Floodplain Zone	FEMA 100-yr Floodplain Elevation (ft)
1	CPP E	1038+60	1043+60	LT	-	12105C0240G	A	-
2	CPP E	1051+60	1052+80	LT	-	12105C0240G	A	-
3	CPP E	1057+40	1066+60	LT/RT	Horse Creek	12105C0240G	A	-
4	CPP E	1086+80	1091+20	LT/RT	-	12105C0240G	A	-
5	CPP E	1096+60	1101+80	LT	-	12105C0240G	A	-
6	CPP E	1108+20	1112+20	LT	-	12105C0240G	A	-
7	CPP E	1171+00	1177+20	LT/RT	-	12105C0240G	A	-
8	CPP E	1179+20	1185+00	LT	-	12105C0240G	A	-
9	SB Exit Ramp NB Exit Ramp	20+60 32+00	32+80 42+00	LT/RT	-	12105C0240G	A	-
10	SB Exit Ramp	39+00	42+60	LT	Wetland I	12105C0240G	AE	111.6
11	SB Exit Ramp	45+00	48+90	LT	-	12105C0240G	A	-
12	CPP E	1199+00	1203+60	RT	Basin 30	12105C0240G	AE	110.5
13	CPP E	1242+40	1251+20	LT/RT	-	12105C0240G	A	-
14	CPP E	1272+20	1276+20	LT	-	12105C0240G	A	-
15	CPP E	1279+40	1302+40	LT/RT	Oakhill Ponding Area 10	12105C0240G	AE	96.9
16	CPP E	1303+80	1325+00	LT/RT	Oakhill Ponding Area 1	12105C0240G	AE	90.4
17	CPP E SB Ramp CPP E NB Ramp	113+00 212+20	120+40 225+00	LT/RT	Pond 4 / Flooding Effects from Reedy Creek	12105C0240G	AE	67.0
18	CPP E SB Ramp CPP E NB Ramp	125+40 229+40	133+60 232+40	LT/RT	Pond 4 / Flooding Effects from Reedy Creek	12105C0240G	A	-
19	CPP E SB Ramp CPP E NB Ramp	146+00 248+40	150+60 253+40	LT/RT	-	12105C0240G	A	-
20	CPP E SB Ramp	160+80	163+30	LT/RT	Tributary No. 1	12105C0125H	AE	-

Twelve existing cross culverts were identified along the project alignment consisting of a bridge class culvert located at Horse Creek and eleven cross drains associated with tributaries of Reedy Creek. The cross drains are listed in Table 2.2.11.

Table 2.2.11: Existing Cross Drains

Centerline / Baseline	Station	Basin ID	Cross Drain ID	Number of Boxes	Size	Length
CPP E	1042+20	B-101OFF	EX-101	1	2′ X 2′	65′
CPP E	1052+60	B-102OFF	EX-102	1	3′ X 2′	65′
CPP E	1088+60	B-103OFF	EX-103	1	4′ X 3′	65′
CPP E	1099+60	B-104OFF	EX-104	1	2′ X 2′	70′
CPP E	1108+00	B-105OFF	EX-105	1	30″	70′
US 17/92	53+60	B-106OFF	EX-106	1	2′ X 2′	75′
US 17/92	67+60	B-107OFF	EX-107	1	2′ X 2′	70′
US 17/92	84+40	B-108OFF	EX-108	1	30″	65′
US 17/92	92+40	B-109OFF	EX-109	1	30″	70′
US 17/92	170+00	B-110OFF	EX-110	1	24″	84′
CL North US 17/92	53+80	B-111OFF	EX-111	1	4′ X 3′	65′

2.2.19 Lighting

Along US 17/92, single cobra head street light fixtures are mounted on the distribution poles running along the west side of the roadway. The spacing between the fixtures is not consistent, with placement generally concentrated near driveway entrances and roadway access points. Single arm lantern style light poles are located at the intersection of Ernie Caldwell Boulevard and Orange Cosmos Boulevard. LED streetlights are located on the east side of US 17/92 passing Loughman Oaks Elementary School. Approximately 0.2 miles south of the Ronald Reagan Parkway intersection, single arm light poles are located on the eastern side of US 17/92 and are spaced between 100 feet to 220 feet apart for 0.6 miles north. The existing lighting is owned by FDOT and maintained by Duke Energy Florida Inc.

2.2.20 Utilities

The preliminary utility coordination and investigation effort was conducted through written and verbal communications with the existing utility owners. A Sunshine 811 of Florida Design Ticket listing of existing utility owners was acquired on January 23, 2025, and again on April 24, 2025. Initially, verbal communication was made to all utility owners outlining the investigation effort along with the project limits. The list of utility agency owners (UAOs) known to operate utilities within the project corridor is shown in Table 2.2.12.

Table 2.2.12 Utility Contact Information

Utility Agency	Utility Contact Name	Utility Contact Phone	Utility Contact Email
Central Florida Expressway Authority	Benjamin Baker	321-354-9716	bbaker@dewberry.com
CenturyLink	Ken Lutz	863-214-1490	Ken.lutz@lumen.com
Charter Communications/ Spectrum	Darin Daniels	863-559-6699	Darin.daniels@charter.com
City of Davenport	Michael Stripling	863-419-3300 ext 143	mstripling@mydavenport.org
City of Haines City	James Keene	863-421-3777	
City of Lake Wales	Margarita Dimaz	863-678-4182 ext 1074	mdimaz@cityoflakewales.com
Cogent Communications	Jon Baker	352-235-8395	jabaker@cogentco.com
Comcast Cable	Wesley Vaughn	863-265-9084	Wesley_vaughn@comcast.com
Duke Energy Distribution	Mark Manner	863-678-4476	Mark.manner@duke-energy.com
Duke Energy Fiber	Julian Jordan	813-407-8777	Julian.jordan@duke-energy.com
Duke Energy Transmission	Francis Castro	407-942-9498	Francis.castro@duke-energy.com
Enbridge Sabal Trail Transmission	Peter Kerrigan	407-966-2913	Peter.kerrigan@enbridge.com
Florida Gas Transmission	Joseph Sanchez	407-838-7171	Joseph.e.sanchez@energytransfer.com
Florida Public Utilities	Johnny Hill	352-636-7056	jhill@fpuc.com
Florida Southeast Connection	Travis Emerson	971-737-0683	travis.emerson@nexteraenergy.com
Frontier Communications	James Beam	863-808-3447	james.beam@ftr.com

Utility Agency	Utility Contact Name	Utility Contact Phone	Utility Contact Email
Gulfstream Natural Gas System	Shawn Deutscher	941-723-7191	Shawn.deutscher@williams.com
Kinder Morgan/Central Florida Pipeline	Matt Prine	352-804-6086	matt.prine@kindermorgan.com
Kissimmee Utility Authority (KUA)	Tom Ulmer	772-778-2255	tom@transtate.us
Level 3 Communications	Eric Walls	407-842-9634	eric.walls1@lumen.com
MCI/Verizon Business	Tim Cole	407-702-6425	Timothy.cole@verizon.com
Polk County Utilities	Ryan Bengsch	863-307-2981	Ryan.bengsch@polk-county.net
Summit Broadband	Michelle Daniel	407-996-1182	Michelle.daniel@summitbb.com
TECO People Gas	Shawn Winsor	407-420-6663	swinsor@tecoenergy.com
TOHO Water Authority	Mike Pampouk	407-944-5043	mpampouk@tohowater.com
Uniti Fiber	James Mosley	251-654-8216	James.mosley@uniti.com
Zayo Group LLC	Mark Mathis	813-509-2405	Mark.mathis@zayo.com

No responses to the formal utility outreach were received from Central Florida Expressway Authority (CFX), Charter Communications/Spectrum, City of Davenport, Cogent Communications, Duke Energy Fiber, Florida Public Utilities, Frontier Communications, MCI/Verizon Business, Summit Broadband, TECO People Glas, TOHO Water Authority, Uniti Fiber, and Zayo Group LLC.

CenturyLink (Local) – CenturyLink has underground fiber and copper cable lines along the north right-of-way of Osceola Polk Line Road, along Old Tampa Highway, and part of US 17/92.

Comcast Cable – Comcast operates an engineering and telecommunications hub at 6026 N Highway 17/92, along with underground fiber optic cables in the vicinity, which provide cable and internet service to Davenport and the surrounding communities.

Duke Energy Distribution – Duke Energy has various distribution lines along US 17/92 with numerous lines connecting to side streets and service drops to businesses and residences. Overhead and buried lines vary from 3-phase 12.47 kilovolts and 7.2 kilovolts, and 2-phase 12.47 kilovolts.

Duke Energy Transmission – Duke Energy has transmission lines, ICLW 69 kilovolts, running northwesterly along the east side of US 17/92 from the substation located south of Lem Carnes Road, crossing Lem Carnes Road and continuing northwest toward the railroad crossing approximately halfway between Lem Carnes Road and Ernie Caldwell Boulevard.

The transmission circuit is 69 kilovolts; the circuit is double circuited with 69 kilovolts and 230 kilovolts. The lines run east/west along the north right-of-way of Ronald Reagan Parkway going east to just east of Old Kissimmee Road and crossing Ronald Reagan Parkway to continue along the south right-of-way, going east to the southwest corner at US 17/92. Then they turn and run north along the west right-of-way of US 17/92 all the way to Osceola Polk Line Road.

From the substation at the southwest corner of US 17/92 and Labor Camp Road, 69 kilovolts lines run northwesterly, crossing the CSX railroad before continuing outside the project limits.

Note: As part of the CFX project (451419-2) poles will be relocated into a new 100-foot easement adjacent to the existing easement north of the substation at the southwest corner of Labor Camp Road and US 17/92. The relocation will extend north along US 17/92 to Osceola Polk Line Road.

Enbridge Sabal Trail Transmission – Per the National Pipeline Mapping System, Enbridge Sabal Trail Transmission has a natural gas facility running east-west along the north side of Osceola Polk Line Road, connecting to the Sabal Trail Transmission site at 6781 Osceola Polk Line Road. The pipe size is unknown.

Florida Gas Transmission (FGT) – FGT has no facilities within the project limits.

Florida Southeast Connection – Florida Southeast Connection has a 36-inch natural gas pipeline running along the US 17/92 right-of-way. The alignment begins south of Schofield Lane, running west across US 17/92 to the west right-of-way, then north to just north of Providence Boulevard. It then crosses back east, continues north along the east right-of-way to just south of the

Loughman Substation, and shifts west again to follow the west right-of-way to Labor Camp Road. The pipeline then turns northwest, crossing Labor Camp Road, Old Kissimmee Road/Old Tampa Highway, the CSX railroad, and Osceola Polk Line Road, connecting to the Sabal Trail Transmission site at 6781 Osceola Polk Line Road in Davenport.

Gulfstream Natural Gas System – Per the National Pipeline Mapping System, Gulfstream Natural Gas System has a natural gas facility running east-west along the north side of Osceola Polk Line Road, connecting to the Intercession City Gas Fired Power Plant site at 6525 Osceola Polk Line Road. The pipe size is unknown but assumed to be 36 inches.

Kinder Morgan/Central Florida Pipeline – Kinder Morgan/Central Florida Pipeline has 10-inch High Volatile Liquids pipeline running within the north side of the CSX railroad right-of-way throughout the CPP East study area. Kinder Morgan/Central Florida Pipeline also has 16-inch High Volatile Liquids pipeline located on the eastern end of the CPP East study area. A portion of this line is scheduled for relocation in 2025 to accommodate the CFX Poinciana Parkway Extension (451419-2), and additional relocation north of CR 532 may be required for FDOT MI-4 Project 5 (FPID 446581-4).

Kissimmee Utility Authority (KUA) – KUA has 20-inch high-pressure natural gas pipeline running east-west along the north right-of-way of Osceola Polk Line Road.

Level 3 Communications – Level 3 Communications has high profile buried fiber optic cable line running within the CSX railroad right-of-way. The line size and count are currently unknown.

Polk County Utilities – Water (Potable) Main Line – The water main line begins at Orange Cosmos Boulevard at US 17/92 and runs north along the east right-of-way to north of Wynell Drive, then crosses to the west right-of-way and continues north to Ronald Reagan Parkway. This line also serves nearby roads, including Providence Boulevard, Paloma Drive, Hart Road, and Gaines Road. Additionally, a potable water main runs along the south right-of-way of Ronald Reagan Parkway,

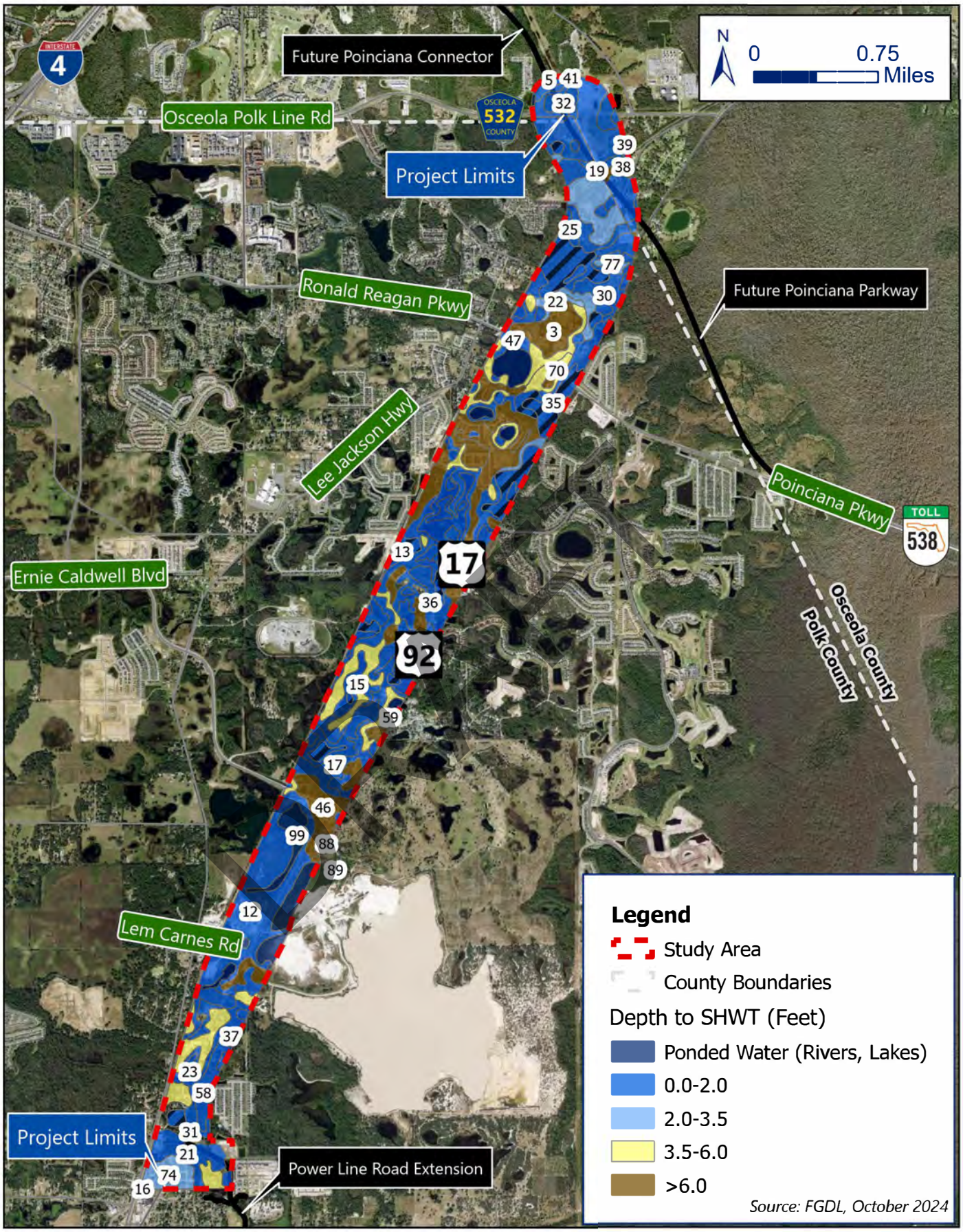
crossing US 17/92 and continuing east beyond the project limits. The pipe size and type are unknown.

Gravity (Wastewater) Main Line – The wastewater line runs north along the US 17/92 right-of-way from Orange Cosmos Boulevard to Ronald Reagan Parkway. A gravity wastewater main is also located along Ronald Reagan Parkway, extending east and west from the CSX railroad, crossing US 17/92, and continuing east beyond the project limits. The pipe size and type are unknown.

Reclaimed Water Main Line – The water main line begins along Ernie Caldwell Boulevard, running east from the west side, crossing the CSX railroad, shifting from the north to the south side, and continuing east to US 17/92. The line then crosses US 17/92 and follows the east right-of-way north to Hart Road, crosses to the west side, and continues along Hart Road. Additionally, a reclaimed water line runs along Ronald Reagan Parkway from west to east, crossing US 17/92 and continuing east beyond the project limits. The pipe size and type are unknown.

2.2.21 Soils and Geotechnical Data

A review of the United States Department of Agriculture (USDA) Soil Survey for Polk County and Osceola County was conducted for the US 17/92 corridor. The study area primarily consists of sands to silty sands to a depth of six feet below ground surface. Organic soils/muck are identified intermittently throughout the study area. The seasonal high groundwater depths for the project corridor are shown in Figure 2.2.15 and Table 2.2.13 summarizes the soil properties. The seasonal high groundwater depths are reported to be within 1.5 feet of the natural ground surface if shaded blue and the soils identified as organic/muck are shaded in red.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.15: Existing Soil Series**	**Page Number: 2-56**

Table 2.2.13: USDA Soil Survey Properties

Unit No.	Soil Name	Depth (in)	USCS[1]	AASHTO[2]	Depth to Seasonal High Groundwater (feet)	Months
Polk County						
3	Candler	0-6	SP-SM, SP	A-3	>6.0	Jan-Dec
		6-63	SP-SM, SP	A-2-4, A-3		
		63-80	SP-SM	A-2-4, A-3		
12	Neilhurst	0-3	SP-SM, SP	A-2-4, A-3	>6.0	Jan-Dec
		3-80	SP-SM, SP	A-2-4, A-3		
13	Samsula	0-24	PT	A-8	+2.0-0.0	Jan Jun-Dec
		24-32	PT	A-8		
		32-35	SP-SM, SM	A-2-4, A-3		
		35-44	SP-SM, SM	A-2-4, A-3		
		44-80	SP-SM, SM	A-2-4, A-3		
15	Tavares	0-5	SP-SM, SP	A-2-4, A-3	3.5-5.0	Jun-Oct
		5-80	SP-SM, SM, SP	A-2-4, A-3		
16	Urban Land	USDA does not provide information for urban land				
17	Smyrna, non-hydric Myakka, hydric	0-4	SP-SM, SP	A-2-4, A-3	0.5-1.5	Jun-Oct
		4-12	SP-SM, SP	A-2-4, A-3		
		12-25	SP-SM, SM	A-2-4, A-3		
		25-42	SP-SM, SP	A-3		
		42-48	SP-SM, SM	A-2-4, A-3		
		48-80	SP-SM, SM	A-2-4, A-3		
		0-7	SP-SM, SP	A-3	0.5-1.5	Jun-Oct
		7-25	SP-SM, SP	A-3		
		25-36	SP-SM, SM	A-2-4, A-3		
		36-80	SP-SM, SP	A-3		
		0-4	SP-SM, SP	A-2-4, A-3	0.0-1.0	Jun-Oct
		4-12	SP-SM, SP	A-2-4, A-3		
		12-25	SP-SM, SM	A-2-4, A-3		
		25-42	SP-SM, SP	A-3		
		42-48	SP-SM, SM	A-2-4, A-3		
		48-80	SP-SM, SM	A-2-4, A-3		
19	Floridana	0-4	SP-SM, SM	A-2-4, A-3	+2.0-0.0	Jul-Oct
		4-15	SP-SM, SM	A-2-4, A-3		
		15-32	SP-SM, SM	A-2-4, A-3		
		32-44	CL, SC-SM, SC	A-4, A-6, A-7-6		
		44-80	CL, SC-SM, SC	A-2-4, A-4, A-7-6		
21	Immokalee, non-hydric, hydric	0-7	SP-SM, SP	A-3	0.5-1.5	Jun-Oct
		7-39	SP-SM, SP	A-3		
		39-58	SP-SM, SM	A-2-4, A-3		
		58-66	SP-SM, SP	A-3		

Unit No.	Soil Name	Depth (in)	USCS[1]	AASHTO[2]	Depth to Seasonal High Groundwater (feet)	Months
		66-80	SP-SM, SM	A-2-4, A-3		
		0-7	SP-SM, SP	A-3	0.0-1.0	Jun-Oct
		7-39	SP-SM, SP	A-3		
		39-58	SP-SM, SM	A-2-4, A-3		
		58-66	SP-SM, SP	A-3		
		66-80	SP-SM, SM	A-2-4, A-3		
22	Pomello	0-5	SP-SM, SP	A-3	2.0-3.5	Jul-Nov
		5-48	SP-SM, SP	A-3		
		48-63	SP-SM, SM	A-2-4, A-3		
		63-80	SP-SM, SP	A-3		
23	Ona, wet	0-9	SP-SM, SM	A-2-4	0.5-1.5	Jan-Dec
		9-16	SP-SM, SM	A-2-4		
		16-80	SP-SM, SM	A-2-4, A-3		
		0-9	SP-SM, SM	A-2-4	0.0-1.5	Jul-Sep
		9-16	SP-SM, SM	A-2-4		
		16-80	SP-SM, SM	A-2-4, A-3		
		0-18	SP-SM, SM, SP	A-2-4, A-3	+2.0-0.0	Jan-Mar
		18-80	SP-SM, SM, SP	A-2-4, A-3		Jun-Dec
25	Placid, depressional Myakka,	0-3	SP-SM, SP	A-3	+2.0-0.0	Jan-Feb Jun-Dec
		3-25	SP-SM, SP	A-3		
		25-35	SP-SM, SM	A-2-4, A-3		
		35-80	SP-SM, SP	A-3		
30	Pompano	0-15	SP-SM, SP	A-3	0.0-0.5	Jun-Nov
		15-80	SP-SM, SP	A-3		
35	Hontoon	0-75	PT	A-8	+2.0-0.0	Jan Jun-Dec
		75-80	SC-SM, SC, SM	A-2-4, A-6		
36	Basinger	0-7	SP-SM, SM	A-2-4, A-3	+2.0-0.0	Jul-Oct
		7-19	SP-SM, SM	A-2-4, A-3		
		19-39	SP-SM, SM	A-2-4, A-3		
		39-80	SP-SM, SM	A-2-4, A-3		
37	Placid	0-18	SP-SM, SM, SP	A-2-4, A-3	0.0-0.5	Jan-Feb, Jun-Nov Dec
		18-80	SP-SM, SM, SP	A-2-4, A-3		
46	Astatula	0-3	SP-SM, SP	A-3	>6.0	Jan-Dec
		3-80	SP-SM, SP	A-3		
47	Zolfo	0-5	SP-SM, SM	A-2-4, A-3	1.5-3.5	Jun-Nov
		5-59	SP-SM, SM	A-2-4, A-3		
		59-80	SP-SM, SM	A-2-4, A-3		
58	Udorthents, excavated	USDA does not provide information for this map unit				

Unit No.	Soil Name	Depth (in)	USCS[1]	AASHTO[2]	Depth to Seasonal High Groundwater (feet)	Months
59	Arents Urban land	0-80	SP-SM, SP	A-2-4, A-3	1.5-3.0	Jun-Nov
		USDA does not provide information for urban land				
70	Duette	0-7	SP	A-3	4.0-6.0	Jun-Oct
		7-59	SP	A-3		
		59-80	SP-SM, SP	A-2-4, A-3		
74	Narcoossee	0-5	SP-SM	A-3	2.0-3.5	Jun-Nov
		5-17	SP-SM, SP	A-3		
		17-22	SP-SM	A-2-4, A-3		
		22-80	SP-SM, SP	A-3		
77	Satellite	0-6	SP-SM, SP	A-3	1.5-3.5	Jun-Nov
		6-13	SP-SM, SP	A-2-4, A-3		
		13-80	SP-SM, SP	A-2-4, A-3		
88	Astatula	0-3	SP-SM, SP	A-3	>6.0	Jan-Dec
		3-80	SP-SM, SP	A-3		
89	Astatula	0-3	SP-SM, SP	A-3	>6.0	Jan-Dec
		3-80	SP-SM, SP	A-3		
Osceola County						
5	Basinger	0-2	SP-SM, SM	A-2-4, A-3	0.0-1.0	Jul-Oct
		2-18	SP-SM, SM	A-2-4, A-3		
		18-36	SP-SM, SM	A-2-4, A-3		
		36-80	SP-SM, SM	A-2-4, A-3		
12	Floridana	0-19	SP-SM, SM	A-2-4, A-3	+2.0-0.0	Jul-Oct
		19-25	SP-SM, SM	A-2-4, A-3		
		25-80	SC-SM, CL, SC	A-2-4, A-4, A-7-6		
16	Immokalee	0-6	SP-SM, SM	A-2-4, A-3	0.5-1.5	Jun-Nov
		6-35	SP-SM, SM	A-2-4, A-3		
		35-54	SP-SM, SM	A-2-4, A-3		
		54-80	SP-SM, SM	A-2-4, A-3		
22	Myakka	0-6	SP-SM, SM	A-2-4, A-3	0.5-1.5	Jun-Nov
		6-20	SP-SM, SM	A-2-4, A-3		
		20-36	SP-SM, SM	A-2-4, A-3		
		36-80	SP-SM, SM	A-2-4, A-3		
32	Placid	0-24	SP-SM, SM	A-2-4, A-3	+2.0-0.0	Jul-Oct
		24-80	SP-SM, SM	A-2-4, A-3		
38	Riviera	0-6	SP-SM, SM	A-2-4, A-3	0.3-1.5	Jul-Oct
		6-28	SP-SM, SM	A-2-4, A-3		
		28-32	SC-SM, SC, SM	A-2-4, A-4, A-6		
		32-42	SC-SM, CL	A-4, A-6, A-7-6		
		42-80	SP-SM, SM	A-2-4, A-3		
39	Riviera	0-4	SP-SM, SM	A-2-4, A-3		
		4-36	SP-SM, SM	A-2-4, A-3		

Unit No.	Soil Name	Depth (in)	USCS[1]	AASHTO[2]	Depth to Seasonal High Groundwater (feet)	Months
		36-42	SC-SM, CL, SM	A-2-4, A-4, A-6	+2.0-0.0	Jul-Oct
		42-56	SP-SM, SM	A-2-4, A-3		
		56-80	SP-SM, SM	A-2-4, A-3		
41	Satellite	0-6	SP-SM, SP	A-3	1.5-3.5	Jun-Nov
		6-13	SP-SM, SP	A-2-4, A-3		
		13-80	SP-SM, SP	A-2-4, A-3		

[1]Unified Soil Classification System

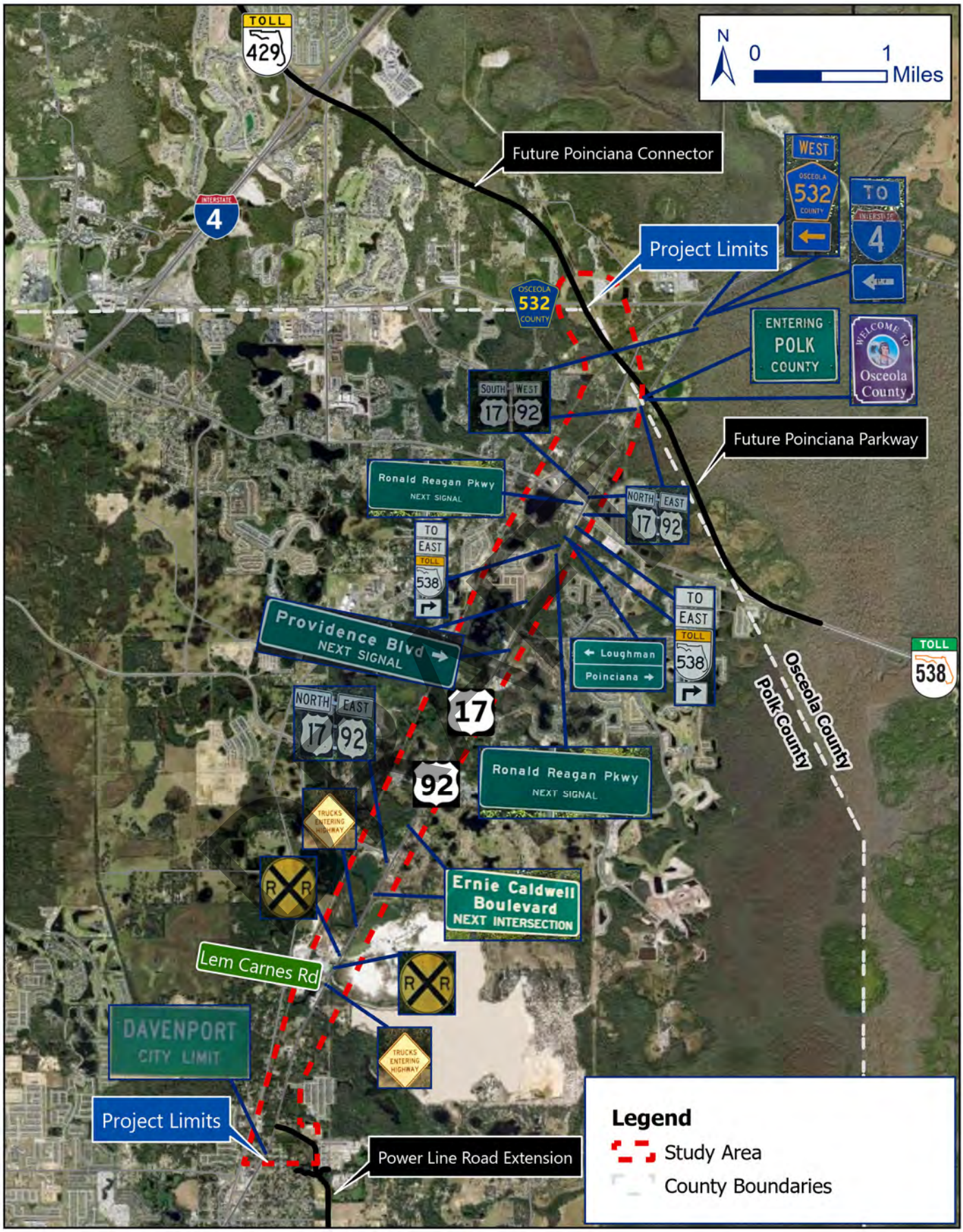
[2] American Association of State Highway and Transportation Officials

2.2.22 Aesthetic Features

Along the corridor, aesthetic enhancements are observed at the entrances of two private residential communities, Watersong and Providence Golf Club. These entry features consist of ornamental landscaping, architectural gateway elements, and hardscape treatments such as brick roads, signage monuments, and decorative fountains. These features serve as visual focal points and help establish a cohesive identity for each community. As privately owned developments, ongoing maintenance of these aesthetic features is performed by the respective Homeowners' Associations (HOAs). No other notable aesthetic features are present within or adjacent to the existing right-of-way.

2.2.23 Traffic Signs

No overhead traffic guide signs are located within the study limits. Ground mounted guide signs are located within the project limits and are shown in Figure 2.2.16.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.2.16: Existing Sign Inventory**	**Page Number: 2-61**

2.2.24 Noise Walls and Perimeter Walls

Perimeter walls are located adjacent to US 17/92 at the following locations:

- East side, at the Temple Crossing Boulevard entrance to the Temples Crossing community: approximately 280 feet in length;
- East side, 660 feet north of Providence Boulevard: approximately 285 feet in length; and
- West side, just south of Hart Road: approximately 580 feet in length.

No noise walls are located within the project limits.

2.2.25 Intelligent Transportation Systems (ITS)/Transportation System Management and Operations (TSM&O) Features

Intelligent Transportation Systems (ITS) features found along the corridor include traffic light cameras and Closed-Circuit Television (CCTV) cameras located at the signalized intersections.

2.3 Existing Bridges and Structures

Ernie Caldwell Boulevard bridges over the CSX railroad and is registered with FDOT as Bridge No. 164532. FDOT Bridge No, 164562 is a two-span prestressed concrete beam bridge, with span lengths of 116 feet and 81 feet, for a total length of 197 feet. According to the last bridge inspection report on February 6, 2025, the performance rating was "good", with a sufficiency rating of 97.2 and a health index of 99.62. The bridge carries four through lanes and one eastbound turn left lane. Sidewalks are provided on both sides of the bridge and are protected by 32-inch F-shape traffic railings.

There are four concrete bridge culverts located along US 17/92. The culverts carry the existing typical section shown in Figure 2.2.1. As the structures are not navigable, there are no horizontal or vertical clearance concerns. According to the load rating analysis for each structure, the culverts do not require posting. The location of the culverts is shown in Figure 2.3.1.

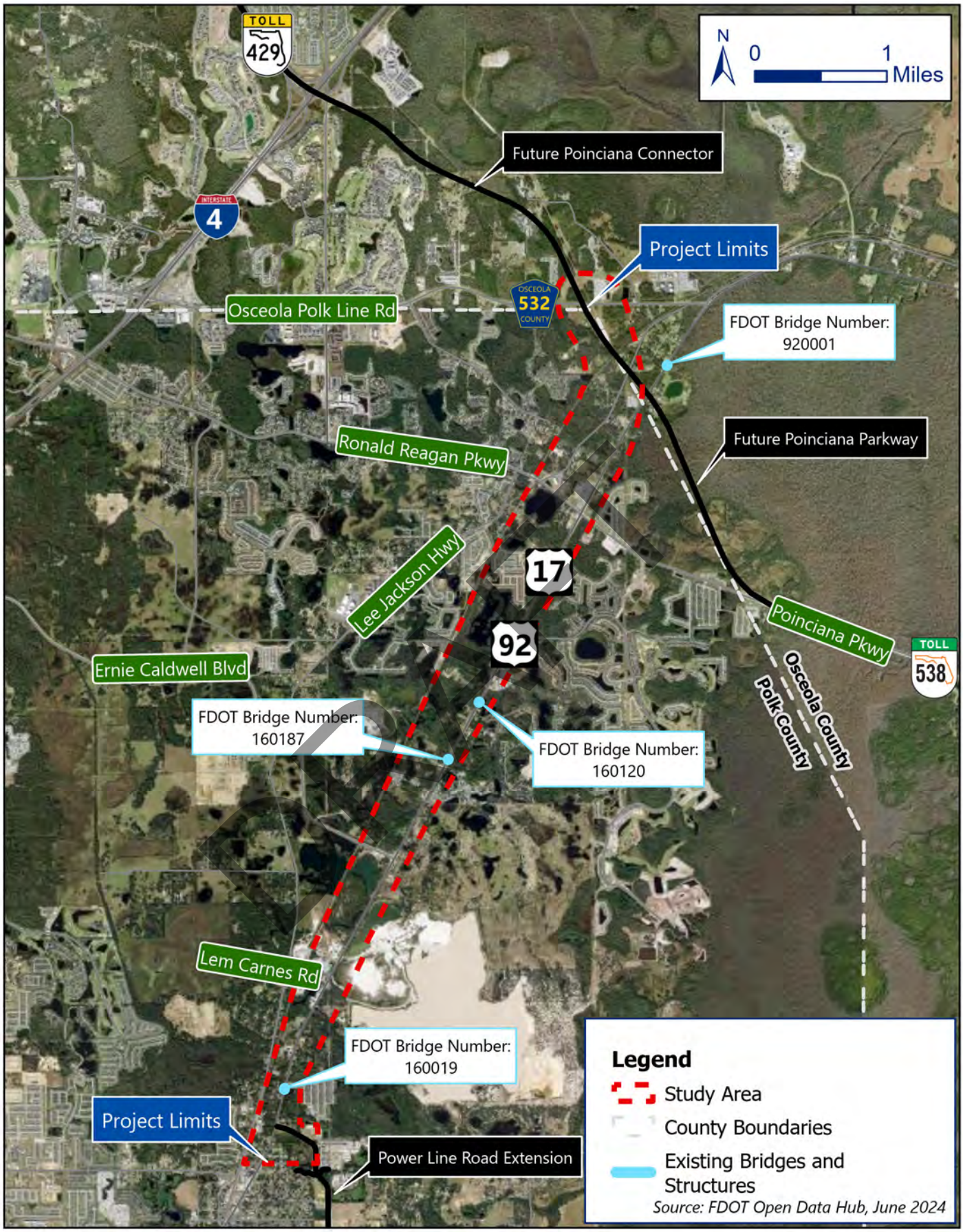
US 17/92 over Horse Creek Bridge is registered with FDOT as Bridge No. 160019. According to the last inspection report on September 2024, the performance rating was "good", with a sufficiency

rating of 88.4 and a health index of 38.5. It was built in 1934 and reconstructed in 2010. The structure is a triple-cell concrete box culvert, each cell measuring 12 feet wide by 10 feet tall with a total span of 95 feet. The recorded channel depth in the last inspection report is 5.4 feet.

US 17/92 over Herbs Lost Creek is registered with FDOT as Bridge No. 160187. According to the last inspection report on September 2024, the performance rating was "good", with a sufficiency rating of 72.8 and a health index of 41.7. It was built in 1934 and was widened in 1996. The structure is a dual-cell concrete box culvert, each cell measuring 10 feet wide by three feet tall with a total span of 62 feet. The recorded channel depth in the last inspection report is 0.6 feet.

US 17/92 over Loughman Creek is registered with FDOT as Bridge No. 160120. According to the last inspection report on September 2024, the performance rating was "good", with a sufficiency rating of 70 and a health index of 35.49. It was built in 1934 and was reconstructed in 1996. The structure is a dual-cell concrete box culvert, each cell measuring 10 feet wide by three feet tall with a total span of 90 feet. The recorded channel depth in the last inspection report is 1.8 feet.

The US 17/92 crossing over Reedy Creek is registered with FDOT as Bridge No. 920001. According to the last bridge inspection report on October 2023, the performance rating was "good", with a sufficiency rating of 90.4 and a health index of 66.68. The culvert is a three foot by five feet concrete box culvert, built in 1934 and reconstructed in 1996.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.3.1: Existing Bridges and Structures**	**Page Number: 2-64**

2.4 Existing Environmental Features

2.4.1 Social Resources

2.4.1.1 Community Focal Points

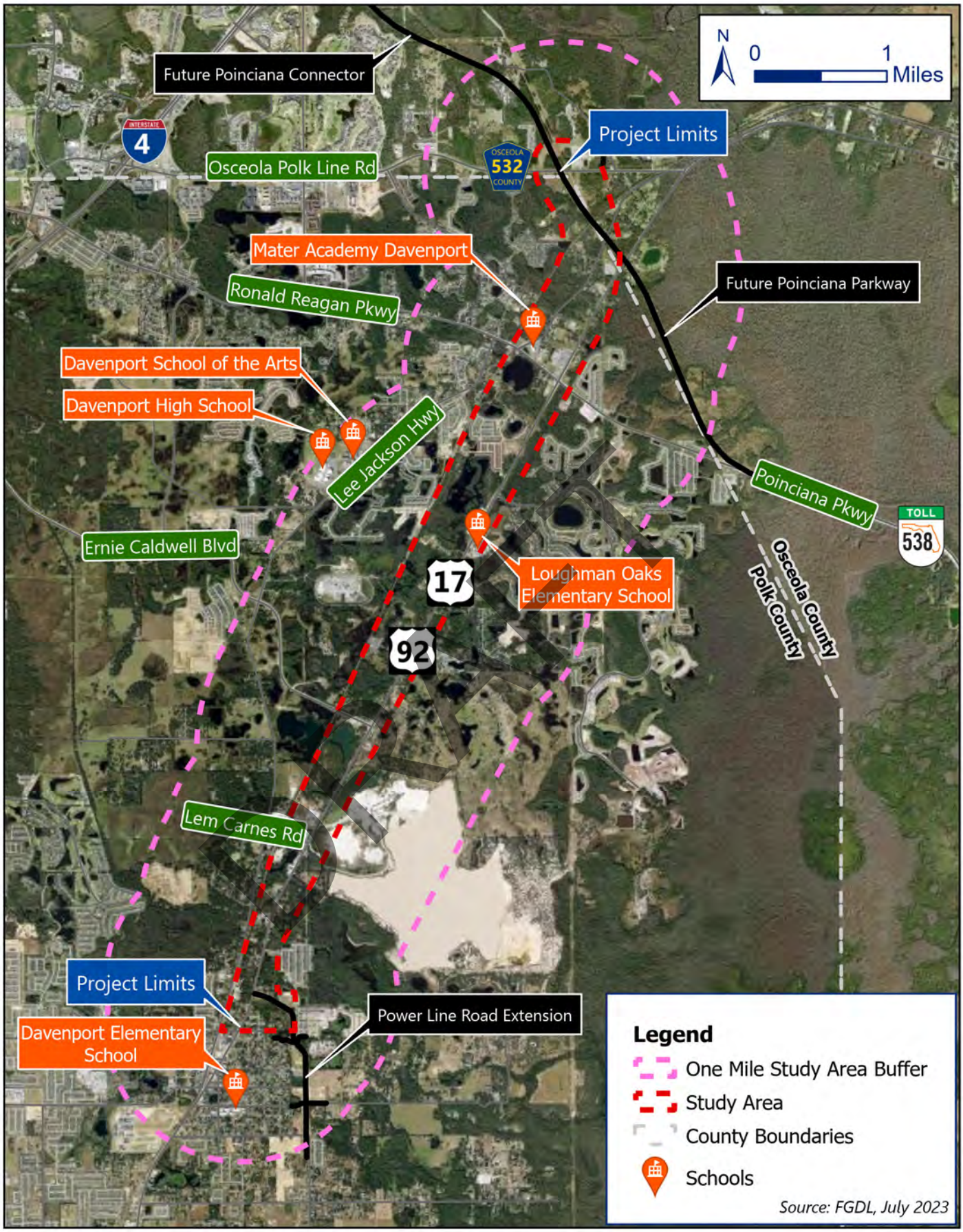
Community focal points are public or private locations, facilities, or organizations that are important to local residents and communities. Community focal points include schools, worship centers, community centers, parks, cemeteries, fire stations, law enforcement facilities, government buildings, healthcare facilities, and social service facilities. The study area for community focal points and demographics was defined to extend in a one-mile radius around the footprints of the two viable alternatives due to the rural nature of the project area.

Schools

Five schools are located within the one-mile radius of the study area and are shown in Figure 2.4.1.

- Davenport School of the Arts;
- Loughman Oaks Elementary School;
- Davenport Elementary School;
- Mater Academy Davenport; and
- Davenport High School.

Loughman Oaks Elementary School is located directly adjacent to US 17/92.



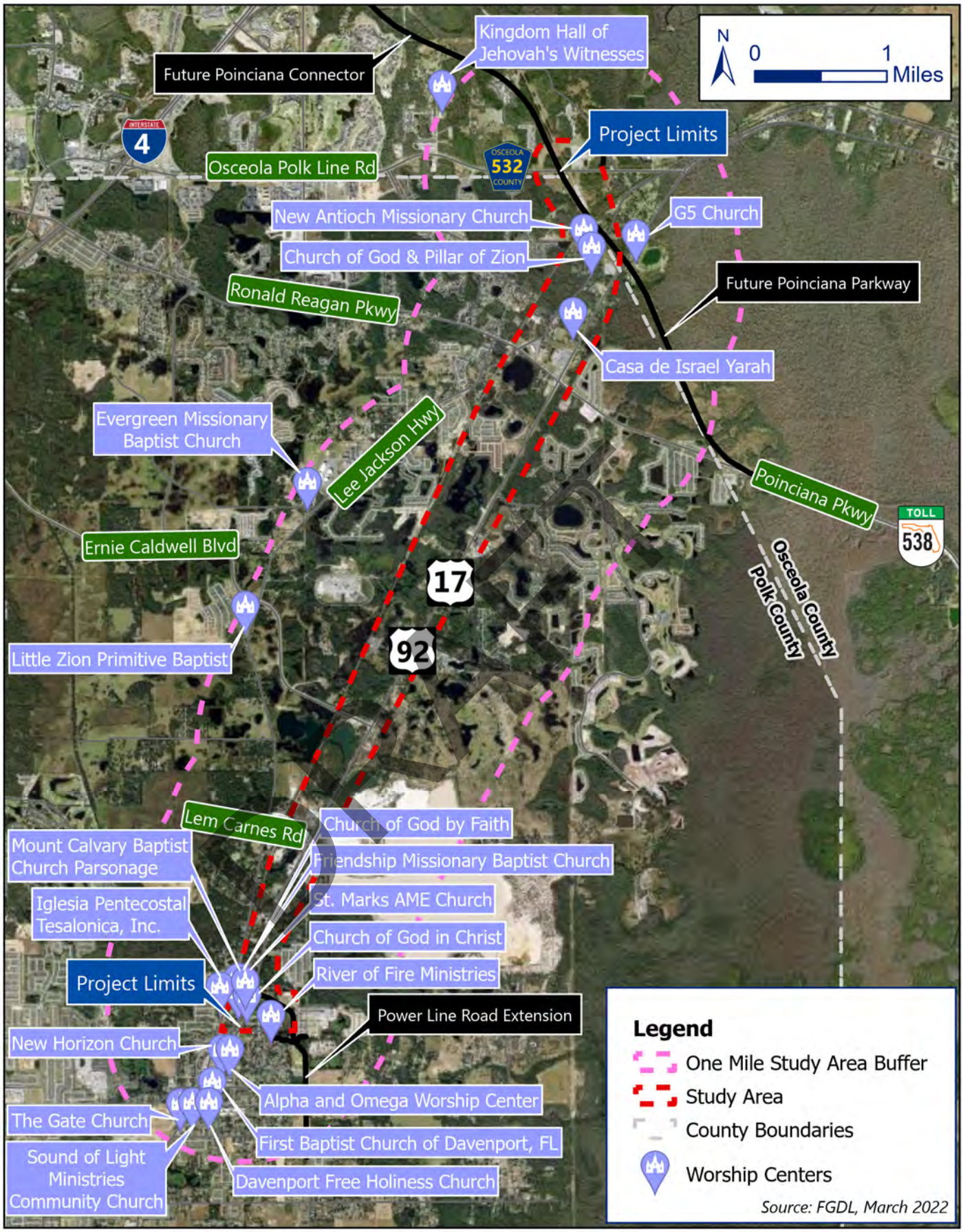
FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.1: Schools**	**Page Number: 2-66**

Worship Centers

Twenty worship centers are located within the one-mile radius of the study area and are shown in Figure 2.4.2.

- Little Zion Primitive Baptist;
- Church of God by Faith;
- Kingdom Hall of Jehovah's Witnesses;
- Iglesia Pentecostal Tesalonica, Inc.;
- Alpha and Omega Worship Center;
- Casa De Israel Yarah;
- St. Marks AME Church;
- New Horizon Church;
- First Baptist Church of Davenport, FL;
- The Gate Church;
- Friendship Missionary Baptist Church;
- Mount Cavalry Baptist Church Parsonage;
- River of Fire Ministries;
- New Antioch Missionary Church;
- Sound of Light Ministries Community Church;
- Davenport Free Holiness Church;
- Church of God in Christ;
- Church of God & Pillar of Zion;
- G5 Church; and
- Evergreen Missionary Baptist Church.

Church of God by Faith, Mount Calvary Baptist Church Parsonage, Casa De Israel Yarah, New Antioch Missionary Church, and Church of God & Pillar of Zion are directly adjacent to US 17/92.



FLORIDA'S TURNPIKE

Central Polk Parkway East
PD&E Study
FM No.: 451419-1 | ETDM No.: 14524

Figure 2.4.2:
Worship Centers

Parks

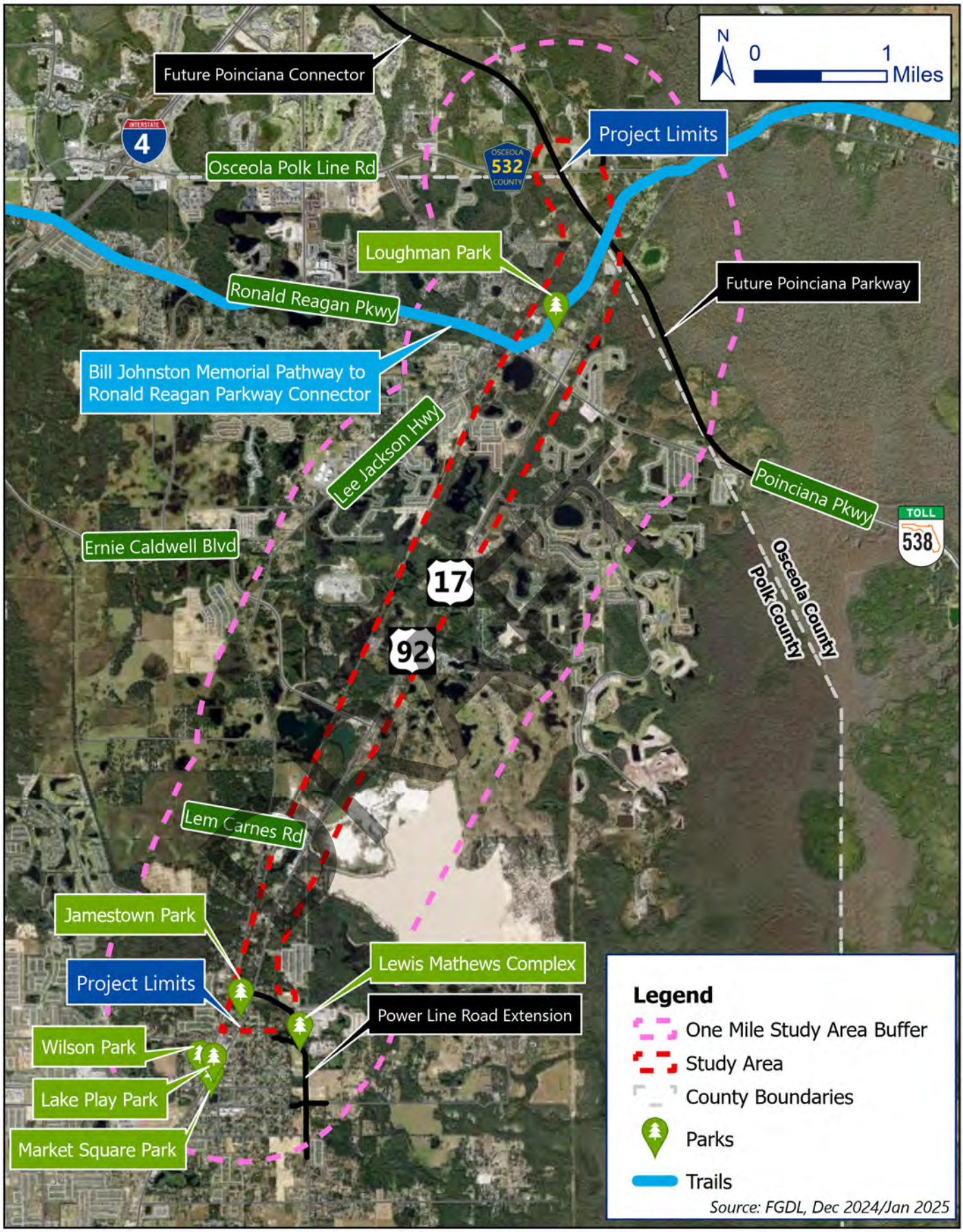
Six parks are located within the one-mile radius of the study area and are shown in Figure 2.4.3.

- Loughman Park;
- Lake Play Park;
- Wilson Park;
- Jamestown Park;
- Lewis Matthews Complex; and
- Market Square Park.

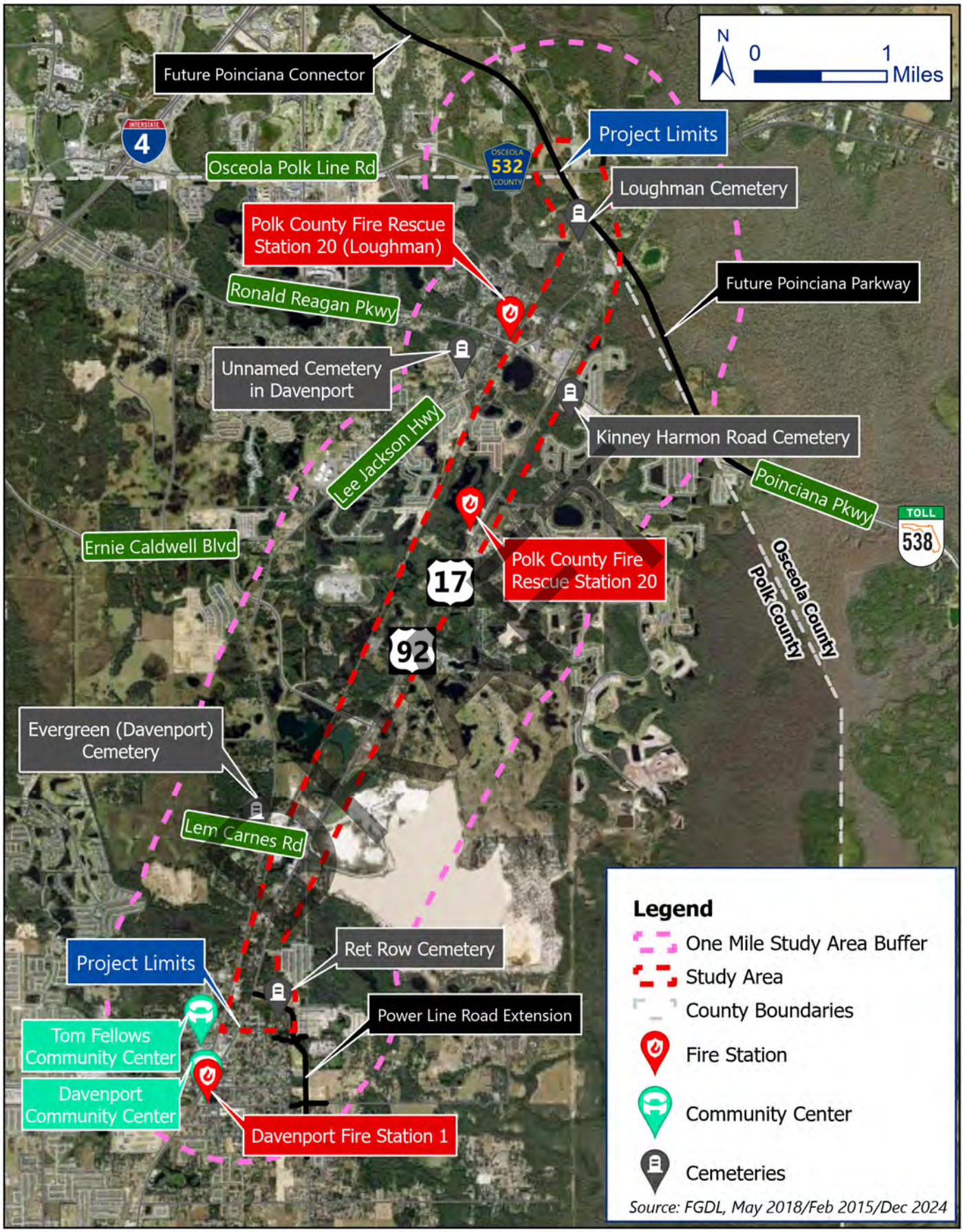
Jamestown Park is directly adjacent to US 17/92 at the southern project limits, however, access to the park is from West Fuller Street or Murphy Street. Jamestown Park currently features a basketball court, a playground, multiple pavilions, picnic tables, and miniature grills. One trail, the Bill Johnston Memorial Pathway to Ronald Reagan Parkway Connector, also known as the Old Tampa Highway Trail is located in the study area. The trail is classified as a paved hiking trail and includes a portion of brick roadway. Figure 2.4.3. shows the location of the trail.

Community Centers

Two community centers are located within the SCE study area: Davenport Community Center and Tom Fellows Community Center. No community centers are located directly adjacent to the Build Alternatives or the Preferred Alternative. Tom Fellows Community Center is the closest amenity, located approximately 0.30 miles south of the project limits. No impacts to the facilities are anticipated as a result of the Preferred Alternative. Figure 2.2.4 shows the location of the community centers within the study area.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.3: Parks and Trails**	**Page Number: 2-70**



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.4: Community Centers, Cemeteries and Fire Stations**	**Page Number: 2-71**

Cemeteries

Five cemeteries are located within the one-mile radius of the study area and are shown in Figure 2.4.4.

- Ret Row (Jamestown) Cemetery;
- Loughman Cemetery;
- Evergreen (Davenport) Cemetery;
- Kinney Harmon Road Cemetery; and
- Unnamed Cemetery in Davenport.

Kinney Harmon Road Cemetery is located at the southeastern quadrant of the intersection at US 17/92 and Ronald Reagan Parkway.

Fire Stations

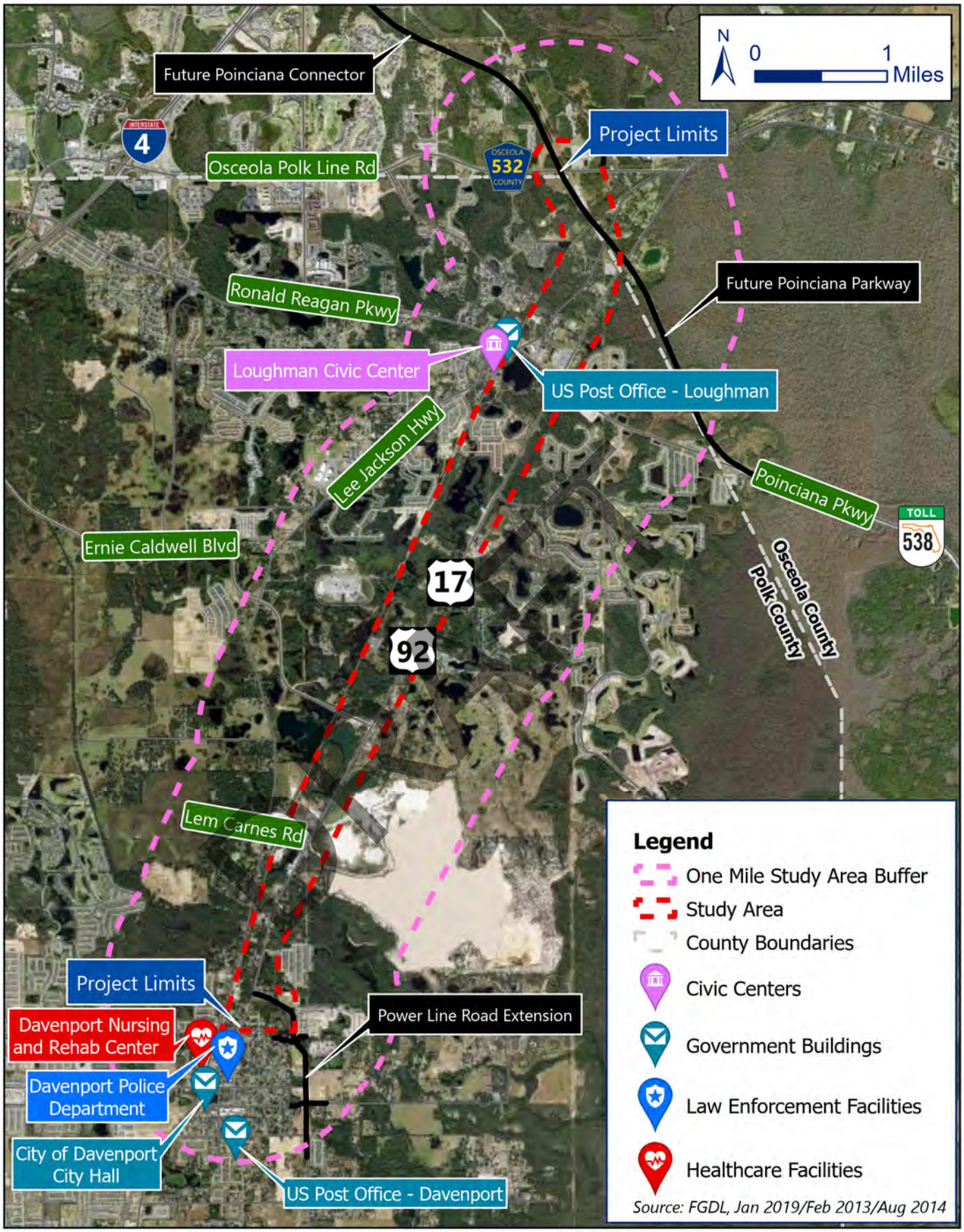
Three fire stations are located within the one-mile radius of the study area and are shown in Figure 2.4.4.

- Polk County Fire Rescue Station 20 (Loughman);
- Polk County Fire Rescue Station 20; and
- Davenport Fire Station 1.

The Polk County Fire Rescue Station 20 is located adjacent to US 17/92.

Law Enforcement Facilities

One law enforcement facility is located within the one-mile radius of the study area: Davenport Police Department. The Davenport Police Department is located 0.42 miles south from the southern project limits and is shown in Figure 2.4.5.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.5: Law Enforcement Facilities, Government Buildings, Healthcare Facilities, and Civic Centers**	**Page Number: 2-73**

Government Buildings

Three government buildings are located within the one-mile radius of the study area and are shown in Figure 2.4.5.

- City of Davenport City Hall;
- US Post Office – Loughman; and
- US Post Office – Davenport.

No government buildings are located directly adjacent to US 17/92. US Post Office-Loughman is the closest government building, located off of Ronald Reagan Parkway approximately 0.25 miles US 17/92.

Healthcare Facilities

One healthcare facility is located within the one-mile radius of the study area: Davenport Nursing and Rehab Center. The facility is located approximately 0.42 miles south of the southern limits. Figure 2.4.5 shows the location of the healthcare facility within the study area.

Civic Centers

One civic center is located within the one-mile radius of the study area: Loughman Civic Center. The civic center is not located directly adjacent to US 17/92. Loughman Civic Center is located off of Ronald Reagan Parkway approximately 0.38 miles from US 17/92. Figure 2.4.5 shows the location of the civic center within the study area.

Cultural Facilities

No cultural facilities are located within the one-mile radius of the study area.

Social Service Facilities

No social service facilities are located within the one-mile radius of the study area.

2.4.1.2 Demographics

Demographic data describes a community's structure and is primarily collected by local, state, or federal agencies such as the Census Bureau and other local government departments. Demographic data covers a range of topics about communities, including population size, age composition, ethnic backgrounds, household characteristics, and geographic distribution. This data assists in designing public participation, outreach, and education strategies that reflect the age, education, and economic backgrounds of the community.

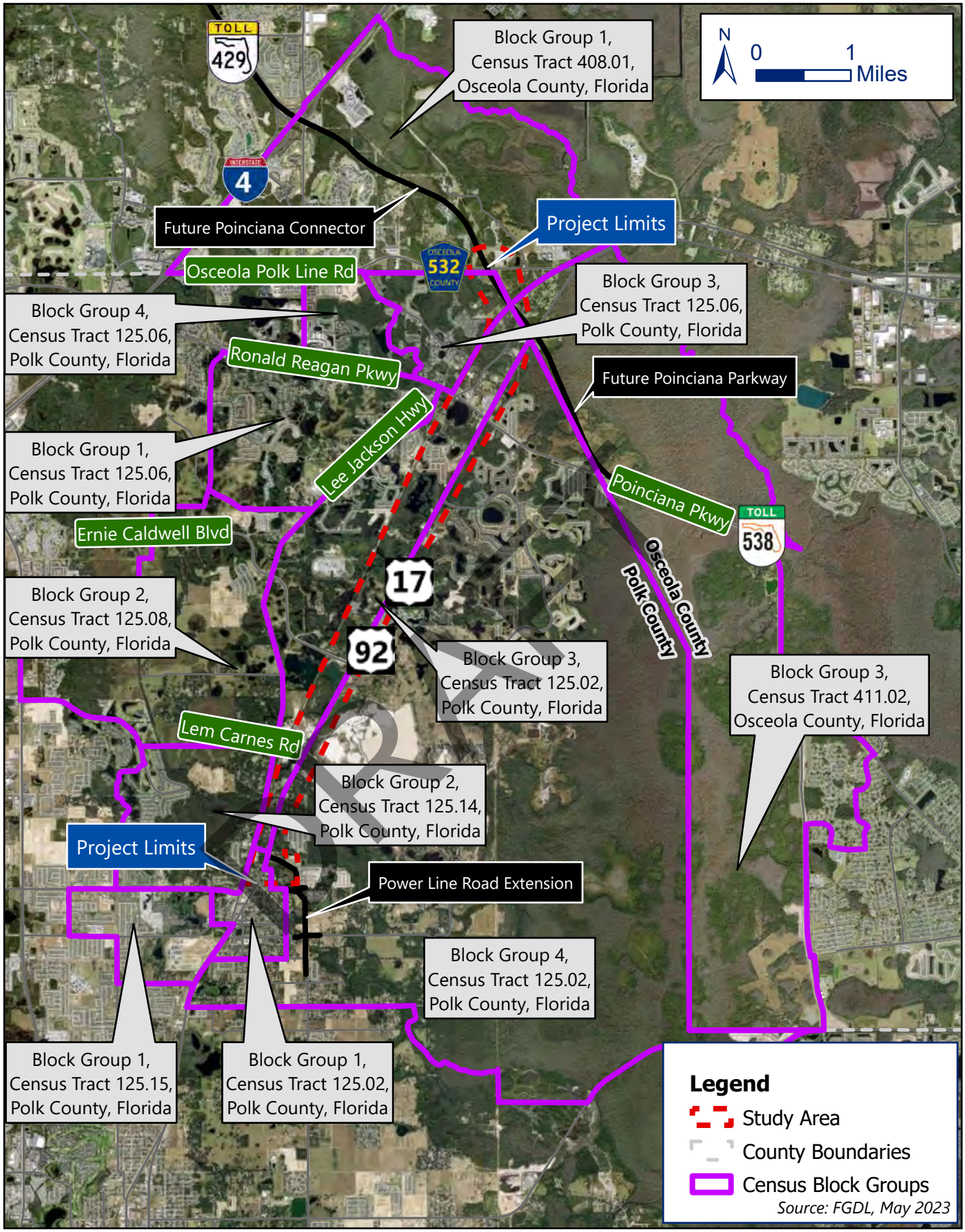
The 2018 to 2022 American Community Survey (ACS) was used to complete the demographic comparison and analysis contained in this document. Block groups are defined by the United States Census Bureau as "statistical divisions of census tracts and are generally defined to contain between 600 and 3,000 people." Census blocks are statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school district, and count limits.

The one-mile study area buffer overlaps with 11 census block groups in Polk and Osceola Counties as shown in Figure 2.4.6. Tables 2.4.1 to 2.4.6 use the average from those 11 census block groups to compare specific demographic information related to the study area to all of Polk and Osceola Counties.

Table 2.4.1: Demographic Comparison: Population

Evaluation Criteria	Polk County	Osceola County	Study Area Block Groups
Total population	808,978	521,674	34,506
Percent of the population that is White	40.1%	7.1%	12.2%
Percent of the population that is Black	15.3%	10.5%	13.3%
Percent of population that is Hispanic	25.1%	47.9%	43.2%
Percent of population that is Asian	1.6%	2.7%	1.9%
Percent of population that is Other[1]	17.9%	31.8%	29.4%
Percent of population that is considered 'Minority'	59.9%	92.9%	87.8%
Median population age	41.6	38.5	36.6
Percent of the population that is above 65 years old	19.6%	13.4%	16.0%

[1]Other nationalities include American Indian or Alaska native, Native Hawaiian or other Pacific Islander, or two more races.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.6:** **Census Block Groups**	**Page Number:** **2-76**

Table 2.4.2: Demographic Comparison: Density

Evaluation Criteria	Polk County	Osceola County	Study Area Block Groups
Total acres	2,276,349	1,983,682	39,021
Population density (persons per acre)	0.4	0.3	0.9
Household density (houses per acre)	0.4	0.3	0.3
Percent of housing units occupied	81.7%	77.6%	72.6%
Percent of housing units vacant	18.3%	22.4%	27.4%
Average family size	3.4	3.8	3.6
Average household size	3.0	3.0	3.0

Table 2.4.3: Demographic Comparison: Income

Evaluation Criteria	Polk County	Osceola County	Study Area Block Groups
Median Household Income ($)	$57,512	$64,452	$58,922
Median Family Income ($)	$66,570	$69,448	$73,899
Percent of households below the poverty line[2]	13.8%	12.2%	13.9%
Percent of the population below the poverty line[2]	14.3%	12.5%	14.1%

[2]The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty.

Table 2.4.4: Demographic Comparison: Transportation

Evaluation Criteria	Polk County	Osceola County	Study Area Block Groups
Percent of the population that commute to / from work via a car, truck or van	88.3%	85.2%	85.8%
Percent of the population that does not commute to/from work	8.8%	11.5%	11.6%
Percent of the population that bikes, walks, or takes public transportation to / from work	1.5%	2.1%	1.1%
Percent of the population that travels to / from work via a motorcycle	0.2%	0.3%	0.6%
Percent of the population that travels to work / from via "other" means	1.2%	0.9%	0.9%
Percent of occupied housing units that do not have a vehicle	5.0%	4.1%	4.4%

Table 2.4.5: Demographic Comparison: Language

Evaluation Criteria	Polk County	Osceola County	Study Area Block Groups
Percent of the population that speaks only English	74.0%	49.5%	58.0%
Percent of the population that speaks a language other than English and also speaks English "very well"	16.4%	31.6%	26.8%
Percent of the population that is considered to be Limited English Proficient	9.6%	18.9%	15.2%

Note: People with Limited English Proficiency speak English "less than very well" or "not at all". These people have a limited ability to read, write, speak, or understand English.

Table 2.4.6: Demographic Comparison: Education

Evaluation Criteria	Polk County	Osceola County	Study Area Block Groups
Percent of the population that is over 25 years old and has less than a 9th grade education	5.3%	4.7%	5.1%
Percent of the population that is over 25 years old and has completed more than 9th grade but does not have a high school diploma	7.8%	6.6%	6.4%
Percent of the population that is over 25 years old and has a high school diploma	86.9%	88.7%	88.5%
Percent of the population that has some college or an associates degree	31.3%	31.8%	34.2%
Percent of the population that has a bachelor's, master's, doctorate or professional degree	21.5%	29.1%	23.3%

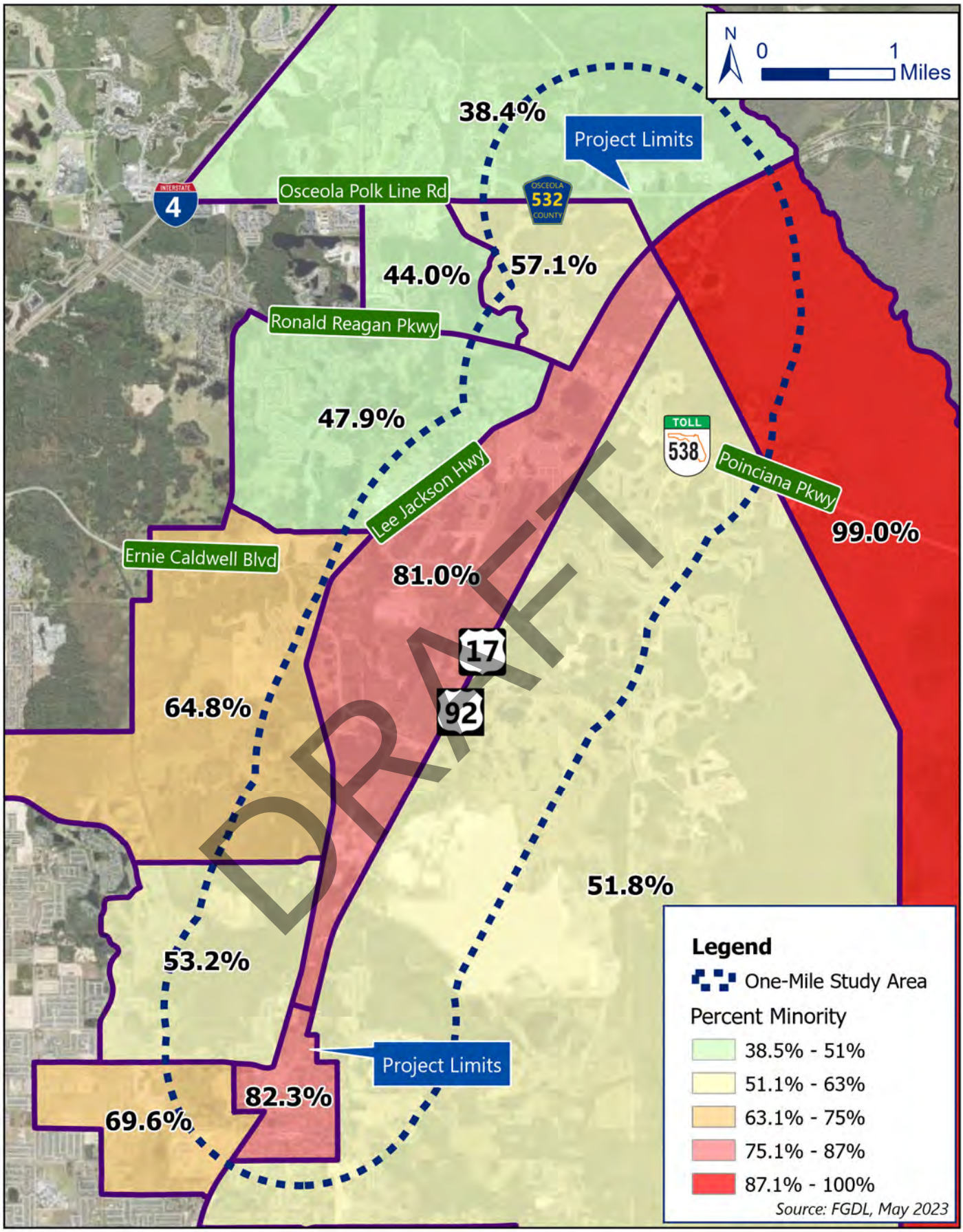
The percentage of population considered White in the study area is 12.2%, which is similar to Osceola County (7.1%) but significantly lower than Polk County (40.1%). The percentage of population considered Hispanic in the study area is 43.2%, which is similar to Osceola County (47.9%) but significantly higher than Polk County (25.1%). As a result, the percentage of population that is considered "minority" is significantly lower in Polk County compared to the study area, at 59.9% and 87.8%, respectively. However, the percentage of population that is considered "minority" in the study area is similar to that of Osceola County, which is at 92.9%. Figure 2.4.7 shows the percentage of population that is considered "minority" in the study area. The median population age in the study area is 36.6 years, compared to 38.5 years in Osceola County and 41.6

years in Polk County. The percentage of population above the age of 65 years old is 19.6% in Polk County, 13.4% in Osceola County, and 16.0% in the study area.

The study area has a slightly higher population density per acre compared to Polk and Osceola Counties, 0.5 to 0.6 per acres higher, though household density is relatively similar across all three areas. The percentage of housing units occupied in the study area (72.6%) is comparable to Osceola County but notably lower than Polk County, at 77.6% and 81.7%, respectively. The average family sizes are also similar across all three areas, with the study area differing by no more than 0.2 persons from either county. The study area and counties are averaging around 3.0 people per household.

Median household incomes in the study area ($58,922) fall between those of Polk and Osceola Counties, while the median family income in the study area ($73,899) is higher than Polk and Osceola Counties. While the percentage of households and individuals below the poverty line in the study area are similar to both counties, they are slightly higher than Osceola County but very similar to Polk County.

The percentage of the population that commute to and from work using a car, truck, or van is slightly higher in Polk County than in the study area, while the study area sees a slightly higher rate than Osceola County. The study area also has a marginally higher percentage of residents without a vehicle compared to Osceola County, yet slightly lower than the percentage in Polk County. Polk County has a slightly higher percentage of the population that is over 25 years old that have not completed 9th grade compared to the study area, whereas the study area has a higher percentage of people with some college or an associate's degree compared to both counties.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.7: Percentage of Population Considered Minority in the Study Area**	**Page Number: 2-80**

The percentage of the population that is Limited English Proficient (LEP) is lower in the study area than in Osceola County (15.2% versus 18.9%) but higher than in Polk County (9.6%). A majority of the study area block groups adjacent to the project limits have low LEP (under 8%), while the block group at the southern project limits have a higher LEP (27.9%).

2.4.2 Cultural Resources

A Cultural Resources Assessment Survey (CRAS) is being prepared in accordance with Chapter 267, *Florida Statutes (F.S.)* and Stipulation VII of the *Programmatic Agreement among the Federal Highway Administration (FHWA), the Florida Department of Transportation (FDOT), the Advisory Council on Historic Preservation (ACHP), and the Florida State Historic Preservation Officer (SHPO) Regarding Implementation of the Federal-Aid Highway Program in Florida* (Programmatic Agreement, effective September 27, 2023). This assessment meets the standards embodied in the FDOT PD&E Manual (part 2 Chapter 8), the FDOT Cultural Resource Management Handbook (2025), and the Florida Division of Historical Resources (FDHR's) *Cultural Resource Management Standards and Operational Manual* (February 2003) and *Cultural Resource Management Handbook* (2025).

The objective of the CRAS was to identify and evaluate archaeological sites and historic resources with the project Area of Potential Effect (APE). According to 36 CFR 800.16(d), the APE is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking as well as its geographical setting.

The survey for archaeological sites typically focuses upon identifying and evaluating resources within the geographic limits of the proposed action and its associated ground disturbing activities, as well as areas where ownership will be transferred.

The survey for archaeological sites typically focuses upon identifying and evaluating resources within the geographic limits of the proposed action and its associated ground disturbing activities,

as well as areas where ownership will be transferred. The development of the archaeological APE also considered the character of the area containing the project corridor and the nature of the improvements planned within the existing and proposed right-of-way. Therefore, the archaeological APE for this CRAS consisted of the footprint of the existing and proposed right-of-way that contains the majority of the proposed improvements as well as the footprint of a small driveway tie-in located at 115 Lem Carnes Road.

The development of the historic resources APE also considered the nature of the improvements and the current conditions within and surrounding the project corridor. To account for the proposed widening of the existing facility, the historic resources APE consisted of the footprint of all existing and proposed right-of-way, the small driveway tie-in, and a buffer of 200 feet from each of these elements. To account for the construction of new facilities where none currently exist, the historic resources APE also expanded 250 feet out from the proposed right-of-way containing the new alignment. Lastly, in areas where second- or third-level bridges are being widened or newly proposed, the historic resources APE expanded out 200 feet and 250 feet respectively from the edge of the footprint of these elevated improvement types.

Archaeological Survey

A review of the Florida Master Site File (FMSF) identified five archaeological sites (8PO3968, 8PO5373, 8PO7711, 8PO7712, and 8PO7756) previously recorded within the archaeological APE. The State Historic Preservation Officer (SHPO) has previously concurred that these sites are ineligible for listing in the National Register of Historic Places (NRHP). They were not relocated during the current survey. The archaeological survey included the excavation of 116 standard shovel tests as well as pedestrian survey and controlled surface collection. One historic period archaeological site, the Petteway Camp (8PO10798), was identified within the archaeological APE. The site consisted of a large surface scatter and twelve shovel tests that contained historic artifacts. The Petteway Camp (8PO10798) represents an early 20th century domestic site that is likely a residential component associated with the NRHP eligible Petteway Turpentine Still Site (8PO5381) located outside of the archaeological APE to the west. The site may also have an association with

the Everglades Cypress sawmill and Zora Neale Hurston. The site has a diverse artifact assemblage with temporally diagnostic artifacts and likely represents a rare site type. Currently there is insufficient information to determine the NRHP eligibility of the site. Additional investigations are recommended to assess the potential for undisturbed subsurface features or deposits and determine the integrity of the site to evaluate its eligibility for listing in the NRHP.

Historic Resources Survey

The historic resources survey resulted in the identification of 143 historic resources within the APE, consisting of 34 extant previously recorded resources and 109 newly recorded resources. The 34 previously recorded resources consist of four linear resources and 30 structures. The current survey also confirmed the demolition of 12 previously recorded resources which were formerly located within the APE.

Two of the linear resources, Old Kissimmee Road/Old Tampa Highway (8PO7154/8OS2567) and the South Florida Railroad (8PO7219/8OS2540) traverse both counties in the APE and thus have two Florida Master Site File (FMSF) numbers, but each has only been counted once in the resource totals. The northernmost portion of Old Kissimmee Road/Old Tampa Highway (8PO7154/8OS2567) within the APE was recorded in 2019. SHPO evaluated that there was insufficient information to determine NRHP eligibility at that time. The segment of Old Kissimmee Road/Old Tampa Highway (8PO7154/8OS2567) within the current APE is considered eligible for listing in the NRHP under Criterion A in the area of Transportation as a section of the Dixie Highway system which exhibits integrity of alignment, width, and setting. Portions of the South Florida Railroad (8PO7219/8OS2540) near the north end and the center of the APE were recorded in 2009 and 2019. In 2009, the segments were determined insufficient information by SHPO, but the northernmost segment was recorded again in 2019 and was determined eligible for listing in the NRHP by SHPO under Criterion A for its role in transportation, commerce, and the phosphate mining industry and under Criterion B for its association with Henry Plant. The newly recorded segments of the South Florida Railroad (8PO7219/8OS2540) are considered eligible for listing in the NRHP under the same criteria. The two newly recorded railroad spurs (8PO10800 and

8PO10801), which were constructed between 1952 and 1958, are considered eligible for listing in the NRHP as contributing to the NRHP eligible South Florida Railroad (8PO7219/8OS2540). A segment of US 17/92 (8PO8622) at the north end of the APE was determined ineligible for NRHP listing by SHPO in 2021 due to modern paving, signage, and signalization, widening for turn lanes, and intermittent adjacent non-historic development. Another segment of the roadway was recorded at the southern end of the APE in 2023 and although the specific segment was considered ineligible for listing in the NRHP, it was evaluated as insufficient information because it was a small segment of the whole roadway. The newly recorded segments of US 17/92 (8PO8622) exhibit the same modifications as other segments that were determined ineligible and are also considered ineligible for listing in the NRHP. A segment of Horse Creek Canal (8PO9456) west of the current APE was determined ineligible by SHPO in 2023 because the canal lacks significant engineering or historical associations. The newly recorded segment is similarly considered ineligible for listing in the NRHP.

The 30 previously recorded structures are all considered ineligible or determined ineligible by SHPO. Four of the previously recorded buildings (8PO5179; 8PO5180; 8PO5192; and 8PO7124) were not evaluated by SHPO when they were recorded in 1994 and 1996. They exhibit common styles of architecture and exhibit modifications. Field survey of the APE and surrounding area outside of the APE did not reveal any potential historic districts. Therefore, they are considered ineligible for listing on the NRHP. The remaining 26 previously recorded buildings have been determined ineligible by SHPO. FMSF forms were updated for the resources which were evaluated more than 10 years ago but these do not exhibit changes in eligibility.

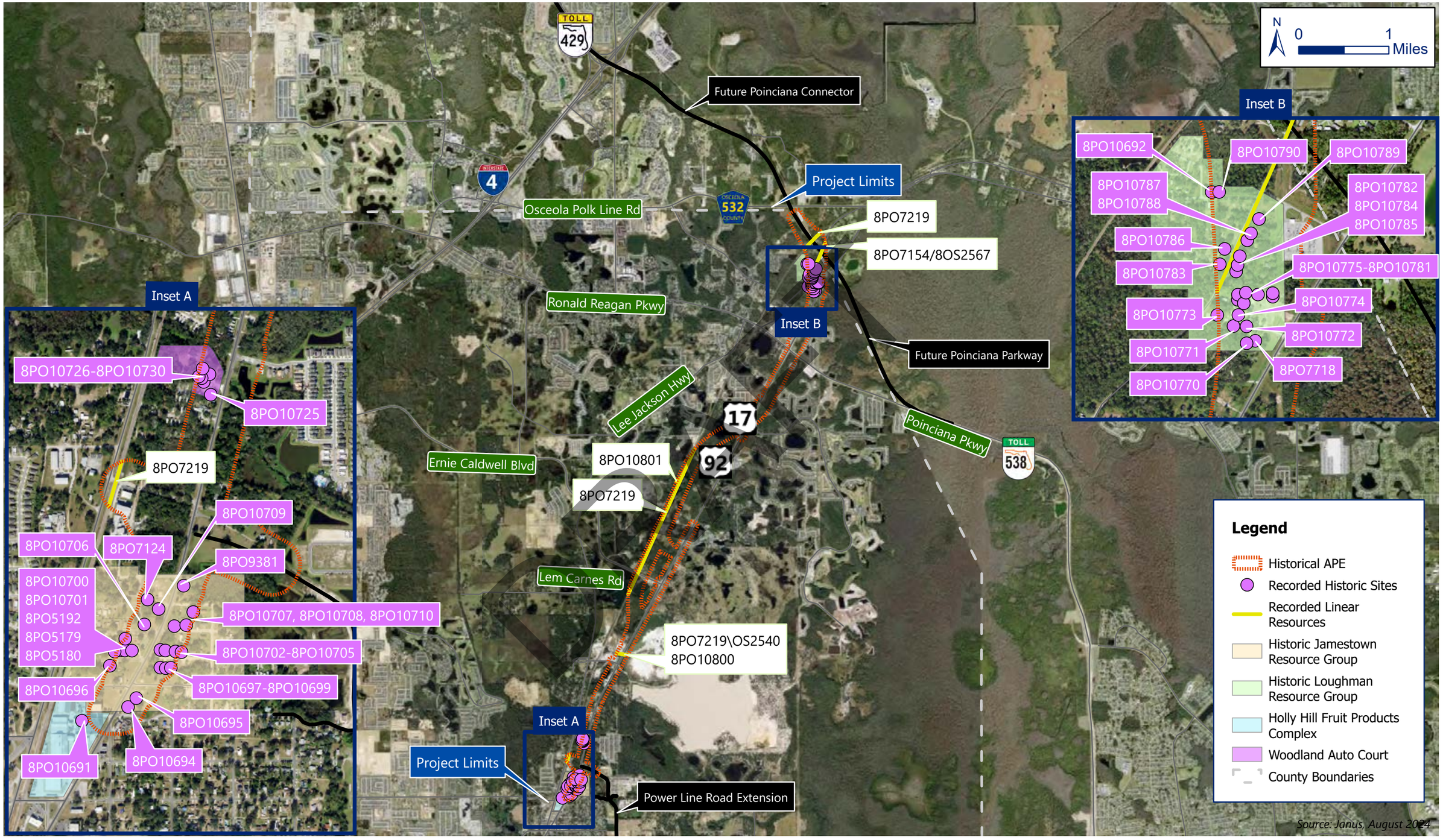
The 109 newly recorded resources consist of six resource groups, 101 structures, and two railroad spurs. The newly recorded resource groups consist of the Holly Hill Fruit Products packing complex, two mobile home parks, and one historic auto/motor court, the Woodland Auto Court. The mobile home parks exhibit common overall designs of this resource type in Central Florida, lack unique features in layout, landscaping, and communal spaces, and lack historical associations. The mobile homes within the mobile home parks are considered ineligible for listing in the NRHP due to their lack of historical associations, common styles, and modifications.

The Holly Hill Fruit Products complex is considered eligible for listing in the NRHP under Criterion A in the areas of Agriculture and Industry due to its association with the region's agricultural economy. One contributing resource is located within the APE.

The Woodland Auto Court is considered eligible for listing in the NRHP under Criterion A in the area of Tourism for its association with the growth of automobile-oriented tourist industry in Florida in the early 20th century and under Criterion C in Architecture as an early motor court in Florida with Frame Vernacular structures exhibiting a high degree of integrity of materials, design, and setting. Six contributing resources are located within the APE.

Two newly identified resource groups, Historic Loughman Resource Group (8PO10792) and Historic Jamestown Resource Group (8PO10799), are historic African-American areas that are both considered eligible for listing in the NRHP under Criterion A in the area of African-American history. The Historic Loughman Resource Group is also potentially eligible for NRHP listing under Criterion B due to its association with famous author and anthropologist Zora Neale Hurston, who published a book of stories collected from Loughman called *Mules and Men* in 1935. Based on the original 1923 and 1925 plats, the Historic Jamestown Resource Group is associated with the Holly Hill Fruit Products Company and thus is also eligible for listing in the NRHP under Criterion A in the areas of Agriculture and Industry.

Figure 2.4.8 shows the recorded historic sites and linear resources.



FLORIDA'S TURNPIKE

Central Polk Parkway East PD&E Study

FM No.: 451419-1 | ETDM No.: 14524

Figure 2.4.8: Recorded Historic Structures and Linear Resources

2.4.3 Natural Resources

2.4.3.1 Protected Species and Habitats

A Natural Resource Evaluation (NRE) was conducted for this project and is available in the project file. This project was evaluated for impacts to wildlife and habitat resources, including federally and state protected species. Species protections are afforded by Section 7 of the Endangered Species Act, as amended, and Chapter 68A-27, F.A.C. The project was also evaluated for plant species designated as endangered, threatened, or commercially exploited in accordance with the Regulated Plant Index, which is administered by the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry, pursuant to Chapter 5B40, F.A.C. Evaluations were conducted in accordance with the FDOT PD&E Manual, while using information from the USFWS, Florida Fish and Wildlife Conservation Commission (FWC), Florida Natural Areas Inventory (FNAI), FDACS, Natural Resources Conservation Service (NRCS), and other databases.

The study area does not fall within USFWS-designated critical habitat (CH) for any species. The study area falls within the USFWS Consultation Areas (CAs) of the Florida scrub-jay (*Aphelocoma coerulescens*), crested caracara *(Caracara plancus)*, red-cockaded woodpecker (*Picoides borealis*), Florida bonneted bat (*Eumops floridanus*), wood stork (*Mycteria americana*), sand skink (*Neoseps reynoldsi*), blue-tailed mole skink (*Eumeces egregious lividus*), and the Everglade snail kite (*Rostrhamus sociabilis plumbeus*). The Polk County Soil Survey, Osceola County Soil Survey, recent aerial imagery (2022), Cooperative Land Cover (CLC), SFWMD, and SWFWMD land use/land cover mapping using a 300-foot buffer have been reviewed to determine habitat types occurring within and adjacent to the project corridor.

Conservation Lands

A review of the Florida State Owned Land and Record Information System (FLSOLARIS), Land Inventory Tracking System (LITS) GIS database (October 2024) identified one state owned parcel (Osceola County 06-26-28-0000-0030-0000) owned by the SFWMD. This parcel is located east of US 17/92 at the Osceola/Polk County line. This parcel is part of the Upper Reedy Creek Management Area and is located at the eastern edge of the study area.

The Lake Wales Ridge (LWR) is the remnant of an ancient dune that runs north and south through Florida's peninsula. The Lake Wales Ridge Ecosystem Florida Forever project consists of separate sites along the ridge, which are intended to be a part of a system of managed areas that conserve the character, biodiversity and ecosystem processes of the ancient scrubs. The 2024 Florida Forever Plan has identified essential parcels remaining to acquire located west of US 27. There are no target parcels located within 2.5 miles of the CPP East project area.

The Lake Wales Ridge National Wildlife Refuge (NWR) manages lands on both the Lake Wales and Winter Haven ridges of the Central Florida highlands. The NWR manages the Snell Creek unit, which is approximately three miles east of the CPP East project area.

State and federally protected species with the potential to occur within the region of the study area are listed in Tables 2.4.7, 2.4.8, and 2.4.9. Each species listed in the tables is assigned to a potential occurrence within the project study area based on data reviews and assigned a low, moderate, or high likelihood for occurrence within the project study area. A description of the species with a moderate to high potential for occurrence is summarized below.

Federally Listed Species

Eastern Black Rail

The Eastern black rail (*Laterallus jamaicensis jamaicensis*) is listed as Threatened by the USFWS and Federally designated Threatened by the FWC. Black rails inhabit a variety of wetland habitats including salt, brackish, and freshwater marshes with dense vegetative cover. Along portions of the Gulf Coast of Florida, Eastern black rails can be found in higher elevations of wetland zones that contain shrubby vegetation. When shrubby vegetation becomes too dense, the habitat becomes less suitable for the species. Existing habitat types that could potentially support the Eastern black rail along the project corridor are FLUCFCS codes 640 (vegetated non-forested wetlands) and 641 (freshwater marshes). The existing habitats are low quality that contain overgrowth of invasive species that create undesirable conditions, and no Eastern black rails were

observed during the field reviews; however, it was determined the Eastern black rail has a 'moderate' potential for occurrence.

Everglades Snail Kite

The project falls within the CA of the snail kite (Rostrhamus sociabilis), a federally listed Endangered species. Everglade snail kite habitat consists of freshwater marshes and the shallow vegetated edges of lakes (natural and man-made) where apple snails can be found. Suitable foraging habitat for the Everglade snail kite is typically a combination of low marsh with an interdigitated matrix of shallow open water, which is relatively clear and calm. Everglade snail kites require foraging areas that are relatively clear and open in order to visually search for apple snails. Therefore, dense growth of herbaceous or woody vegetation is not conducive to efficient foraging.

The closest observation of this species has been located eight miles east of the study area along Lake Tohopekaliga. Suitable habitat exists within the study area in the FLUCFCS code 520 (lakes) and 530 (reservoirs) communities. However, no individuals were observed during field reviews nor were any apple snail shells observed. The Everglades snail kite is determined to have a 'moderate' potential for occurrence.

Tricolored Bat

The tricolored bat (*Perimyotis subflavus*) is one of the smallest bats native to North America and utilizes trees in forested habitats and structures such as bridges and culverts for roosting. The tricolored bat is a proposed species for federal listing. The tricolored bat is determined to have a 'moderate' potential for occurrence.

Wood Stork

The project is within the 15-mile Core Foraging Area (CFA) of two wood stork nesting colonies (Gatorland and Lake Russell). This federally listed Threatened wading bird prefers freshwater and estuarine habitats for nesting, roosting, and foraging. Typical foraging sites for the wood stork include freshwater marshes and 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. Because of their specialized feeding behavior, wood storks forage most effectively in shallow-water areas. It has been determined, the wood stork has a 'moderate' potential for occurrence.

American Alligator

The American alligator (*Alligator mississippiensis*) is listed as Threatened by the USFWS due to similarity of appearance to the American crocodile (*Crocodylus acutus*) and federally designated Threatened due to similarity of appearance by the FWC. This species inhabits swampy areas, rivers, streams, lakes, and ponds.

No American alligators were observed on-site; however, marginal habitat is present. Alligators are highly mobile, and it is likely that they would leave areas of disturbance or if habitat impacts occur. It has been determined the American alligator have a 'moderate' potential for occurrence.

Eastern Indigo Snake

The Eastern indigo snake (*Drymarchon couperi*), federally listed as Threatened, inhabits pine flatwoods, hardwood forests, moist hammocks, and areas that surround cypress swamps. This species could occur in many habitat types throughout the corridor but is often found in habitats containing gopher tortoises. Therefore, it is more likely to be found in the upland locations. The FWC Rare Snake Sightings GIS database was reviewed for Eastern indigo snake sightings. No sightings have been documented within the study area. It has been determined the Eastern indigo snake has a "moderate' potential for occurrence.

Sand and Blue-tailed Mole Skink

The project falls within the CA of the federally listed Threatened sand skink (*Neoseps reynoldsi*) and blue-tailed mole skink (*Eumeces egregious lividus*). These species require habitats that contain sandy soils (USFWS has identified 28 soils that could support the species) and an elevation above 82 feet NAVD. Potentially suitable habitats contain extensive rooted vegetation or are otherwise

disturbed such that there is no potential to support skinks. Preferred skink habitat is dominated by xeric vegetation such as oak-dominated scrub, turkey oak barrens, high pine, and xeric hammocks. Skinks typically occur in habitats that contain a mosaic of open sandy patches interspersed with forbs, shrubs, and trees.

Potential habitat exists throughout the corridor, where suitable soil type and elevation overlap. They are generally the same areas as the potential scrub-jay habitat areas, plus the addition of several areas of residential and commercial development. Therefore, it has been determined the sand and blue-tailed mole skink have a 'moderate' potential for occurrence.

Monarch Butterfly

The monarch butterfly (*Danaus plexippus*) is a candidate species for federal listing under the Endangered Species Act throughout the United States. Monarchs can be found throughout Florida with a preferred habitat that includes wildflowers and specifically milkweeds.

Monarch butterflies were not detected during field surveys, but they are highly mobile, and potential exists for monarch butterflies to occupy vegetated areas within the project limits. If the Monarch butterfly is listed by USFWS as Threatened or Endangered and, therefore, has been determined to have a 'moderate' potential for occurrence.

Federally Protected Plants

All plants listed in Table 2.4.7 are known to require the conditions of high pine and/or scrub habitat types. While these habitats are not present along the corridor, these species could potentially be found in the communities identified by FLUCFCS codes 320 (shrub and brushland), 411 (pine flatwoods), and 434 (hardwood-conifer mixed). In addition, certain areas mapped as FLUCFCS codes 190 (open land), 210 (cropland and pastureland), 310 (herbaceous), and 330 (mixed rangeland), have a low likelihood of supporting the species. No federally protected plant species were observed during the field review.

Table 2.4.7: Federally Listed Species with the Potential to Occur

Species	Common Name	USFWS Status	Habitat Proximity	Potential for Occurrence	Comments
Avian					
Caracara plancus	Crested caracara	T	Within R/W	Low	Suboptimal foraging habitat is present and potential nesting habitat limited.
Laterallus jamiacensis ssp. Jamaicensis	Eastern black rail	T	Within R/W	Moderate	Suitable habitat is present.
Rostrhamus sociabilis plumbeus	Everglade snail kite	E	Within R/W	Moderate	Suitable habitat is present.
Aphelocoma coerulescens	Florida scrub-jay	T	Within R/W	Low	Suboptimal habitat is present.
Picoides borealis	Red-cockaded woodpecker	T	Within R/W	Low	Suboptimal foraging habitat is present
Mycteria americana	Wood stork	T	Within R/W	Moderate	Suitable habitat is present.
Insect					
Danaus plexippus	Monarch butterfly	C	Within R/W	Moderate	Suitable habitat is present.
Mammals					
Eumops floridanus	Florida bonneted bat	E	Within R/W	Low	Suboptimal foraging habitat is present and potential nesting habitat limited.
*Perimyotis subflavus**	Tri-colored bat	E	Within R/W	Moderate	Suboptimal foraging and nesting habitat is present.
Reptiles					
Alligator mississippiensis	American alligator	T (S/A)	Within R/W	Moderate	Suitable habitat is present.
Eumeces egregious lividus	Blue-tailed mole skink	T	Within R/W	Moderate	Suitable habitat is present.
Drymarchon couperi	Eastern indigo snake	T	Within R/W	Moderate	Suitable habitat is present.
Neoseps reynoldsi	Sand skink	T	Within R/W	Moderate	Suitable habitat is present.

Species	Common Name	USFWS Status	Habitat Proximity	Potential for Occurrence	Comments
Plants					
Crotalaria avonensis	Avon Park harebells	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Nolina brittoniana	Britton's beargrass	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Warea carteri	Carter's mustard	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Ziziphus celata	Florida Ziziphus	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Hypericum cumulicola	Highlands scrub hypericum	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Polygala lewtonii	Lewton's Polygala	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Paronychia chartacea	Papery Whitlow-wort	T	Within R/W	Low	None observed. Suboptimal habitat is present.
Clitoria fragrans	Pigeon wings	T	Within R/W	Low	None observed. Suboptimal habitat is present.
Chionathus pygmaeus	Pygmy fringe-tree	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Polygonella myriophylla	Sandlace	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Liatris ohlingerae	Scrub blazingstar	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Eriogonum longifolium var. *gnaphalifolium*	Scrub buckwheat	T	Within R/W	Low	None observed. Suboptimal habitat is present.
Dicerandra frutescens	Scrub mint	E	Within R/W	Low	None observed. Suboptimal habitat is present.

Species	Common Name	USFWS Status	Habitat Proximity	Potential for Occurrence	Comments
Conradina brevifolia	Short-leaved Rosemary	E	Within R/W	Low	None observed. Suboptimal habitat is present.
Polygonella basiramia	Wireweed	E	Within R/W	Low	None observed. Suboptimal habitat is present.

Ranking: E – endangered, T – threatened, C – candidate, T (S/A) – threatened by Similarity of Appearance * - Proposed species for federal listing as Endangered

State Listed Species

Florida Burrowing Owl

The Florida burrowing owl (*Athene cunicularia floridana*) is state-listed as Threatened and is known to inhabit open upland prairies in Florida that have very little understory vegetation. Burrowing owls may also use golf courses, airports, pastures, agriculture fields, and vacant lots. Although no burrows were observed that appeared to be indicative of burrowing owl presence, potentially suitable habitat exists within the study area. It has been determined that the Florida burrowing owl has a 'moderate' potential for occurrence.

Wading Birds

State-protected wading birds with potential to occur in the study area include the little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), and roseate spoonbill (*Platalea ajaja*). These birds are state-listed as Threatened and prefer shallow wet areas for foraging. A rookery was documented in 1999 1.4-miles north of the project limits. No wading bird rookeries have been documented or observed within the study area, but there are several areas that could provide suitable foraging habitat; these areas include wetlands and the shallow edges of surface waters. It has been determined that this species has a 'moderate' potential for occurrence.

Southeastern American Kestrel

The southeastern American kestrel (*Falcosparverius paulus*), a state-listed Threatened nonmigratory subspecies of kestrel, favors open pine savannahs, sandhills, dry flatwoods, prairies,

fields, and pastures. Several of these habitat types exist within the study area. This species typically nests in cavities created by woodpeckers in large dead trees. No individuals were observed during field reviews, and there are no records of occurrences near the project limits. However, it has been determined that the southeastern American kestrel has a 'moderate' potential for occurrence.

Florida Sandhill Crane

The Florida sandhill crane (*Grus canadensis pratensis*) is a state-listed Threatened non-migratory bird that prefers freshwater marshes, prairies, and pastures for breeding but can be found foraging in almost any habitat type. Several wetland communities within the corridor offer foraging habitat and potential nesting habitat for this species. It has been determined that the Florida sandhill crane has a 'moderate' potential for occurrence.

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is a state-listed Threatened species. Gopher tortoises prefer well-drained, sandy soils found in habitats such as longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. They are also found in a variety of disturbed habitats including pastures and urban areas. Active gopher tortoise burrows were observed during field reviews and several upland communities within the study area are considered suitable habitat. Therefore, it has been determined that the gopher tortoise has a 'high' potential for occurrence.

State Protected Plants

The plants listed in Table 2.4.8 are classified below according to preferred habitat type. No state protected plants have been documented within the study area. Some appropriate habitat exists within and adjacent to the right of way for all of these species. However, the existing right of way is generally not conducive to supporting these listed plants given regular maintenance activities including mowing and nuisance/exotic species management.

Wetland Plants – State-listed plants that favor wetland habitat types include the following species:

- Many-flowered grass-pink (*Calopogon multiflorus*)
- Chapman's sedge (*Carex chapmanii*)
- Piedmont jointgrass (*Coelorachis tuberculosa*)
- Hartwrightia (*Hartwrightia floridana*)
- Star anise (*Illicium parviflorum*)
- Pondspice (*Litsea aestivalis*)
- Celestial lily (*Nemastylis floridana*)
- Cutthroat grass (*Panicum abscissum*)
- Florida willow (*Salix floridana*)

These plants have the potential to occur in wetlands and the edges of surface waters. These habitat types include FLUCFCS codes 617 (mixed wetland hardwood), 630 (wetland forested mixed), 631 (wetland shrub), 641 (freshwater marsh), 643 (wet prairies), 644 (emergent aquatic vegetation), 520 (lakes), and 530 (reservoirs); these wetlands and surface waters can be found scattered throughout the project corridor. However, no individuals were observed during field reviews. The potential for these wetland-dependent state-listed species to occur in the project corridor was deemed to be higher than that of the following state-listed species that depend on upland conditions.

High Pine and Scrub Plants – State-listed plants that favor high pine and scrub habitat types, such as sandhill, scrubby flatwoods, scrub, oak scrub, and pine flatwoods, include the following species:

- Variable-leaved Indian-plantain (*Arnoglossum diversifolium*)
- Incised groove-bur (*Agrimonia incisa*)
- Ashe's savory (*Calamintha ashei*)
- Sand butterfly pea (*Centrosema arenicola*)
- Nodding pinweed (*Lechea cernua*)
- Florida beargrass (*Nolina atopocarpa)*
- Paper nailwort (*Paronychia chartacea*)

- Giant orchid (*Pteroglossaspis ecristata*)
- Scrub bluestem (*Schizachyrium niveum*)

These species have the potential to occur in high pine and scrub habitat types (FLUCFCS code 411), as well as certain disturbed areas (FLUCFCS code 210). No individuals were observed, and upland areas are subject to routine maintenance including mowing, nuisance/exotic vegetation control, and other land management activities that can preclude establishment of native plant communities. To summarize potential involvement with state-listed plant species, there are several areas along the corridor that could provide habitat.

Table 2.4.8: State Listed Species with the Potential to Occur

Species	Common Name	FWC Status	Potential for Occurrence	Comments
Avian				
Athene cunicularia floridana	Florida burrowing owl	T	Moderate	No known presence nearby but could occur in open upland areas.
Egretta caerulea	Little Blue Heron	T	Moderate	Prefers wetlands/surface waters.
Egretta tricolor	Tricolored Heron	T	Moderate	Prefers wetlands/surface waters.
Falco sparverius paulus	Southeastern American kestrel	T	Moderate	Several disturbed uplands and open areas present that could provide habitat.
Grus canadensis pratensis	Florida sandhill crane	T	Moderate	Foraging habitat varies among many habitat types; prefers sparse canopy or open land.
Platalea ajaja	Roseate Spoonbill	T	Moderate	Prefers wetlands/surface waters.
Reptiles				
Gopherus polyphemus	Gopher tortoise	T	High	Burrows observed within and adjacent to R/W.
Lampropeltis extenuata	Short-tailed snake	T	Low	Potential habitat limited to FLUCFCS codes 411 and 421.

Species	Common Name	FWC Status	Potential for Occurrence	Comments
Pituophis melanoleucus mugitus	Florida pine snake	T	Low	Prefers pine- dominated uplands (such as FLUCFCS codes 411 and 441)
Plants				
Agrimonia incisa	Incised groove-bur	T	Low	Potential habitat limited to FLUCFCS codes 411 and 420.
Arnoglossum diversifolium	Variable-leaved Indian-plantain	T	Low	Potential habitat includes sandhill.
Calamintha ashei	Ashe's savory	T	Low	Potential habitat limited to FLUCFCS codes 411 and 420.
Calopogon multiflorus	Many-flowered grass-pink	E	Moderate	Potential habitat includes wetlands.
Carex chapmanii	Chapman's sedge	T	Moderate	Potential habitat includes wetlands.
Centrosema arenicola	Sand butterfly pea	E	Low	Potential habitat limited to FLUCFCS codes 411 and 420.
Coelorachis tuberculosa	Piedmont jointgrass	T	Moderate	Potential habitat includes wetlands.
Hartwrightia floridana	Hartwrightia	T	Moderate	Potential habitat includes wetlands.
Illicium parviflorum	Star anise	E	Moderate	Potential habitat includes wetlands.
Lechea cernua	Nodding pinweed	T	Low	Potential habitat limited to FLUCFCS codes 411 and 420.
Litsea aestivalis	Pondspice	E	Moderate	Potential habitat includes wetlands.
Matelea floridana	Florida spiny-pod	E	Low	Potential habitat includes uplands.
Nemastylis floridana	Celestial lily	E	Moderate	Potential habitat includes wetlands.
Nolina atopocarpa	Florida beargrass	T	Low	Potential habitat includes uplands.
Panicum abscissum	Cutthroat grass	E	Moderate	Potential habitat includes wetlands.
Paronychia chartacea	Paper nailwort	E	Moderate	Previously documented near southern boundary of study area.
Pteroglossaspis ecristata	Giant orchid	T	Low	Potential habitat limited to FLUCFCS codes 411 and 420.

Species	Common Name	FWC Status	Potential for Occurrence	Comments
Salix floridana	Florida willow	E	Moderate	Potential habitat includes wetlands.
Schizachyrium niveum	Scrub bluestem	E	Low	Potential habitat limited to FLUCFCS 411 and 420.

Ranking: E – endangered, T – threatened

Managed and Protected Species

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is protected by the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). Habitat for this species includes estuaries, lakes, and reservoirs, near which they build nests in tall trees or other structures. No bald eagle nests have been documented within 660 feet of the study area and no bald eagle nests were observed during the field reviews. Three bald eagle nests have been documented within one mile of the project area; PO184, PO172, and PO172a. Each of these documented nests are located more than 1,000 feet east of the project area.

Osprey

The osprey (*Pandion haliaetus*) is protected by the MBTA. Habitat for this species includes estuaries, lakes, and reservoirs, near which they build nests in trees or other structures. No osprey nests were observed during the field reviews.

Florida Black Bear

Florida black bear (*Ursus americanus floridanus*) is no longer listed as a threatened species by the FWC. While it was removed from the state list of protected species in August 2012, it is still protected through the Florida Administrative Code 68A-4.009 Florida Black Bear Conservation. The project occurs within the primary range of the Ocala population within the South-Central Bear Management Unit, and bears are considered abundant in the study area. In total, two nuisance reports of Florida black bears occurred within the study area in 2023.

Bat Species

All bat species are protected in Florida per chapter 68A of the Florida Administrative Code. The following bat species are known to occur in the region: the Mexican free-tail (*Tadarida brasiliensis*), tri-colored (*Perimyotis subflavus*), evening (*Nycticeius humeralis*), big brown (*Eptesicus fuscus*), northern yellow (*Dasypterus intermedius*), and Rafinesque's big-eared (*Corynorhinus rafinesquii*). Bats utilize structures such as bridges as well as cavities in trees for roosting habitat. The eastern part of the study area falls within the CA for the Florida bonneted bat (*Eumops floridanus*), a federally endangered species.

Table 2.4.9: Managed and Protected Species with the Potential to Occur

Species	Common Name	USFWS Status	Habitat Proximity	Potential for Occurrence	Comments
Avian					
Haliaeetus leucocephalus	Bald eagle	N	Within R/W	Low	No nests within 660-feet of existing R/W; new nests could occur in tall trees or structures.
Pandion haliaetus	Osprey	N	Within R/W	Moderate	No nests observed.
Mammals					
*Ursus americanus floridanus**	Florida black bear	N	Within R/W	Moderate	Known to occur within the project footprint.
Myotis spp.	Bat species	N	Within R/W	Low	No evidence under bridges; limited other structures to provide habitat.

Ranking: N – none

2.4.3.2 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.

Wetland and surface waters within the study area were field verified by project scientists between January 17th and 27th, 2025. Preliminary wetland and surface water boundaries were determined,

and habitat quality was assessed. There are numerous freshwater wetlands and surface waters within and adjacent to the project right-of-way. All wetlands are classified according to the Florida Land Use Classification, Forms, and Covers (FLUCFCS) code subcategories shown in Figure 2.4.9 and Table 2.4.10. More information about wetlands is located in the NRE, available in the project file.

Table 2.4.10: Wetlands and Surface Waters within the Study Area

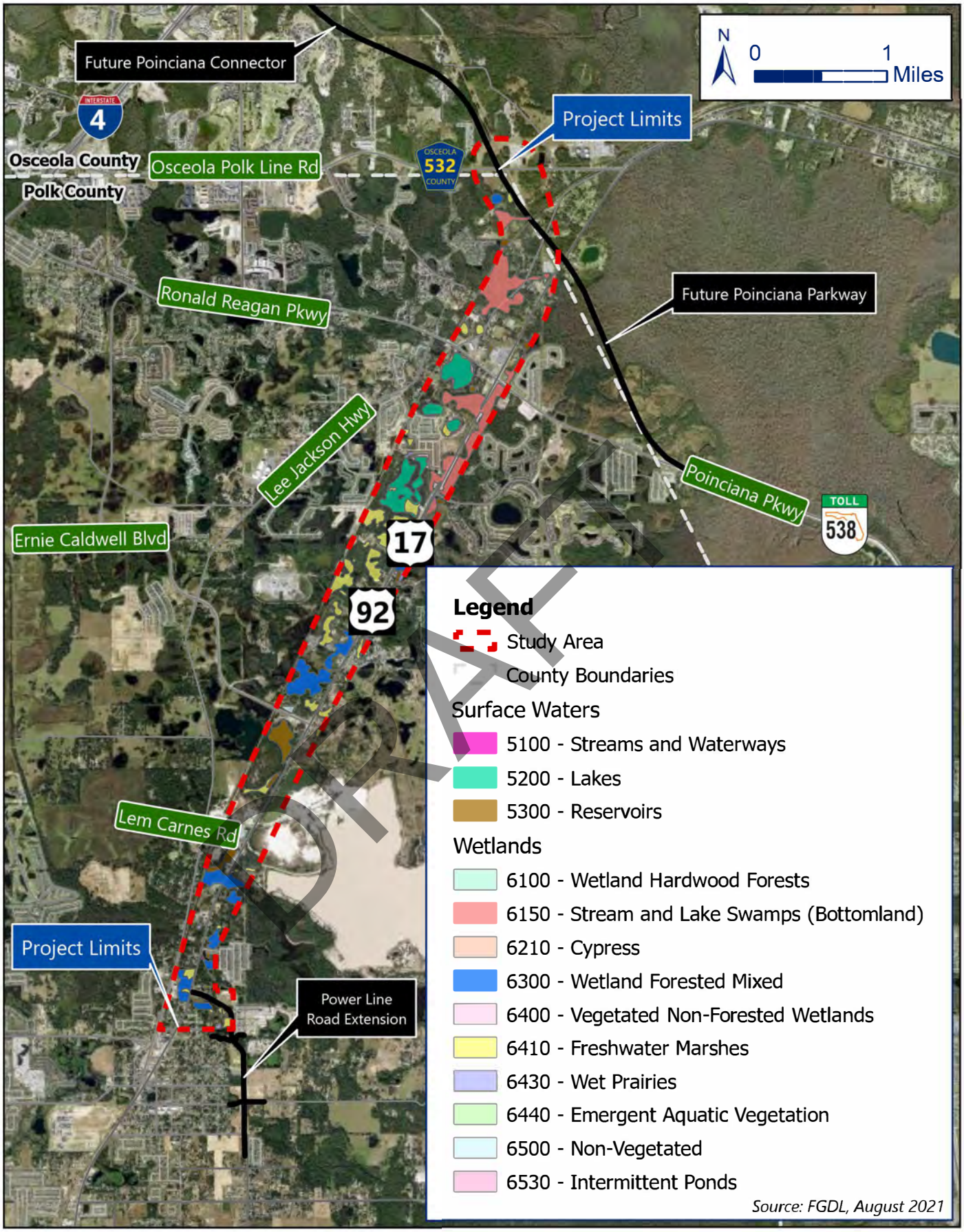
FLUCFCS Code	Description
510	Streams and Waterways
520	Lakes
530	Reservoirs
610	Wetland Hardwood Forests
615	Streams and Lake Swamps
621	Cypress
630	Wetland Forested Mixed
640	Vegetated Non-Forested Wetland
641	Freshwater Marshes
644	Emergent Aquatic Vegetation

2.4.4 Physical Resources

2.4.4.1 Contamination

A Contamination Screening Evaluation Report (CSER) was conducted for this project in accordance with the FDOT PD&E Manual. The objectives of this Level I Assessment were to identify and evaluate potential contamination sources that could impact the proposed project.

A site visit was conducted on January 9, 2025 to search for contamination concerns. The reconnaissance included an attempt to view each parcel along the project corridor and surrounding areas looking for signs of contamination. This was achieved by driving, where possible, along or near the proposed alignment to gain specific information regarding the usage and condition of each site. Sites identified in regulatory records are also viewed to confirm provided information and to verify current site conditions. The site reconnaissance, in conjunction with the desktop review of regulatory sites, provides the necessary information for the assignment of risk ratings corresponding to the degree of contamination concern.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 2.4.9: Wetlands**	**Page Number: 2-102**

Based on the methodologies performed, 32 contamination sites were identified within the study area which may impact this project. Using the FDOT Risk Ratings, four No Risk sites, 16 Low Risk sites, 11 Medium Risk sites, and one High Risk site were identified for Alternative 1 and three No Risk sites, 18 Low Risk sites, 10 Medium Risk sites, and one High Risk site were identified for Alternative 2. Table 2.4.11 lists the contamination sites within the study area. More information about contamination is located in the CSER, available in the project file.

Table 2.4.11: Contamination Sites and Risk Ratings

Site Number	Site Name & Address	Database/ Facility ID	Risk Rating
1	**Davenport Mechanic & Tire Center, Corp.** 414 North US 17/92 Davenport, Florida	SLDWST_NLF: 97705	Low
2	**Peter's Property** SE Corner of James Street & US 17/92 Davenport, Florida	TANKS: 9102950	**Medium**
3	**Former Flowers Auto Site Part A – 2005** 43 East Murphy Street Davenport, Florida	STCERC: 548, 6239, ERIC_6239 Hazardous Waste: FLR000091652	Low
4	**Apostolic Church of Jesus** 811 North US 17/92 Davenport, Florida	TANKS: 9700313	**Medium**
5	**Ingram Grove Service Inc.** US 17 & 92 North Davenport, Florida	TANKS: 8624125	**Medium**
6	**Citrus Enterprises Inc** HWY 547 & Palm Street North Davenport, Florida	TANKS: 8623362, 8735428	Low
7	**C & F Grocery** 1115 North US 17/92 Davenport, Florida	TANKS: 9200845	Low
8	**Aaron Sharpnack** 1525 US 19/72 North Davenport, Florida	SLDWST_NLF: 100250	Low
9	**Cemex – Davenport** 100 Lem Carnes Road Davenport, Florida	LUST/TANKS: 8628348 Hazardous waste: SQG_85006	Low
10A	**Sitescape Materials** 2200 US 17-92 North Davenport, Florida	SLDWST_NLF: 95281	Low
10B	**Standard Sand & Silica Company** HWY 17-92 N Davenport, Florida	SLDWST_NLF: 95904 MapDirect: 8628349	Low

Site Number	Site Name & Address	Database/ Facility ID	Risk Rating
11	**R&S Insulation Corp** 3020 US 17-92 North Davenport, Florida	TANKS: 8943784	**Medium**
12	**La Roche Industries, Inc** North State Road 547 Davenport, Florida	CERCLIS/SEMSACTV: FLD152746053 MapDirect: 8629190, ERIC_13340 Hazardous waste: FLD032229288	Alt 1: No Alt 2: Low
13	**Sherry's** 5534 North US 17/92 Davenport, Florida	TANKS: 9401953	Alt 1: **Medium** Alt 2: Low
14	**EZ Food Store #1/E-Z Foods #16** 5945 US 19/72 North Davenport, Florida	LUST/TANKS: 8736165	**Medium**
15 / 17	**Oakhill Estates** CR 54 & 17/92 Loughman, Florida **7-Eleven Store #38539** 200 Ronald Reagan Hwy, 6021 US 17/92 North Davenport, Florida	LUST/TANKS: 9046109 LUST/TANKS: 8840378	**Medium**
16	**Loughman Service Center/Hart Storage Facility – Loughman** 6004 US 17/92 North Loughman, Florida	LUST/STCERC/ TANKS: 8624326, 9300807	**High**
18	**Publix Super Markets #1686** 6075 US 17/92 North Davenport, Florida	TANKS: 9817051	Low
19	**Speed Recycling** 307 Church Street Davenport, Florida	SLDWST_NLF: 107350	Low
20	**RJR Contractor LLC** 4 Page Road Davenport, Florida	SLDWST_NLF: 106224	Low
21	**Ruth Gotts Property/ Air Props Inc** 1825 HWY 17 92 N Davenport, Florida	MapDirect: 9202759 Hazardous waste: FLR000040659	**Medium**
22	**Standard Sand & Silica Co – Flint/ Cemex – Davenport Sand Mine** 2200 US HWY 17-92 N Davenport, Florida	MapDirect: 9802324, 8628347	No
23	**Maschmeyer-Loughman/ Hubbard Construction Corp – Loughman Facility** 3606 HWY 547 N/ 3600 County Road 547 Davenport, Florida	MapDirect: 9819635, 9814074	No

Site Number	Site Name & Address	Database/ Facility ID	Risk Rating
24	**Emerald Isle Interior Insulations Property** 1701 US Highway 17/92 Davenport, Florida	2011 CSER	No
25	**Row Crops** No address	Aerial Review	**Medium**
26	**Railroad Corridor** No address	Aerial Review	**Medium**
27	**Orange Industrial Services Inc** 1925 US Highway 17 92 N Davenport, FL	Hazardous waste: FLR000032649	Low
28	**Minshew Woodwork Shop** 3735 US HWY 17 92 N Davenport, FL	Hazardous waste: SQG_83954	Low
29	**O'Reilly Auto Parts #6679** 6305 US Highway 17 92 N Davenport, FL	Hazardous waste: FLR000265751	Low
30	**STT – Reunion** 6781 Osceola Polk Line Road Davenport, FL	Hazardous waste: FLR000225318	Low
31	**Holly Hill Fruit Products Inc** 315 HWY 17-92 N Davenport, FL	MapDirect: 9806215 Hazardous waste: FLD004090304	Low
32	**SJTGas and Food Inc/ Circle K #7360** 404 HWY 17-92 N Davenport, FL	MapDirect: 8623820 Hazardous waste: FLD984252056	**Medium**

3.0 Future Conditions

3.1 Future Land Use

The future land use data for the study area was obtained from the Central Florida Regional Planning Council. The future land use is primarily residential (50.4%) with low and medium density being the most common. The next most common land use types are conservation (13.2%), and commercial (10.4%). A number of developments are planned within the study area, including a large portion of the sand mine property east of US 17/92 which is slated for residential development with over 1,000 units. The project is not anticipated to result in changes in land use or growth patterns in the study area or surrounding communities. The proposed project will support the developments that are already under construction, proposed, or planned along the corridor. Figure 3.1.1 shows the future land use map for the study area.

3.2 Future Context Classification

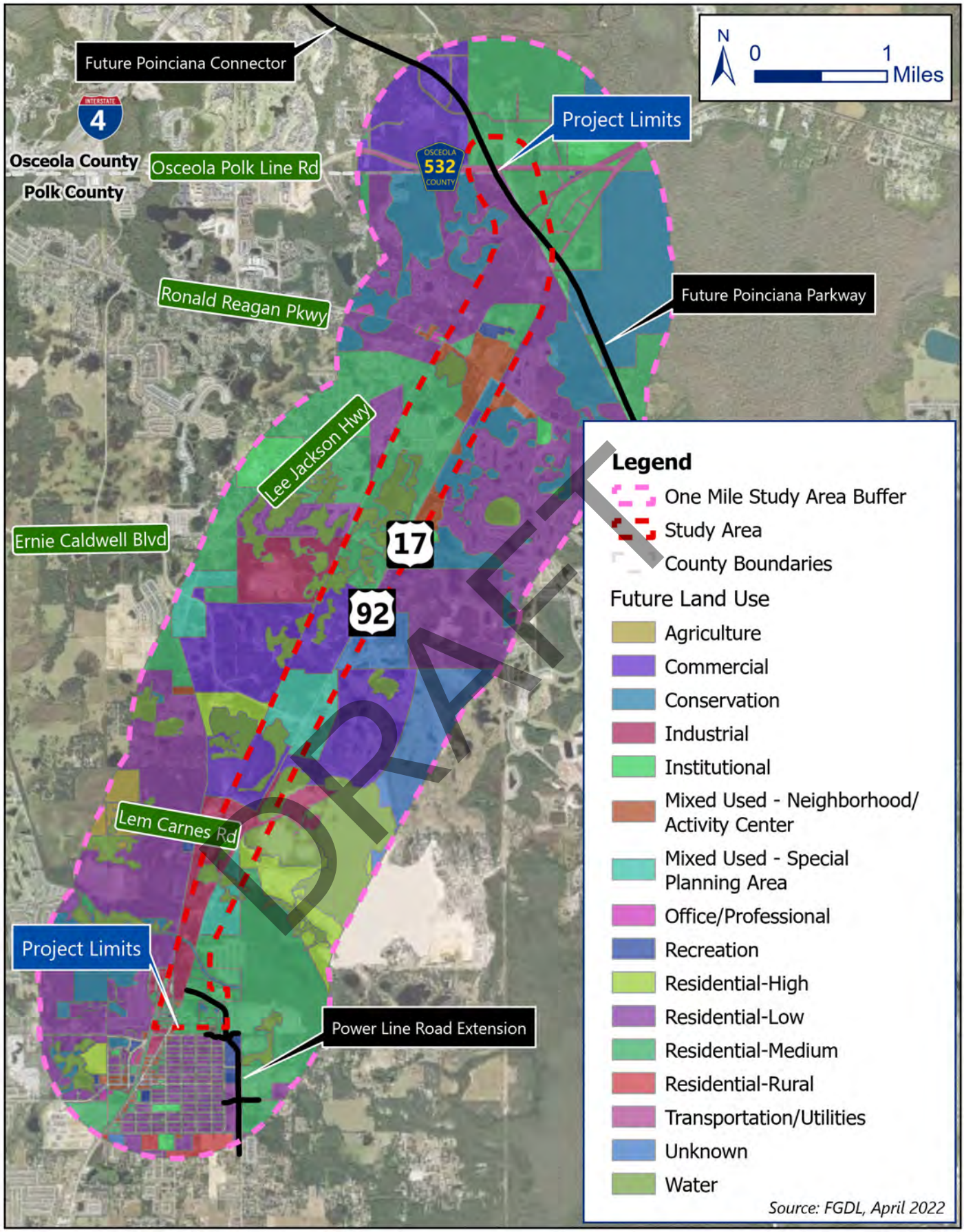
The context classification of US 17/92 is not expected to change as a result of the proposed improvements; however, by 2050 the context classification is anticipated to change from C2 to C3R between Bargain Barn Road and west of Church Road due to the rapidly occurring development within the corridor. Therefore, the future context classifications are as follows:

- C2T – US 17/92 from James Street to Bargain Barn Road;
- C3 – US 17/92 from Bargain Barn Road to Osceola Polk Line Road.

As a limited access facility, context classification does not apply to CPP East.

3.3 Future Traffic Demand

This section provides a summary of traffic performance results for intersections along the US 17/92 and other cross streets under the future (2050) No-Build and Build conditions. For more information on the traffic analysis, see the Project Traffic Analysis Report (PTAR), available in the project file.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 3.1.1: Future Land Use**	**Page Number: 3-2**

3.3.1 No-Build Alternative

Synchro was utilized to analyze the signalized intersections, and HCS was employed for two-way stop-controlled intersections under the No-Build condition. In the No-Build condition, the existing long queue issue on US 17/92, and consequently, left-turn movement queues at unsignalized intersections, will be intensified in 2050 due to higher demand. These long queues are reflected in the future (2050) No-Build performance results as shown in Tables 3.3.1 and 3.3.2, where the signalized intersections at Lee Jackson Parkway, Providence Boulevard, Ernie Caldwell Boulevard, as well as the unsignalized intersection at Lem Carnes Road experience failures during both the AM and PM peak periods.

3.3.2 Alternative 1: Co-located with US 17/92

The performance results of Alternative 1: Co-located with US 17/92 show that all intersections will experience improved performance with the construction of the new road and proposed improvements along US 17/92. Under Alternative 1: Co-located with US 17/92, due to the proposed widening of US 17/92 from two to four lanes, all intersections along US 17/92 will operate at LOS D or better, except for the western intersection at Ernie Caldwell Boulevard and the Power Line Road intersection, which will operate at LOS E during the AM peak period, as shown in Tables 3.3.3 and 3.3.4.

3.3.3 Alternative 2: New Alignment

The performance results of Alternative 2: New Alignment show that all intersections will experience improved performance with the construction of the new road and proposed improvements along US 17/92. Under Alternative 2: New Alignment, reductions in intersection delay are expected overall due to diverted traffic from US 17/92 to the CPP East. Alternative 2: New Alignment overlaps with Alternative 1: Co-located with US 17/92 for approximately 0.8 miles, from Power Line Road to about 0.7 miles south of Ernie Caldwell Boulevard; therefore, all intersections along with this segment benefit from the same improvements as those in the Alternative 1: Co-located with US 17/92. However, the rest of the corridor matches the No-Build condition. This is reflected in the performance results, as the intersections at Hart Road during both the AM and PM periods, as well as Providence Boulevard and Polk County Rescue Station

during the AM period, will operate at LOS F, assuming no geometric improvements are implemented by local agencies. While Alternative 1: Co-located with US 17/92 includes these intersection improvements, they are not part of the Turnpike's planned modifications for the CPP East project under Alternative 2: New Alignment. Also, the results show that the intersections at Lee Jackson Parkway and Vista Village Boulevard will not be impacted by the construction of the CPP East. This is attributed to the fact that these intersections will not undergo any geometric improvements as part of the project. Tables 3.3.5 and 3.3.6 show the AM and PM peak hour intersection LOS and delay.

Table 3.3.1: Future (2050) No-Build AM Peak Hour Intersection LOS and Delay

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Parkway	US 17/92	Volume								660	1050	60	120	650	320	D (46.5)
		LOS (Delay)	Movement	D (45.8)	C (25.8)		D (50.2)	E (77.2)	C (23.5)	E (71.1)	D (39.7)	A (0.0)	F (90.8)	E (69.6)	A (7.9)	
			Approach	C (33.9)			D (44.2)			D (50.0)			D (54.2)			
		Queue Length 95th (ft)	Movement	M416	M43		37	120	#113	M228	M257	M0	#109	#447	85	
	Lee Jackson Parkway / Old Lake Wilson Road	Volume		60	890	200	160	1030	280	310	300	420	120	60	60	F (146.9)
		LOS (Delay)	Movement	E (56.5)	F (175.3)		F (179.6)	F (184.2)		C (25.4)	C (31.3)			F (319.7)		
			Approach	F (169.1)			F (183.7)			C (29.5)			F (319.7)			
		Queue Length 95th (ft)	Movement	#85	#882		M#248	M#1016		240	714			#380		
	Vista Villages Boulevard	Volume		20	240	20	20	300	20	40		10	20		100	A (3.4)
		LOS (Delay)	Movement	A (8.0)			A (7.8)	A (0.2)	A (0.2)	0 (0.0)	C (17.1)	0 (0.0)	0 (0.0)	B (12.4)	0 (0.0)	
			Approach	A (0.6)			A (0.6)			C (17.1)			B (12.4)			
		Queue Length 95th (ft)	Movement	2.5			0				12.5			20		
US 17/92	Hart Road	Volume		100		70				30	1670			1200	40	F (780.5)
		LOS (Delay)	Movement	F (14269.0)		F (14269.0)				B (12.2)	A (0.7)					
			Approach	F (14269.0)						A (0.9)						
		Queue Length 95th (ft)	Movement				#761		#704		M#1924	M49	M#568	587		
	Providence Boulevard	Volume					390		490		1210	230	280	990		F (235.7)
		LOS (Delay)	Movement				F (264.9)		E (80.0)		F (481.7)	A (3.5)	F (367.4)	B (17.3)		
			Approach				F (162.0)			F (405.4)			F (94.5)			
		Queue Length 95th (ft)	Movement				#761		#704		M#1924	M49	M#568	587		
	Elementary School / Polk County Rescue Station	Volume		10		10	60		110	10	1320	100	230	110	10	F (1011.4)
		LOS (Delay)	Movement		F (27358.0)		F (41062.5)		F (75.2)	B (11.3)	A (0.3)		C (21.8)	A (8.3)	A (8.3)	
			Approach	F (27358.0)			F (14541.3)			A (0.4)			B (10.5)			
		Queue Length 95th (ft)	Movement				825	0	145	2.5			82.5			
	Orange Cosmos Boulevard	Volume					20		40		1390	220	30	1180		A (7.3)
		LOS (Delay)	Movement				F (835.9)		E (36.1)				B (13.5)	A (0.9)		
			Approach				F (302.7)						A (1.2)			

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92		Queue Length 95th (ft)	Movement				149.9		27.9				5.1	0		
	Ernie Caldwell Boulevard	Volume		210	20	300	150	110	170	590	1020	70	50	810	350	F (183.2)
		LOS (Delay)	Movement	F (319.4)	C (25.0)		F (157.7)	F (357.1)		F (419.1)	C (31.5)		F (153.4)	F (263.2)	B (11.9)	
			Approach	F (141.6)			F (287.6)			F (167.6)			F (186.1)			
		Queue Length 95th (ft)	Movement	#478	#166	0	#323	#578		#1164	#1111		M#76	M#1204	M123	
	Lem Carnes Road	Volume		40		20				20	1640			1210	50	F (135.5)
		LOS (Delay)	Movement	F (6708.7)		F (6708.7)				B (13.4)	A (0.7)					
			Approach	F (6708.7)						A (0.8)						
		Queue Length 95th (ft)	Movement		906.3					3						
	Tiny Flower Road	Volume		10		10	80		140	10	1510	10	10	1150	80	F (1824.3)
		LOS (Delay)	Movement				F (25433.7)		F (25433.7)	B (11.3)	A (0.4)		C (16.4)	A (2.8)	A (2.8)	
			Approach				F (25433.7)			A (0.4)			A (3.6)			
		Queue Length 95th (ft)	Movement					2777.5		0.4			3.6			
	Bargain Barn Road	Volume		70		50	10		10	40	1520	10	10	1150	80	E (768.2)
		LOS (Delay)	Movement	F (18415.5)		F (18415.5)	F (2620.5)		F (2620.5)	B (12.3)	A (1.0)	A (1.0)	B (14.1)	A (1.4)	A (1.4)	
			Approach	F (18415.5)			F (2620.5)			A (1.3)			A (1.5)			
		Queue Length 95th (ft)	Movement		1536.7			233.5		1.3			1.5			
	Power Line Road	Volume					130		700		870	180	430	780		C (24.1)
		LOS (Delay)	Movement				E (76.5)		D (42.0)		C (26.2)	A (3.3)	C (24.6)	A (1.3)		
			Approach				D (47.4)			C (22.3)			A (9.6)			
		Queue Length 95th (ft)	Movement				195		383		407	44	M130	M26		

LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect

Table 3.3.2: Future (2050) No-Build PM Peak Hour Intersection LOS and Delay

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Parkway	US 17/92	Volume		350	150	570	60	100	120	610	610	40	250	1070	420	D (47.0)
		LOS (Delay)	Movement	D (50.3)	B (13.5)		E (69.5)	E (72.4)	A (3.1)	E (60.3)	D (41.1)	A (0.0)	E (76.2)	E (76.7)	A (5.9)	
			Approach	C (25.5)			D (42.1)			D (49.1)			E (59.5)			
		Queue Length 95th (ft)	Movement	M300	M43		58	85	0	M225	M216	M0	178	#738	82	
	Lee Jackson Parkway / Old Lake Wilson Road	Volume		70	1050	280	280	920	150	190	140	230	220	200	40	F (127.8)
		LOS (Delay)	Movement	D (54.2)	F (188.6)		F (258.7)	C (30.8)		C (31.2)	C (23.7)			F (232.9)		
			Approach	F (181.8)			E (78.1)			C (26.2)			F (232.9)			
		Queue Length 95th (ft)	Movement	#93	#1064		M#456	M291		172	299			#862		
	Vista Villages Boulevard	Volume		80	340	20	20	210	20	20		20	20		50	A (2.9)
		LOS (Delay)	Movement	A (7.9)			A (8.1)	A (0.2)	A (0.2)		B (13.5)			B (13.3)		
			Approach	A (1.4)			A (0.8)			B (13.5)			B (13.3)			
		Queue Length 95th (ft)	Movement	5			2.5				7.5			12.5		
US 17/92	Hart Road	Volume		70		40				70	1190			1620	80	F (163.5)
		LOS (Delay)	Movement		F (12712.3)					C (18.2)	A (3.5)					
			Approach	F (12712.3)						A (4.3)						
		Queue Length 95th (ft)	Movement		1364					4.3						
	Providence Boulevard	Volume					210		290		970	330	530	1130		C (15.2)
		LOS (Delay)	Movement					F (168.1)		C (29.7)	F (322.3)	A (5.4)	F (362.9)	B (13.3)		
			Approach				F (87.8)			F (241.9)			F (125.0)			
		Queue Length 95th (ft)	Movement								M#1451	M84	M#873	M1162		
	Elementary School / Polk County Rescue Station	Volume		10		10	10		60	10	1230	10	10	1320	10	C (15.2)
		LOS (Delay)	Movement		F (1424.1)		F (927.1)		D (31.4)	B (12.4)	A (0.4)		B (11.8)	A (0.2)	A (0.2)	
			Approach	F (1424.1)			F (159.4)			A (0.5)			A (0.3)			
		Queue Length 95th (ft)	Movement				92.5		35	2.5			2.5			
	Orange Cosmos Boulevard	Volume					20		20		1230	20	60	1280		B (11.0)
		LOS (Delay)	Movement				F (1297.1)		D (25.3)				B (12.8)	A (1.4)		
			Approach				F (661.2)						A (1.9)			

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92		Queue Length 95th (ft)	Movement				177.8		10.2				10.2			
	Ernie Caldwell Boulevard	Volume		310	100	530	100	40	120	390	820	160	130	910	270	F (222.6)
		LOS (Delay)	Movement	F (305.6)	F (507.9)		F (283.4)	F (161.4)		F (590.9)	B (13.8)		F (561.8)	F (83.7)	A (4.1)	
			Approach	F (441.2)			F (208.3)			F (178.3)			F (114.8)			
		Queue Length 95th (ft)	Movement	#647	#1143		#265	#280		#864	913		M#205	M#1243	M81	
	Lem Carnes Road	Volume		50		30				20	1320			1500	40	F (221.6)
		LOS (Delay)	Movement		F (8180.1)					C (16.1)	A (1.0)					
			Approach	F (8180.1)						A (1.2)						
		Queue Length 95th (ft)	Movement		1224.4					6						
	Tiny Flower Road	Volume		10		10	50		80	20	1250	80	110	1410	10	F (932.3)
		LOS (Delay)	Movement		F (7388.4)			F (20535.9)		B (13.3)	A (1.0)		B (14.5)	A (2.9)	A (2.9)	
			Approach	F (7388.4)			F (20535.9)			A (1.1)			A (3.8)			
		Queue Length 95th (ft)	Movement		272.5			1647.5		2.5			22.5			
	Bargain Barn Road	Volume		80		80	20		20	90	1250	10	10	1320	140	F (1795.8)
		LOS (Delay)	Movement		F (29999.1)			F (15375.2)		C (15.7)	A (3.4)	A (3.4)	B (12.1)	A (1.9)	A (1.9)	
			Approach	F (29999.1)			F (15375.2)			A (4.2)			A (1.9)			
		Queue Length 95th (ft)	Movement		2093			548.6		20			2.5			
	Power Line Road	Volume					120		480			150	630			C (25.2)
		LOS (Delay)	Movement				E (79.9)		C (28.0)		C (33.9)	A (4.4)	C (33.4)	A (2.9)		
			Approach				D (38.3)			C (29.6)			B (16.5)			
		Queue Length 95th (ft)	Movement				184		219		455	45	M199	M47		

LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F

Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect

Table 3.3.3: Future (2050) Alternative 1: Co-located with US 17/92 AM Peak Hour Intersection LOS and Delay

Arterial	Cross Street		Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
					Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
					Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	US 17/92	West	Volume			690	430	70	610					230	540	610	C (24.8)
			LOS (Delay)	Movement		C (25.4)	A (2.2)	E (55.7)	A (5.5)					D (47.8)	E (55.3)	C (20.3)	
				Approach	B (16.5)			B (10.7)						D (38.6)			
			Queue Length 95th (ft)	Movement		M108	M29	M38	M31					141	334	310	
		East	Volume		700	220			140	300	540	1150	60				D (40.2)
			LOS (Delay)	Movement	D (42.8)	B (19.7)			E (59.4)	E (71.8)	E (64.3)	C (22.8)	A (1.7)				
				Approach	D (37.2)			E (67.9)			C (34.8)						
			Queue Length 95th (ft)	Movement	#478	44			57	#360	M#317	M546	M4				
	Lee Jackson Parkway / Old Lake Wilson Road		Volume		60	990	150	160	1160	280	270	300	370	120	60	60	F (150.5)
			LOS (Delay)	Movement	E (71.5)	F (137.4)		F (240.3)	F (203.9)		C (26.5)	C (32.8)			F (320.6)		
				Approach	F (134.2)			F (207.5)			C (31.0)			F (320.6)			
			Queue Length 95th (ft)	Movement	#80	#881		M#289	#1188		220	673			#529		
	Vista Villages Boulevard		Volume		20	240	20	20	300	20	40		10	20		100	A (3.4)
			LOS (Delay)	Movement	A (8.0)			A (7.8)	A (0.2)	A (0.2)		C (17.1)			B (12.4)		
				Approach	A (0.6)			A (0.6)			C (17.1)			B (12.4)			
			Queue Length 95th (ft)	Movement	2.5			0				12.5			20		
US 17/92	Providence Boulevard	West	Volume					460						380	760		D (42.1)
			LOS (Delay)	Movement				F (80.0)						E (70.0)	A (5.2)		
				Approach				F (80.0)						C (26.8)			
			Queue Length 95th (ft)	Movement				M83						250	106		
		East	Volume		100	280			390	490	70	1160	230				D (53.1)
			LOS (Delay)	Movement	A (8.3)	D (48.4)			F (124.6)	C (33.4)	B (12.4)	D (38.2)	A (1.5)				
				Approach	D (37.9)			F (96.1)			C (31.2)						
			Queue Length 95th (ft)	Movement	M8				#468	343	M27	#748	M8				
	Wynell Drive	West	Volume			10	10	30	10					240	970	10	C (20.6)
			LOS (Delay)	Movement		D (41.6)			F (85.0)					E (76.2)	A (3.9)		
				Approach	D (41.6)			F (85.0)						B (18.1)			

Arterial	Cross Street		Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection AM LOS (Delay)
					Eastbound			Westbound			Northbound			Southbound			
					Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92			Queue Length 95th (ft)	Movement		40			68					M84	94		
		East	Volume		240	10			10	10	30	1370	10				D (37.4)
			LOS (Delay)	Movement		F (148.7)			E (66.3)	A (0.5)	A (8.7)	B (18.0)	A (0.0)				
				Approach	F (148.7)			C (33.4)			B (17.7)						
			Queue Length 95th (ft)	Movement		360			32	0	M20	447	M0				
	Deer Run Drive	West	Volume					40						50	960		A (6.5)
			LOS (Delay)	Movement				D (37.1)						C (32.6)	A (3.9)		
				Approach				D (37.1)						A (5.3)			
			Queue Length 95th (ft)	Movement				35						60	236		
		East	Volume		30	20			10	10	30	1360	10				B (14.0)
			LOS (Delay)	Movement		B (15.9)			C (29.0)	A (0.2)	A (7.4)	B (14.1)	A (0.0				
				Approach	B (15.9)			B (14.6)			B (13.9)						
			Queue Length 95th (ft)	Movement		26			19	0	M12	442	M0				
	Ernie Caldwell Boulevard	West	Volume			750	210	170	250					100	540	580	C (31.5)
			LOS (Delay)	Movement		C (27.9)			D (37.3)					D (39.9)	D (47.8)	B (16.8)	
				Approach	C (27.9)			D (37.3)						C (32.4)			
			Queue Length 95th (ft)	Movement		256			117					147	354	365	
		East	Volume		730	120			260	170	160	880	70				
			LOS (Delay)	Movement	E (68.3)	A (8.6)			E (65.4)	B (17.1)	F (124.9)	D (47.3)					
				Approach	E (59.9)			D (46.3)			E (58.5)						
			Queue Length 95th (ft)	Movement													
	Lem Carnes Road	West	Volume			40	20	90	20						890	50	B (10.4)
			LOS Delay	Movement		C (20.7)			E (57.7)						A (4.2)		
				Approach	C (20.7)			E (57.7)						A (4.2)			
			Queue Length 95th (ft)	Movement		45			112						135		
		East	Volume		40						110	1090					A (5.7)
			LOS Delay	Movement	A (9.4)						A (4.4)	A (5.7)					
				Approach	A (9.4)						A (5.6)						

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection AM LOS (Delay)
				Eastbound			Westbound			Northbound			Southbound			
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92		Queue Length 95th (ft)	Movement	8						M19	M142					
	Power Line Road	Volume		310	70	50	130	70	1380	40	1940	180	800	1290	260	E (75.3)
		LOS Delay	Movement	F (172.1)	F (173.9)	A (0.9)	F (144.0)	F (233.2)	F (129.3)	F (82.1)	E (79.1)	A (7.9)	D (44.9)	B (13.6)	A (1.8)	
			Approach	F (152.4)			F (135.1)			E (73.2)			C (23.0)			
		Queue Length 95th (ft)	Movement	#301	#186	0	#283	#199	#771	84	#886	73	297	289	51	

LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect

Table 3.3.4: Future (2050) Alternative 1: Co-located with US 17/92 PM Peak Hour Intersection LOS and Delay

Arterial	Cross Street		Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection AM LOS (Delay)
					Eastbound			Westbound			Northbound			Southbound			
					Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	US 17/92	West	Volume			680	450	130	530					310	1210	690	D (36.2)
			LOS (Delay)	Movement		C (28.9)	B (11.3)	E (78.5)	A (6.7)					D (35.7)	E (67.3)	B (19.8)	
				Approach	C (21.9)			C (20.9)						D (48.1)			
			Queue Length 95th (ft)	Movement		M122	M124	M72	M27					161	#845	418	
		East	Volume		590	400			110	170	550	440	40				D (51.1)
			LOS (Delay)	Movement	E (62.0)	D (35.2)			E (73.8)	C (22.0)	F (90.3)	B (11.7)	A (2.4)				
				Approach	D (51.1)			D (42.4)			D (53.3)						
			Queue Length 95th (ft)	Movement	#459	96			53	82	M#402	M134	M7				
	Lee Jackson Parkway / Old Lake Wilson Road		Volume		70	1190	240	280	1020	150	150	140	190	220	200	400	F (137.5)
			LOS (Delay)	Movement	E (67.8)	F (187.2)		F (232.1)	E (63.1)		C (33.0)	C (27.4)			F (238.6)		
				Approach	F (181.6)			F (95.7)			C (29.2)			F (238.6)			
			Queue Length 95th (ft)	Movement	#98	#1201		M#538	737		152	299			#912		

Arterial	Cross Street		Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
					Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
					Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	Vista Villages Boulevard		Volume		80	340	20	20	210	20	20		20	20		50	A (2.9)
			LOS (Delay)	Movement	A (7.9)			A (8.1)	A (0.2)	A (0.2)		B (13.5)			B (13.3)		
				Approach	A (1.4)			A (0.8)			B (13.5)			B (13.3)			
			Queue Length 95th (ft)	Movement	5			2.5				7.5			12.5		
US 17/92	Providence Boulevard	West	Volume					230						600	1150		B (13.5)
			LOS (Delay)	Movement				C (25.4)						C (22.8)	A (6.3)		
				Approach				C (25.4)						B (11.9)			
			Queue Length 95th (ft)	Movement				50						M168	M337		
		East	Volume		70	530			210	290	20	670	330				C (29.8)
			LOS (Delay)	Movement	A (5.5)	D (43.1)			C (30.5)	B (11.7)	A (10.0)	D (38.0)	A (6.0)				
				Approach	D (48.7)			C (24.6)			C (27.1)						
			Queue Length 95th (ft)	Movement	M13				#111	58	15	#285	35				
	Wynell Drive	West	Volume			10	10	30	10					30	1340	10	A (6.7)
			LOS (Delay)	Movement		D (48.7)			E (72.1)					B (11.6)	A (4.0)		
				Approach	D (48.7)			E (72.1)						A (4.1)			
			Queue Length 95th (ft)	Movement		43			59					M24	170		
		East	Volume		30	10			20	20	30	920	10				B (11.6)
			LOS (Delay)	Movement		E (64.3)			E (73.3)	A (1.2)	A (5.2)	A (8.5)	A (0.0)				
				Approach	E (64.3)			D (37.2)			A (8.3)						
			Queue Length 95th (ft)	Movement		76			51	0	21	317	M0				
	Deer Run Drive	West	Volume					50						80	1300		B (10.2)
			LOS (Delay)	Movement				C (32.5)						D (42.9)	A (7.3)		
				Approach				C (32.5)						A (9.4)			
			Queue Length 95th (ft)	Movement				35						96	472		
		East	Volume		60	20			20	20	30	920	20				B (10.6)
			LOS (Delay)	Movement		B (16.8)			C (31.8)	A (0.4)	A (7.1)	B (10.2)	A (0.1)				
				Approach	B (16.8)			B (16.1)			A (9.9)						
			Queue Length 95th (ft)	Movement		37			30	0	M11	233	M0				
		West	Volume			610	2000	100	240					200	800	750	C (33.4)

Arterial	Cross Street		Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection AM LOS (Delay)
					Eastbound			Westbound			Northbound			Southbound			
					Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92	Ernie Caldwell Boulevard		LOS (Delay)	Movement		D (40.1)			C (32.7)					D (40.7)	D (42.8)	B (14.5)	
				Approach	D (40.1)			C (32.7)						C (30.4)			
			Queue Length 95th (ft)	Movement		246			255					204	370	176	
		East	Volume		480	330			140	120	200	580	160				D (46.6)
			LOS (Delay)	Movement	F (114.0)	B (18.4)			E (66.8)	A (2.9)	D (52.1)	B (17.3)					
				Approach	E (75.1)			D (37.3)			C (24.7)						
			Queue Length 95th (ft)	Movement	338	122			104	0	201	314					
	Lem Carnes Road	West	Volume			50	30	70	20						1080	40	B (11.2)
			LOS Delay	Movement		C (21.6)			D (52.8)						A (7.0)		
				Approach	C (21.6)			D (52.8)						A (7.0)			
			Queue Length 95th (ft)	Movement		58			95						88		
		East	Volume		50						90	910					
			LOS Delay	Movement	B (11.9)						A (5.4)	A (6.2)					
				Approach	B (11.9)						A (6.1)						
			Queue Length 95th (ft)	Movement	12						M29	186					
	Power Line Road		Volume		230	90	60	120	70	860	60	1300	150	1340	2020	310	D (41.6)
			LOS Delay	Movement	F (93.8)	F (104.4)	A (1.8)	F (92.4)	F (84.8)	C (25.7)	F (90.9)	E (56.7)	A (9.3)	E (57.8)	C (22.8)	A (1.8)	
				Approach	F (81.9)			D (37.3)			D (53.3)			C (33.8)			
			Queue Length 95th (ft)	Movement	#197	#195	0	#228	134	273	119	554	71	545	661	26	

LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect

Table 3.3.5: Future (2050) Alternative 2: New Alignment AM Peak Hour Intersection LOS and Delay

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	US 17/92	Volume		590	100	330	70	70	300	510	800	60	120	240	610	D (41.9)
		LOS (Delay)	Movement	C (34.8)	D (36.0)		C (34.1)	E (66.0)	D (39.6)	E (66.0)	D (47.8)	A (0.0)	F (90.8)	E (58.4)	B (12.3)	
			Approach	D (35.3)			D (42.9)			D (52.5)			C (33.4)			
		Queue Length 95th (ft)	Movement	M560	M63		47	64	#239	M243	M338	M0	#109	157	127	
	Lee Jackson Parkway / Old Lake Wilson Road	Volume		60	990	150	160	1160	280	270	300	370	120	60	60	F (145.1)
		LOS (Delay)	Movement	D (53.7)	F (138.9)		F (220.3)	F (190.8)		C (26.5)	C (32.8)			F (320.6)		
			Approach	F (134.6)			F (193.7)			C (31.0)			F (320.6)			
		Queue Length 95th (ft)	Movement	#75	#881		M#258	M#1111		220	673			#529		
	Vista Villages Boulevard	Volume		20	240	20	20	300	20	40		10	20		100	A (3.4)
		LOS (Delay)	Movement	A (8.0)			A (7.8)	A (0.2)	A (0.2)		C (17.1)			B (12.4)		
			Approach	A (0.6)			A (0.6)			C (17.1)			B (12.4)			
		Queue Length 95th (ft)	Movement	2.5			0				12.5			20		
	Hart Road	Volume		100		70				30	1270			600	40	F (124.1)
		LOS (Delay)	Movement		F (1536.0)					A (9.1)	A (0.3)					
			Approach	F (1536.0)						A (0.5)						
		Queue Length 95th (ft)	Movement		1536					0.5						
US 17/92	Providence Boulevard	Volume					390		490		810	230	280	390		F (141.6)
		LOS (Delay)	Movement				F (200.1)		D (42.1)		F (243.2)	A (6.9)	F (236.9)	A (7.7)		
			Approach				F (132.2)			F (191.0)			F (103.5)			
		Queue Length 95th (ft)	Movement				#725		512		#1395	128	#582	244		
	Elementary School / Polk County Rescue Station	Volume		10		10	10		20	10	1000	10	10	580	20	F (113.4)
		LOS (Delay)	Movement	F (477.6)	F (477.6)	F (477.6)	F (3493.7)		D (25.7)	A (8.6)	A (0.1)		B (13.7)	A (2.7)	A (2.7)	
			Approach	F (477.6)			F (1249.7)			A (0.2)						
		Queue Length 95th (ft)	Movement				597.5		50				42.5			
	Wynell Drive	Volume		10		10	10		20	10	1000	10	10	580	20	A (1.3)
		LOS (Delay)	Movement		E (45.4)			D (29.2)		A (8.8)	A (0.1)		B (10.6)	A (0.2)	A (0.2)	

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
			Approach	E (45.4)			D (29.2)			A (0.2)			A (5.9)			
US 17/92		Queue Length 95th (ft)	Movement		17.8			15.2		0			0			
	Orange Cosmos Boulevard	Volume					20		40		980	20	30	570		A (1.5)
		LOS (Delay)	Movement				F (52.3)		C (19.9)				B (10.7)	A (0.5)		
			Approach				D (30.7)						B (1.0)			
		Queue Length 95th (ft)	Movement				20.3		12.7				5.1			
	Deer Run Drive	Volume					10		20		980	20	20	570		A (0.9)
		LOS (Delay)	Movement						E (36.7)		A (8.7)	A (0.0)		B (10.6)	A (0.3)	
			Approach				F (36.7)						B (0.7)			
		Queue Length 95th (ft)	Movement						20.3		0			2.5		
	Intermediate Ramp Terminal	Volume		30		240				460	960			540	50	C (21.3)
		LOS (Delay)	Movement	C (33.3)		B (12.2)				E (72.7)	A (1.5)			B (17.7)	A (4.1)	
			Approach	B (14.6)						C (24.5)			B (16.5)			
		Queue Length 95th (ft)	Movement	38		106				M#427	M9			M124	M10	
	Ernie Caldwell Boulevard	Volume		650	20	210	150	110	170	110	600	70	100	390	290	C (33.0)
		LOS (Delay)	Movement	E (61.2)	C (33.1)	A (3.5)	C (31.0)	E (69.2)	A (2.4)	F (95.0)	C (23.4)		D (40.6)	C (22.4)	A (6.3)	
			Approach	D (46.8)			C (29.5)			C (33.5)			B (18.8)			
		Queue Length 95th (ft)	Movement	#272	29	0	123	#139	0	#169	107		#77	124	83	
	Lem Carnes Road West	Volume			40	20	90	20						700	50	A (9.3)
		LOS Delay	Movement		B (19.5)			D (48.5)						A (2.8)		
			Approach	B (19.5)			D (48.5)						A (2.8)			
		Queue Length 95th (ft)	Movement		44			116						51		
	Lem Carnes Road East	Volume		40						110	740					A (6.2)
		LOS Delay	Movement	B (12.0)						A (8.4)	A (5.5)					
			Approach	B (12.0)						A (5.9)						
		Queue Length 95th (ft)	Movement	10						M27	M88					
	Tiny Flower Road	Volume		10		10	80		140	10	1510	80	70	1150	10	D (1824.3)
		LOS Delay	Movement					F (25433.7)		B (11.3)	A (0.4)		C (16.4)	A (2.8)	A (2.8)	
			Approach				F (25433.7)			A (0.4)			A (3.6)			

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92		Queue Length 95th (ft)	Movement					2777.5		0.4			3.6			
	Power Line Road	Volume		310	70	50	130	70	1330	40	1900	180	770	1260	260	E (74.7)
		LOS Delay	Movement	F (175.1)	E (68.3)	A (0.9)	F (144.0)	E (68.3)	F (166.8)	F (82.5)	F (92.1)	A (4.4)	D (49.7)	B (16.6)	A (1.2)	
			Approach	F (135.1)			F (116.9)			F (84.5)			C (26.0)			
		Queue Length 95th (ft)	Movement	#301	123	0	#283	123	#669	85	#893	44	287	304	6	

LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect

Table 3.3.6: Future (2050) Alternative 2: New Alignment PM Peak Hour Intersection LOS and Delay

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	US 17/92	Volume		530	150	450	60	50	170	480	270	40	250	800	640	D (47.0)
		LOS (Delay)	Movement	D (38.9)	C (24.9)		D (45.3)	E (68.2)	B (16.4)	E (78.1)	D (42.0)	A (0.2)	E (76.7)	F (80.5)	A (9.4)	
			Approach	C (31.5)			C (32.1)			E (61.8)			D (53.0)			
		Queue Length 95th (ft)	Movement	M424	M36		47	50	62	M#295	M143	M0	178	#571	126	
	Lee Jackson Parkway / Old Lake Wilson Road	Volume		70	1190	240	280	1020	150	150	140	190	220	200	40	F (135.2)
		LOS (Delay)	Movement	E (56.5)	F (198.7)		F (242.7)	D (37.0)		C (31.5)	C (25.9)			F (246.0)		
			Approach	F (192.1)			E (76.7)			C (27.7)			F (246.0)			
		Queue Length 95th (ft)	Movement	#101	#1149		M#472	M399		145	282			#869		
		Volume		80	340	20	20	210	20	20		20	20		50	A (2.9)

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Ronald Reagan Pkwy	Vista Villages Boulevard	LOS (Delay)	Movement	A (7.9)			A (8.1)	A (0.2)	A (0.2)		B (13.5)			B (13.3)		
			Approach	A (1.4)			A (0.8)			B (13.5)			B (13.3)			
		Queue Length 95th (ft)	Movement	5			2.5				7.5			12.5		
	Hart Road	Volume		70		40				70	720			1230	80	F (87.8)
		LOS (Delay)	Movement		F (1743.9)					B (13.5)	A (1.7)					
			Approach	F (1743.9)						A (2.7)						
		Queue Length 95th (ft)	Movement		820.4					12.7						
US 17/92	Providence Boulevard	Volume					210		290		500	330	530	740		D (50.5)
		LOS (Delay)	Movement				F (136.6)		A (7.6)		F (94.0)	A (8.2)	F (89.6)	A (4.2)		
			Approach				E (61.8)			E (59.9)			D (39.8)			
		Queue Length 95th (ft)	Movement				#409		105		#808	157	M#729	M94		
	Elementary School / Polk County Rescue Station	Volume		10		10	10		60	10	760	10	10	930	10	A (2.0)
		LOS (Delay)	Movement		F (66.4)		F (85.6)		C (16.2)	B (10.2)	A (0.2)		A (9.4)	A (0.1)	A (0.1)	
			Approach	F (66.4)			D (26.1)			A (0.3)			A (0.2)			
		Queue Length 95th (ft)	Movement				17.5		15				0			
	Wynell Drive	Volume		10		10	10		20	10	750	10	10	920	20	A (1.4)
		LOS (Delay)	Movement		F (55.4)			D (32.4)		B (10.2)	A (0.1)		A (9.4)	A (0.1)	A (0.1)	
			Approach	F (55.4)			D (32.4)			A (0.3)			A (0.2)			
		Queue Length 95th (ft)	Movement		22.9			17.8		0			0			
US 17/92	Orange Cosmos Boulevard	Volume					20		20		750	20	60	880		A (1.6)
		LOS (Delay)	Movement				F (70.0)		B (14.7)				A (9.8)	A (0.7)	A (0.0)	

Arterial	Cross Street		Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection AM LOS (Delay)
					Eastbound			Westbound			Northbound			Southbound			
					Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
				Approach				E (42.4)						A (1.2)			
			Queue Length 95th (ft)	Movement				27.9		5.1				7.6			
	Deer Run Drive		Volume					20		20		750	20	20	880		A (1.5)
			LOS (Delay)	Movement					F (57.1)		A (9.9)	A (0.0)		A (9.5)	A (0.2)	A (0.2	
				Approach				F (57.1)			A (0.0)			A (0.4)			
			Queue Length 95th (ft)	Movement					45.7		0			0.4			
	Intermediate Ramp Terminal		Volume		60		450				240	710			880	30	B (19.4)
			LOS (Delay)	Movement	C (26.8)		B (19.9)				D (40.8)	A (4.8)			C (25.1)	A (7.5)	
				Approach	C (20.7)						B (13.9)			C (247.5)			
			Queue Length 95th (ft)	Movement	54		230				#235	149			M308	M15	
	Ernie Caldwell Boulevard		Volume		410	130	110	100	40	120	190	420	160	200	560	570	D (35.1)
			LOS (Delay)	Movement	E (68.9)	F (85.9)	A (3.4)	E (57.8)	E (63.5)	A (4.8)	E (77.0)	B (14.6)		C (28.8)	D (42.0)	A (8.0)	
				Approach	E (61.2)			C (34.2)			C (30.0)			C (25.5)			
			Queue Length 95th (ft)	Movement	268	206	1	151	78	11	289	155		144	361	178	
	Lem Carnes Road	West	Volume			50	30	70	20						730	40	A (9.2)
			LOS Delay	Movement		B (20.0)			D (43.5)						A (4.1)		
				Approach	B (20.0)			D (43.5)						A (4.1)			
			Queue Length 95th (ft)	Movement		55			103						81		
		East	Volume		50						90	720					A (8.0)
			LOS Delay	Movement	B (13.2)						A (6.7)	A (7.8)					
				Approach	B (13.2)						A (7.7)						

Arterial	Cross Street	Measure of Effectiveness	Location	AM Movement / Approach LOS (Delay)												Intersection
				Eastbound			Westbound			Northbound			Southbound			AM LOS (Delay)
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
US 17/92		Queue Length 95th (ft)	Movement	14						M44	193					
	Tiny Flower Road	Volume		10		10	80		140	10	1510	80	70	1150	10	
		LOS Delay	Movement					F (2543 3.7)		B (11.3)	A (0.4)		C (16.4)	A (2.8)	A (2.8)	F (1824.3)
			Approach				F (25433.7)			A (0.4)			A (3.6)			
		Queue Length 95th (ft)	Movement					2777.5		0.4			3.6			
	Power Line Road	Volume		230	90	60	120	70	830	60	1270	150	1290	1980	310	D (38.4)
		LOS Delay	Movement	F (89.9)	F (81.5)	A (1.4)	F (98.5)	E (72.6)	C (24.0)	F (83.1)	D (53.2)	A (7.5)	D (53.6)	C (20.2)	A (1.9)	
			Approach	E (74.0)			D (36.1)			D (49.7)			C (30.7)			
		Queue Length 95th (ft)	Movement	#189	156	0	#228	125	242	112	510	60	493	462	30	

LOS Notes:
Delay is in sec/veh units
Yellow shaded boxes indicate LOS E
Red shaded boxes indicate LOS F
Queue Notes:
#: 95th percentile volume exceeds capacity
M: Upstream metering in effect

4.0 Design Controls & Criteria

4.1 Design Controls

4.1.1 Roadway Context Classification

As mentioned in *Section 3.2 Future Context Classification*, the context classification is as follows:

- C2T – US 17/92 from James Street to Bargain Barn Road;
- C3 – US 17/92 from Bargain Barn Road to Osceola Polk Line Road.

As a limited access facility, context classification does not apply to CPP East.

4.1.2 Functional Classification and SIS Designation

Within the project limits, US 17/92 is functionally classified as an Urban: Principal Arterial – Other. CPP East is functionally classified as Urban: Principal Arterial – Freeway and Expressway and is on the SIS.

4.1.3 Access Management Class and Applicable Standards

Changes to access management are proposed in locations where improvements are planned, such as where CPP East is co-located with US 17/92. The proposed access management classification for US 17/92 is Class 3: Restrictive, meaning there are medians that physically prevent vehicles from crossing. Connection spacings may be placed every 660 feet, directional median openings may be placed every 1,320 feet, and full median openings and signals may be placed every 2,640 feet for speed limits less than or equal to 45 mph.

The access management classification for CPP East is Class 1: Area Type 3, meaning interchange spacing may be every three miles.

4.1.4 Design Speed and Target Speed

The design and target speed along CPP East is 70 mph, the design and target speed for the CPP East ramps are 50 mph, and the proposed design and target speed for US 17/92 varies from 40 to 45 mph.

4.1.5 Capacity and LOS Target

The corridor was designed to accommodate traffic with a volume-to-capacity ratio less than or equal to one. The FDOT LOS target for urban roadways is LOS D and rural roadways is LOS C.

4.1.6 Design Vehicle

The corridor was designed to accommodate an interstate semitrailer (WB-62FL).

4.1.7 Pedestrian and Bicycle Requirements

As a limited access facility, CPP East does not have pedestrian and bicycle accommodations. Pedestrian and bicycle accommodations will be considered where CPP East is co-located with US 17/92. A minimum of a six-foot-wide sidewalk and 12-foot-wide shared use path will be evaluated.

4.1.8 Physical Constraints

Right-of-way is a physical constraint for this project. As mentioned in *Section 2.2.4 Right-of-Way*, the existing right-of-way on the US 17/92 corridor varies mostly from 100 feet to 115 feet.

The Sea Board Coast Line Railroad, owned by CSX, runs parallel to the west side of US 17/92. Just north of Lem Carnes Road, a branch spur crosses US 17/92 where it enters the Cemex Davenport Sand Mine. The at-grade railroad crossing poses a physical constraint for this project.

There are three Duke Energy Florida Inc. electrical substations adjacent to the corridor:

- East of US 17/92 just south of Lem Carnes Road;
- East of US 17/92 approximately 0.4 miles north of Ronald Reagan Parkway; and
- West of US 17/92 just south of Labor Camp Road.

The Duke Energy Intercession City Plant is also located just northwest of the Osceola Polk Line Road and US 17/92 intersection. Transmission power lines cross US 17/92 from the substation south of Lem Carnes Road and turn into Lem Carnes Road. Transmission lines also run along the west side of US 17/92 from Ronald Reagan Parkway to the Intercession City Plant. Figure 2.2.10

shows where the substations and power plant are located within the project limits. The substations and transmission lines pose a physical constraint for this project.

4.1.9 Environmental Constraints

Environmental constraints in the study area include parks, as shown in Figure 2.4.3, cultural facilities, as shown in Figure 2.4.8, wetlands, as shown in Figure 2.4.9, and floodplains summarized in Table 2.2.10.

4.1.10 Type of Stormwater Management Facilities

The project is located within both the SFWMD and the SWFWMD. Typically, when this occurs, the agency within whose boundaries most of the project corridor is located will become the lead permitting agency. Since most of the corridor is located within the SWFWMD, project improvements will be designed to meet these regulatory requirements. The project will also be designed to meet the criteria of the Florida Department of Environmental Protection (FDEP), United States Army Corps of Engineers (USACE), the requirements outlined in the FDOT Drainage Manual, and the requirements of the Enterprise.

4.1.10.1 SWFWMD Water Quantity Criteria

For open basins, the post-development peak discharge rate must not exceed the pre-development peak discharge rate using the SWFWMD Florida Modified (FLMOD) 25-year / 24-hour storm event. For closed basins, the post-development peak discharge volume must not exceed the predevelopment peak discharge rate and volume during the SWFWMD FLMOD 100-year / 24-hour storm event.

4.1.10.2 SWFWMD Water Quality Criteria

The SEIR is anticipated to be signed and approved prior to June 28, 2026. Because of this, the design of the project will be grandfathered into the presumptive water quality criteria that were applicable prior to June 28, 2024.

- Wet detention: Shall treat first one inch of runoff from the contributing area.

- Detention with Underdrains: Shall treat runoff from one inch of rainfall. For contributing drainage areas of less than 100 acres, the first half inch of runoff. Directly Connected Impervious Areas (DCIA) areas should be calculated separately from other land uses in determining the volume required to treat one inch of runoff.
- Dry Retention (On-line treatment): Shall treat first one inch of rainfall. For contributing drainage areas less than 100 acres, the first half inch of runoff. Treatment volume recovery shall occur within 72 hours, however only that volume which can again be available within 36 hours may be counted as part of the volume required for water quantity storage.
- Dry Retention (Off-line treatment): Shall treat the runoff from the first one inch of rainfall. For contributing drainage areas of less than 100 acres the first one half inch of runoff. Treatment volume recovery shall occur within 72 hours, however only that volume which can again be available within 36 hours may be counted as part of the volume required for water quantity storage.

In addition to providing water quality treatment for the increase in impervious areas associated with these improvements, water quality treatment will also be considered for any impervious area that was previously permitted for treatment if the existing permitted stormwater management facility will be impacted by the proposed improvements.

4.1.11 Navigational Requirements

CPP East is an inland corridor and does not contain a navigable waterway. Navigational requirements were not a design control for this project.

4.1.12 Design High Water

The proposed roadway base is required to have a minimum vertical clearance of three feet from the seasonal high ground water elevation. Geotechnical information was not included as part of this PD&E Study. The roadway profile was set to match existing ground of US 17/92. Refinements to the profile will be needed during Final Design when seasonal high ground water elevations and survey data are available.

4.1.13 Design Wave Heights

CPP East is an inland corridor and does not contain a coastal bridge. Design wave height is not a design control for this project.

4.2 Design Criteria

The design criteria for this study are presented in Table 4.2.1 and are based on design parameters outlined in the 2025 FDOT Design Manual.

Table 4.2.1: Design Criteria

Design Element	Expressway	Ramp	State and Local		Source
Context Classification	N/A	N/A	C2T – Rural Town	C3R – Suburban Residential	FDOT
Access Classification	Class 1 – Restrictive	Class 1 – Restrictive	Class 3 – Restrictive	Class 3 – Restrictive	Multimodal Access Management Guidebook, Table 7
Design Vehicle	WB-62FL				FDM, Section 201.6
Design Speed & Posted Speed	70 mph	50 mph	40 mph	45 mph	FDM, Section 201.5
Minimum Lane Widths	12 ft (travel and turning)	15 ft (one-lane) / 12 ft (two-lane)	11 ft (travel and turning)	11 ft (travel and turning)	FDM, Table 210.2.1
Shoulders	Outside Shoulder – 12 ft (10 ft paved) / Median Shoulder – 8 ft (4 ft paved) / Median Shoulder with Double-Faced Guardrail – 13 ft	Outside Shoulder – 6 ft (4 ft paved) Median Shoulder – 6 ft (2 ft paved) (one-lane) / Outside Shoulder – 10 ft (8 ft paved) Median Shoulder – 8 ft (4 ft paved) (two-lane)	N/A		FDM, Table 211.4.1 FDM, Section 215.2.4 FDM, Figure 215.4.6
Inside/Outside Curb	N/A	N/A	Type E / Type F	Type E / Type F	FDM, Section 210.5
Shared Use Path Separation from Roadway[1]	N/A	N/A	5 ft	5 ft	FDM, Section 224.12
Shared Use Path Width	N/A	N/A	12 ft (10 ft minimum)	12 ft (10 ft minimum)	FDM, Section 224.4
Median Width	64 ft (standard)	N/A	22 ft	22 ft	FDM, Table 210.3.1

[1] For curbed roadways, separation from roadway is the distance from face of curb to edge of path. For flush shoulder roadway, separation from roadway is the distance from the shoulder break point to edge of path.

Design Element	Expressway	Ramp	State and Local		Source
	50 ft (minimum)[2]				FDM, Table 211.3.1
Minimum Border Width	94 ft	94 ft	12 ft	14 ft	FDM, Table 210.7.1 FDM, Section 211.6
Bridge Lane Width	12 ft (matching approaching roadway)	15 ft (one-lane) / 12 ft (two-lane) (matching approaching roadway)	N/A	N/A	FDM, 260.2
Bridge Shoulder Width[3]	6 ft inside 10 ft outside	6 ft inside 10 ft outside	8 ft	N/A	FDM, Figure 260.1.1 FDM, Figure 260.1.4
Separation Between Bridges	20 ft (minimum)	N/A	N/A	N/A	FDM, Section 260.5
Maximum Grades	3%	5%	7%	6%	FDM, Table 210.10.1 FDM, Table 211.9.1
Maximum Change in Grade w/o VC	0.20%	0.60%	0.80%	0.70%	FDM, Table 210.10.2
Pavement Cross Slopes	Travel Lanes (2% minimum)	Travel Lanes (2% minimum)	Travel Lanes (2% minimum)	Travel Lanes (2% minimum)	FDM, Figure 210.2.1
Minimum Stopping Sight Distance	771 ft (downgrade) 690 ft (upgrade)	464 ft (downgrade) 393 (upgrade)	339 ft Downgrade 275 ft Upgrade	400 ft Downgrade 331 ft Upgrade	FDM, Table 210.11.1 FDM, Table 211.10.2
Minimum/Desirable Length of Horizontal Curve	1,050 ft / 2,100 ft	750 ft (one-lane) / 1,500 ft (two-lane)	400 ft / 600 ft	400 ft / 675 ft	FDM, Table 210.8.1 FDM, Table 211.7.1
Maximum Deflection w/o Horizontal Curve	0°45'00''	0°45'00''	2°00'00''	1°00'00''	FDM, Section 210.8.1
Maximum Curvature	3°30'00''	8°15'00''	10°45'00''	8°15'00''	FDM, Table 210.9.2 FDM, Table 210.9.1

[2] Facilities that have the ability to be expanded for additional capacity in the future will be designed to accommodate that future expansion, i.e. 50-foot median with barrier (e.g. guardrail, high tension cable barrier).

[3] For Turnpike Projects, maintain the approach roadway paved shoulder width on retaining walls and bridges.

Design Element	Expressway	Ramp	State and Local		Source
Minimum Curvature w/o Superelevation	Normal Crown – 14,714 ft Reverse Crown – 10,955 ft (e_{max} = 0.1)	Normal Crown – 8,337 ft Reverse Crown – 6,171 ft (e_{max} = 0.1)	Normal Crown – 1,528 ft Reverse Crown – 716 ft (e_{max} = 0.05)	Normal Crown – 2,083 ft Reverse Crown – 955 ft (e_{max} = 0.05)	FDM, Table 210.9.2 (40 & 45) FDM, Table 210.9.1 (55)
Superelevation	80% of super trans in tangent Superelevation Transition Rate: 1:250	80% of super trans in tangent Superelevation Transition Rate: 1:200	80% of super trans in tangent Superelevation Transition Rate: 1:125	80% of super trans in tangent Superelevation Transition Rate: 1:150	FDM, Table 210.9.3
Crest Vertical Curve	K = 401; L = 1,000 ft (minimum)	K = 136; L = 300 ft (minimum)	K = 70; L = 120 ft (minimum)	K = 98; L = 135 ft (minimum)	FDM, Table 210.10.3 FDM, Table 210.10.4 FDM, Table 211.9.2 FDM, Table 211.9.3
Sag Vertical Curve	K = 181; L = 800 ft (minimum)	K = 96; L = 200 ft (minimum)	K = 64; L = 120 ft (minimum)	K = 79; L = 135 ft (minimum)	FDM, Table 210.10.3 FDM, Table 210.10.4 FDM, Table 211.9.2 FDM, Table 211.9.3
Clear Zone Width	Travel Lane = 36 ft Auxiliary Lanes = 24 ft	14 ft	Travel Lane = 18 ft Auxiliary Lanes = 10 ft	Travel Lane = 24 ft Auxiliary Lanes = 14 ft	FDM, Table 215.2.1
Total Deceleration Distance	N/A	290 ft + Queue Length	155 ft + Queue Length	185 ft + Queue Length	FDM, Exhibit 212-1
Maximum Intersection Deflection Angle	N/A	N/A	5°00′00″	3°00′00″	FDM, Table 212.7.1
Railroad Crossing	Vertical Clearance = 23.5 ft (minimum) Lateral Offsets = 18 ft, with crash walls (minimum); 25 ft without crash walls (minimum)	N/A	Vertical Clearance = 23.5 ft (minimum) Lateral Offsets = 18 ft, with crash walls (minimum); 25 ft without crash walls (minimum)	Vertical Clearance = 23.5 ft (minimum) Lateral Offsets = 18 ft, with crash walls (minimum); 25 ft without crash walls (minimum)	FDM, Table 260.6.1 FDM, Table 220.3.1 AREMA Manual for Railway Engineering, 2024

5.0 Alternatives Analysis

5.1 No-Build (No-Action) Alternative

The No-Build Alternative provides a baseline for comparison to the Build Alternative. It represents the existing roadway network within the study area, in addition to any planned improvements. Five planned improvements exist within the study area, and the project details are summarized below. Figure 5.1.1 shows the location of the adjacent projects.

Power Line Road Extension

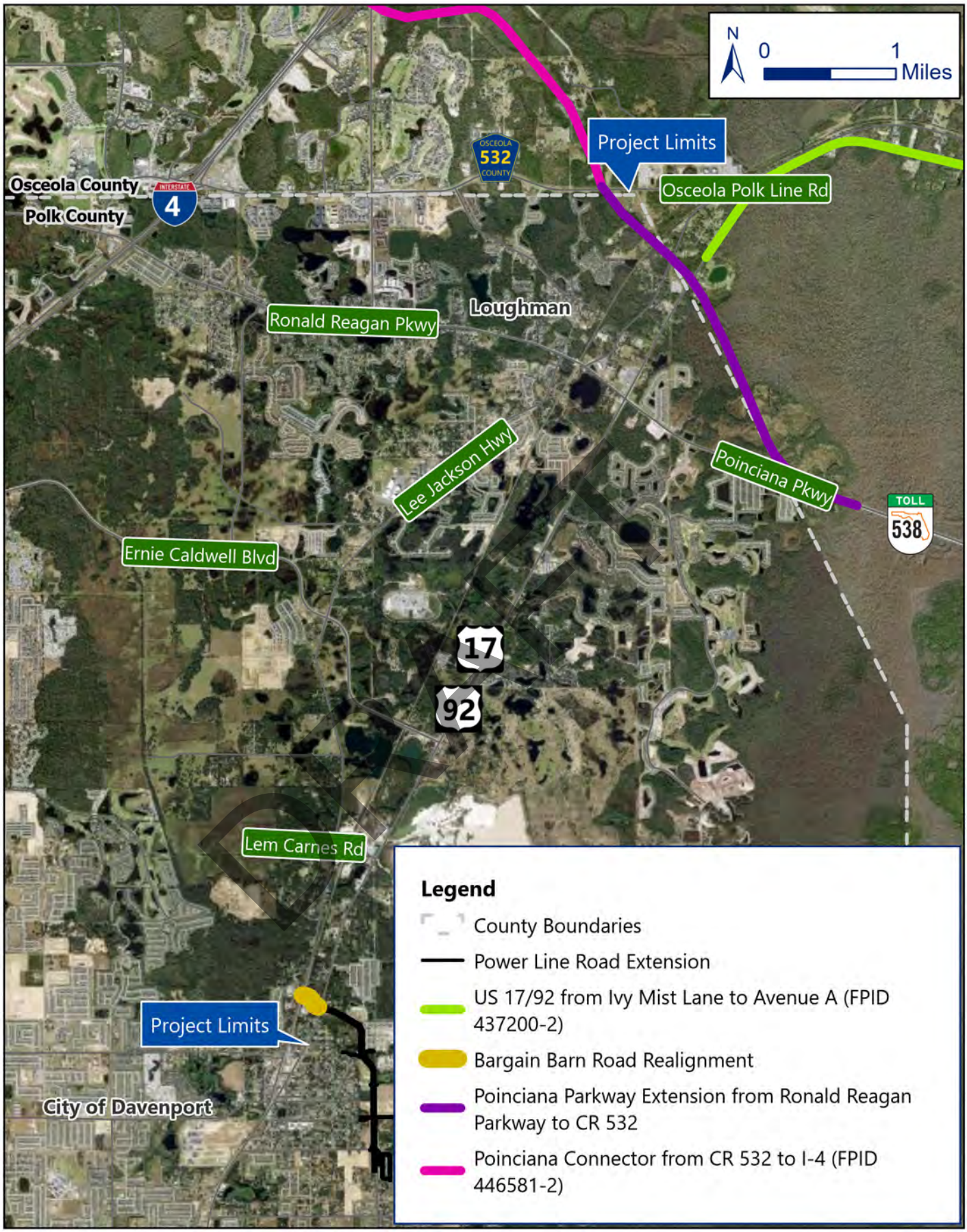
Polk County is currently constructing Phase 1 of the Power Line Road extension which will extend Power Line Road from South Boulevard to US 17/92 as a four-lane divided arterial. Phase 2 will widen Power Line Road from Hinson Avenue to South Boulevard from two lanes to four lanes. Phase 2 is in the Design phase and will require funding for both right-of-way acquisition and construction.

Poinciana Parkway Extension from Ronald Reagan Parkway to CR 532

CFX is designing the extension of Poinciana Parkway (SR 538) from Ronald Reagan Parkway to CR 532, a total of 3.1 miles. In this segment, Poinciana Parkway is designed to be a four-lane limited access tolled facility and includes an interchange at US 17/92, tolled ramps at CR 532, and bridges over wetlands, the CSX railroad, Old Tampa Highway, and US 17/92. A Diverging Diamond Interchange (DDI) is designed on US 17/92 just east of the CPP East project limits.

Poinciana Connector from CR 532 to SR 429 (FPID 446581-4)

FDOT is designing the extension of Poinciana Parkway from CR 532 to the I-4/SR 429 interchange, a total of 3.5 miles. Poinciana Connector will be a six-lane limited access toll facility. The Poinciana Connector would provide a regional, limited access facility that connects I-4 on the west to Poinciana Parkway on the east.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 5.1.1: Adjacent Projects**	**Page Number: 5-2**

Realignment of Bargain Barn Road

The realignment of Bargain Barn Road from its current location to the south to align with the Power Line Road extension. This realignment improves safety by providing a traditional intersection with full turning movements and reduces the need for people traveling east on Bargain Barn Road to north on US 17/92 to perform a U-turn. The realignment also allows for the future development of a gas station in the current location of Bargain Barn Road. This project is in construction by the developer, in conjunction with the City of Davenport.

US 17/92 from Ivy Mist Lane to Avenue A (FPID 437200-2)

FDOT is conducting a PD&E Study to evaluate improvements to US 17/92 from Ivy Mist Lane to Avenue A, a distance of approximately 3.8 miles. The PD&E Study is evaluating widening US 17/92 from two lanes to a four-lane divided corridor throughout the study limits.

The No-Build Alternative for this PD&E Study (451419-1) includes the above-mentioned projects, and the advantages of the No-Build Alternative include:

- No new expenditures for road design, utility relocations, right-of-way acquisition, or construction costs;
- No additional social, cultural, physical, or natural environmental impacts; and
- No traffic disruptions during construction.

The disadvantages of the No-Build Alternative include:

- Does not meet the purpose and need for the project;
- Increased vehicular congestion and delay, which leads to increased travel, time, and delay costs;
- Does not accommodate future growth or economic development;
- Increased safety concerns; and
- Increased emergency response, evacuation time, and recovery time.

Due to the existing and future traffic demands of US 17/92, the No-Build Alternative is considered neither viable nor a practical alternative, but it will be fully considered throughout the PD&E Study.

5.2 Transportation Systems Management and Operational (TSM&O) Alternative

The TSM&O Alternative evaluates strategies aimed at enhancing the efficiency and safety of existing transportation infrastructure through low-cost, operational improvements. Typical TSM&O strategies include intersection enhancements, traffic signal optimization, ITS deployment, and pavement marking upgrades. These measures are generally applied to existing corridors to improve traffic flow, incident response, and traveler information. These measures alone along US 17/92 do not sufficiently address the capacity problems or improve overall network efficiency, and the majority of the disadvantages of the No-Build Alternative will remain.

While a robust ITS deployment plan includes CCTV cameras, Dynamic Message Signs (DMS), Vehicle Detection Systems (VDS), Wrong Way Vehicle Detection Systems (WWVDS), and fiber-optic communication, these elements are part of the proposed Build Alternative (Section 5.4) and not applicable to a standalone TSM&O Alternative. The ITS infrastructure will support future TSM&O strategies once the corridor is operational but cannot serve as an alternative to the construction of the new facility itself.

Therefore, the TSM&O Alternative, by itself, is not considered a viable option, and no further evaluation of only the TSM&O Alternative is conducted in this study.

For more information about TSM&O opportunities, see the TSM&O Technical Memorandum, available in the project file.

5.3 Multimodal Alternatives

A Multimodal Alternative does not sufficiently address the capacity problems or improve overall network efficiency and safety, and the majority of the disadvantages of the No-Build Alternative

will remain. Therefore, the Multimodal Alternative alone is not considered a viable option, and no further evaluation of only the Multimodal Alternative was conducted.

5.4 Build Alternatives

In June 2024, four preliminary sketch-level alternatives were developed and reviewed internally. Following that review, two alternatives were selected for further refinement: a co-located alternative and a new alignment alternative. Subsequently, a third hybrid alternative was created, combining elements of the initial two. After additional evaluation during a project meeting in July 2025, two Build Alternatives were formally selected for advancement. For a comprehensive review of all sketch-level alternatives, refer to the Sketch Alternatives Evaluation Technical Memorandum, available in the project file.

Two Build Alternatives were developed to meet the project's purpose and need and were presented at the Alternatives Public Information Meeting in April 2025: Alternative 1: Co-located with US 17/92 and Alternative 2: New Alignment. The Build Alternatives propose a new tolled limited access facility in the vicinity of US 17/92 from Power Line Road to the Poinciana Connector. The Build Alternatives evaluated intersection, interchange, and access management enhancements, as well as maintaining or enhancing bicycle and pedestrian facilities on the local US 17/92. These alternatives are described below and shown on the roll plots Appendix A.

5.4.1 Alternative 1: Co-located with US 17/92

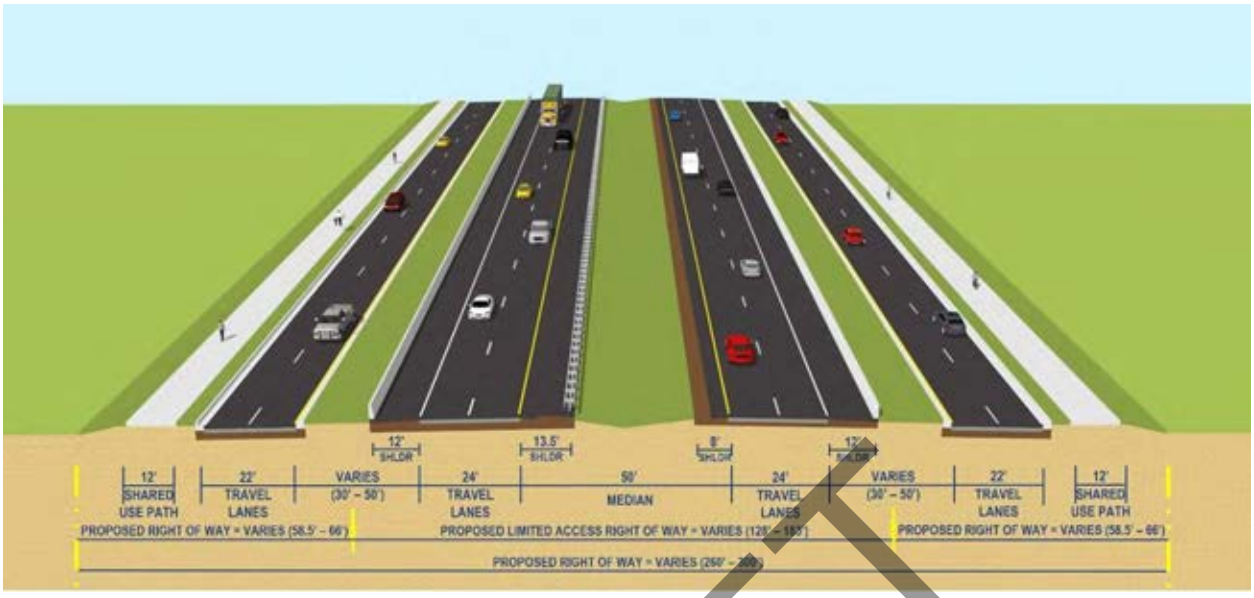
The project begins with upgrades to US 17/92 just north of James Street and continues north. The US 17/92 intersection with Power Line Road will be upgraded to accommodate the future traffic volumes and connect with the proposed realignment of Bargain Barn Road. Access to CPP East begins and ends approximately 0.7 miles north of the US 17/92 intersection with Power Line Road extension. CPP East will be located between the US 17/92 northbound and southbound lanes with overpasses at Lem Carnes Road, the CSX railroad spur, Ernie Caldwell Boulevard, Deer Run Drive, Wynell Drive, Providence Boulevard, Ronald Reagan Parkway, US 17/92, Old Kissimmee Road, the CSX railroad, and the future Poinciana Parkway. US 17/92 will remain at grade. Access

management modifications will occur along US 17/92 to provide locations for vehicles to safely perform U-turns and are further described in *Section 5.4.1.3 Access Management*. Slip ramps will be provided just north of Ernie Caldwell Boulevard to provide access between CPP East and US 17/92. North of Ronald Reagan Parkway, the CPP East lanes separate from US 17/92. Highspeed ramps will be provided to and from the Poinciana Connector near CR 532. Alternative 1: Co-located with US 17/92 is approximately 7.1 miles long.

5.4.1.1 Typical Sections

The proposed typical section shown in Figure 5.4.1 features CPP East flanked on each side by US 17/92. CPP East consists of two 12-foot-wide travel lanes in each direction separated by a 50-foot wide median (including the inside shoulders). In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder with barrier wall. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder with barrier wall. A 30- to 50-foot-wide buffer, measured from edge-of-travel to edge-of-travel separates CPP East from US 17/92. US 17/92 features two 11-foot-wide travel lanes in each direction with curb and gutter. A 6.5-foot buffer separates the outside US 17/92 travel lane from the 12-foot-wide shared use path. The proposed right-of-way width for this alternative varies from 260 feet to 300 feet. The limited access right-of-way for CPP East varies from 128 feet to 183 feet. The proposed design and posted speed limit for CPP East is 70 mph. The proposed design and posted speed limit for US 17/92 is 45 mph.

Figure 5.4.1: Alternative 1: Co-located with US 17/92 Typical Section



5.4.1.2 Horizontal Alignment

As part of the project, aerial photography, lidar data, surveyed right-of-way, design files (Power Line Road extension, Poinciana Parkway, Poinciana Connector), and a planned development for Bargain Barn Road were obtained and utilized in the development of Alternative 1: Co-located with US 17/92.

US 17/92 is widened to a six-lane divided arterial north of James Street and continues approximately 0.7 miles north of the US 17/92 intersection with Power Line Road extension where the CPP East slip ramps are located. Drivers in the center and right lanes may continue onto US 17/92, vehicles in the center and left lanes may enter CPP East. A mainline toll gantry is proposed approximately 1,555 feet south of Lem Carnes Road. Starting approximately 466 feet south of Lem Carnes Road, the existing right-of-way is held east of US 17/92 to avoid impacts to the substation and low-income areas including Kissimmee South Motorhome and RV Resort.

CPP East will bridge over Lem Carnes Road and the CSX railroad spur, while US 17/92 remains at grade. Two railroad crossing gate arms will be placed at the CSX railroad spur along northbound US 17/92: one for the cars on the road and one for the pedestrians on the sidewalk. One railroad

crossing gate arm will be placed at the CSX railroad spur along southbound US 17/92. Continuing northbound, CPP East bridges over Ernie Caldwell Boulevard, while US 17/92 remains at-grade. Advanced U-turns will be located at the Ernie Caldwell Boulevard intersection with US 17/92 allowing drivers to perform a U-turn by yielding to traffic in the opposing direction. A graphic of this U-turn is illustrated in *Section 5.4.1.3 Access Management* and on the roll plots in Appendix A. Slip ramps connecting US 17/92 and CPP East are located approximately 3,000 feet north of Ernie Caldwell Boulevard along with toll gantries.

CPP East will bridge over Deer Run Drive and Wynell Drive while US 17/92 will remain at-grade. The Loughman Oaks Elementary School bus loop access will remain as it is in the existing conditions which allows drivers to turn left and right onto US 17/92. Access to the parent pickup location will change to right-out only. Drivers wanting to travel southbound on US 17/92 will be able to make a U-turn at the Providence Boulevard intersection. This alternative will cause the displacement of the Polk County Fire Rescue Station 20.

CPP East will bridge over Providence Boulevard while US 17/92 will remain at-grade. No impacts are anticipated to the Providence guard house; however, the sign and aesthetics will be impacted. Approximately 660 feet north of Providence Boulevard, the right-of-way is held on the west side of US 17/92 to avoid impacts to the Aviana community. CPP East then bridges over Ronald Reagan Parkway while US 17/92 crosses Ronald Reagan Parkway at-grade with a portion of the intersection reconstructed due to the expansion of the intersection.

At the north end of the project limits, CPP East bridges over US 17/92 southbound as it curves towards the east. US 17/92 will tie into the DDI that is part of the Poinciana Parkway Extension. CPP East bridges over Old Kissimmee Road as the ramps begin to separate and the northbound ramps cross over Poinciana Parkway. The limited access right-of-way for the northbound ramps is concurrent with the parcel line to avoid impacts to the substation located on Labor Camp Road. No modifications are proposed for Labor Camp Road or Old Kissimmee Road. The project ends with the CPP East ramps tying into the outside of the Poinciana Connector.

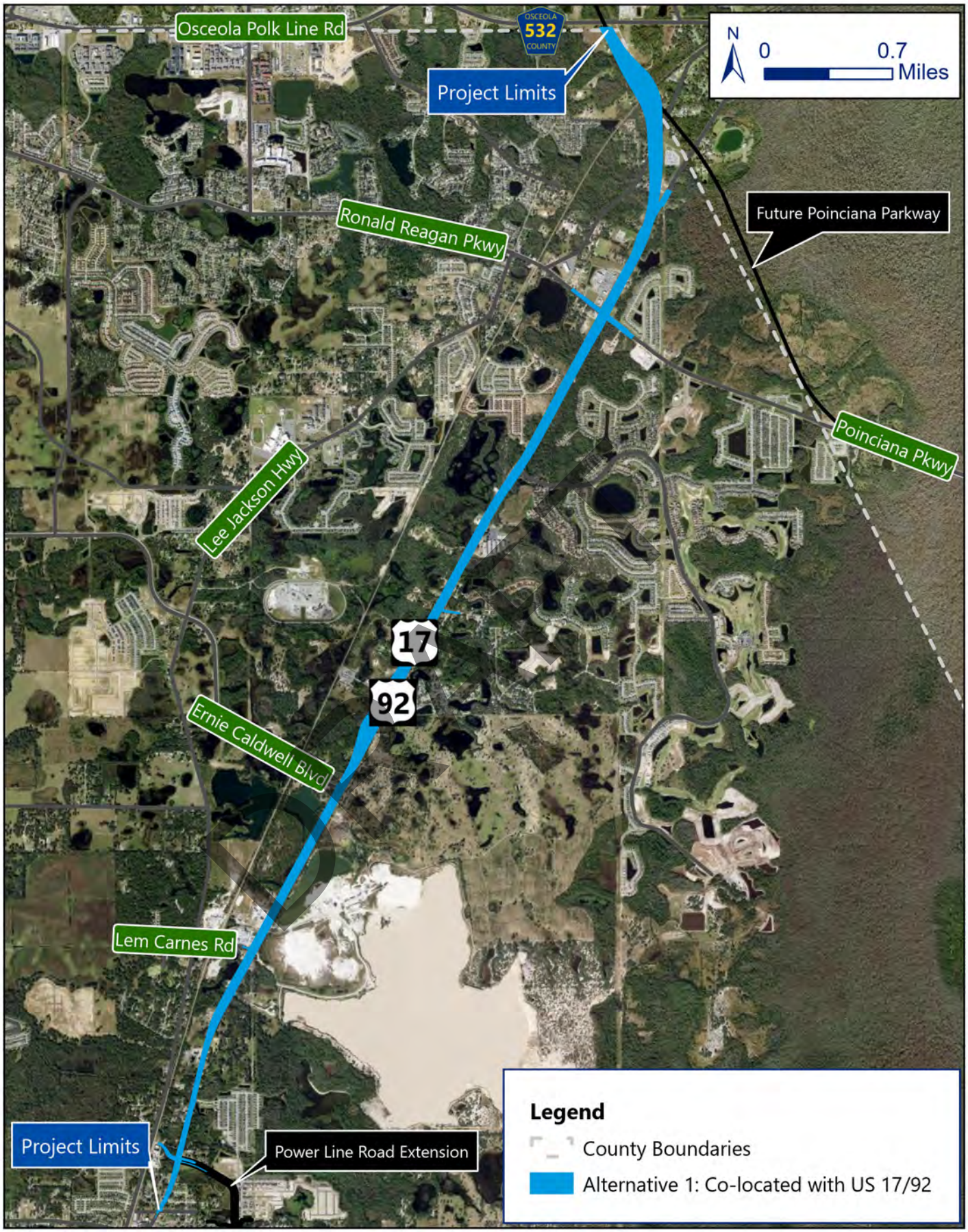
Table 5.4.1 shows a brief description of the roadway geometry and Figure 5.4.2 shows the alignment.

Table 5.4.1: Horizontal Alignment for Alternative 1: Co-located with US 17/92

Curve No.	PC Station	PI Station	PT Station	Tangent (feet)	Length (feet)	Radius (feet)	Superelevation	Design Speed
Mainline (e_{max} = 0.10)								
C1	1028+58.8	1033+87.4	1039+09.0	528.5	1,050.1	3,750.0	Normal Crown	45
C2	1075+10.5	1081+62.1	1088+06.5	651.6	1,296.0	5,060.0	4.2%	70
C3	1164+63.2	1169+89.4	1175+15.4	526.2	1,052.2	22,967.0	Normal Crown	70
C4	1177+40.1	1182+66.3	1187+92.3	526.2	1,052.2	22,967.0	Normal Crown	70
C5	1200+09.1	1205+35.3	1210+61.3	526.2	1,052.2	22,967.0	Normal Crown	70
C6	1212+86.0	1218+12.2	1223+38.2	526.2	1,052.2	22,967.0	Normal Crown	70
C7	1248+50.2	1253+79.6	1259+08.3	529.4	1,058.1	10,987.0	Reverse Crown	70
C8	1267+52.0	1272+82.0	1278+11.2	530.1	1,059.3	11,000.0	Reverse Crown	70
C9	1335+94.2	1341+18.6	1346+38.6	524.4	1,044.5	4,714.0	4.5%	70
Southbound Ramp (e_{max} = 0.10)								
C10	107+20.0	120+32.8	132+78.7	1,312.1	2,558.7	4,688.2	-4.6%	70
C11	144+37.6	149+79.9	155+01.2	542.3	1,063.6	2,214.0	-5.1%	50
C12	159+63.8	163+39.0	167+13.8	375.2	750.0	8,337.0	Reverse Crown	50
C13*	172+26.8	179+98.8	187+69.1	772.0	1,542.2	13,089.6	Reverse Crown	70
Northbound Ramp (e_{max} = 0.10)								
C14	206+61.9	211+40.1	216+15.0	478.2	953.1	4,739.8	4.5%	70
C15	216+15.0	227+50.0	238+65.9	1,134.9	2,250.9	7,109.8	3.1%	50
C16	250+74.1	257+27.8	263+16.1	653.8	1,242.1	1,610.0	6.6%	50
C17	267+55.7	271+36.0	275+12.0	380.3	756.3	2,889.0	-4.0%	50
C18*	275+12.0	282+56.7	289+99.8	744.7	1,487.8	12,971.8	Reverse Crown	70
*Curve to match Future Poinciana Connector								

5.4.1.3 Access Management

As a limited access facility, CPP East is classified as Access Management Classification 1 with an Area Type of 3, meaning interchange spacings should be three miles. Three access points are proposed along CPP East: the south ingress/egress north of Power Line Road, slip ramps to connect CPP East with US 17/92 north of Ernie Caldwell Boulevard, and the north ingress/egress at Poinciana Connector. Descriptions of these access points are listed below.



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 5.4.2: Alternative 1: Co-Located with US 17/92 Alignment**	**Page Number: 5-10**

CPP East South Ingress and Egress

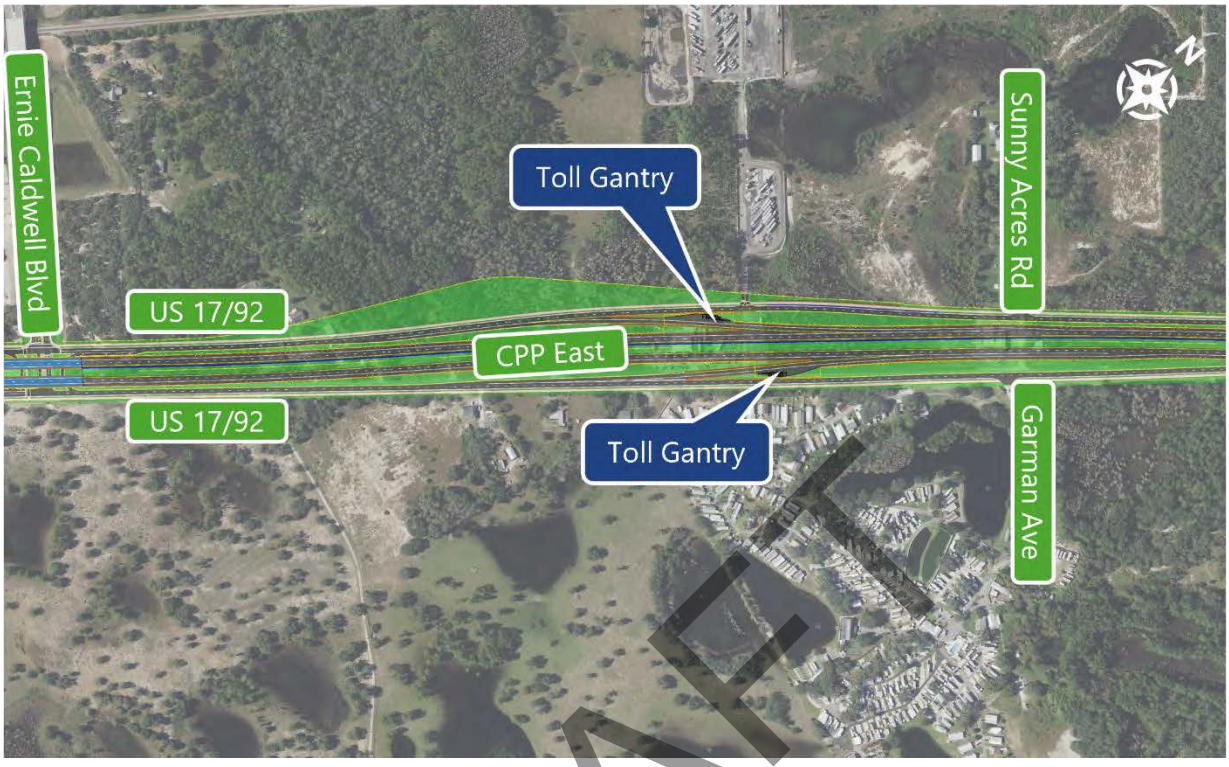
CPP East begins approximately 0.7 miles north of the US 17/92 intersection with Power Line Road. In the northbound direction, vehicles in the center and right lanes may continue onto US 17/92, vehicles in the center and left lanes may enter CPP East. Alternatively, in the southbound direction, US 17/92 becomes four lanes until the US 17/92 intersection with Power Line Road where the left two lanes become left turn lanes. Figure 5.4.3 shows the CPP East south ingress and egress.

Figure 5.4.3: CPP East South Ingress and Egress

CPP East Slip Ramps with US 17/92

Approximately 0.6 miles north of Ernie Caldwell Boulevard, ramps connect CPP East with US 17/92. The northbound slip ramp is formed by a 300-foot-long to facilitate merging from US 17/92 onto the ramp. A toll gantry is located along the ramp, followed by an 820-foot parallel type entrance lane to facilitate merging onto CPP East. In the southbound direction, a one-lane, exit-only ramp with a toll gantry is formed by a 300-foot-long taper. The ramp continues with a 580-foot parallel type exit lane to facilitate merging. Figure 5.4.4 shows the CPP East ramp with US 17/92.

Figure 5.4.4: CPP East Slip Ramps with US 17/92



CPP East North Ingress and Egress

The CPP East northbound ramp merges into the two northbound lanes on Poinciana Connector allowing for four lanes in the northbound direction. Alternatively, in the southbound direction, the three southbound lanes on Poinciana Connector will split and the inside lane will turn into CPP East and the middle lane will be a choice lane where traffic can choose to exit to CPP East or continue on the Poinciana Connector. Figure 5.4.5 shows the CPP East north ingress and egress.

Figure 5.4.5: CPP East North Ingress and Egress

US 17/92

US 17/92 has an access management classification of 3, which states directional median openings can be spaced at 1,320 feet and full median openings or signals may be spaced every 2,640 feet.

With CPP East located in the middle of US 17/92, no directional median openings are located along US 17/92 within the project limits. Full median openings with signals are located at the following intersections: Power Line Road, Lem Carnes Road, Ernie Caldwell Boulevard, Deer Run Drive, Wynell Drive (Loughman Oaks Elementary School Bus Loop), Providence Boulevard, and Ronald Reagan Parkway. Table 5.4.2 shows the proposed access management features for Alternative 1: Co-located with US 17/92.

Table 5.4.2: Alternative 1: Co-located with US 17/92 Access Management Along US 17/92

Side Road / Description	Proposed Median Type	Proposed Middle Station	Proposed Signal Spacing (feet)
Power Line Road	Full (Signal)	1042+70	
			6,460
Lem Carnes Road	Full (Signal)	1107+30	
			5,330
Ernie Caldwell Boulevard	Full (Signal)	1160+60	
			5,940
Deer Run Drive	Full (Signal)	1220+00	
			1,880
Wynell Drive (Loughman Oaks Elementary School Bus Loop)	Full (Signal)	1238+80	
			2,710
Providence Boulevard	Full (Signal)	1265+90	
			5,140
Ronald Reagan Parkway	Full (Signal)	1317+30	

US 17/92 at Power Line Road

US 17/92 northbound will feature one designated left turn lane, three through lanes, and one designated right turn lane. US 17/92 southbound will feature three designated left turn lanes, three through lanes, and one designated right turn lane. Power Line Road will feature one left turn lane, one through lane, and three right turn lanes. Bargain Barn Road will feature two left turn lanes, one through lane, and one right turn lane. Figure 5.4.6 shows the US 17/92 intersection at Power Line Road.

US 17/92 at Lem Carnes Road

US 17/92 northbound and southbound will feature one designated left turn lane and two through lanes. Lem Carnes Road will feature one lane in each direction. Figure 5.4.7 shows the US 17/92 intersection at Lem Carnes Road.

Figure 5.4.6: US 17/92 Intersection at Power Line Road

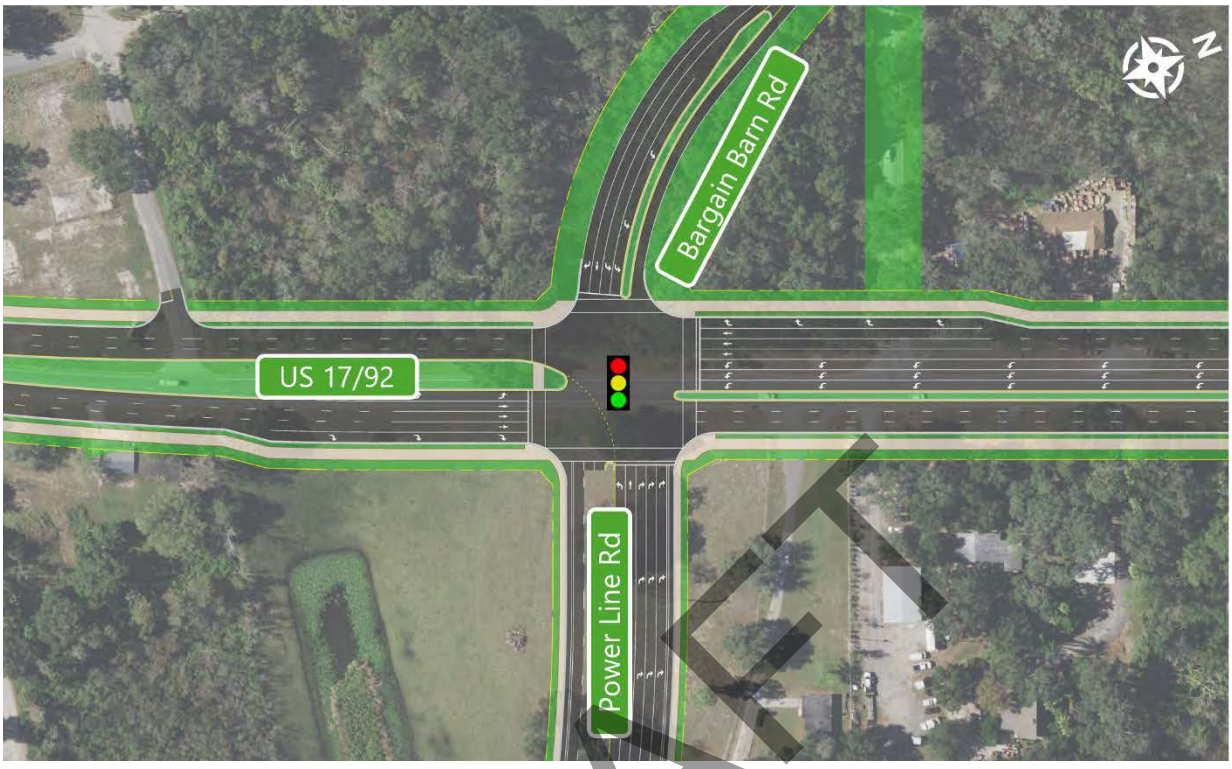
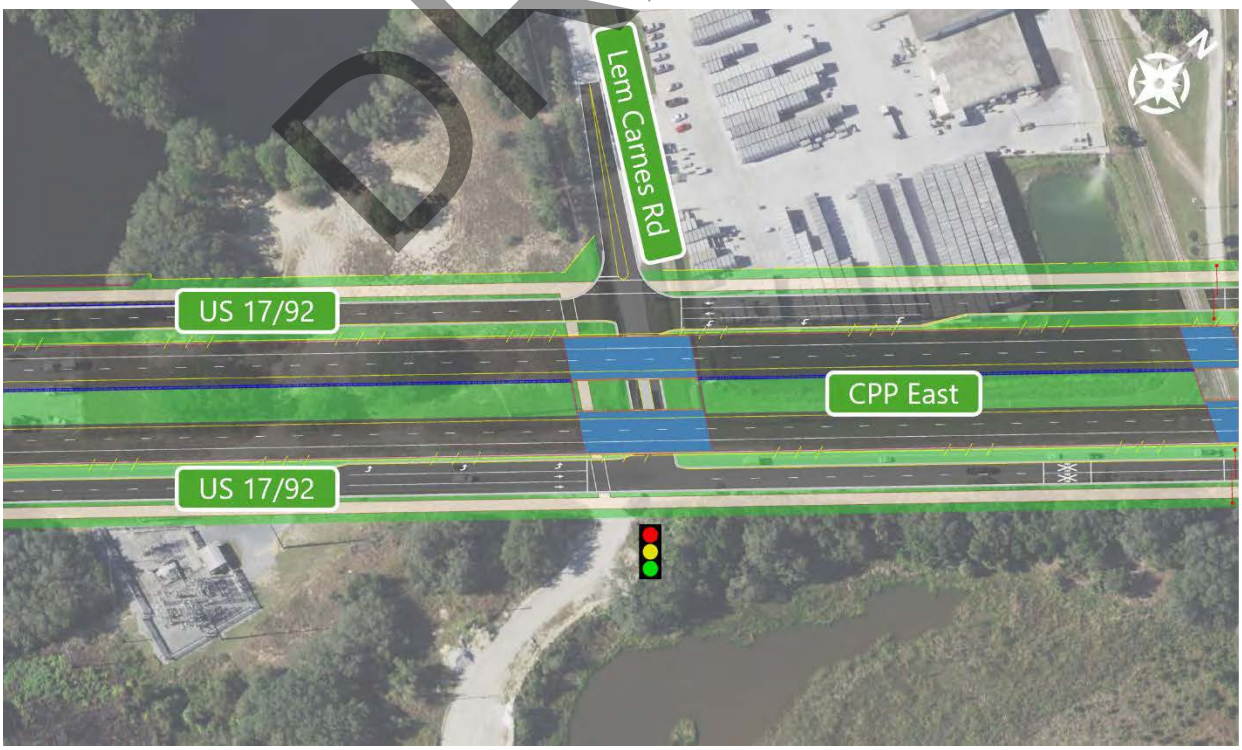


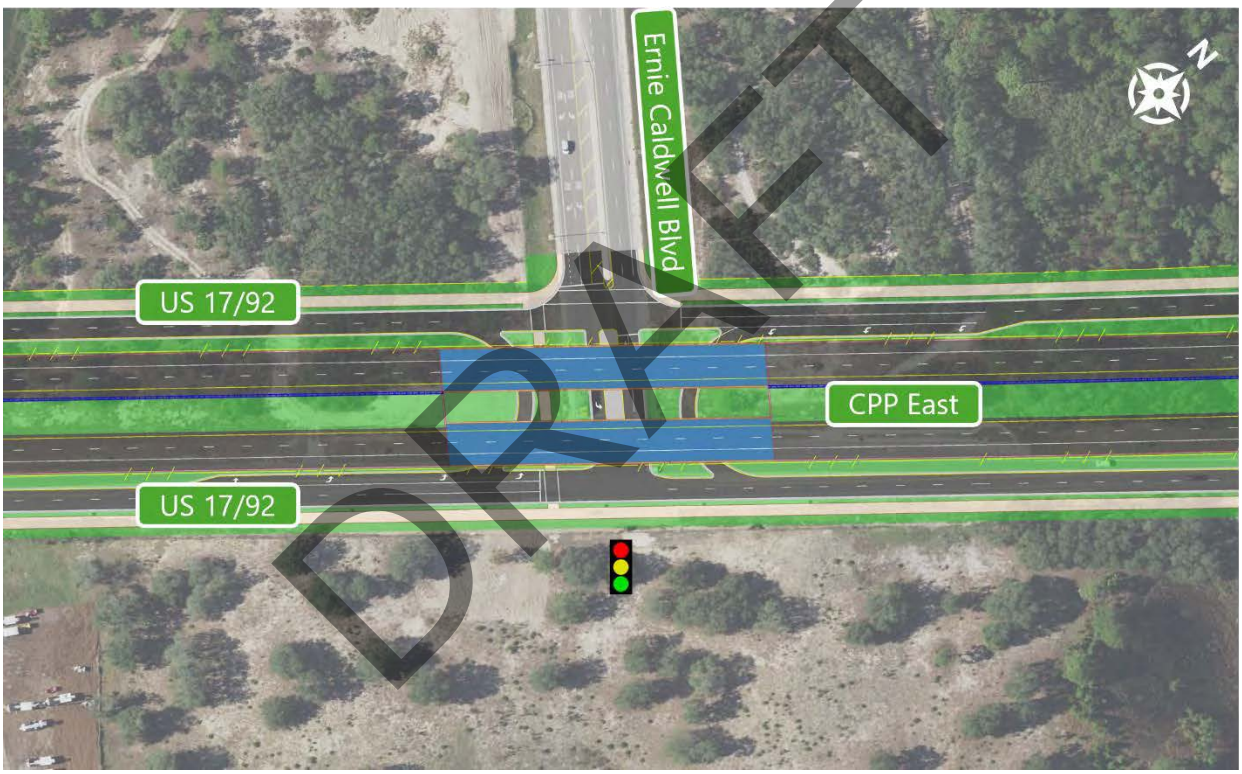
Figure 5.4.7: US 17/92 Intersection at Lem Carnes Road



US 17/92 at Ernie Caldwell Boulevard

US 17/92 northbound and southbound will feature one designated left turn lane with the option of performing an advanced U-turn. The advanced U-turn will allow drivers traveling along US 17/92 to perform a U-turn prior to the signal. Drivers will begin the U-turn and yield to traffic as they approach the opposing travel lanes. Ernie Caldwell Boulevard will feature one designated left turn lane, and one designated right turn lane. Figure 5.4.8 shows the US 17/92 intersection at Ernie Caldwell Boulevard.

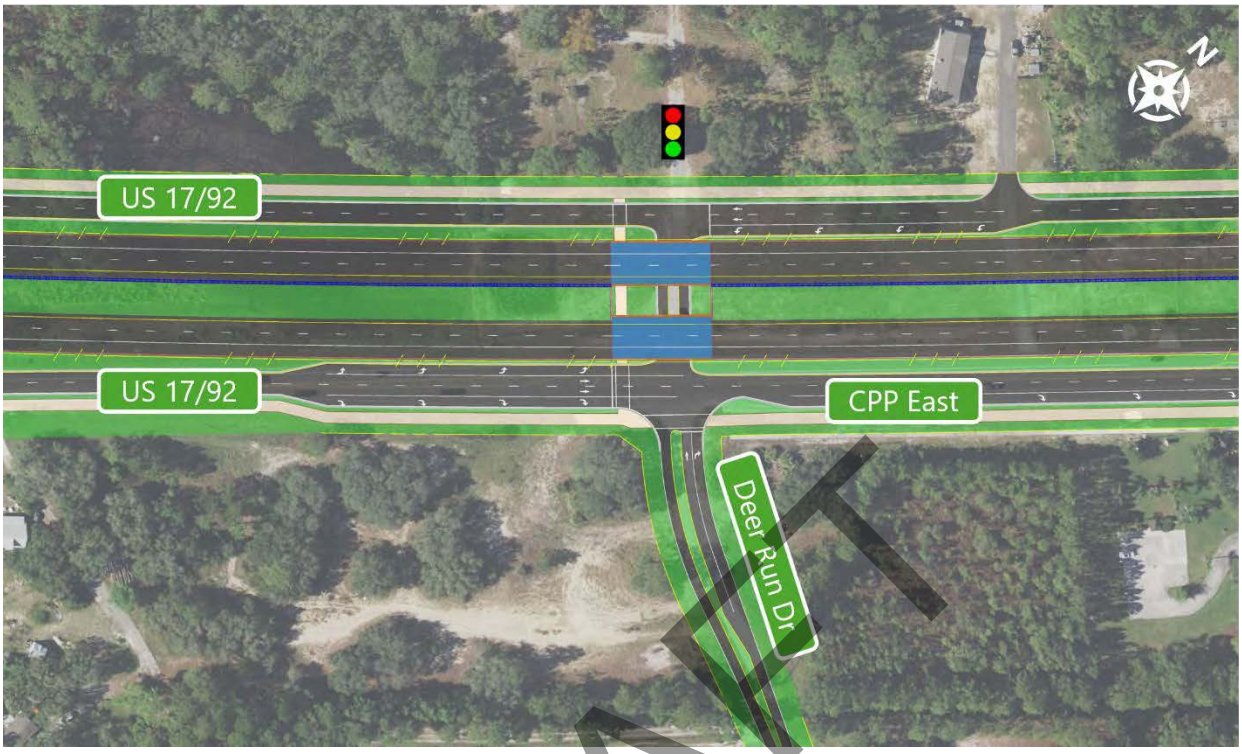
Figure 5.4.8: US 17/92 Intersection at Ernie Caldwell Boulevard



US 17/92 at Deer Run Drive

US 17/92 northbound will feature one designated left turn lane, two through lanes, and one designated right turn lane. US 17/92 southbound will feature one designated left turn lane and two through lanes. Deer Run Drive features one designated left turn lane, and one designated right turn lane. Figure 5.4.9 shows the US 17/92 intersection at Deer Run Drive.

Figure 5.4.9: US 17/92 Intersection at Deer Run Drive



US 17/92 at Wynell Drive (Loughman Oaks Elementary School Bus Loop)

US 17/92 northbound will feature one designated left turn lane, two through lanes, and one designated right turn lane. US 17/92 southbound will feature one designated left turn lane and two through lanes. Wynell Drive will feature one lane. The Loughman Oaks Elementary School bus loop will feature one designated left turn lane and one designated right turn lane. Figure 5.4.10 shows the US 17/92 intersection at the Loughman Oaks Elementary School bus loop.

US 17/92 at Providence Boulevard

US 17/92 northbound will feature one designated left turn lane, two through lanes, and one designated right turn lane. US 17/92 southbound will feature one designated left turn lane and two through lanes. Providence Boulevard will feature one designated left turn lane and one designated right turn lane. Figure 5.4.11 shows the US 17/92 intersection at Providence Boulevard.

Figure 5.4.10: US 17/92 Intersection at Wynell Drive (Loughman Oaks Elementary School Bus Loop)

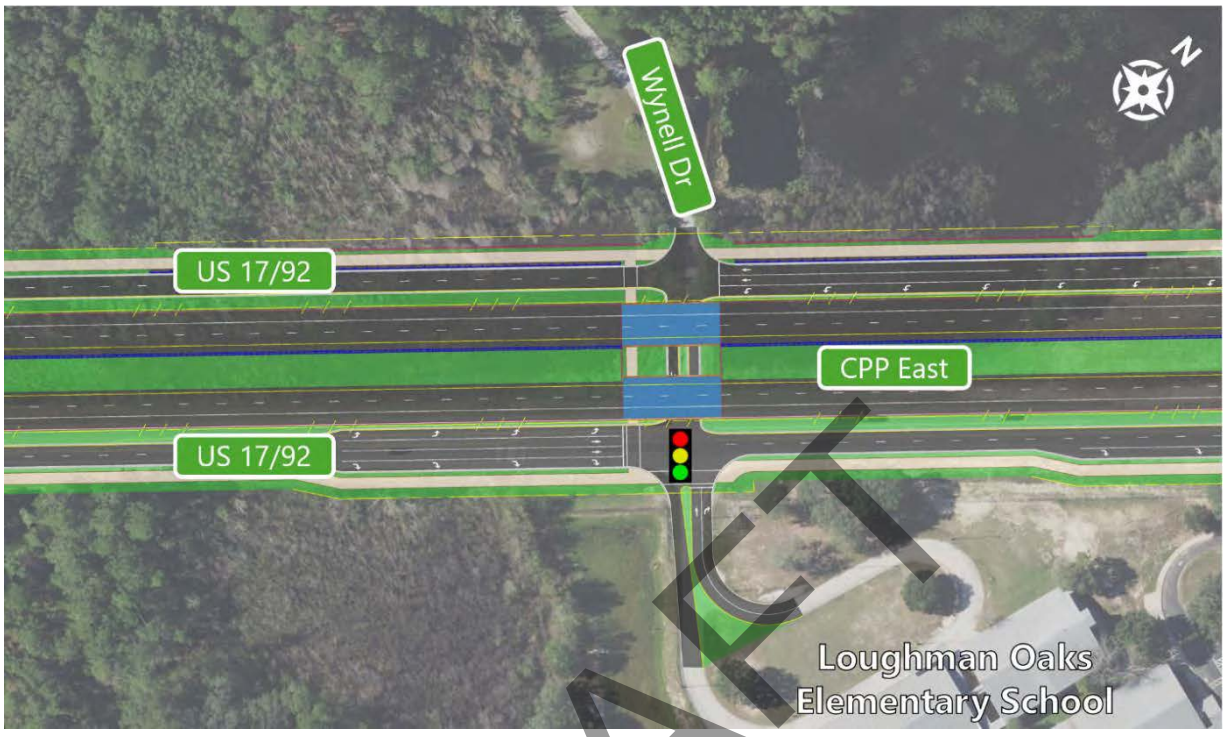
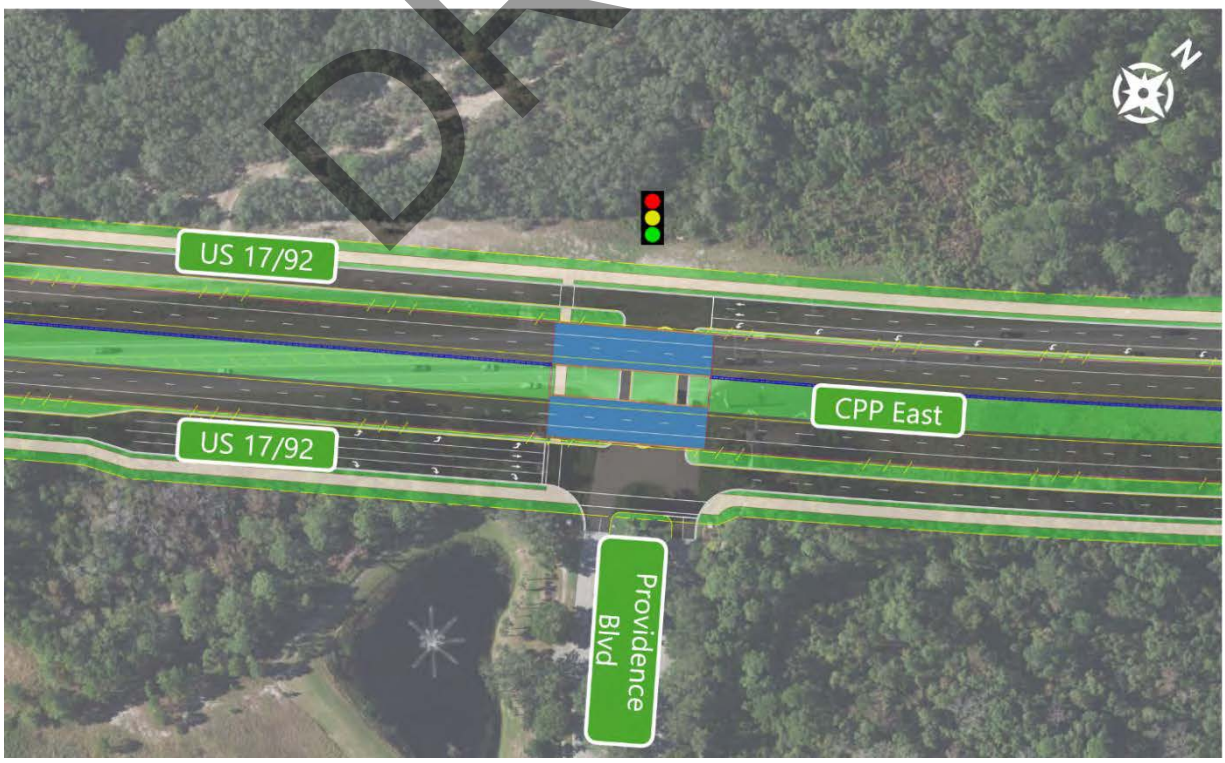


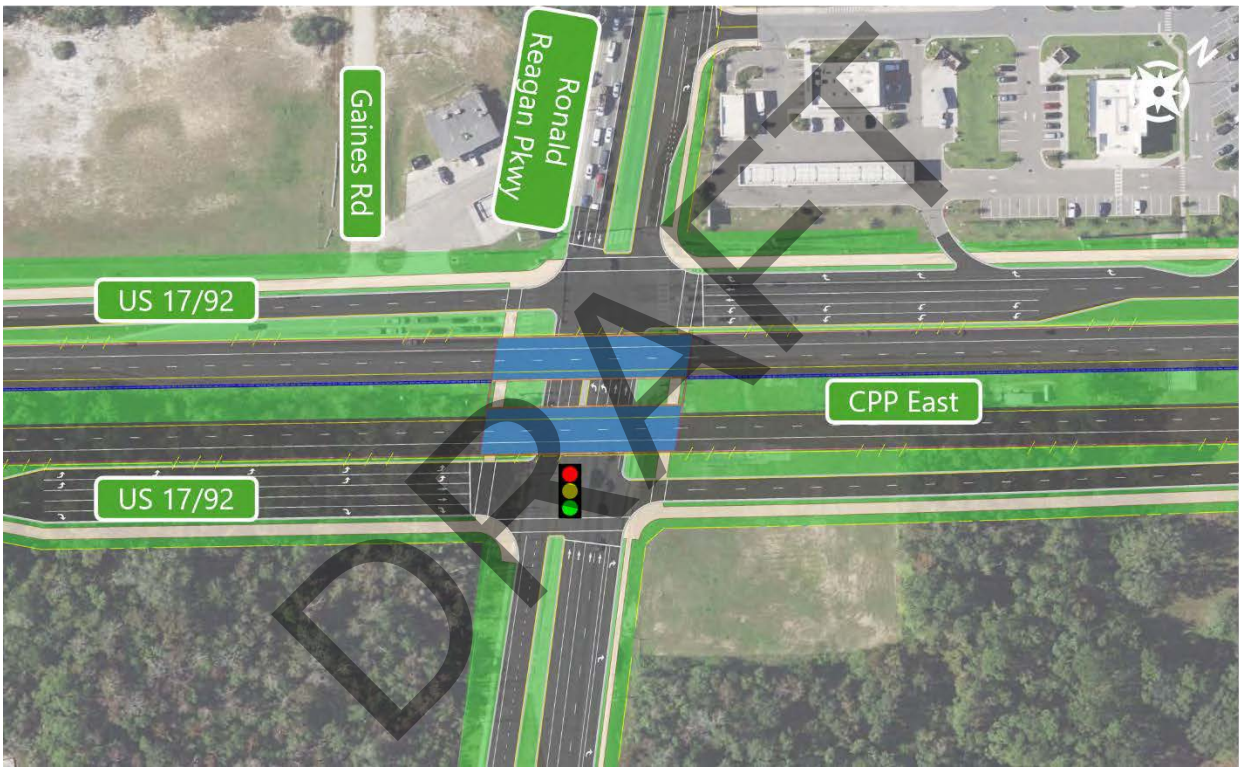
Figure 5.4.11: US 17/92 Intersection at Providence Boulevard



US 17/92 at Ronald Reagan Parkway

US 17/92 northbound and southbound will feature two designated left turn lanes, two through lanes, and one designated right turn lane. Ronald Reagan Parkway eastbound will feature one designated left turn lane and two through lanes. Ronald Reagan Parkway westbound will feature two designated left turn lanes, two through lanes, and one designated right turn lane. Figure 5.4.12 shows the US 17/92 intersection at Ronald Reagan Parkway.

Figure 5.4.12: US 17/92 Intersection at Ronald Reagan Parkway



5.4.1.4 Bridge and Structure Analysis

CPP East overpasses Lem Carnes Road, the CSX railroad spur, Ernie Caldwell Boulevard, Deer Run Drive, Wynell Drive, Providence Boulevard, Ronald Reagan Parkway, US 17/92, Old Kissimmee Road, the CSX railroad, and the future Poinciana Parkway. The minimum vertical clearance for bridge structures over roadways is 16'-6". The bridge sites crossing over CSX railroad will require a minimum vertical clearance of 23'-6".

CPP East from Lem Carnes Road to Ronald Reagan Parkway

The mainline stretch of CPP East between south of Lem Carnes Road to north of Ronald Reagan Parkway will consist of seven bridge sites. All bridge sites will contain twin bridges that are 46'-8" wide and carry two lanes of traffic with eight-foot-wide inside shoulders and 12-foot-wide outside shoulders. The twin bridges are separated by 31'-4". All bridge sites will use single-span Florida-I Beams, except for Ernie Caldwell Boulevard and Ronald Reagan Parkway, which will use a three-span configuration of Florida-I Beams. The end bents will be supported by abutment walls. The three-span structures will utilize multi-column piers at intermediate support locations.

CPP East over Southbound US 17/92

This bridge site will contain twin bridges carrying northbound and southbound CPP East over US 17/92. Each bridge will carry two lanes of traffic with eight-foot-wide inside shoulders and 12-foot-wide outside shoulders for a total bridge width of 46'-8". The superstructure will consist of steel I-girders, with a span length of 282'-0". The supports will be skewed to minimize span length and accommodate the skewed crossing underneath. The end bents will be supported by abutment walls. The walls will be placed outside of the lateral offset for a low-speed curbed roadway, 16 feet from the edge of the travel lane.

Southbound Ramp over Old Kissimmee Road

This bridge site will contain a steel structure spanning over Old Kissimmee Road and Church Street. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a total width of 44'-8". The substructure will consist of end bents supported by abutment walls.

Southbound Ramp over CSX Railroad

This bridge will consist of a single span bridge over the CSX railroad. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a total width of 44'-8". The superstructure will consist of Florida-I beams. The substructure will consist of end bents supported by abutment walls.

Northbound Flyover Ramp

This bridge will be a third level flyover that will cross over Church Road, Old Kissimmee Road, Poinciana Connector, and the CSX railroad. As part of the Poinciana Connector project, a new Duke Energy Florida Inc powerline easement is created adjacent to the CFX right-of-way. To construct this flyover ramp bridge, coordination with Duke Energy will be required. The bridge will carry two lanes, with an eight-foot-wide inside shoulder and a 12-foot-wide outside shoulder for a bridge width of 44'-8". The bridge will consist of steel I-girders supported by hammer-head piers. A footing will be constructed in the gore area between mainline Poinciana Connector and a ramp.

Table 5.4.3 summarizes the bridges that are part of Alternative 1: Co-located with US 17/92.

Table 5.4.3: Alternative 1: Co-located with US 17/92 Bridge Summary

Bridge Site	Direction	Superstructure Type	Total Bridge Length (feet)
Lem Carnes Road	NB & SB	Prestressed Concrete	145
CSX RR Spur	NB & SB	Prestressed Concrete	65
Ernie Caldwell Boulevard	NB & SB	Prestressed Concrete	360
Deer Run Drive	NB & SB	Prestressed Concrete	117
Wynell Drive	NB & SB	Prestressed Concrete	117
Providence Boulevard	NB & SB	Prestressed Concrete	195
Ronald Reagan Boulevard	NB & SB	Prestressed Concrete	240
US 17/92	NB & SB	Steel I-Girder	279
Old Kissimmee Road	SB Ramp	Steel I-Girder	460
NB Flyover Ramp	NB Ramp	Steel I-Girder	1720
CSX RR	SB Ramp	Prestressed Concrete	149

Retaining walls are anticipated along most of the corridor to allow for the grade separation between CPP East and US 17/92. Abutment walls will be used at the bridge end bents to minimize bridge lengths. Bulkheads will be used where standing water is encountered adjacent to the

roadway. The location of bulkheads are preliminary assumptions without geotechnical or survey information and will be refined during the final design phase.

5.4.1.5 Vertical Alignment

The vertical alignment for CPP East for Alternative 1: Co-located with US 17/92 is shown in Table 5.4.4.

Table 5.4.4: Alternative 1: Co-located with US 17/92 Vertical Profile

Back Tangent Length (feet)	Back Slope	Station (VPI)	Elevation (feet)	Curve Length (feet)	K Value	Ahead Slope	Ahead Tangent Length (feet)	Design Speed
Mainline (e_{max} = 0.10)								
3,189.4	0.2%	1063+59.4	111.3	800.0	1,177.2	0.5%	593.6	45
593.6	0.5%	1078+53.0	118.8	1,000.0	1,000.0	-0.5%	636.5	70
636.5	-0.5%	1093+89.5	111.1	800.0	262.3	2.6%	586.8	70
586.8	2.6%	1110+43.0	153.2	1,333.3	401.0	-0.8%	2,499.8	70
2,499.8	-0.8%	1146+09.5	125.6	800.0	351.7	1.5%	464.2	70
464.2	1.5%	1160.+60.0	147.4	1,172.8	371.2	-1.7%	579.9	70
579.9	-1.7%	1176+26.3	121.4	800.0	690.2	-0.5%	1,383.2	70
1,383.2	-0.5%	1198+09.5	110.5	800.0	800.0	0.5%	590.5	70
590.5	0.5%	1212+00.0	117.4	800.0	400.0	2.5%	267.1	70
267.1	2.5%	1228+69.6	159.2	2,005.0	401.0	-2.5%	639.5	70
639.5	-2.5%	1250+11.6	105.6	1,000.0	200.0	2.5%	75.3	70
75.3	2.5%	1266+51.6	146.6	2,129.4	401.8	-2.8%	162.4	70
162.4	-2.8%	1281+40.1	104.9	522.7	227.3	-0.5%	1,142.1	70
1,142.1	-0.5%	1299+43.6	95.9	800.0	320.0	2.0%	451.1	70
451.1	2.0%	1317+97.2	133.0	2,005.0	401.0	-3.0%	225.2	70
225.2	-3.0%	1335+00.0	81.9	950.2	181.0	2.2%	660.9	70
Southbound Ramp (e_{max} = 0.10)								
65.2	-3.0%	106+08.2	81.6	1,086.0	181.0	3.0%	62.2	70
62.2	3.0%	119+85.4	123.0	1,543.8	401.0	-0.8%	251.3	70
251.3	-0.8%	134+58.6	110.4	900.0	486.5	1.0%	773.3	50
773.3	1.0%	152+56.9	128.4	1,150.0	287.5	-3.0%	2.0	50

Back Tangent Length (feet)	Back Slope	Station (VPI)	Elevation (feet)	Curve Length (feet)	K Value	Ahead Slope	Ahead Tangent Length (feet)	Design Speed
2.0	-3.0%	162+34.0	99.1	800.0	193.1	1.1%	593.0	50
593.0	1.1%	179+98.0	119.3	1,542.0	576.2	-1.5%	0.1	70
Northbound Ramp (e_{max} = 0.10)								
99.0	-3.0%	206+05.8	81.7	1,013.6	181.0	2.6%	335.9	70
335.9	2.6%	219+48.4	116.6	1,000.0	625.0	1.0%	2,591.3	70
2,591.3	1.0%	255+39.7	152.6	1,000.0	222.2	3.5%	681.0	50
681.0	-3.5%	269+48.5	103.2	455.6	96.0	1.2%	335.7	50
335.7	1.2%	282+55.9	119.5	1,487.8	500.8	-1.7%	0.0	70

5.4.1.6 Right-of-way

Additional right-of-way will be required on both sides of US 17/92 to construct the proposed highway. Alternative 1: Co-located with US 17/92 impacts 228 parcels for a total of 186.5 acres for the roadway improvements. Forty-one residential relocations, seven business relocations, one governmental parcel relocation (Polk County Fire Rescue Station 20), and two utility parcel relocations are anticipated as a result of this project.

5.4.2 Alternative 2: New Alignment

The first 1.8 miles of Alternative 2: New Alignment are identical to Alternative 1: Co-located with US 17/92. The project begins with upgrades to US 17/92 just north of James Street and continues north. The US 17/92 intersection with Power Line Road will be upgraded to accommodate the future traffic volumes and connect with the proposed realignment of Bargain Barn Road. Access to CPP East begins and ends approximately 0.7 miles north of the US 17/92 intersection with Power Line Road extension, after which the highway would be co-located with US 17/92 for 0.75 miles before separating from US 17/92 just north of Lem Carnes Road. CPP East will then parallel the CSX railroad west of US 17/92 until Wynell Drive, where the alignment begins to shift east and cross US 17/92 north of Providence Boulevard. Ramps will be located north of Ernie Caldwell Boulevard to allow access between US 17/92 and CPP East. CPP East will continue to parallel US 17/92on the east from north of Ronald Reagan Parkway, where the alignment then crosses US

17/92 before separating and connecting to Poinciana Connector. CPP East will bridge over Lem Carnes Road, the CSX railroad spur, wetlands, US 17/92, Ronald Reagan Parkway, and Old Kissimmee Road.

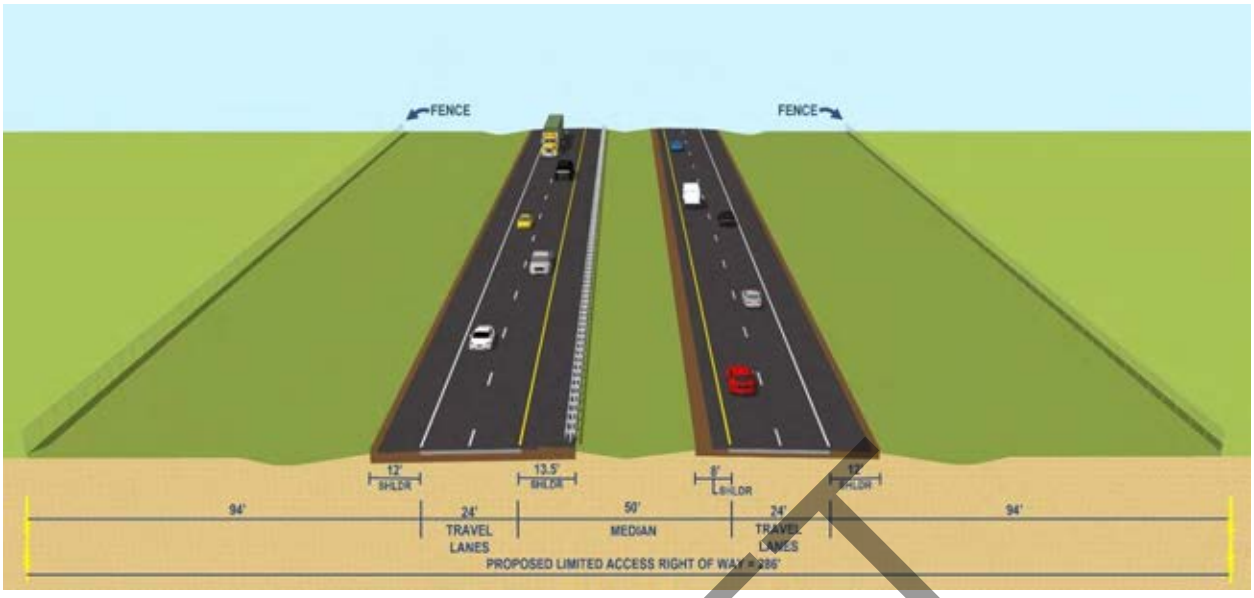
US 17/92 will be widened to two lanes in each direction from Power Line Road to just north of the interchange ramps connecting US 17/92 and CPP East, approximately 0.5 miles north of Ernie Caldwell Boulevard. Improvements to US 17/92 are also proposed at the Providence Boulevard intersection to accommodate the CPP East bridge piers as the highway crosses over US 17/92. US 17/92 will be widened to two lanes in each direction north of Ronald Reagan Parkway until the tie-in to the Poinciana Parkway Extension DDI.

Alternative 2: New Alignment is approximately 7.3 miles long.

5.4.2.1 Typical Sections

The proposed typical section for Alternative 2: New Alignment, shown on Figure 5.4.13, features CPP East as a four-lane limited access facility comprised of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median, including the inside shoulders. In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder. The proposed limited access right-of-way is 286 feet, including 94 feet of border width on either side. A 12-foot-wide shared use path is being evaluated between the US 17/92 and Power Line Road intersection and Ernie Caldwell Boulevard. The proposed design and posted speed limit for CPP East is 70 mph. The proposed design and posted speed limit for US 17/92 from Power Line Road to just north of Ernie Caldwell Boulevard is 45 mph then returns to the existing speed limit of 40 to 55 mph for the remainder of the project limits.

Figure 5.4.13: Alternative 2: New Alignment Typical Section



5.4.2.2 Horizontal Alignment

US 17/92 is widened to a six-lane divided arterial north of James Street and continues approximately 0.7 miles north of the US 17/92 intersection with Power Line Road extension where the CPP East slip ramps are located. Drivers in the center and right lanes may continue onto US 17/92, vehicles in the center and left lanes may enter CPP East. A mainline toll gantry is placed approximately 1,555 feet south of Lem Carnes Road. Starting approximately 466 feet south of Lem Carnes Road, the existing right-of-way is held on the east side of US 17/92 to avoid impacts to the substation.

CPP East will bridge over Lem Carnes Road and the CSX railroad spur, while US 17/92 remains at grade. Two railroad crossing gate arms will be placed at the CSX railroad spur along northbound US 17/92: one for the cars on the road and one for the pedestrians on the sidewalk. One railroad crossing gate arm will be placed at the CSX railroad spur along southbound US 17/92. Continuing northbound, CPP East bridges over the southbound US 17/92 lanes as it curves to the west to parallel the CSX railroad. US 17/92 transitions to a four-lane divided highway until 0.5 miles north of the Ernie Caldwell Boulevard intersection with US 17/92 where it ties into the existing conditions.

CPP East bridges over a body of water and underpasses Ernie Caldwell Boulevard. Interchange ramps to and from CPP East and US 17/92 are located north of Ernie Caldwell Boulevard. North of the interchange ramps, CPP East bridges over wetlands. Just south of Wynell Drive, CPP East begins to curve east, bridges over wetlands, and then bridges over US 17/92 just north of Providence Boulevard while minimizing right-of-way impacts to the Aviana community. The Providence Boulevard intersection with US 17/92 will be reconstructed to accommodate the CPP East bridge piers. CPP East parallels US 17/92 to the east as it bridges over Ronald Reagan Parkway and a retention pond. CPP East then curves towards the west, overpasses US 17/92, then bridges over Old Kissimmee Road as the CPP East northbound and southbound ramps begin to separate and the northbound ramps cross over Poinciana Parkway. The limited access right-of-way for the northbound ramps is concurrent with the parcel line to avoid impacts to the substation located on Labor Camp Road. No modifications are proposed for Labor Camp Road. Old Kissimmee Road is realigned slightly to the west in order to accommodate bridge piers for CPP East over Old Kissimmee Road. The project ends with the CPP East ramps tying into the outside of the Poinciana Connector.

Table 5.4.5 shows a brief description of the roadway geometry and Figure 5.4.14 shows the alignment.

FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 5.4.14: Alternative 2: New Alignment Horizontal Alignment**	**Page Number: 5-27**

Table 5.4.5: Horizontal Alignment for Alternative 2: New Alignment

Curve No.	PC Station	PI Station	PT Station	Tangent (feet)	Length (feet)	Radius (feet)	Superelevation	Design Speed
Mainline (e_{max} = 0.10)								
C1	1028+58.8	1033+87.4	1039+09.0	528.5	1,050.1	3,750.0	Normal Crown	45
C2	1075+10.5	1081+62.1	1088+06.5	651.6	1,296.0	5,060.0	4.2%	70
C3	1120+00.0	1121+68.2	1123+36.2	168.2	336.2	4,900.0	4.4%	70
C4	1123+36.2	1130+91.4	1138+20.5	755.2	1,484.3	3,271.2	6.3%	70
C5	1145+02.8	1153+22.2	1161+10.5	819.5	1,607.7	3,371.2	6.2%	70
C6	1190+35.1	1196+20.3	1202+05.2	585.2	1,170.1	25,000.0	Normal Crown	70
C7	1227+15.5	1243+34.6	1258+30.8	1,619.1	3,115.3	4,633.8	4.6%	70
C8	1274+28.8	1282+67.3	1290+58.8	838.5	1,630.0	2,820.0	7.1%	70
Southbound Ramp (e_{max} = 0.10)								
C9	108+00.7	121+56.1	134+42.6	1,355.4	2,641.9	4,794.0	4.4%	70
C10	149+41.8	154+84.0	160+05.4	542.3	1,063.6	2,214.0	5.1%	50
C11	164+67.9	168+43.2	172+17.9	375.2	750.0	8,337.0	1.3%	50
C12*	177+31.0	185+03.0	192+73.2	772.0	1,542.2	13,089.6	Reverse Crown	70
Northbound Ramp (e_{max} = 0.10)								
C13	210+36.1	222+81.2	234+71.9	1,245.1	2,435.9	4,770.0	4.5%	70
C14	255+93.0	262+46.8	268+35.1	653.8	1,242.1	1,610.0	6.6%	50
C15	272+74.7	276+55.0	280+31.0	380.3	756.3	2,889.0	4.0%	50
C16*	280+31.0	287+75.7	295+18.8	744.7	1,487.8	12,971.8	Reverse Crown	70
*Curve to match Future Poinciana Connector								

5.4.2.3 Access Management

As a limited access facility, CPP East is classified as Access Management Classification 1 with an Area Type of 3, meaning interchange spacings should be three miles. Three access points are proposed along CPP East: the south ingress / egress north of Power Line Road, slip ramps to connect CPP East with US 17/92 north of Ernie Caldwell, and the north ingress / egress at Poinciana Connector. The spacing between the south ingress / egress north of Power Line Road and the interchange north of Ernie Caldwell Boulevard is 2.4 miles which is below the recommended three-mile spacing for Access Management Classification 1 with an Area Type as 3 but still meets the minimum spacing of two miles. The distance between the Ernie Caldwell Boulevard interchange and the north ingress / egress is 3.9 miles. Descriptions of these access points are provided below.

CPP East South Ingress and Egress

CPP East begins approximately 0.7 miles north of the US 17/92 intersection with Power Line Road. In the northbound direction, vehicles in the center and right lanes may continue onto US 17/92, vehicles in the center and left lanes may enter CPP East. Alternatively, in the southbound direction, US 17/92 becomes four lanes until the US 17/92 intersection with Power Line Road where the left two lanes turn into left turn lanes. Figure 5.4.15 shows the CPP East south ingress and egress.

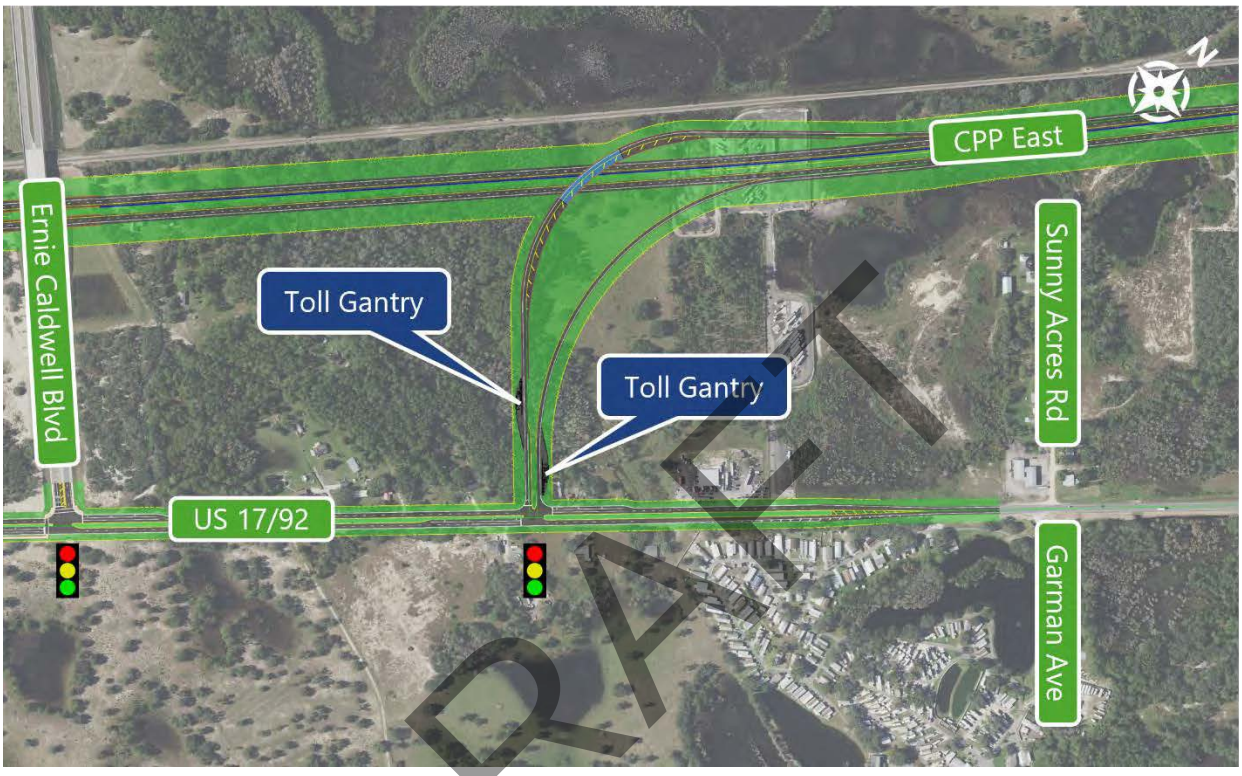
Figure 5.4.15: CPP East South Ingress and Egress

CPP East Slip Ramps with US 17/92

Approximately 0.75 miles north of Ernie Caldwell Boulevard, ramps connect CPP East with US 17/92 providing access to / from the north. Along US 17/92, a signalized intersection provides two through lanes and one turning lane to access the northbound ramp in each direction. The northbound ramp consists of a single lane and provides a 660-foot-long parallel type entrance ramp to facilitate merging. In the southbound direction, a third lane is added to accommodate a one-lane, exit-only ramp. The ramp approaches the CSX railroad right-of-way but remains east of

it. The ramp bridges over CPP East and descends to US 17/92 where it widens to one dedicated left turn lane and one dedicated right turn lane. Figure 5.4.16 shows the CPP East Interchange with US 17/92.

Figure 5.4.16: CPP East Interchange with US 17/92



CPP East North Ingress and Egress

The CPP East northbound ramp merges into the two northbound lanes on Poinciana Connector creating four lanes in the northbound direction. Alternatively, in the southbound direction, the three southbound lanes on Poinciana Connector will split and the inside lane will turn into CPP East and the middle lane will be a choice lane where traffic can choose to exit to CPP East or continue on the Poinciana Connector. Figure 5.4.17 shows the CPP East north ingress and egress.

Figure 5.4.17: CPP East North Ingress and Egress

US 17/92

Changes to access management are proposed for US 17/92 in locations where improvements are planned, such as where CPP East is co-located with US 17/92. The access management classification for US 17/92 will be Class 3: Restrictive from north of James Street to Ernie Caldwell Boulevard. Table 5.4.6 shows the proposed signalized intersections for Alternative 2: New Alignment.

Table 5.4.6: Alternative 2: New Alignment Proposed Signals Along US 17/92

Side Road / Description	Existing vs Proposed Signals	Proposed Middle Station	Proposed Signal Spacing (feet)
Power Line Road	Full (Existing)	1042+70	
			6,460
Lem Carnes Road	Full (Proposed)	1107+30	
			5,330
Ernie Caldwell Boulevard	Full (Existing)	60+60	
			2,040
Intermediate Interchange	Full (Proposed)	81+00	
			8,490
Providence Boulevard	Full (Existing)	165+90	
			5,130
Ronald Reagan Parkway	Full (Existing)	N/A*	
*Note: Ronald Reagan Parkway does not have proposed improvements at the US 17/92 intersection and as such, Alternative 2: New Alignment does not have stationing for this alignment at Ronald Reagan Parkway			

US 17/92 at Power Line Road

US 17/92 northbound will feature one designated left turn lane, three through lanes, and one designated right turn lane. US 17/92 southbound will feature three designated left turn lanes, three through lanes, and one designated right turn lane. Power Line Road will feature one left turn lane, one through lane, and three right turn lanes. Bargain Barn Road will feature two left turn lanes, one through lane, and one right turn lane. Figure 5.4.18 shows the US 17/92 intersection at Power Line Road.

US 17/92 at Lem Carnes Road

US 17/92 northbound and southbound will feature one designated left turn lane and two through lanes. Lem Carnes Road will feature one lane in each direction. Figure 5.4.19 shows the US 17/92 intersection at Lem Carnes Road.

Figure 5.4.18: US 17/92 at Power Line Road

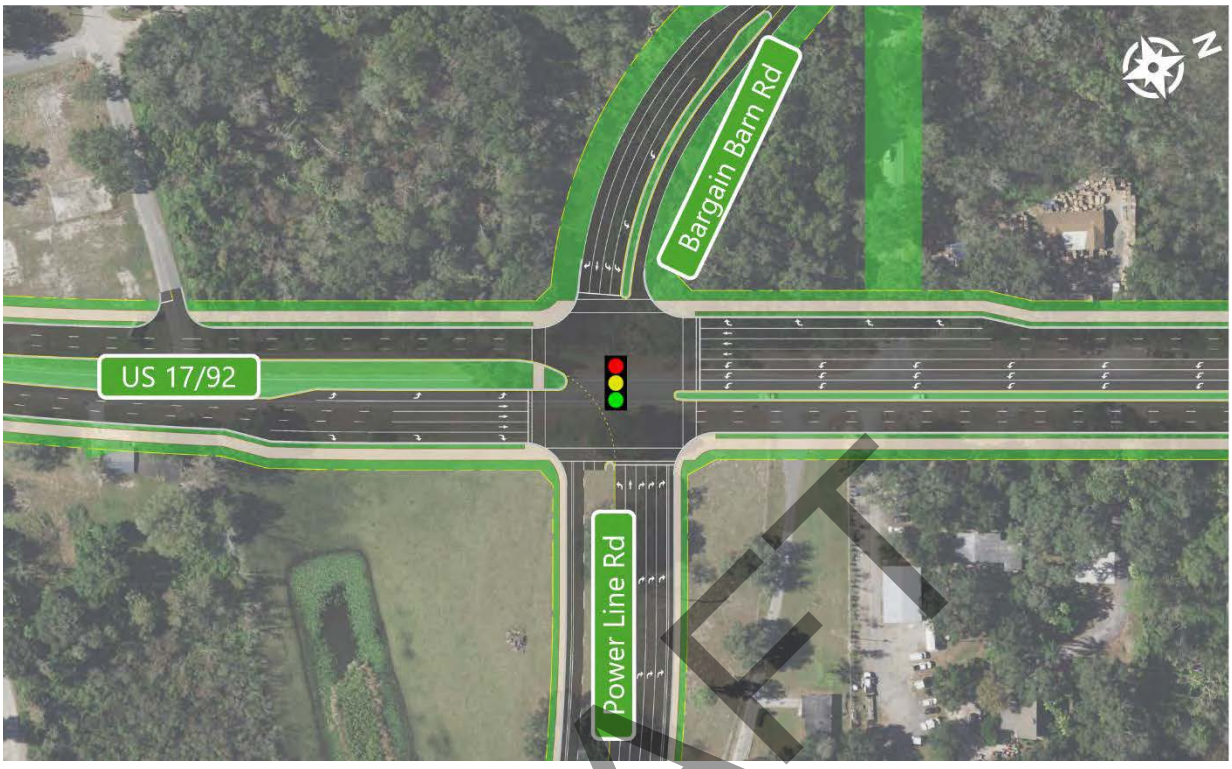
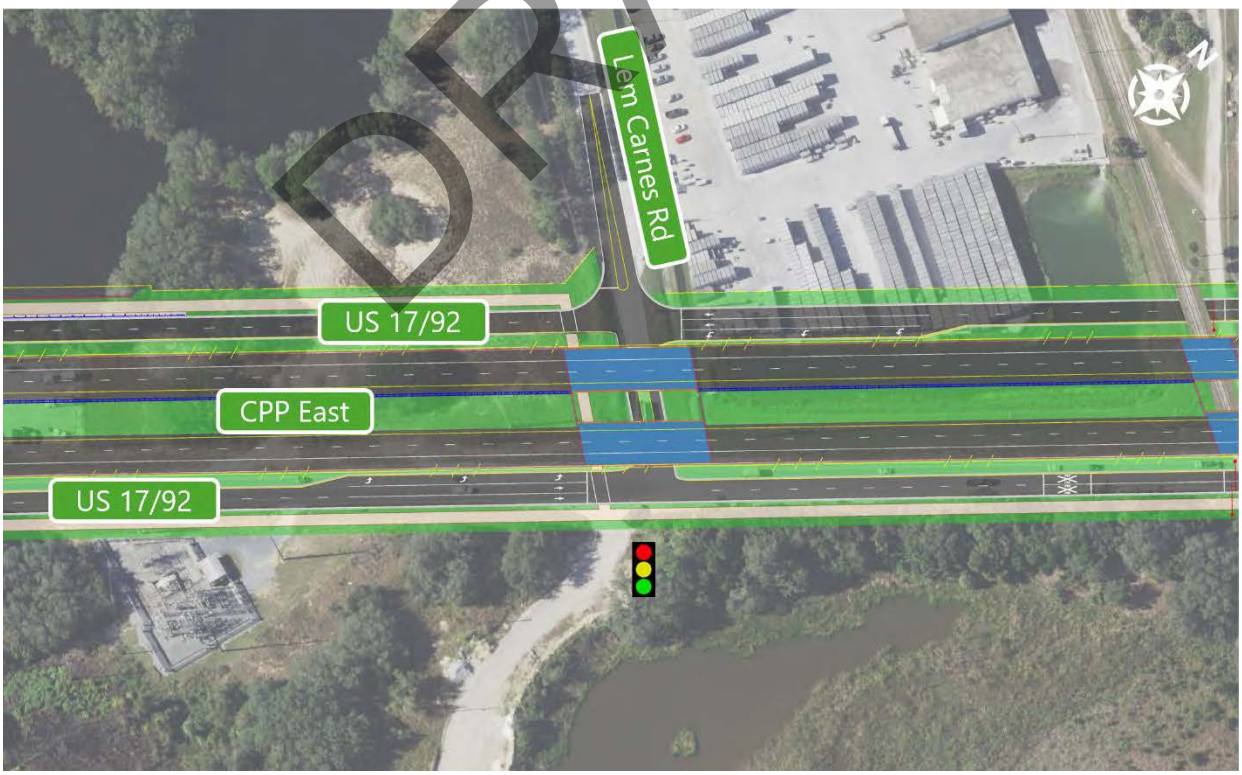


Figure 5.4.19: US 17/92 at Lem Carnes Road



US 17/92 at Ernie Caldwell Boulevard

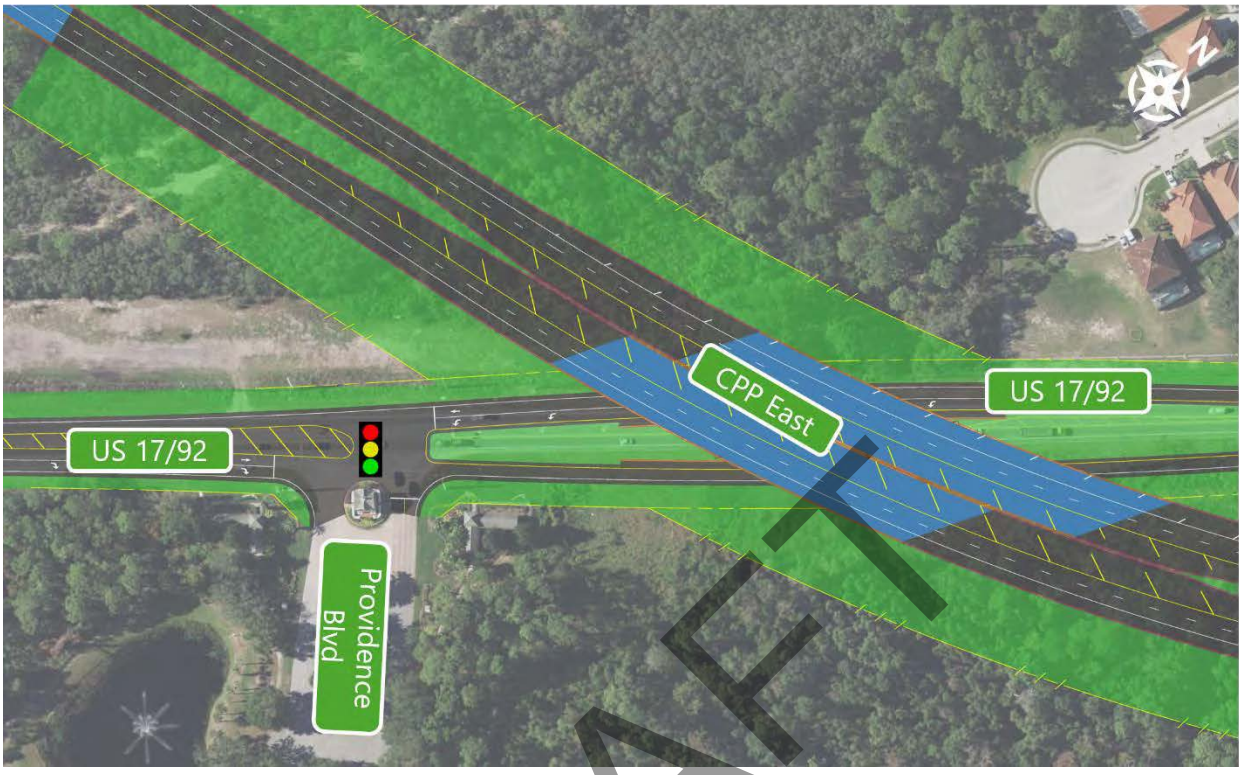
US 17/92 northbound will feature one designated left turn lane and two through lanes. US 17/92 southbound will feature one designated right turn lane and two through lanes. Ernie Caldwell Boulevard will feature one designated left turn lane and one designated right turn lane. Figure 5.4.20 shows the US 17/92 intersection at Ernie Caldwell Boulevard.

Figure 5.4.20: US 17/92 at Ernie Caldwell Boulevard

US 17/92 at Providence Boulevard

US 17/92 northbound will feature one through lane and one designated right turn lane. US 17/92 southbound will feature one designated left turn lane and one through lane. Providence Boulevard will feature one designated left turn lane, and one designated right turn lane. The median on US 17/92, just north of the Providence Boulevard intersection, will be widened to accommodate the CPP East bridge piers. Figure 5.4.21 shows the US 17/92 intersection at Providence Boulevard.

Figure 5.4.21: US 17/92 at Providence Boulevard



5.4.2.4 Bridge and Structure Analysis

CPP East overpasses Lem Carnes Road, the CSX railroad spur, Ronald Reagan Parkway, US 17/92, Old Kissimmee Road, the CSX railroad, the future Poinciana Parkway, and wetlands. The minimum vertical clearance for bridge structures over roadways is 16'-6". The bridge sites crossing over CSX railroad will require a minimum vertical clearance of 23'-6". The bridge sites crossing over wetland areas and ponds will require a minimum of two feet of vertical clearance to the design flood stage elevation. There is no navigable waterway within the project limits. Abutment walls will be utilized at the bridge approaches adjacent to roadways to limit span lengths.

<u>CPP East over Lem Carnes Road, CSX Railroad Spur, & Ronald Reagan Parkway</u>

These bridge sites contain twin bridges that are 46'-8" wide and carry two lanes of traffic with eight-foot-wide inside shoulders and 12-foot-wide outside shoulders. The superstructure will consist of a single-span of Florida-I beams. The end bents will be supported by abutment walls.

CPP East over Southbound US 17/92 & Wetland

As CPP East begins to diverge from US 17/92 it will require a bridge crossing to span over southbound US 17/92 and an identified wetland area. The bridge site contains two separate bridges that carry two lanes each. A larger shoulder will be required to meet stopping sight distance due to the horizontal curvature. The bridge will utilize skewed supports to accommodate the crossing underneath. The bridge superstructure will be comprised of multiple spans of Florida-I beams. The substructure will consist of piers, multi-column or hammerhead.

CPP East over Wetlands

As CPP East further diverges from US 17/92 there are three additional bridges required to span multiple wetland sites along the proposed alignment. These bridge sites will each contain two separate bridges. A larger shoulder will be required on the first bridge site to meet stopping sight distance due to the horizontal curvature. The bridges will utilize multiple spans of AASHTO Type II beams on intermediate pile bents. Further geotechnical and environmental analysis in the design phase will determine if these sites are to remain as bridges.

Ernie Caldwell Boulevard Bridge over the CSX Railroad

The existing bridge is a two-span Florida-I beam bridge that spans over the CSX railroad. The existing bridge length is 197'-0" and the width is 94'-0". The existing bridge is supported by multi-column piers on prestressed concrete piles, and end bents supported by abutment walls. The proposed improvements include extending the bridge to become a four-span bridge. The second span of the bridge would be removed, allowing for the existing end bent and retaining wall to be replaced by a multi-column pier.

US 17/92 Exit Ramp over CPP East

This bridge will carry one 15'-0" lane with a six-foot-wide outside shoulder and a 24-foot-wide inside shoulder to meet stopping sight distance for a total bridge width of 47'-8". Due to the tight radius of curvature, the superstructure will consist of steel I-girders. A pier will be placed in the median of US 17/92, which will be skewed to minimize impacts to the CPP East alignment. The

end bents will be supported by abutment walls. Concrete barriers will be required on either side of CPP East and in the median to meet setback requirements.

CPP East over US 17/92 near Providence Boulevard

This bridge site contains two bridges that carry two lanes of CPP East in each direction. Due to the geometry of the crossing, the bridge supports will be skewed. The superstructure will consist of two spans of steel I-girders. The substructure will consist of a multi-column pier placed in the median of US 17/92. The end bents will be supported by abutment walls.

CPP East over Vista Mar Pond

These bridge sites contain two bridges that are 46'-8" wide and carry two lanes of traffic with eight-foot-wide inside shoulders and 12-foot-wide outside shoulders. The superstructure will consist of multiple spans of Florida-I beams. The substructure consists of intermediate bents and end bents supported by abutment walls.

CPP East over US 17/92

This bridge site will contain two bridges that carry two lanes of CPP East. Due to the geometry of the crossing the bridge supports will be skewed. The superstructure will consist of two spans of steel I-girders. The substructure will consist of a multi-column pier placed in the median of US 17/92. The end bents will be supported by abutment walls.

Southbound Ramp over Old Kissimmee Road

This bridge site will contain a steel structure spanning over Old Kissimmee Road and Church Street. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a total width of 44'-8". The substructure will consist of end bents supported by abutment walls.

Southbound Ramp over CSX Railroad

This bridge will consist of a single span bridge over the CSX railroad. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a total width of 44'-8". The superstructure will consist of Florida-I beams. The substructure will consist of end bents supported by abutment walls.

Northbound Flyover Ramp

This bridge will be a third level flyover that will cross over Church Road, Old Kissimmee Road, Poinciana Connector, and the CSX railroad. As part of the Poinciana Connector project, a new Duke Energy powerline easement is created adjacent to the CFX right-of-way. To construct this flyover ramp bridge, coordination with Duke Energy will be required. The bridge will carry two lanes, with an eight-foot-wide inside shoulder and a 12-foot-wide outside shoulder for a bridge width of 44'-8". The bridge will consist of steel I-girders supported by hammer-head piers. A footing will be constructed in the gore area between mainline Poinciana Connector and a ramp.

Table 5.4.7 summarizes the bridges that are part of Alternative 2: New Alignment.

Table 5.4.7: Alternative 2: New Alignment Bridge Summary

Bridge Site	Direction	Superstructure Type	Total Bridge Length (feet)
Lem Carnes Road	NB & SB	Prestressed Concrete	145
CSX RR Spur	NB & SB	Prestressed Concrete	65
SB US 17/92 over Wetland	SB US 17/92	Prestressed Concrete	1,009
Overpass of SB US 17/92 & Wetland	NB & SB	Prestressed Concrete	583
Wetland South of Ernie Caldwell Boulevard	NB & SB	Prestressed Concrete	682
Existing Ernie Caldwell Boulevard Underpass	Ernie Caldwell	Prestressed Concrete	235
SB Intermediate Exit Ramp over CPP East	SB	Steel I-Girder	344
Wetland Adjacent to RR	SB	Prestressed Concrete	1,522
Wetland Adjacent to RR	NB	Prestressed Concrete	1,360
Wetland near Providence Boulevard	SB	Prestressed Concrete	1,537
Wetland near Providence Boulevard	NB	Prestressed Concrete	1,529
US 17/92 North of Providence Boulevard	SB	Steel I-Girder	425
US 17/92 North of Providence Boulevard	NB	Steel I-Girder	472
Ronald Reagan Boulevard	NB & SB	Prestressed Concrete	202
Residential Pond	SB	Prestressed Concrete	323
Residential Pond	NB	Prestressed Concrete	329
US 17/92 South of Parker Road	SB	Steel I-Girder	543
US 17/92 South of Parker Road	NB	Steel I-Girder	453
Old Kissimmee Road	SB Ramp	Steel I-Girder	460
NB Flyover Ramp	NB Ramp	Steel I-Girder	1,720
CSX RR	SB Ramp	Prestressed Concrete	149

Abutment walls will be used at the bridge end bents to minimize bridge lengths. Bulkheads will be used where standing water is encountered adjacent to the roadway. The location of bulkheads are preliminary assumptions without geotechnical or survey information and will be refined during the final design phase.

5.4.2.5 Vertical Alignment

The vertical alignment for CPP East is shown in Table 5.4.8.

Table 5.4.8: Alternative 2: New Alignment Vertical Profile

Back Tangent Length (feet)	Back Slope	Station (VPI)	Elevation (feet)	Curve Length (feet)	K Value	Ahead Slope	Ahead Tangent Length (feet)	Design Speed
Mainline (e_{max} = 0.10)								
3,174.4	-0.2%	1063+59.4	111.3	800.0	1,177.2	0.5%	593.6	45
593.6	0.5%	1078+53.0	118.8	1,000.0	1,000	-0.5%	636.5	70
636.5	-0.5%	1093+89.5	111.1	800.0	262.3	2.6%	586.9	70
586.9	2.6%	1110+43.7	153.3	1,334.4	401.0	-0.8%	75.4	70
75.4	-0.8%	1121+86.3	144.4	800.0	251.8	2.4%	37.5	70
37.5	2.4%	1137+06.5	180.9	2,165.4	401.0	-3.0%	590.8	70
590.8	-3.0%	1157+80.0	118.7	800.0	320.0	-0.5%	643.4	70
643.4	-0.5%	1172+23.4	111.4	800.0	800.0	0.5%	1,350.0	70
1,350.0	0.5%	1194+73.3	122.7	1,000.0	1,236.6	-0.3%	1,934.9	70
1,934.9	-0.3%	1223+08.3	113.9	800.0	989.3	0.5%	791.1	70
791.1	0.5%	1239+99.4	122.4	1,000.0	1,000.0	-0.5%	1,204.2	70
1,204.2	-0.5%	1261+03.6	111.9	800.0	275.9	2.4%	150.2	70
150.2	2.4%	1277+36.5	151.1	2,165.4	401.0	-3.0%	131.8	70
131.8	-3.0%	1293+51.0	102.6	800.0	320.0	-0.5%	543.5	70
543.5	-0.5%	1306+94.4	95.9	800.0	320.0	2.0%	451.1	70
451.1	2.0%	1325+48.1	133.0	2,005.0	401.0	3.0%	245.0	70
245.0	-3.0%	1340+15.8	89.0	440.6	165.8	-0.3%	0.0	70
Southbound Ramp (e_{max} = 0.10)								

Back Tangent Length (feet)	Back Slope	Station (VPI)	Elevation (feet)	Curve Length (feet)	K Value	Ahead Slope	Ahead Tangent Length (feet)	Design Speed
126.2	-3.0%	111+20.1	79.8	1,086.0	181.0	3.0%	108.1	70
108.1	3.0%	125+43.1	122.5	1,543.8	401.0	0.8%	303.3	70
303.3	-0.8%	140+18.4	110.0	800.0	432.4	1.0%	797.5	50
797.5	1.0%	157+15.9	127.0	1,000.0	250.0	-3.0%	79.5	50
79.5	-3.0%	166+70.7	98.3	750.6	181.0	1.2%	685.0	50
685.0	1.2%	184+99.8	119.3	1,537.6	574.7	-1.5%	0.0	70
Northbound Ramp (e_{max} = 0.10)								
376.9	-3.0%	213+70.7	72.3	1,086.0	181.0	3.0%	624.8	70
624.8	3.0%	230+38.6	122.3	1,000.0	500.1	1.0%	2020.0	70
2,020.0	1.0%	260+58.6	152.6	1,000.0	222.2	3.5%	681.3	50
681.3	-3.5%	274+67.8	103.2	456.0	96.0	1.2%	335.2	50
335.2	1.2%	287+74.9	119.6	1,487.8	504.4	-1.7%	0.0	70

5.4.2.6 Right-of-way

Additional right-of-way will be required to construct the proposed highway. Alternative 2: New Alignment impacts 221 parcels for a total of 253.8 acres for the roadway. Thirty-eight residential relocations, five business relocations, and two utility parcel relocations are anticipated as a result of this project.

5.5 Comparative Alternatives Evaluation

A comparison of the Build and No-Build alternatives is shown in Table 5.5.1.

Table 5.5.1: Evaluation Matrix

	Alternative 1: Co-located with US 17/92	Alternative 2: New Alignment	No-Build Alternative
Purpose and Need			
Accommodate Population Growth & Travel Demand	Yes	Yes	No
Improve Regional Connectivity	Yes	Yes	No
Enhance Freight Mobility and Economic Competitiveness	Yes	Yes	No
Enhance Safety & Emergency Evacuation	Yes	Yes	No
Social			
Total Parcels Impacted	228	221	0
Total Acres Impacted	186.5	253.8	0
Total Residential Relocations	41	38	0
Total Business Relocations	7	5	0
Number of Community Focal Point Impacts	5	3	0
Cultural			
Potential NRHP – Eligible Impacts	Moderate	Moderate	0
Natural			
Wetland / Surface Water Impacts (acres)	66.3	73.3	0
Floodplain Impacts (acres)	74.0	151.5	0
Protected Species and Habitat Impacts (low / moderate / high)	Moderate	Moderate	None
Physical			
Potential Impacts to Medium and High Risk Contamination Sites	12	11	0
Noise-Sensitive Areas Potentially Needing a Noise Wall	TBD	TBD	N/A
Utility Pole Impacts	High	Moderate	None
Gas Pipeline Impacts	High	Moderate	None
Cost			
Estimated Construction Cost (million)	$868	$976	$0
Estimated Right-of-way Cost (million)	$125.5	$118.6	$0
Estimated Design Cost (million)	$86.8	$97.6	$0
Estimated Total Cost (billion)	**$1.08**	**$1.19**	$0
Note: This table does not include ponds			

This evaluation matrix presents the potential impacts and costs associated with each alternative. While the Build Alternatives meet the project purpose and need, they will result in impacts to study area features. The matrix shows that Alternative 2: New Alignment would impact fewer total

parcels and require fewer residential and business relocations than Alternative 1: Co-located with US 17/92. Alternative 2: New Alignment would also impact fewer community focal points and have only moderate impacts to existing transmission poles and gas pipelines. Since Alternative 1: Co-located with US 17/92 falls along the existing US 17/92 corridor, it will impact fewer total acres, wetland and surface water acres, and floodplains acres. The projected cost of Alternative 1: Co-located with US 17/92 is 1.08 billion, compared to Alternative 2: New Alignment which is $1.19 billion. This cost does not include construction engineering and inspection (CEI), utility relocation, or mitigation costs. The No-Build Alternative does not result in physical impacts to any study area features or require substantial funding commitments; however, the No-Build Alternative does not meet the project purpose and need.

5.6 Value Engineering Study

A Cost Risk and Value Engineering (CRAVE) Study was conducted in July and August 2025 to ensure that the project objectives are addressed, and the project remains cost effective, constructible, and makes the most efficient use of resources. The CRAVE Study was conducted July 15-16 and July 28-August 1. The CRAVE team generated 12 recommendations as shown in Table 5.6.1. Management's decision on each idea is also shown in Table 5.6.1. In total, two ideas were approved and five ideas were deferred to design. For more information, see the CRAVE Report, available in the project file.

Table 5.6.1: CRAVE Recommendations

Recommendations		Proposed Action	Comments
1	Revise Alignment to have US 17/92 Cross Over CPP East at Southern End	Approve	Agree to revise Preferred Alternative during the PD&E to have US 17/92 cross over CPP East to reduce structure cost. Will require minor geometry revisions.
2	Utilize Remnant Parcels for Pond Locations	Defer to Design	Agree this is a good idea, but we defer this recommendation to design when right-of-way, survey, and geotechnical information are available to support this recommendation.
3	Adjust Ramp Alignment to Better Accommodate Toll Sites	Approve	Agree will revise Preferred Alternative during the PD&E to adjust the US 17/92 ramps to improve toll sites. Will require changes in the right-of-way footprint.

4	Construct Diamond Interchange near Sunny Acres Road	Defer to Design	Agree that shifting the interchange with US 17/92 near Sunny Acres Road provides benefits, particularly in relation to the further extension with the 451419-2 project. However, this recommendation will require additional input from FTE Traffic Planning to assess whether this is an ideal location from a traffic perspective. Implementing this change during the PD&E Study would result in a significantly different footprint and additional environmental analysis may result in delays to the Public Hearing and LDCA. Due to the project schedule, this recommendation is recommended to be deferred to the design phase.
5	Adjust Alignment of 451419-1 to Directly Connect to 451419-2	Reject	Reject this recommendation as part of this PD&E as the connection to the southern project is part of the 451419-2 PD&E study.
6	Full Bridge Replacement at Ernie Caldwell Boulevard	Defer to Design	Although replacing the full bridge at Ernie Caldwell Boulevard would make construction staging easier, it is a more costly solution and would require additional railroad coordination. The bridge was constructed in 2017 and has a long design life ahead. However, this option will be considered further during final design and the development of the Bridge Development Report.
7	Optimize Basin 800 Parcel Impacts	Defer to Design	Agree that optimization to potential pond sites is possible and this will continue to be refined during the final design phase. The pond with the church is not the preferred pond site in this basin.
8	Construct Turnaround Locations to Improve Emergency Access	Reject	Agree that adding emergency access turnaround locations are a good idea, but we defer this recommendation to be evaluated further during the final design phase.
9	Relocate CPP East Out of US 17/92 Median	Reject	Reject this recommendation as relocating CPP East out of the US 17/92 median is incredibly disruptive to the adjacent land uses and this modified concept requires a significantly lower design speed of 45 mph.
10	Modify Existing Pond for Vista Mar to Eliminate Bridge	Defer to Design	Agree this is a good idea, but we defer this recommendation to design when geotechnical information will be available to support this recommendation to fill in the pond and remove the structure.
11	Modify Transition to Co-Located Section to Minimize Bridges	Reject	Reject this recommendation during the PD&E Study as Recommendation #1 (approved) will modify the structures to minimize bridges. Adjusting the alignment as shown in the VE Recommendation may require wider shoulder widths for stopping sight distance and the realignment does not entirely eliminate the pond crossing. All bridge limits will be refined during the final design phase once geotechnical information is available.

12	Adjust Alignment to Minimize Right of Way Impacts North of Ernie Caldwell Boulevard	Reject	Reject this recommendation to shift the alignment of CPP East north of Ernie Caldwell Boulevard. North of Ronald Reagan Parkway, the "gap" between the existing US 17/92 right-of-way and the proposed CPP East right-of-way will allow for future expansion of US 17/92 by FDOT District 1. We will show this "gap" as being utilized for future expansion of US 17/92 on the exhibits for the Public Hearing. For the alignment shift south of Ronald Reagan Parkway, we recommend retaining the existing alignment as the VE recommendation would result in additional wetland impacts and may require wider shoulders to accommodate sight distance resulting in higher construction costs.

5.7 Selection of the Preferred Alternative

Following the Alternatives Public Information Meeting, changes were made to reduce project costs, address public feedback, and incorporate the Value Engineering (VE) Study recommendations. These changes include:

- The profiles of US 17/92 and CPP East were switched for the bridges south of Ernie Caldwell Boulevard;
- The intermediate interchange ramp geometry just north of Ernie Caldwell Boulevard was adjusted to facilitate one toll site location for both the entrance and exit ramp; and
- A bridge was added over Parker Road.

The Preferred Alternative was derived from Alternative 2: New Alignment and includes the changes listed above. The Preferred Alternative impacts 199 parcels for a total of 215.3 acres and requires 38 residential, five business, and two utility relocations.

6.0 Agency Coordination & Public Involvement

6.1 Agency Coordination

The Efficient Transportation Decision Making (ETDM) process is FDOT's procedure for reviewing qualifying transportation projects to consider potential environmental effects in the Planning phase. The ETDM process provides stakeholders the opportunity for early input, involvement, and coordination, provides for the early identification of potential project effects, and informs the development of scopes for projects advancing to the PD&E phase.

Stakeholders involved in the ETDM process generally include TPOs, county and municipal governments, federal and state agencies, and the public. Environmental Technical Advisory Team (ETAT) members and the public have the opportunity to provide input to the FDOT regarding a project's potential effects on the natural, physical, cultural, and community resources throughout the planning phase of project delivery. These comments help to determine the feasibility of a proposed project; focus the issues to be addressed during the PD&E phase; allow for early identification of potential avoidance, minimization, and mitigation opportunities; and promote efficiency and consistency during project development.

For this study, the ETAT included representatives from the following agencies:

- FDOT Office of Environmental Management (OEM);
- Florida Department of Agriculture and Consumer Services (FDACS);
- Florida Department of Economic Opportunity (DEO);
- FDEP;
- Florida Department of State (SHPO);
- FWC;
- National Marine Fisheries Service (NMFS);
- National Park Service (NPS);
- NRCS;
- Seminole Tribe of Florida;
- South Florida Water Management District (SFWMD);

- USACE;
- United States Coast Guard (USCG);
- United States Environmental Protection Agency (USEPA);
- USFWS; and
- United States Forest Service (USFS).

The FDOT informs agencies, tribal representatives, elected officials, and other interested stakeholders of a proposed action through the Advance Notification (AN) process. The AN was initiated on April 14, 2023 as ETDM Project 14524. A Programming Screen Summary Report was published on August 1, 2023. The Programming Screen Summary Report includes a list of all agencies and organizations that provided comments. Figure 6.1.1 shows the Summary Degree of Effect assigned based on resource agency review. The ETDM Summary Degree of Effect has the following numeric and color coding to evaluate potential environmental impacts:

- N/A – No Involvement, purple;
- 0 – None, light blue;
- 1 – Enhanced, dark blue;
- 2 – Minimal, green;
- 3 – Moderate, yellow;
- 4 – Substantial, orange; and
- 5 – Dispute, red.

During the PD&E Study, the Enterprise facilitated coordination with agencies and stakeholders to ensure a cohesive outcome. Table 6.1.1 provides agency coordination that has occurred on this project as of August 2025.

Figure 6.1.1: Summary Degree of Effect

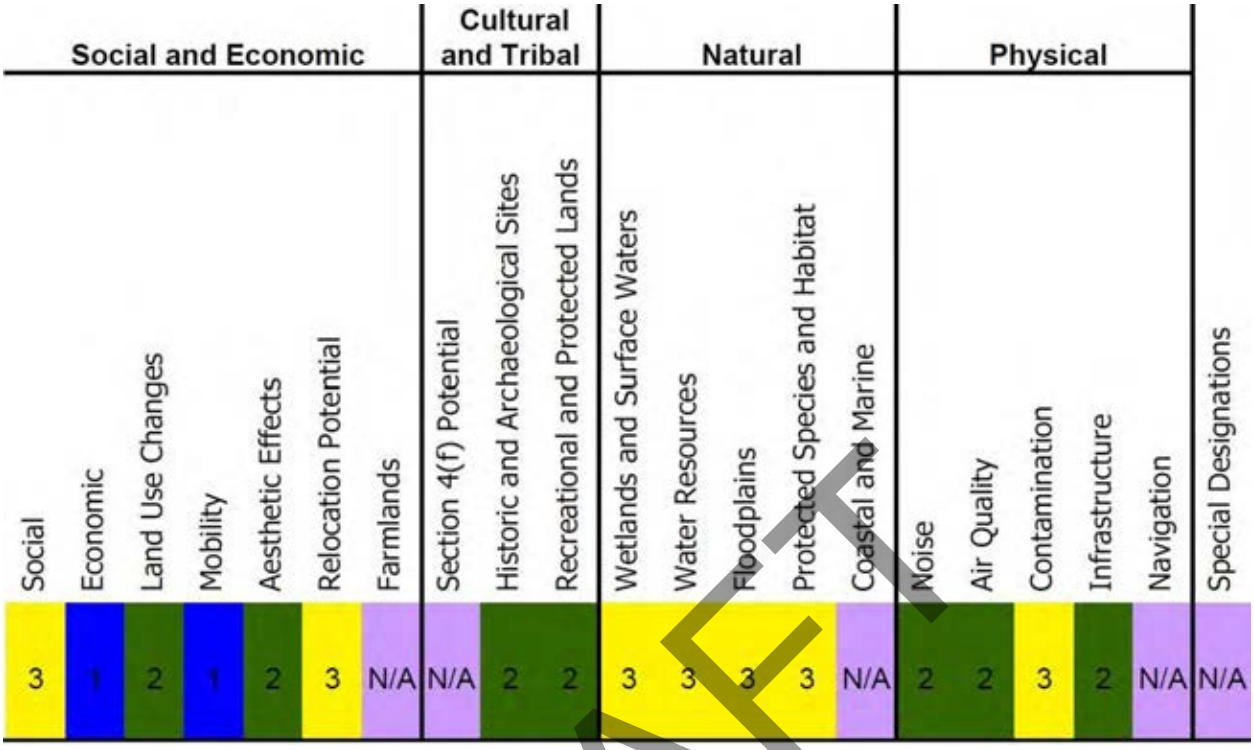


Table 6.1.1: Agency and Stakeholder Coordination

Municipality/ Stakeholder	Description of Meeting	Date
City of Haines City	City / County Workshop	09/18/2024
City of Winter Haven	City / County Workshop	09/18/2024
Lake Wales	City / County Workshop	09/18/2024
Polk County	City / County Workshop	09/18/2024
	Project Update – Preliminary Viable Alternatives	03/12/2025
Polk County TPO	City / County Workshop	09/18/2024
	Project Update	01/23/2025
Town of Dundee	City / County Workshop	09/18/2024
Town of Lake Hamilton	City / County Workshop	09/18/2024
Central Florida Expressway Authority	Project Update – Preliminary Viable Alternatives	03/03/2025
City of Davenport	Project Update – Preliminary Viable Alternatives	03/12/2025

Municipality/ Stakeholder	Description of Meeting	Date
City of Haines City	City / County Workshop	09/18/2024
City of Winter Haven	City / County Workshop	09/18/2024
Lake Wales	City / County Workshop	09/18/2024
Polk County	City / County Workshop	09/18/2024
	Project Update – Preliminary Viable Alternatives	03/12/2025
Polk County TPO	City / County Workshop	09/18/2024
	Project Update	01/23/2025
Town of Dundee	City / County Workshop	09/18/2024
Town of Lake Hamilton	City / County Workshop	09/18/2024
FDOT District 1	Project Update – Preliminary Viable Alternatives	03/17/2025
Florida Southeast Connection Pipeline	Discuss Viable Alternatives and Potential Impacts	04/17/2025
Comcast	Discuss Viable Alternatives and Potential Impacts	07/01/2025

Additional agency meetings are planned to occur prior to the Public Hearing tentatively scheduled for December 2025.

6.2 Public Involvement

A Public Involvement Plan (PIP) was developed to ensure early, continuous, and meaningful public engagement that informs project decisions. The PIP is available in the project file.

6.2.1 Public Kickoff Meeting

A Hybrid Public Kickoff Meeting was held virtually on Tuesday, December 10, 2024, starting at 5:30 p.m., and in-person at the Tom Fellows Community Center on Wednesday, December 11, 2024, from 5:30 p.m. to 7:30 p.m.

Official notification was made by e-mail to 157 elected and other public officials on November 21, 2024. Following release of information to the elected and other officials, notice to 7,781 property

owners and occupants within 500 feet of the study limits were notified by U.S. Mail on November 21, 2024. Notification was made by email to interested parties on November 25, 2024. The Public Kickoff Meeting was advertised in advance with a display ad in the Four Corners Sun on Wednesday, November 27, 2024 and in the La Gaceta on Friday, November 29, 2024. A Public Kickoff Meeting notification was placed in the Florida Administrative Register (FAR), November 26, 2024, Edition, Volume 50 / Number 231. A public notice was created December 2, 2024, and posted on the FDOT public notice website in advance of the meetings. A press release was distributed by FDOT to major local media outlets on December 3, 2024. Social media outreach was conducted with a carousel ad tunning from December 3, 2024 to December 10, 2024. The campaign aimed to inform the public about the project's purpose, benefits, and upcoming meeting details. The ad reached 6,897 people and generated 1,468 clicks.

The virtual component of the meeting was held on Tuesday, December 10, 2024, using GoToWebinar. The online meeting started at 5:30 p.m. with an open house allowing the viewers to visit the exhibits on the project website. At 6:00 p.m., the Enterprise Project Manager welcomed the viewers, presented the agenda, and made introductions. A pre-recorded project informational video was then presented covering topics such as what a PD&E Study is, the project study area, its purpose and need, the alternatives development process, the importance of community involvement, the project schedule, and how to submit a comment. Following the video, the project manager discussed how to view the online meeting materials. Sixteen previously submitted questions were then presented and answered. Participants could ask additional questions in the chat box during the online meeting. The meeting ended with the project manager explaining how to submit additional questions for public record and stating that a recording of the meeting will be posted to the project website. Attendance at the virtual meeting was as follows: 42 members of the public, one elected/appointed official, three county/city staff members, and one major stakeholder.

The in-person component of the meeting was held on Wednesday, December 11, 2024, at the Tom Fellows Community Center located at 207 North Boulevard West, Davenport, Florida 33837.

This location is locally known and recognized as a meeting location able to accommodate large groups and has been used for other FDOT meetings. Parking facilities were sufficient to serve all attendees, including accessible spaces compliant with Americans with Disabilities Act (ADA) standards. Directional public meeting signs were placed at the major intersecting roads to direct attendees to the meeting location and from the parking lot to the meeting room. The in-person meeting format was open house from 5:30 p.m. to 7:30 p.m. At the in-person meeting, newsletters were provided, and project boards and information were displayed. Project representatives were present to address questions one on one. The layout of the open house meeting included the looping PowerPoint presentation with audio voiceover to serve as an introduction. Meeting materials were posted to the project website prior to the meeting. Comment forms were provided. No requests for ADA accommodations were reported to the Enterprise within seven days prior to the meeting. Attendance at the in-person meeting consisted of 24 members of the public, and four security staff.

The comment period closed on Monday, December 23, 2024. A total of 50 comments were received, 28 prior to the meeting and 22 during and after the meeting. Seventeen comments were submitted online during the registration period, and five comments were submitted at the in-person meeting. Comment themes included: project schedule, construction timeline, right-of-way impacts, noise, property values, and environmental impacts. The comments were generally positive regarding the project improvements.

More information about the Public Kickoff Meeting is located in the Comments and Coordination Report, which will be prepared following the conclusion of the Public Hearing.

6.2.2 Alternatives Public Information Meeting

A Hybrid Alternatives Public Information Meeting was held virtually on Monday, April 21, 2025, starting at 5:30 p.m., and in-person at the Tom Fellows Community Center on Tuesday, April 22, 2025, from 5:30 p.m. to 7:30 p.m.

Official notification was made by e-mail to 156 elected and other public officials on March 28, 2025. Following release of information to the elected and other officials, notice to 6,824 property owners and occupants within 500-feet of the study limits were notified by U.S. Mail on April 2, 2025. Notification was made by email to interested parties on April 5, 2025. The Alternatives Public Information Meeting was advertised in advance with a display ad in the Four Corners Sun on Wednesday, April 9, 2025 and Wednesday April 16, 2025, and in the La Gaceta on Friday, April 11, 2025 and Friday, April 18, 2025. An Alternatives Public Information Meeting notification was placed in the FAR, April 15, 2025, Edition, Volume 51 / Number 73. A public notice was created April 15, 2025, and posted on the FDOT public notice website in advance of the meetings. A press release was distributed by FDOT to major local media outlets on April 15, 2025. Social media outreach was conducted with a carousel ad tunning from April 15, 2025 to May 2, 2025. The campaign aimed to inform the public about the project's purpose, benefits, and upcoming meeting details. The ad reached 56,892 people and generated 2,882 clicks.

The virtual component of the meeting was held on Monday, April 21, 2025, using GoToWebinar. The online meeting started at 5:30 p.m. with an open house allowing the viewers to visit the exhibits on the project website. At 6:00 p.m., the Enterprise Project Manager welcomed the viewers, presented the agenda, and made introductions. A pre-recorded project informational video was then presented covering topics such as what a PD&E Study is, the project study overview, the project purpose and need, the alternatives considered, the importance of community involvement, the project schedule, and how to submit a comment. Following the video, the project manager discussed how to view the online meeting materials. Twenty-three previously submitted questions were then presented and answered. Participants could ask additional questions in the chat box during the online meeting. The meeting ended with the project manager explaining how to submit additional questions for public record and stating that a recording of the meeting will be posted to the project website. The attendance for the virtual meeting was as follows: 71 members of the public and one county/city staff member.

The in-person component of the meeting was held on Tuesday, April 22, 2025, at the Tom Fellows Community Center located at 207 North Boulevard West, Davenport, Florida 33837. This location is locally known and recognized as a meeting location able to accommodate large groups and has been used for other FDOT meetings. Parking facilities were sufficient to serve all attendees, including accessible spaces compliant with ADA standards. Directional public meeting signs were placed at the major intersecting roads to direct attendees to the meeting location and from the parking lot to the meeting room. The in-person meeting format was open house from 5:30 p.m. to 7:30 p.m. Project boards and information were displayed at the in-person meeting and project representatives were present to address questions one on one. The layout of the open house meeting included the looping PowerPoint presentation with audio voiceover to serve as an introduction. Meeting materials were posted to the project website prior to the meeting. Comment forms were provided. No requests for ADA accommodations were reported to the Enterprise within seven days prior to the meeting. Attendance for the in-person meeting consisted of: 79 members of the public, three elected/appointed officials, three county/city staff members, and two security staff.

The comment period closed on Friday, May 2, 2025. A total of 36 comments were received. Eighteen comments were submitted online during the registration period, two were sent via email to the project manager, and 16 were submitted during the in-person meeting. Comment themes included: project schedule, right-of-way impacts, noise, property values, and environmental impacts. Additional questions related to surrounding projects were also received. Three comments were in opposition of the project, one person provided general support of the project, five people responded in direct support of Alternative 1: Co-located Alternative, and three people responded in direct support for Alternative 2: New Alignment.

More information about the Alternatives Public Information Meeting is located in the Comments and Coordination Report, which will be prepared following the conclusion of the Public Hearing.

6.3 Public Hearing

This section will be updated following the completion of the Public Hearing scheduled for December 2025.

7.0 Preferred Alternative

The Preferred Alternative is based on Alternative 2: New Alignment displayed at the Alternatives Public Information Meeting and includes the following changes to reduce project costs, address public feedback, and incorporate VE Study recommendations:

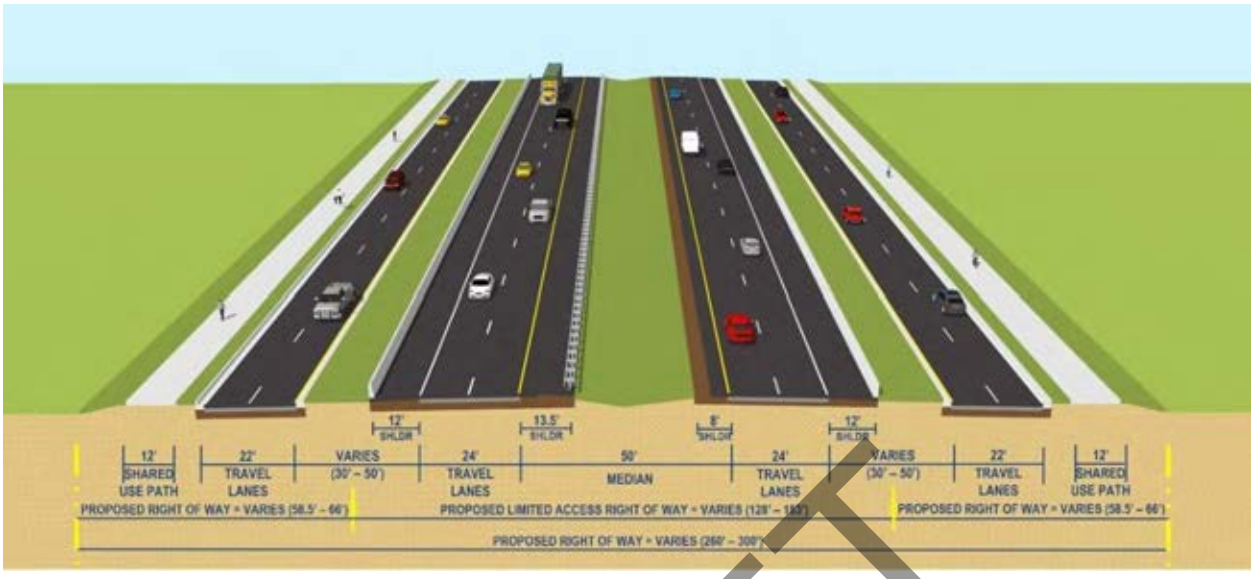
- The profiles of US 17/92 and CPP East were switched for the bridges south of Ernie Caldwell Boulevard;
- The intermediate interchange ramp geometry just north of Ernie Caldwell Boulevard was adjusted to facilitate one toll site location for both the entrance and exit ramp; and
- A bridge was added over Parker Road.

The Preferred Alternative will be displayed at the Public Hearing in December 2025.

7.1 Typical Sections

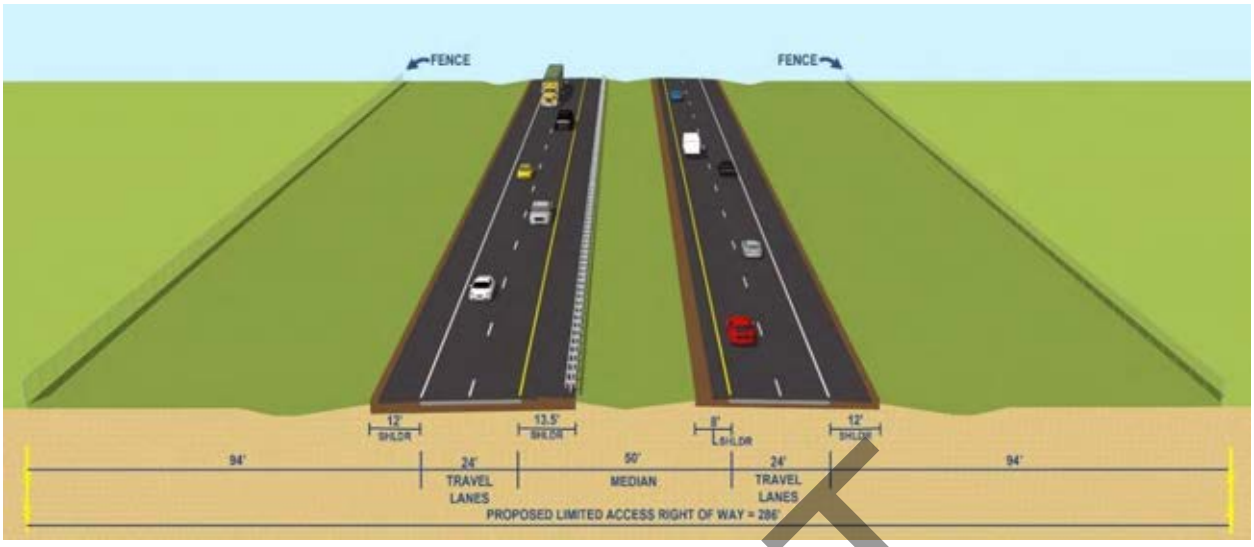
The proposed typical section for the Preferred Alternative from north of Power Line Road to north of Lem Carnes Road, shown in Figure 7.1.1, features CPP East flanked by US 17/92. CPP East consists of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median (including the inside shoulders). In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder with barrier wall. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder with barrier wall. A 30- to 50-foot-wide buffer, measured from edge-of-travel to edge-of-travel separates CPP East from US 17/92. US 17/92 features two 11-foot-wide travel lanes in each direction with curb and gutter. A 6.5-foot buffer separates the outside US 17/92 travel lane from the 12-foot-wide shared use path. The proposed right-of-way width for this alternative varies from 260 feet to 300 feet. The limited access right-of-way for CPP East varies from 128 feet to 183 feet. The proposed design and posted speed limit for CPP East is 70 mph. The proposed design and posted speed limit for US 17/92 is 45 mph.

Figure 7.1.1: Typical Section From North of Power Line Road to North of Lem Carnes Road



The proposed typical section for the Preferred Alternative north of Lem Carnes Road, shown on Figure 7.1.1, features CPP East as a four-lane limited access facility comprised of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median, including the inside shoulders. Per FDM Table 211.3.1, a 50-foot-wide median with barrier will accommodate a future two-foot-wide concrete median barrier, two 12-foot-wide travel lanes, and two 12-foot-wide shoulders to accommodate a six-lane high speed facility in the future, if warranted. In the northbound direction there is an eight-foot-wide inside shoulder and 12-foot-wide outside shoulder. In the southbound direction there is a 13.5-foot-wide inside shoulder with guardrail and 12-foot-wide outside shoulder. The proposed limited access right-of-way is 286 feet, including 94 feet of border width on either side. A 12-foot-wide shared use path is being evaluated between the US 17/92 and Power Line Road intersection and Ernie Caldwell Boulevard. The proposed design and posted speed limit for CPP East is 70 mph.

Figure 7.1.2: Typical Section North of Lem Carnes Road



Appendix C contains the Typical Section Package.

7.2 Access Management

As a limited access facility, CPP East is classified as Access Management Classification 1 with an Area Type of 3, meaning interchange spacings should be three miles. Three access points are proposed along CPP East: the south ingress/egress north of Power Line Road, an intermediate interchange to connect CPP East with US 17/92 north or Ernie Caldwell Boulevard, and the north ingress/egress at Poinciana Connector.

The access management classification for US 17/92 will remain in the existing conditions as access management Class 6: Non-Restrictive, as stated in *Section 2.2.3: Access Management Classification,* from James Street to Fuller Street. The access management classification from US 17/92 from Fuller Street to approximately 4,000 feet north of Ernie Caldwell Boulevard and from north of Ronald Reagan Parkway to Osceola Polk Line Road will be Class 3: Restrictive.

Table 7.2.1 shows the proposed access management features for US 17/92.

Table 7.2.1: Preferred Alternative Proposed Access Management Along US 17/92

Side Road / Description	Existing vs Proposed	Proposed Middle Station	Proposed Signal Spacing (feet)
Power Line Road	Full (Existing)	1042+70	
			6,460
Lem Carnes Road	Full (Proposed)	1107+30	
			5,330
Ernie Caldwell Boulevard	Full (Existing)	60+60	
			2,040
Intermediate Ramp Access	Full (Proposed)	81+00	
			8,490
Providence Boulevard	Full (Existing)	165+90	
			5,130
Ronald Reagan Parkway	Full (Signal)	N/A*	
*Note: Ronald Reagan Parkway does not have proposed improvements at the US 17/92 intersection and as such, the Preferred Alternative does not have stationing for this alignment at Ronald Reagan Parkway			

7.3 Right-of-Way

The Preferred Alternative roadway improvements impact a total of 216 parcels and 311 acres. A total of 45 relocations are anticipated: 38 residential, five business, and two utility parcels. Appendix B shows the Preferred Alternative. The Conceptual Stage Relocation Plan (CSRP), available under a separate cover, discusses right-of-way acquisition and relocation planning.

7.4 Horizontal and Vertical Geometry

As part of the project, aerial photography, lidar data, surveyed right-of-way, design files (Power Line Road extension, Poinciana Parkway, Poinciana Connector), a planned development for Bargain Barn Road, and as-builts from Ernie Caldwell Boulevard were obtained and utilized in the development of the Preferred Alternative.

US 17/92 is widened to a six-lane divided arterial north of James Street and continues approximately 0.7 miles north of the US 17/92 intersection with Power Line Road extension where the CPP East slip ramps are located. Drivers in the center and right lanes may continue onto US 17/92, vehicles in the center and left lanes may enter CPP East. A mainline toll gantry is placed approximately 1,555 feet south of Lem Carnes Road. Starting approximately 466 feet south of Lem Carnes Road, the existing right-of-way is held on the east side of US 17/92 to avoid impacts to the substation.

CPP East will bridge over Lem Carnes Road and the CSX railroad spur, while US 17/92 remains at grade. Two railroad crossing gate arms will be placed at the CSX railroad spur along northbound US 17/92: one for the cars on the road and one for the pedestrians on the sidewalk. One railroad crossing gate arm will be placed at the CSX railroad spur along southbound US 17/92. Continuing northbound, the southbound US 17/92 lanes bridge over CPP East as the expressway curves to the west to parallel the CSX railroad. US 17/92 transitions to a four-lane divided highway until 0.5 miles north of the Ernie Caldwell Boulevard intersection with US 17/92 where it ties into the existing conditions.

CPP East bridges over a body of water and underpasses Ernie Caldwell Boulevard. An intermediate interchange with access to/from the north is located north of Ernie Caldwell Boulevard. North of the interchange ramps, CPP East bridges over wetlands. Just south of Wynell Drive, CPP East begins to curve east, bridges over wetlands, and then bridges over US 17/92 just north of Providence Boulevard while minimizing right-of-way impacts to the Aviana community. The Providence Boulevard intersection with US 17/92 will be reconstructed to accommodate the CPP East bridge piers. CPP East parallels US 17/92 to the east as it bridges over Ronald Reagan Parkway and a retention pond. CPP East then curves towards the west, overpasses US 17/92 and Parker Road, then bridges over Old Kissimmee Road as the CPP East northbound and southbound ramps begin to separate and the northbound ramps cross over Poinciana Parkway. The limited access right-of-way for the northbound ramps is concurrent with the parcel line to avoid impacts to the substation located on Labor Camp Road. No modifications are proposed for Labor Camp Road.

Old Kissimmee Road is realigned slightly to the west in order to accommodate bridge piers for CPP East over Old Kissimmee Road. The project ends with the CPP East ramps tying into the outside of the Poinciana Connector.

Table 7.4.1 shows a brief description of the roadway geometry and Figure 7.4.1 shows the alignment. To see the full Preferred Alternative concept, including the alignments, see Appendix B.

Table 7.4.1: Horizontal Alignment for Preferred Alternative

Curve No.	PC Station	PI Station	PT Station	Tangent (feet)	Length (feet)	Radius (feet)	Superelevation	Design Speed
Mainline (e_{max} = 0.10)								
C1	1028+58.8	1033+87.4	1039+09.0	528.5	1,050.1	3,750.0	Normal Crown	45
C2	1075+10.5	1081+62.1	1088+06.5	651.6	1,296.0	5,060.0	4.20%	70
C3	1120+00.0	1121+68.2	1123+36.2	168.2	336.2	4,900.0	4.40%	70
C4	1123+36.2	1130+91.4	1138+20.5	755.2	1,484.3	3,271.2	6.30%	70
C5	1144+77.6	1153+07.0	1161+05.0	829.5	1,627.5	3,415.0	6.10%	70
C6	1188+17.2	1196+18.1	1204+18.7	800.9	1,601.4	34,438.3	Normal Crown	70
C7	1227+15.5	1243+34.0	1258+30.8	1,619.1	3,115.3	4,633.8	4.60%	70
C8	1274+28.2	1282+67.3	1290+58.2	838.5	1,630.0	2,820.0	7.10%	70
Southbound Exit Ramp (e_{max} = 0.10)								
C9	108+00.7	119+02.0	129+65.9	1,101.4	2,165.2	4794.0	4.40%	70
C10	148+54.7	153+44.4	157+99.4	489.6	944.7	1456.0	7.10%	50
C11	164+80.9	169+72.3	174+61.6	491.4	980.8	6171.0	2.10%	50
C12*	178+11.6	185+83.6	193+53.9	772.0	1,542.2	13089.6	Reverse Crown	70
Northbound Entrance Ramp (e_{max} = 0.10)								
C13	210+36.1	222+81.2	234+71.9	1,245.1	2,435.9	4,770.0	4.50%	70
C14	257+81.5	262+46.8	266+65.6	465.4	884.1	1,146.0	8.30%	50
C15	272+93.6	276+73.9	280+49.9	380.3	756.3	2,889.0	4.00%	50
C16*	280+49.9	287+94.6	295+37.7	744.7	1,487.8	12,971.8	Reverse Crown	70
*Curve to match Future Poinciana Connector								

The vertical alignment for CPP East is shown in Table 7.4.2.

Table 7.4.2: Preferred Alternative Vertical Profile

Back Tangent Length (feet)	Back Slope	Station (VPI)	Elevation (feet)	Curve Length (feet)	K Value	Ahead Slope	Ahead Tangent Length (feet)	Design Speed
Mainline (e_{max} = 0.10)								
152.0	-1.1%	1029+17.1	115.9	679.2	475.0	0.3%	23.2	45
23.2	0.3%	1032+80.0	117.0	0.0	0.0	-0.3%	250.0	45
250.0	-0.3%	1035+30.0	116.3	0.0	0.0	0.3%	250.0	45
250.0	0.3%	1037+80.0	117.0	0.0	0.0	-0.3%	1,000.0	45
1,000.0	-0.3%	1047+80.0	114.0	0.0	0.0	0.3%	250.0	45
250.0	-0.3%	1050+30.0	114.8	0.0	0.0	-0.3%	865.6	45
865.6	-0.3%	1062+95.6	111.0	800.0	1,000.0	0.5%	656.4	45
656.4	0.5%	1078+52.0	118.8	1,000.0	1,000.0	-0.5%	637.5	70
637.5	-0.5%	1093+89.5	111.1	800.0	262.3	2.5%	586.9	70
587.0	2.6%	1110+44.1	153.3	1,335.3	401.0	-0.8%	500.2	70
500.2	-0.8%	1127+12.0	140.3	1,000.0	1,388.9	-1.5%	156.0	70
155.0	-1.5%	1137+66.9	124.4	800.0	800.0	-0.5%	1,447.8	70
1,447.8	-0.5%	1160+14.7	113.2	800.0	800.0	0.5%	782.9	70
782.9	0.5%	1176+97.6	121.6	1,000.0	1,000.0	-0.5%	1,058.4	70
1,058.4	-0.5%	1196+56.0	111.8	800.0	800.0	0.5%	1,282.0	70
1,282.0	0.5%	1218+38.1	122.7	1,000.0	1,000.0	-0.5%	2,052.9	70
2,052.9	-0.5%	1247+91.0	108.0	800.0	800.0	0.5%	651.7	70
651.7	0.5%	1262+42.7	115.2	800.0	421.0	2.4%	10.4	70
10.4	2.4%	1277+35.9	151.1	2,165.4	401.0	-3.0%	131.8	70
131.8	-3.0%	1293+50.4	102.6	800.0	320.0	-0.5%	541.6	70
541.6	-0.5%	1306+92.0	95.9	800.0	320.0	2.0%	452.0	70
452.0	2.0%	1325+46.5	133.0	2,005.0	401.0	-3.0%	489.4	70
Southbound Exit Ramp (e_{max} = 0.10)								
130.8	-3.0%	111+19.4	79.8	1,086.0	181.0	3.0%	106.6	70
106.6	3.0%	125+31.0	122.2	1,523.8	401.0	-0.8%	339.8	70
339.8	-0.8%	140+32.6	110.2	800.0	444.4	1.0%	820.0	50
820.0	1.0%	157+77.6	127.6	1,050.0	262.5	-3.0%	51.7	50
51.7	-3.0%	167+54.3	98.3	800.0	192.8	1.2%	561.7	50
561.7	1.2%	185+32.7	118.8	1,633.2	646.6	-1.4%	0.0	70
Northbound Entrance Ramp (e_{max} = 0.10)								
120.9	-3.0%	211+14.8	80.0	1,086.0	181.0	3.0%	136.0	70
136.0	3.0%	226+45.9	125.9	1,704.2	401.0	-1.2%	213.2	70
213.2	-1.2%	241+11.3	107.6	800.0	172.0	3.4%	813.4	50
813.4	3.4%	258+24.7	165.9	1,000.0	138.9	-3.8%	909.1	50
909.1	-3.8%	274+76.2	103.1	484.8	96.0	1.2%	331.3	50
331.3	1.2%	287+93.8	119.6	1,487.8	504.3	-1.7%	0.0	70

7.5 Design Variations and Exceptions

According to the FDOT Design Manual, bicycle lanes on divided arterial and collector bridge sections should be eight feet, four inches wide. The bridge over the CSX railroad along Ernie Caldwell Boulevard is proposed to be extended in length. In order to match the existing bridge typical section, which includes six-foot-wide bicycle lanes, the bicycle lane width of the extended bridge will not meet the required width, and a design variation will be needed.

7.6 Multimodal Accommodations

The Preferred Alternative for this PD&E Study includes a 12-foot-wide shared use path on the northbound side of US 17/92 from James Street to Ernie Caldwell Boulevard and from Ronald Reagan Parkway to just south of Parker Road. A 12-foot-wide shared use path is proposed on the southbound side of US 17/92 from James Street to Lem Carnes Road and from north of the Loughman Crossing shopping plaza to Parker Road. A six-foot-wide sidewalk and four-foot-wide bicycle lane is proposed on the southbound side of US 17/92 adjacent to the Loughman Crossing shopping plaza parcel just north of Ronald Reagan Parkway.

7.7 Intersection / Interchange Concepts

Three access points are proposed along CPP East: the south ingress/egress north of Power Line Road, an intermediate interchange to connect CPP East with US 17/92 north or Ernie Caldwell Boulevard, and the north ingress/egress at Poinciana Connector. The spacing between the south ingress/egress north of Power Line Road and intermediate interchange at Ernie Caldwell Boulevard is approximately 2.4 miles which is below the recommended spacing for access management classification 1 with an area type as 3 but still meets the minimum spacing of two miles. The distance between the intermediate interchange at Ernie Caldwell Boulevard and the north ingress/egress at Poinciana Connector is approximately 3.9 miles. Descriptions of these access points are listed below.

CPP East South Ingress and Egress

CPP East begins approximately 0.7 miles north of the US 17/92 intersection with Power Line Road. In the northbound direction, vehicles in the center and right lanes may continue onto US 17/92,

vehicles in the center and left lanes may enter CPP East. Alternatively, in the southbound direction, US 17/92 becomes four lanes until the US 17/92 intersection with Power Line Road where the left two lanes become left turn lanes. Figure 7.7.1 shows the CPP East south ingress and egress.

Figure 7.7.1: CPP East South Ingress and Egress

CPP East Intermediate Interchange with US 17/92

Approximately 0.75 miles north of Ernie Caldwell Boulevard, ramps connect CPP East with US 17/92. Along US 17/92, a signalized intersection provides two through lanes and one turning lane to access the ramp in each direction. The northbound slip ramp is formed by a 660-foot-long taper to facilitate merging from US 17/92 onto the ramp. In the southbound direction, a third lane is added to accommodate a one-lane, exit-only ramp. The ramp approaches the CSX railroad right-of-way but remains east of it. The ramp bridges over CPP East and descends to US 17/92 where it widens to one dedicated left turn lane and one dedicated right turn lane. Figure 7.7.2 shows the CPP East Ramp with US 17/92.

Figure 7.7.2: CPP East Ramp with US 17/92

CPP East North Ingress and Egress

The CPP East northbound ramp merges into the two northbound lanes on Poinciana Connector allowing for four lanes in the northbound direction. Alternatively, in the southbound direction, the three southbound lanes on Poinciana Connector will split and the inside lane will turn into CPP East and the middle lane will be a choice lane where traffic can choose to exit to CPP East or continue on the Poinciana Connector. Figure 7.7.3 shows the CPP East north ingress and egress at Poinciana Connector.

US 17/92 at Power Line Road

US 17/92 northbound will feature one designated left turn lane, three through lanes, and one designated right turn lane. US 17/92 southbound will feature three designated left turn lanes, three through lanes, and one designated right turn lane. Power Line Road will feature one left turn lane, one through lane, and three right turn lanes. Bargain Barn Road will feature two left turn

lanes, one through lane, and one right turn lane. Figure 7.7.4 shows the US 17/92 intersection at Power Line Road.

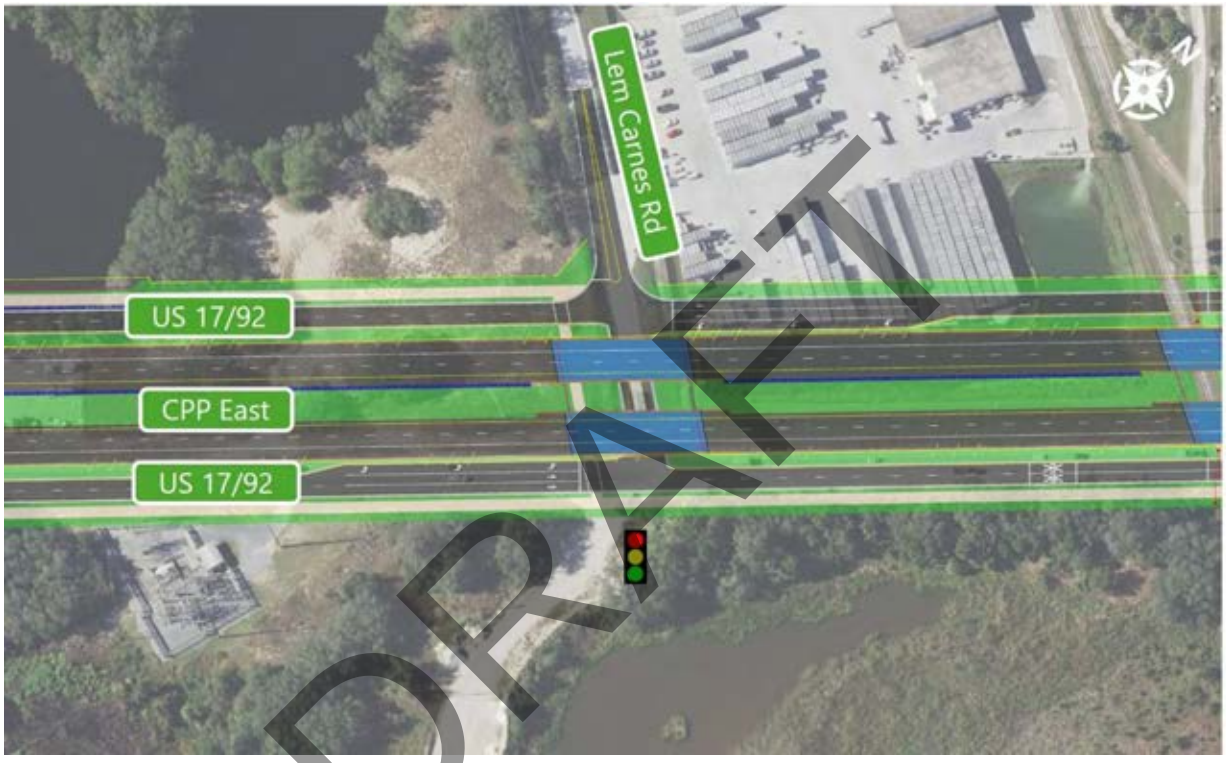
Figure 7.7.3: CPP East North Ingress and Egress

Figure 7.7.4: US 17/92 at Power Line Road

US 17/92 at Lem Carnes Road

US 17/92 northbound and southbound will feature one designated left turn lane and two through lanes. Lem Carnes Road will feature one lane in each direction. Figure 7.7.5 shows the US 17/92 intersection at Lem Carnes Road.

Figure 7.7.5: US 17/92 at Lem Carnes Road



US 17/92 at Ernie Caldwell Boulevard

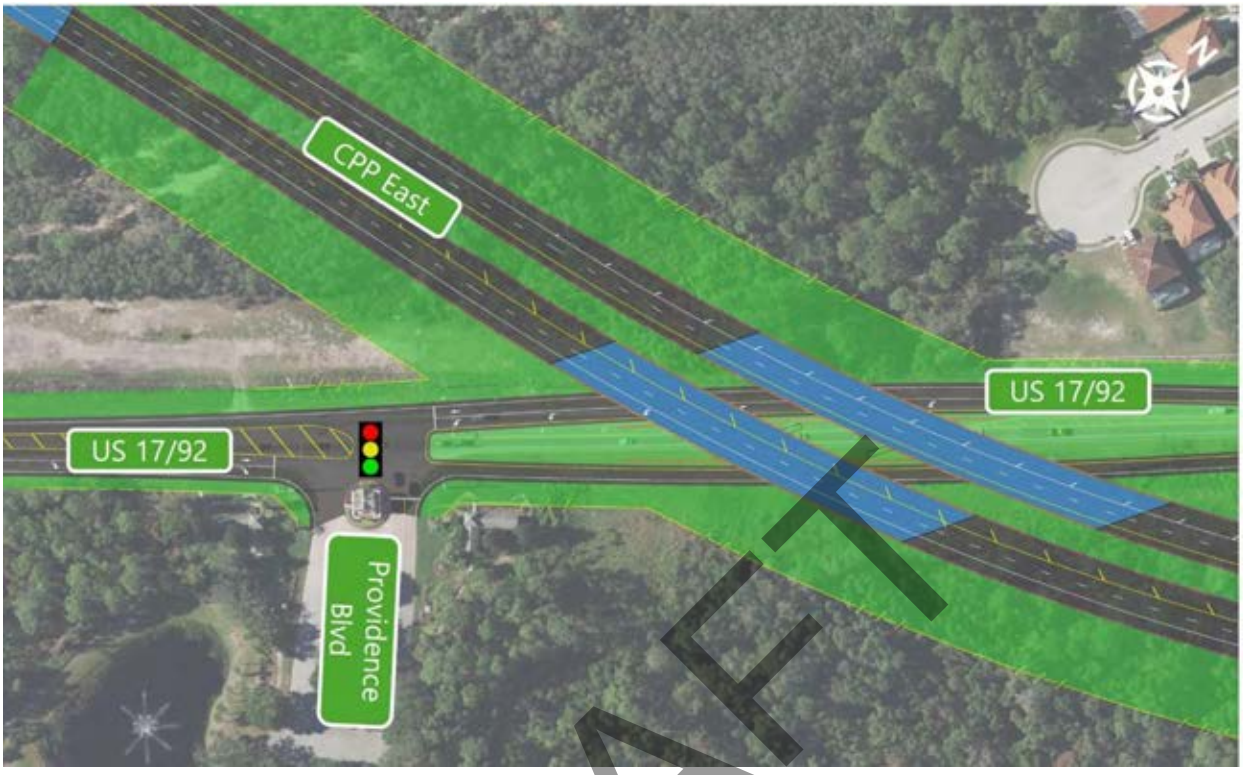
US 17/92 northbound will feature one designated left turn lane and two through lanes. US 17/92 southbound will feature one designated right turn lane and two through lanes. Ernie Caldwell Boulevard will feature one designated left turn lane and one designated right turn lane. Figure 7.7.6 shows the US 17/92 intersection at Ernie Caldwell Boulevard.

Figure 7.7.6: US 17/92 at Ernie Caldwell Boulevard

US 17/92 at Providence Boulevard

US 17/92 northbound will feature one through lane and one designated right turn lane. US 17/92 southbound will feature one designated left turn lane and one through lane. Providence Boulevard will feature one designated left turn lane and one designated right turn lane. The median on US 17/92, just north of the Providence Boulevard intersection, will be widened to accommodate the CPP East bridge piers. Figure 7.7.7 shows the US 17/92 intersection at Providence Boulevard.

Figure 7.7.7: US 17/92 at Providence Boulevard



7.8 Tolled Projects

A preliminary Toll Siting Technical Memorandum (TSTM) has been developed to assess toll site locations for the Preferred Alternative and recommend final placements. Two all-electronic toll sites are proposed for inclusion in the final concept. The first will be a mainline facility on CPP East tolling ingress and egress for the multi-lane, limited-access highway. The second will serve both the on- and off-ramps connecting CPP East and US 17/92. Detailed evaluations and recommendations are provided in the TSTM. Both sites will utilize a standard dual-movement, non-accessible toll equipment building as outlined in the General Tolling Requirements (GTR) and will feature non-accessible span tolling structures to optimize cost efficiency. See the TSTM for additional information related to the toll site placement and recommendations.

7.9 Intelligent Transportation System and TSM&O Strategies

The Preferred Alternative includes a robust deployment of ITS infrastructure and TSM&O strategies to support traffic operations, incident management, and traveler information services.

These enhancements are designed to align with the Enterprise's ITS Architecture and Strategic TSM&O Plan and will be integrated into existing regional operations managed by the Enterprise and its partner agencies.

ITS Facilities and Technologies

The proposed ITS components for CPP East include:

- High-Definition CCTV Cameras for real-time traffic monitoring, incident verification, and infrastructure surveillance.
- Dynamic Message Signs (DMS) and Advanced DMS (ADMS) for disseminating travel times, incident alerts, and safety messages.
- Microwave Vehicle Detection Systems (MVDS) and Bluetooth-based Automatic Vehicle Identification (AVI) for collecting volume, speed, occupancy, and travel time data.
- Wrong Way Vehicle Detection Systems (WWVDS) at exit ramps to enhance safety and enable rapid response.
- Fiber-optic Communication Backbone to support real-time data transmission and center-to-center (C2C) communications.
- SunPass-compatible Tolling Equipment integrated with the corridor's All-Electronic Tolling (AET) system.

These ITS elements will be monitored and operated by the Enterprise's Regional Traffic Management Centers (RTMCs) located at Turkey Lake and Pompano Beach, with additional coordination through the Florida Highway Patrol (FHP) Troop K Dispatch Center and local agencies such as Polk County TMC and FDOT District One RTMC.

TSM&O Strategies

The project incorporates several TSM&O strategies consistent with FDOT's statewide framework, including:

- Freeway Management System (FMS) for incident detection, congestion monitoring, and performance reporting.

- Queue Warning Systems using DMS and MVDS to alert motorists of downstream slowdowns.
- Wrong Way Driving Countermeasures for enhanced safety at exit ramps.
- Traffic Incident Management (TIM) Programs, including Road Rangers, Rapid Incident Scene Clearance (RISC), and Specialty Towing and Roadside Repair (STARR).
- Hard Shoulder Running (HSR) as a potential strategy for peak-period capacity enhancement.
- Center-to-Center (C2C) Communication protocols for interagency coordination.
- Vehicle-to-Infrastructure (V2I) Communication via Roadside Units (RSUs) to support future Connected Vehicle applications.

These strategies are designed to improve mobility, safety, and system reliability while supporting emergency response and congestion mitigation.

Systems Engineering Analysis Requirement

In accordance with FDOT Procedure 750-040-003, the requirement for a Systems Engineering Analysis (SEA) is determined by evaluating specific risk factors related to the ITS project. These include software development, hardware integration, system interfaces, operating procedures, and technology maturity.

For this PD&E Study, all responses on the FDOT Form 750-040-05 were affirmative, indicating that:

- The project will be implemented and operated by a single agency (Florida's Turnpike Enterprise) under existing agreements.
- Only proven software and hardware technologies will be used.
- No new system interfaces or custom software development are required.
- Existing system requirements and operating procedures are being reused.
- All technologies selected have a service life exceeding two to four years.

Based on these criteria, the project is classified as low risk under the procedure's Table 1: Risk Assessment for ITS Projects. Therefore, a formal Systems Engineering Analysis is not required by FHWA for this project.

Nonetheless, the project will adhere to applicable elements of FDOT's Systems Engineering and ITS Architecture Procedure, including alignment with the Regional ITS Architecture, stakeholder coordination, and documentation of user needs and system requirements through the Concept of Operations.

For more information about TSM&O opportunities, see the TSM&O Technical Memorandum, available in the project file.

7.10 Landscape

A conceptual landscaping plan is being developed for the Preferred Alternative and will be included in the next submittal.

7.11 Lighting

The proposed roadway lighting system modeled was Holophane Mongoose MGLEDM LED luminaires mounted on 40-foot poles spaced at intervals of 160 to 200 feet, providing continuous, uniform coverage along the CPP East mainline, US 17/92, and all interchange ramps. The selected fixtures feature downward-focused lenses to prevent light from spilling upward or sideways into adjacent properties and wetlands. Photometric modeling using AGi32 confirms that this configuration meets Turnpike Design Handbook criteria, achieving an average Horizontal Foot-Candles of 1.5, with tailored layouts at signalized intersections and beneath bridge underdecks to ensure consistent driver visibility.

The Lighting Memorandum, available under separate cover, details all calculation grids, illumination outputs, pole locations, mounting heights, and conduit layouts necessary for

construction. The Lighting Memorandum includes full photometric analysis and plots for each roadway segment, intersection, and ramp, along with underdeck fixtures.

7.12 Wildlife Crossings

Roads have been documented to create both direct and indirect deleterious effects to wildlife by creating a barrier to movement and fragmenting natural habitats. As a result, the FDOT has prepared wildlife crossing guidelines (2023) in coordination with the USFWS and FWC to evaluate appropriateness of the inclusion of wildlife crossings for proposed projects on the State Highway System. Evaluation criteria include: a documented science-based need for a crossing supported by the USFWS and/or FWC; wildlife species documented within and using the study area; documented roadkill of species with high conservation value or within a known area where traversing the roadway creates a potential hazard to motorists and/or wildlife; presence within a documented range of the Florida panther and/or Florida black bear; project crossing of Critical Habitat, ecological greenway, or other landscape-level habitat linkage; presence of public conservation lands or lands under perpetual conservation easement necessary to achieve successful use of a crossing feature; compatibility of future land use and development patterns; and project location within area of critical conservation need. Section 259.1055, Florida Statutes, Florida Wildlife Corridor Act, was passed in 2021 to encourage the development of wildlife crossings for the protection of safety of wildlife and the traveling public.

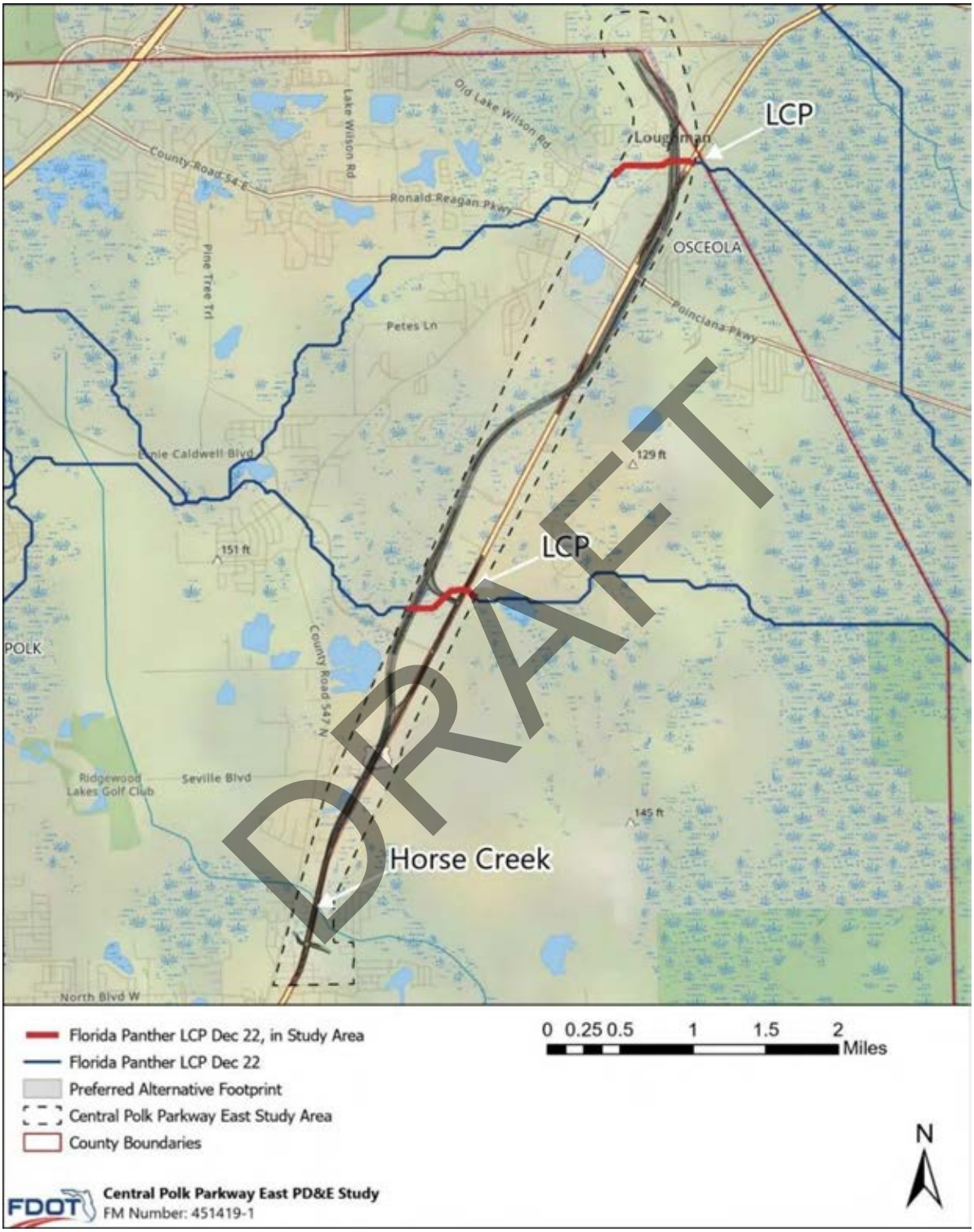
While the study area is within a Florida black bear population range, there have not been any Florida black bear road kills since 2001 along the corridor. There are no documented Florida panther mortalities in this region and the corridor is far north of the Florida panther Consultation Area. There are Florida Ecological Greenways Network Priorities or Green Links along the corridor; Priority 2 areas cover scattered areas along the full length of the corridor. Conservation lands along the project corridor include a portion of the Upper Lakes Basin Watershed and the Reedy Creek Mitigation Bank near the northeastern limits of the project. There are no locations along the corridor where conservation lands are present on both sides.

The Least-Cost Pathway (LCP) was developed for the USFWS Florida Panther Recovery Implementation Team, Transportation Sub-team (2022) to identify potential pathways and corridors that wildlife species are likely to utilize as a pathway between suitable large habitats (Identifying Least-Cost Paths and Corridors for Florida Panther within South-Central Florida, Summary Report; 2022). The Least Cost Path and Corridor Analysis identified Primary, Secondary, and Tertiary Corridors, based on existing land use. The corridors are intended to serve as links between protected conservation lands. Within the Central Pok Parkway East Project Area, large portions of the project area are covered by Primary and Secondary Corridors. Within the Central Polk Parkway East Project Area, these corridors are intended to link between Disney Preserve/Southport Ranch in the east to the Hilochee Wildlife Management Area (WMA) in the west. In June 2024, the FDOT completed construction of the I-4 at C.R. 557 wildlife crossing within the Hilochee WMA.

Within the Central Polk Parkway East project study area, two Least Cost Pathways (LCPs) were identified, a northern LCP and a southern LCP. Additionally, Horse Creek was identified as a Primary Corridor. Both LCPs and Horse Creek are shown on Figure 7.12.1.

The Southern LCP is located within improved pasture owned by Southern Silica. The Polk Future Land Use Map (2030) identifies a significant portion of this crossing located within land designated as the North Ridge Tourism Commercial Center. On October 6, 2025, the City of Davenport established the Sand and Silica Community Development District (CDD) by approval of Ordinance No. 1354. The CDD master plan identifies 1,700 future residential units in close proximity to the LCP. Due to future land use changes, the Southern LCP is not recommended for a wildlife feature. The Northern LCP is located north of Parker Road. In the future, this LCP would need to cross the future Central Polk Parkway East, U.S. 17/92 and the future Poinciana Parkway, currently under design. The Northern LCP is located close to the planned US 17/92 / Poinciana Parkway Interchange. Due to future land use changes, the Northern LCP is not recommended for a wildlife feature.

Figure 7.12.1: LCP Locations and Horse Creek



Horse Creek traverses US 17/92 near the Shady Oaks community. Horse Creek flows through an existing bridge culvert (160019), which was constructed in 1934. Undeveloped lands located east of US 17/92, the Horse Creek floodplain is under the ownership of the Standard Sand & Silica Company. Polk County's 2030 Future Land Use Map shows that the land east of US 17/92 is a mix of Residential Medium Density and City of Davenport. There is a portion of the Horse Creek floodplain west of US 17/92 which is designated as Preservation in Polk County's 2030 Future Land Use Map, but this area is under private ownership with no recorded conservation easement. There are no portions of the Horse Creek floodplain which are currently under public ownership.

During the replacement of bridge culvert 160019 at Horse Creek, The Enterprise commits to the implementation of wildlife features such bridges with shelves, specially designed culverts, enlarged culverts or drainage culverts and exclusionary devices such as fencing, walls or other barriers, or some combination of these features at Horse Creek.

7.13 Permits

The FDEP, SFWMD, SWFWMD, and USACE regulate impacts to wetlands within the study area. The US District Court for the District of Columbia issued a decision vacating the U.S. EPA approval of Florida's application to assume Clean Water Act Section 404 permitting responsibilities in certain waters in Florida. In light of this decision, the USACE is currently the only entity in the State of Florida with authority to issue permits under Section 404 of the Clean Water Act. As this project spans the jurisdiction of SFWMD and SWFWMD, it is anticipated that one water management district will lead the Environmental Resource Permitting for the project corridor. Other agencies, including the USFWS, the EPA, and the FWC, review and comment on wetland permit applications.

40 CFR Part 122 prohibits point source discharges of stormwater to waters of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. Under the State of Florida's delegated authority to administer the NPDES program, construction sites that will result in greater than one acre of disturbance must file for and obtain either coverage under an appropriate generic permit contained in Chapter 62-621, F.A.C., or an individual permit issued pursuant to Chapter 62-

620, F.A.C. A major component of the NPDES permit is the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the site and discusses good engineering practices (i.e., best management practices) that will be used to reduce the pollutants.

In accordance with the requirements of Rules 68A-25.002 and 68A-27.004 (F.A.C.), a permit for gopher tortoise capture/release activities must be secured from the FWC before initiating any relocation work. The FWC will require a 100 percent gopher tortoise survey to be conducted within 90 days of construction commencement to support the permit application.

It is anticipated that the following permits will be required for this project:

Permits and Approvals	Issuing Agency
Section 404 Dredge and Fill Permit	USACE
Environmental Resource Permit	SWFWMD / SFWMD
National Pollutant Discharge Elimination System	FDEP
Gopher Tortoise Relocation Permit (as necessary)	FWC

7.14 Drainage and Stormwater Management Facilities

A Water Quality Impact Evaluation (WQIE) Checklist was completed for the project and is available in the project file. The results confirm that the project discharges to Horse Creek and Reedy Creek. The project also alters the drainage system. Water quality and stormwater issues will be mitigated through compliance with the design requirements of authorized regulatory agencies.

Historic drainage patterns are anticipated to be maintained for both on-site and offsite stormwater runoff. The outfall location of each basin will also remain the same as it is in the existing condition. Tailwater elevations were set based on tailwater information used in the design of nearby developments or they were estimated using LiDAR and available wetland limits which was based on information taken from the National Wetlands Inventory (NWI). Offsite areas

discharging stormwater runoff into the right-of-way will be maintained separately from onsite stormwater discharge.

With respect to existing treatment credits, US 17/92 is an older road and beyond the permit issued for the improvements at Ernie Caldwell Boulevard which incorporated a short section of US 17/92, there is not any permit information specifically associated with the road. Therefore, it was assumed that there are no existing treatment credits that can be used to offset the treatment needs for the proposed corridor. In the area where the Preferred Alternative splits from US 17/92, it was also assumed that no treatment credits would be available. In the areas where the CPP East alignment is co-located with US 17/92, there was only one area where existing treatment facilities associated with adjacent businesses or neighborhoods would be impacted by the improvements. This area is adjacent to Basin 200 and is discussed in more detail in the Pond Siting Report (PSR).

The proposed basin boundaries were set based on high points along the CPP East alignment and at the proposed right-of-way line. The volumetric analysis developed to size each pond generally maintained peak stages within each pond below the existing travel lane and included approximately one-foot of freeboard to the top of bank. Table 7.14.1 present treatment volumes required, and treatment volumes provided for each basin. Table 7.14.2 shows the preferred pond alternatives with sizing and preliminary costs. Figure 7.14.1 shows the preferred pond locations.

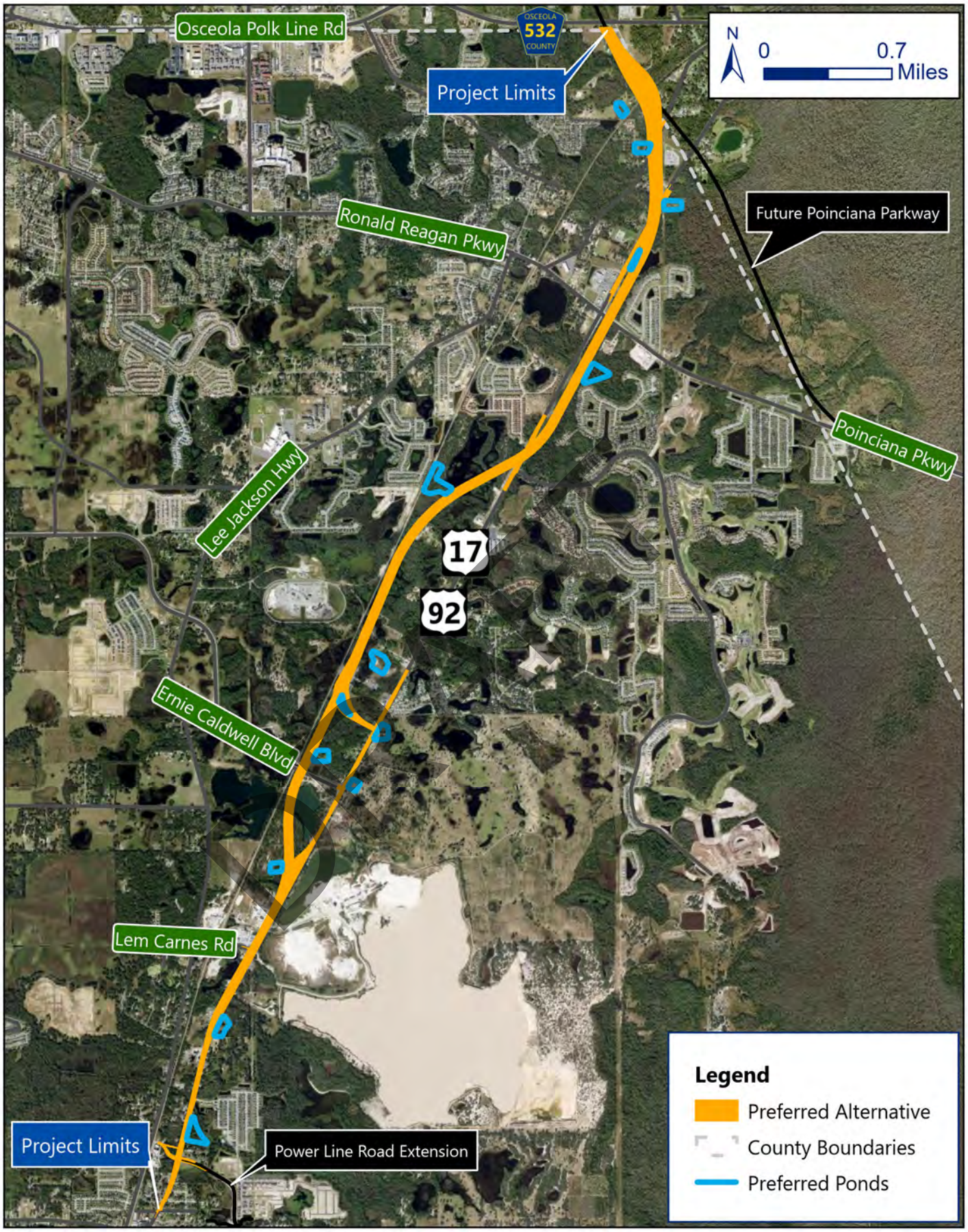
Table 7.14.1: Water Quality Treatment Summary

Sub-Basin	Required Treatment (ac-ft)	Provided Treatment (ac-ft)	Wet/Dry
Basin 100	1.86	1.86	Wet
Basin 200	1.49	1.49	Wet
Basin 300	0.39	0.39	Dry
Basin 350A	0.51	0.51	Wet
Basin 350B	0.81	0.81	Wet
Basin 400A	0.33	0.33	Dry
Basin 400B	0.76	0.76	Wet
Basin 450	0.60	0.60	Wet
Basin 500	2.05	2.05	Wet
Basin 600	2.13	2.13	Wet

Sub-Basin	Required Treatment (ac-ft)	Provided Treatment (ac-ft)	Wet/Dry
Basin 700	2.49	2.49	Wet
Basin 800A	0.79	0.79	Wet
Basin 800B	0.93	0.93	Wet
Basin 900	0.85	0.85	Wet
Basin 1000	0.39	0.39	Wet

Table 7.14.2: Preferred Pond Alternatives

Sub-Basin	Preferred Pond Alternative	Property Size Required (ac.)	Additional Easement Area (ac.)	Pond Cost
Basin 100	Alternative A	6.41	-	$7,418,348
Basin 200	Alternative A	4.05	-	$792,542
Basin 300	Alternative A	2.78	-	$1,008,727
Basin 350A	Alternative B	2.54	-	$778,499
Basin 350B	Alternative C	3.96	-	$2,206,792
Basin 400A	Alternative C	3.05	-	$831,170
Basin 400B	Alternative C	3.36	-	$1,286,170
Basin 450	Alternative B	1.91	-	$306,600
Basin 500	Alternative C	5.48	0.28	$1,827,668
Basin 600	Alternative A	8.73	-	$3,749,754
Basin 700	Alternative C	7.33	-	$7,023,564
Basin 800A	Alternative B	1.56	-	$1,840,570
Basin 800B	Alternative A	3.84	-	$2,911,254
Basin 900	Alternative A	3.42	-	$2,240,088
Basin 1000	Alternative B	3.41	0.55	$2,240,088
	Total	**61.83**	**0.83**	**$37,165,280**



FLORIDA'S TURNPIKE	**Central Polk Parkway East PD&E Study** FM No.: 451419-1 | ETDM No.: 14524	**Figure 7.14.1: Preferred Ponds**	**Page Number: 7-25**

There are two existing stormwater management features that will be impacted as part of the design. Within Basin 200, an existing pond associated with a CEMEX ready mix and block commercial facility will be eliminated by the proposed improvements. Within Basin 400B, the northern tip of one of the Ernie Caldwell Boulevard permitted stormwater ponds will be impacted by the proposed improvements. The impacts to the pond and associated property adjacent to Basin 200 were not specifically evaluated as part of this analysis because it is unclear if the entire parcel will be taken as part of the proposed improvements. The impacts to the existing pond associated with recent Ernie Caldwell Boulevard improvements were considered minor and any lost volume can likely be restored through reshaping or minor excavation. The only other stormwater pond close to the alignment is a permitted pond associated with the Vista Mar subdivision east of the CPP alignment within Basin 800A. The CPP East alignment proposes to bridge this pond, so impacts are not anticipated.

With respect to wetland impacts, Alternative C within Basin 700 is the only preferred alternative that will impact wetlands. Each of the pond alternatives within Basin 700 impact wetlands, mainly because all the property within the basin and outside the wetland limits was developed or under development. Avoidance and minimization of wetland impacts have occurred to the extent possible.

7.15 Floodplain Analysis

The FEMA FIRMs for Polk and Osceola Counties were reviewed to determine the extent of the FEMA floodplains within the project limits. There are no regulatory floodways within this corridor.

The proposed roadway improvements will require culvert extensions, replacement of aging structures, and installation of new culverts and ditches. Several culverts are proposed for replacement because they do not meet the minimum size requirement specified in the latest FDOT Drainage Manual (Box Culvert Precast three-foot by three-foot). For the new culverts, sizing was based on the dimensions of an existing nearby culvert along the same flow path.

The anticipated floodplain impacts associated with the proposed roadway widening and improvements were evaluated to determine potential effects on the 100-year floodplains and the required compensation volumes. The precise impact volume will be assessed during the design phase, once survey data, geotechnical information, and proposed cross sections become available. Floodplain impacts will be mitigated through cut ditch sections or existing stormwater management facilities along the corridor. The expected encroachment amounts are included in Table 7.15.1.

The project will affect the 100-year floodplain through both longitudinal and transverse impacts. Longitudinal impacts stem from filling activities within floodplain zones resulting from roadway improvements, while transverse impacts arise from the extension of existing cross-drains. Longitudinal encroachments may be minimized using guardrails and retaining walls to reduce fill within sensitive areas. When possible, three floodplain compensation alternatives were proposed for each encroachment location.

The floodplain encroachment areas were quantified using FEMA 100-year Base Flood Elevations (BFEs) and the SWFWMD floodplain limits in conjunction with existing ground elevations derived from one-foot LiDAR contours. The SWFWMD floodplains inside the study area are located within the Davenport city limits. Existing roadway profile grades were used to estimate floodplain impacts, though these may increase during the design phase if modifications to the profile are necessary.

Table 7.15.1: Mainline Floodplain Encroachment Areas

Loc[1]	Centerline Alignment	From Station	To Station	Nature of Impact	Side	FP Zone	BFE (ft)	FEMA 100-yr Floodplain Elevation (ft)	Approx FPC Area (ac)	Encroach. Amount (ac-ft)	Type of Encroach[2]
1	CPP E	1038+60	1043+60	Power Line Rd.	LT	A	111.5	-	1.38	3.08	L, T
2	CPP E	1051+60	1052+80	CD-102	LT	A	109.0	-	0.17	0.09	T
3	CPP E	1057+40	1066+60	Horse Creek	LT/RT	A	109.0	-	0.96	1.69	T
4	CPP E	1086+80	1091+20	CD-103	LT/RT	A	109.0	-	1.90	1.48	T
5	CPP E	1096+60	1101+80	CD-104	LT	A	109.0	-	0.34	0.78	T
6	CPP E	1108+20	1112+20	CD-105	LT	A	119.0	-	-	5.10	T
7	CPP E	1171+00	1177+20	RR1	LT/RT	A	110.0	-	6.38	4.87	T
8	CPP E	1179+20	1185+00	CD-402	LT	A	110.0	-	-	2.96	T
9	SB Exit Ramp NB Exit Ramp	20+60 32+00	32+80 42+00	CD-451SB CD-451NB	LT/RT	A	110.5	-	3.72	5.12	T
10	SB Exit Ramp	39+00	42+60	SB Exit Ramp 1	LT	AE	111.6	111.6	0.66	0.68	T
11	SB Exit Ramp	45+00	48+90	SB Exit Ramp 2	LT	A	110.0	-	0.54	0.32	L
12	CPP E	1199+00	1203+60	Sunny Acres Rd	RT	AE	110.5	110.5	0.91	0.79	L
13	CPP E	1242+40	1251+20	CD-601	LT/RT	A	106.5	-	2.18	4.48	T
14	CPP E	1272+20	1276+20	CD-110	LT	A	104.5	-	1.95	6.53	T
15	CPP E	1279+40	1302+40	CPPE – US17/92	LT/RT	AE	96.9	96.9	4.20	6.01	L
16	CPP E	1303+80	1325+00	CD-701	LT/RT	AE	90.4	90.4	2.37	3.17	L, T
17	CPP E SB Ramp CPP E NB Ramp	113+00 212+20	120+40 225+00	To I-4 ramps	LT/RT	AE	67.0	-	-	-[3]	L, T
18	CPP E SB Ramp CPP E NB Ramp	125+40 229+40	133+60 232+40	CD-901	LT/RT	A	82.5	-	2.54	4.09	T
19	CPP E SB Ramp CPP E NB Ramp	146+00 248+40	150+60 253+40	Old Kissimmee Rd.	LT/RT	A	84.5	-	1.43	0.85	T
20	CPP E SB Ramp	160+80	163+30	CD-1001	LT/RT	AE	79.0	79.0	0.86	0.90	T

1. Loc: Location
2. Type of Encroachment: T: Transverse, L: Longitudinal
3. BFE is lower than terrain (based on LiDAR information). This location must be analyzed in detail during the design phase

The Preferred Alternative affects a total of 20 floodplain areas—14 in Zone A and six in Zone AE—with the largest encroachments occurring in the following locations:

- East and west of the intersection of the Preferred Alternative with US 17/92 near Providence Boulevard
- West side of the Preferred Alternative, just south of Lem Carnes Road
- Preferred Alternative between Deer Run Drive (access road to cell tower) and Wynell Drive
- Access ramps between US 17/92 and the CPP East Preferred Alternative, approximately 2,000 feet north of Ernie Caldwell Boulevard

The eastern portion of the study area offers limited opportunities for floodplain compensation because much of the land is already within the floodplain. As a result, coordination with SWFWMD and local floodplain administrators will be required to determine applicable requirements and to identify feasible mitigation measures and floodplain modeling strategies along the corridor. Final floodplain compensation locations and the corresponding evaluation matrix will be completed following the finalization of the environmental reports and the selection of proposed stormwater management facilities.

No major impacts on base flood elevations or flood risk are expected during the construction of the Preferred Alternative. Refer to the Location Hydraulic Report (LHR), available under separate cover, for more information.

7.16 Bridge and Structure Analysis

CPP East overpasses Lem Carnes Road, the CSX railroad spur, Ronald Reagan Parkway, US 17/92, Parker Road, Old Kissimmee Road, the CSX railroad, the future Poinciana Parkway, and wetlands. The minimum horizontal clearance / lateral offset for vehicular collision is considered for pier columns within the 30-foot setback measured from the edge of travel. The minimum vertical clearance for bridge structures over roadways is 16.5 feet. The bridge sites crossing over CSX railroad will require a minimum vertical clearance of 23.5 feet. The bridge sites crossing over wetland areas and ponds will require a minimum of two feet of vertical clearance to the design

flood stage elevation. There is no navigable waterway within the project limits. MSE walls will be utilized at the bridge approaches adjacent to roadways to limit span lengths.

Where possible, pier and end bent supports were positioned outside of the clear zone of the lower roadway. Clear zone requirements were determined by the FDM. In constrained locations, meeting clear zone was not feasible, namely placing pier supports in the median of US 17/92 at the highly skewed crossings. Rigid barriers were provided in order to meet the setback requirements of the FDM.

Bridge Culverts

There are four existing bridge culverts within the project study limits as discussed in Section 2.3. The existing Horse Creek Bridge culvert is the only bridge culvert impacted by the Preferred Alternative. The Horse Creek Bridge culvert is recommended to be replaced due to the widening of US 17/92. During the design of the replacement, implementation of wildlife features such bridges with shelves, specially designed culverts, enlarged culverts or drainage culverts and/or exclusionary devices such as fencing, walls or other barriers, or some combination of these features will be evaluated.

In the CFX Poinciana Connector project, a proposed four cell six-foot by seven-foot culvert is shown adjacent to the CSX railroad crossing. This culvert would likely be an existing condition at the time of construction of this PD&E concept. The culvert would have to widened, as the CPP East southbound ramp crosses adjacent to the culvert opening.

CPP East over Lem Carnes Road, CSX Railroad Spur, and Ronald Reagan Parkway

These bridge sites contain twin bridges that are 46'-8" wide and carry two lanes of traffic with six-foot-wide inside shoulders and 12-foot-wide outside shoulders. The superstructure will consist of a single-span of Florida-I beams. The end bents will be founded on driven piles. MSE walls will be utilized at the begin and end bridge end bents.

Southbound US 17/92 over CPP East and Wetland

Southbound US 17/92 is proposed to span over CPP East and an identified wetland area. The geometry of CPP East has been modified to accommodate a pier in the median. The bridge will utilize skewed supports to accommodate the crossing underneath, as well a larger shoulder to meet the stopping sight distance due to the bridge curvature. The main spans over CPP East will utilize steel I-girders, due to the span length and horizontal curvature of the bridge. The remaining spans will utilize concrete Florida-I beams to continue the bridge over the wetland area. The substructure will consist of piers and end bents supported by driven piles.

CPP East over Wetlands

As CPP East diverges from US 17/92, four bridge sites have been identified to cross wetland sites in the Preferred Alternative corridor. These bridge sites will each contain two separate bridges. Two of the bridge sites require larger shoulders to meet stopping sight distance due to the horizontal curvature. The bridges will utilize multiple spans of prestressed concrete beams on intermediate pile bents. The intermediate and end bents will be supported by driven piles. Fill with slope protection will be utilized at the begin and end bridge locations. Further geotechnical and environmental analysis in the design phase will evaluate soil conditions and determine if these sites are to remain as bridges.

Ernie Caldwell Boulevard Bridge over the CSX Railroad

The existing bridge is a two-span Florida-I beam bridge that spans over the CSX railroad. The existing bridge length is 197 feet and the width is 94 feet. The existing bridge is supported by multi-column piers on prestressed concrete piles, and end bents supported by abutment walls. The Preferred Alternative proposes to extend the bridge to become a four-span bridge which would be completed outside of the CSX right-of-way. The second span of the bridge would be removed, the existing end bent would also be removed and replaced by a multi-column pier, and a new multi-column pier would be constructed in the median of CPP East. The vertical clearance over the railroad would not be impacted.

Southbound Exit Ramp over CPP East

This bridge will carry one 15-foot-wide lane with a six-foot-wide outside shoulder and a 24-foot-wide inside shoulder to meet stopping sight distance for a total bridge width of 47′-8″. Due to the tight radius of curvature, the superstructure will consist of steel I-girders. A pier will be placed in the median of CPP East, which will be skewed to minimize impacts to the alignment. The end bents will be founded on driven piles. Concrete barriers will be required on either side of CPP East and in the median to meet setback requirements.

CPP East over US 17/92 near Providence

This bridge site contains two bridges that carry two lanes of CPP East. Due to the geometry of the crossing the bridge supports will be skewed. Larger shoulders have been provided in order to meet stopping sight distance. The superstructure will consist of two spans of continuous steel I-girders. The substructure will consist of a multi-column pier placed in the median of US 17/92. The piers and end bents will be supported by driven piles. An existing Florida Southeast Connection (FSC) gas main runs adjacent to and crossing US 17/92. The bridge foundations were positioned outside of the assumed FSC gas easement.

CPP East over Vista Mar Pond

These bridge sites contain two bridges that are 46′-8″ wide and carry two lanes of traffic with six-foot-wide inside shoulders and 12-foot-wide outside shoulders. The superstructure will consist of multiple spans of Florida-I beams. The substructure consists of intermediate bents and end bents founded on driven piles.

CPP East over US 17/92 near Publix

This bridge site will contain two bridges that carry two lanes of CPP East. The superstructure will consist of three spans of Florida-I beams, and an additional single span of steel I-girders. The substructure will consist of inverted-T piers placed in the median of US 17/92. The end bents and pier footings will be founded on driven piles.

The bridge site will contain two bridges that carry two lanes, with eight-foot-wide inside shoulders and 12-foot-wide outside shoulders. Each bridge will be 46'-8" wide. The superstructure will consist of three spans of Florida-I beams, and an additional single span of steel-I girders to span over the existing FSC gas main. The substructure will consist of inverted-T pier caps to limit the structure depth and avoid skewed piers. The bridge foundations were positioned outside of the assumed FSC gas easement.

Northbound Exit and Southbound Entrance Ramps over Parker Road

The bridge sites contain two bridges that are 46'-8" wide and carry two lanes of traffic with eight-foot-wide inside shoulder and 12-foot-wide outside shoulders. The superstructures will consist of a single-span of Florida I-beams. The end bents will founded on driven piles and supported by wrap-around MSE walls.

Southbound Ramp over Old Kissimmee Road

This bridge site will contain a single-span steel structure spanning over Old Kissimmee Road and Church Street. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a total width of 44'-8". The substructure will consist of end bents founded on driven piles and supported by wrap around MSE walls.

Southbound Ramp over Gas Corridor

This bridge site will contain a single-span steel structure spanning over the future gas corridor which will provided adjacent to the CFX right-of-way in the Poinciana Connector project. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a total width of 44'-8". The substructure will consist of end bents founded on driven piles and supported by wrap around MSE walls.

Southbound Ramp over CSX Railroad

This bridge will consist of a single span bridge over the CSX railroad. The bridge will carry two lanes of traffic with an eight-foot-wide inside shoulder and 10-foot-wide outside shoulder, for a

total width of 44'-8". The superstructure will consist of Florida-I beams. The substructure will consist of end bents founded on driven piles and supported by wrap around MSE walls.

Northbound Flyover Ramp

This bridge will be a third level flyover that will cross over Church Road, Old Kissimmee Road, Poinciana Connector, and the CSX railroad. Additionally, the bridge will span over two proposed ponds shown as part of the future truck parking facility and CFX Poinciana Connector Project. As part of the Poinciana Connector project, a new Duke powerline easement is created adjacent to the CFX right-of-way. To construct this flyover ramp bridge, coordination with Duke Power will be required. The bridge will carry two lanes, with an eight-foot-wide inside shoulder and a 12-foot-wide outside shoulder for a bridge width of 44'-8". The bridge will consist of steel I-girders supported by hammer-head piers. Florida-I beams will be utilized to continue the bridge spans over the proposed ponds by others. A footing will be constructed in the gore area between mainline Poinciana Connector and a ramp.

Table 7.16.1 summarizes the bridges that are part of the Preferred Alternative along with the estimate cost of bridge construction. The costs have been derived on per square foot basis, using the FDOT Structures Design Guidelines. Square foot costs have been adjusted per the following: for construction over open water or floodplains increase construction cost by 3%, for phased construction or construction over traffic increase construction cost by 20%.

Table 7.16.1: Preferred Alternative Bridge Summary

Bridge Site	Direction	Superstructure Type	Total Bridge Length (ft.)	Bridge (Site) Cost
Lem Carnes Road	NB & SB	Prestressed Concrete	145	$3,108,800
CSX RR Spur	NB & SB	Prestressed Concrete	90	$1,929,600
SB US 17/92 over Wetland	SB US 17/92	Prestressed Concrete & Steel I-Girder	964	$11,969,699
Wetland Adjacent to US 17/92	SB	Prestressed Concrete	770	$7,719,507

Bridge Site	Direction	Superstructure Type	Total Bridge Length (ft.)	Bridge (Site) Cost
Wetland Adjacent to US 17/92	NB	Prestressed Concrete	715	$8,051,854
Wetland South of Ernie Caldwell Boulevard	NB & SB	Prestressed Concrete	682	$16,048,871
Ernie Caldwell Boulevard Underpass	Ernie Caldwell	Prestressed Concrete	239.20	$8,133,322
SB Intermediate Exit Ramp over CPP East	SB	Steel I-Girder	344	$5,411,120
Wetland Adjacent to RR	SB	Prestressed Concrete	1,550	$16,401,377
Wetland Adjacent to RR	NB	Prestressed Concrete	1,426	$15,809,267
Wetland near Providence Boulevard	SB	Prestressed Concrete	1,525	$16,859,384
Wetland near Providence Boulevard	NB	Prestressed Concrete	1,525	$16,859,384
US 17/92 North of Providence Boulevard	SB	Steel I-Girder	555	$11,575,080
US 17/92 North of Providence Boulevard	NB	Steel I-Girder	543	$12,184,920
Ronald Reagan Boulevard	NB & SB	Prestressed Concrete	195	$5,644,080
Vista Mar Pond	SB	Prestressed Concrete	325.50	$3,129,140
Vista Mar Pond	NB	Prestressed Concrete	330	$3,172,400
US 17/92 S. of Parker Road	SB	Prestressed Concrete & Steel I-Girder	742	$11,175,687
US 17/92 S. of Parker Road	NB	Prestressed Concrete & Steel I-Girder	654.50	$8,085,467
Parker Road	SB	Prestressed Concrete	98	$1,050,568
Parker Road	NB	Prestressed Concrete	102	$1,142,400
Old Kissimmee Road	SB Ramp	Steel I-Girder	248	$4,253,696
Gas Corridor	SB Ramp	Steel I-Girder	268	$3,830,614
NB Flyover Ramp	NB Ramp	Prestressed Concrete & Steel I-Girder	1,720	$41,532,435
CSX RR	SB Ramp	Prestressed Concrete	149	$1,586,560

MSE will be used at the bridge end bents to minimize bridge lengths. Bulkheads will be used where standing water is encountered adjacent to the roadway. The location of bulkheads are preliminary assumptions without geotechnical or survey information and will be refined during the final design phase.

For more information about the bridge and structure analysis, including bridge typical sections and pier locations, see the Bridge Analysis Report, available in the project file.

7.17 Transportation Management Plan

A detailed Transportation Management Plan (TMP) will be developed during the design phase. The study has developed a conceptual TMP that will minimize disruptions to traffic. Detours and road closures are not anticipated as traffic will be able to utilize the existing US 17/92 lanes. Before construction begins, the public will be notified about the start of construction through social media, the project website, and press releases. If there are any temporary driveway or roadway closures, individual property owners will be notified. Section 7.18 Constructability describes the traffic phasing for the project.

7.18 Constructability

The majority of CPP East can be constructed without maintenance of traffic since it is on new alignment. The connections to existing roadways will be phased as needed, and the details of this phasing will be considered during final design. From the beginning project limit at James Street to south of Ernie Caldwell Boulevard, CPP East is co-located with US 17/92. In this area, the local US 17/92 roadway will be constructed first in order for local traffic to continue to use the roadway. Next, the CPP East mainline will be constructed inside the local US 17/92 lanes.

The Preferred Alternative concept includes extending the existing Ernie Caldwell Boulevard bridge to span over both directions of CPP East. Maintaining the existing traffic lanes will require multiple phases of construction. A temporary Acrow bridge would be constructed over the CSX railroad to carry existing Ernie Caldwell Boulevard lanes. This would allow for the existing western end bent

and retaining wall to be removed and replaced by a multi-column pier. A temporary sheet pile wall would be required to support existing westbound traffic. No foundations or walls are anticipated to be constructed within the CSX right-of-way.

7.19 Construction Impacts

Construction activities for the project 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.

Noise and vibration impacts may be generated by heavy equipment and construction activities such as pile driving and vibratory compaction of embankment. 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. Long term visual impacts are not anticipated as the roadway improvements are consistent with the existing character of the roadway.

Water quality impacts resulting from erosion and sedimentation during construction will be controlled in accordance with FDOT's Standard Specifications for Road and Bridge Construction and using Best Management Practices. Erosion and sedimentation will be treated in accordance with the FDEP's National Pollutant Discharge Elimination System Permit and Stormwater Runoff Control Concept (SRCC).

Maintenance of traffic and construction sequencing will be planned 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 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.

7.19.1 Social Resources

Impacts to two worship centers are anticipated as a result of the Preferred Alternative: approximately 47 square feet of additional right-of-way is required from the Church of God & Pillar Zion property and the relocation of the Church of God by Faith. One park impact is also anticipated, consisting of approximately 0.07 acres of additional right-of-way from Jamestown Park, which would directly impact the existing basketball court amenity. Coordination with the City will occur during future phases regarding impacts to the park.

As mentioned in *Section 2.4.1 Social Resources*, no cultural facilities and social service facilities are present within the one-mile study area. No direct impacts are anticipated to the schools, community centers, fire stations, law enforcement facilities, cemeteries, government buildings, healthcare facilities, or civic centers due to the proposed improvements.

For more information about social resources, see the Sociocultural Effects Evaluation (SCE), available in the project file.

7.19.2 Cultural Resources

As described in *Section 2.4.2 Cultural Resources*, one historic period archaeological site, the Petteway Camp (8PO10798), was identified within the archaeological APE and within the Preferred Alternative footprint. The site consisted of a large surface scatter and twelve shovel tests that contained historic artifacts. The Petteway Camp (8PO10798) represents an early 20th century domestic site that is likely a residential component associated with the National Register–eligible Petteway Turpentine Still Site (8PO5381) located outside of the archaeological APE to the west. The Petteway Camp may also have an association with the Everglades Cypress sawmill and Zora

Neale Hurston. The Petteway Camp has a diverse artifact assemblage with temporally diagnostic artifacts and likely represents a rare site type. Currently there is insufficient information to determine the National Register eligibility of the site. Additional investigations are recommended to assess the potential for undisturbed subsurface features or deposits and determine the integrity of the site to evaluate its eligibility for listing in the National Register.

The historic resources survey resulted in the identification of 143 historic resources within the APE, consisting of 34 extant previously recorded resources and 109 newly recorded resources. Two of the linear resources, Old Kissimmee Road (8PO7154/8OS2567) and the South Florida Railroad (8PO7219/8OS2540) traverse both counties in the APE and thus have two FMSF numbers, but each has only been counted once in the resource totals. The segment of Old Kissimmee Road (8PO7154/8OS2567) within the current APE is considered National Register-eligible under Criterion A in the area of Transportation as a section of the Dixie Highway system which exhibits integrity of alignment, width, and setting. Portions of the South Florida Railroad (8PO7219/8OS2540) near the north end and the center of the APE were recorded in 2009 and 2019. In 2009, the segments were determined insufficient information by SHPO, but the northernmost segment was recorded again in 2019 and was determined eligible by SHPO under Criterion A for its role in transportation, commerce, and the phosphate mining industry and under Criterion B for its association with Henry Plant. The newly recorded segments of the South Florida Railroad (8PO7219/8OS2540) are considered eligible under the same criteria. The two newly recorded railroad spurs (8PO10800 and 8PO10801), which were constructed between 1952 and 1958, are considered National Register-eligible as contributing to the National Register-eligible South Florida Railroad (8PO7219/8OS2540). The newly recorded segments of US 17/92 (8PO8622) exhibit modern modifications are considered National Register-ineligible. A segment of Horse Creek Canal (8PO9456) west of the current APE was determined ineligible by SHPO in 2023 because the canal lacks significant engineering or historical associations. The newly recorded segment is similarly considered National Register-ineligible.

The 30 previously recorded structures are all considered ineligible or determined ineligible by SHPO. Four of the previously recorded buildings (8PO5179; 8PO5180; 8PO5192; and 8PO7124) were not evaluated by SHPO when they were recorded in 1994 and 1996. They exhibit common styles of architecture and exhibit modifications. Field survey of the APE and surrounding area outside of the APE did not reveal any potential historic districts. Therefore, they are considered ineligible for listing on the National Register. The remaining 26 previously recorded buildings have been determined ineligible by SHPO.

The 109 newly recorded resources consist of six resource groups, 101 structures, and two railroad spurs. The newly recorded resource groups consist of the Holly Hill Fruit Products packing complex, two mobile home parks, and one historic auto/motor court, the Woodland Auto Court. The mobile home parks exhibit common overall designs of this resource type in Central Florida, lack unique features in layout, landscaping, and communal spaces, and lack historical associations. The mobile homes within the mobile home parks are considered National Register-ineligible due to their lack of historical associations, common styles, and modifications.

The Holly Hill Fruit Products complex is considered National Register-eligible under Criterion A in the areas of Agriculture and Industry due to its association with the region's agricultural economy. One contributing resource is located within the APE.

The Woodland Auto Court is considered National Register-eligible under Criterion A in the area of Tourism for its association with the growth of automobile-oriented tourist industry in Florida in the early 20th century and under Criterion C in Architecture as an early motor court in Florida with Frame Vernacular structures exhibiting a high degree of integrity of materials, design, and setting. Six contributing resources are located within the APE.

Two newly identified resource groups, Historic Loughman Resource Group (8PO10792) and Historic Jamestown Resource Group (8PO10799), are historic African-American areas that are both considered National Register-eligible under Criterion A in the area of African-American history.

The Historic Loughman Resource Group is also potentially eligible under Criterion B due to its association with famous author and anthropologist Zora Neale Hurston, who published a book of stories collected from Loughman called Mules and Men in 1935. Based on the original 1923 and 1925 plats, the Historic Jamestown Resource Group is associated with the Holly Hill Fruit Products Company and thus is also National Register-eligible under Criterion A in the areas of Agriculture and Industry.

For more information, refer to the Cultural Resources Assessment Survey (CRAS) and CRAS Pond Addendum, available under separate cover.

7.19.3 Natural Resources

7.19.3.1 Protected Species and Habitat

An effect determination was made for each federal- and state-protected species based on their probability ranking and the implementation measures and/or commitments to offset any potential impacts. Table 7.19.1 and Table 7.19.2 list the federally listed wildlife and plant species and state listed wildlife and plant species, respectively, known to occur within Polk and Osceola Counties that could potentially occur near the study area based on potential availability of suitable habitat and known ranges.

Federally Listed Species

Crested Caracara

The crested caracara (*Caracara plancus*) is listed as Threatened by the USFWS and Federally designated Threatened by the FWC. Pursuant to USFWS guidelines, if a Project Area falls within the crested caracara consultation area and contains potential habitat (i.e., dry or wet prairies, pastureland, or lightly wooded areas) the USFWS presumes the habitat is occupied and activities in that area may affect the crested caracara. This species primarily nests in isolated cabbage palms or clumps of cabbage palms in a foraging territory and generally use the same nest in consecutive nesting seasons.

The project corridor lies within the USFWS crested caracara consultation area and the hardwood - coniferous mixed (FLUCFCS 434) communities in the project corridor are considered potential nest habitat and the pastureland (FLUCFCS 210) communities are considered potential foraging habitat, as defined by the USFWS. While species occurrences have been documented in Polk and Osceola counties, potential habitats within the project corridor do not include a significant number of potential nesting trees (cabbage palms) within the pastureland communities. No crested caracara observations were documented during field reviews conducted between January 17th and 27th, 2025. No nesting surveys for the crested caracara were conducted. Additional surveys following USFWS protocols are anticipated during the design phase of any project segments that have potential nesting habitat within 4,920 feet. Crested caracaras are highly mobile and any foraging individuals are likely to relocate away from construction activities to other nearby and accessible habitats. Therefore, it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the crested caracara. The Enterprise will initiate technical assistance with the USFWS to confirm this effect determination.

Eastern Black Rail

The Eastern black rail (*Laterallus jamaicensis ssp. jamaicensis*) is listed as Threatened by the USFWS and Federally designated Threatened by the FWC. Black rails inhabit a variety of wetland habitats including salt, brackish, and freshwater marshes with dense vegetative cover. Along portions of the Gulf Coast of Florida, Eastern black rails can be found in higher elevations of wetland zones that contain shrubby vegetation. When shrubby vegetation becomes too dense, the habitat becomes less suitable for the species. Existing habitat types that could potentially support the Eastern black rail along the project corridor are FLUCFCS codes 640 (vegetated non-forested wetlands) and 641 (freshwater marshes). The existing habitats are low quality that contain overgrowth of invasive species that create undesirable conditions, and no Eastern black rails were observed during the field reviews. Therefore, it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the Eastern Black Rail and surveys for this species are recommended during the design phase. The Enterprise will initiate technical assistance with the USFWS to confirm this effect determination.

Everglade Snail Kite

The project falls within the CA of the snail kite (*Rostrhamus sociabilis plumbeus*), a federally listed Endangered species. Everglade snail kite habitat consists of freshwater marshes and the shallow vegetated edges of lakes (natural and man-made) where apple snails can be found. Suitable foraging habitat for the Everglade snail kite is typically a combination of low marsh with an interdigitated matrix of shallow open water, which is relatively clear and calm. Everglade snail kites require foraging areas that are relatively clear and open in order to visually search for apple snails. Therefore, dense growth of herbaceous or woody vegetation is not conducive to efficient foraging.

The closest observation of this species has been located eight miles east of the study area along Lake Tohopekaliga. Suitable habitat exists within the study area in the FLUCFCS code 520 (lakes) and 530 (reservoirs) communities. However, no individuals were observed during field reviews nor were any apple snail shells observed. Therefore, it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the Everglade snail kite. The Enterprise will initiate technical assistance with the USFWS to confirm this effect determination. Currently, no species-specific surveys are anticipated to be required.

Florida Bonneted Bat

The Florida bonneted bat (*Eumops floridanus*) is listed as Endangered by the USFWS and State designated Endangered by the FWC. Habitat requirements are forests, wetlands, and other natural habitats. The USFWS reports that the species may be present in residential and urban areas. The USFWS defines roosting habitat to include forests and other areas with large or mature trees or areas with suitable roost structures. Natural roosting structure primarily includes mature or large live or dead trees, tree snags, and trees with cavities, hollows, or crevices. Foraging habitat includes open fresh water and permanent or seasonal freshwater wetlands, wetland and upland forests, and wetland and upland scrub.

The east side of the project corridor falls inside the USFWS consultation area for the Florida bonneted bat. The FLUCFCS code 420 (upland hardwood forests) and 434 (upland hardwood -

coniferous mix) communities in the study area are considered potential Florida bonneted bat roosting habitat as defined by USFWS. The Florida Bonneted Bat Consultation Guidelines published by the USFWS on October 22, 2019, and updated in 2024, includes a consultation key to assist in avoiding and minimizing potential negative effects to roosting and foraging habitats. The consultation key indicates that a full acoustic/roost survey will be required since the proposed project falls within the consultation area, potential roosting habitat exists in the Project Area, and the project footprint is greater than five acres in size.

No records exist of the Florida bonneted bat occurring in the project area and none were detected during field surveys. The USFWS Effect Determination Key for this species requires field surveys that were beyond the scope of this PD&E Study. A survey will be conducted for the Florida bonneted bat within the limits of construction activities that are within the Florida bonneted bat Consultation Area. If any signs of the Florida bonneted bat are observed (e.g., tree cavities, new potential man-made roosting habitat), the Enterprise will initiate technical assistance with the USFWS regarding the most updated survey protocols for the Florida bonneted bat. Following technical assistance with the USFWS, it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the Florida bonneted bat.

Tricolored Bat

The tricolored bat (*Perimyotis subflavus*) is one of the smallest bats native to North America and utilizes trees in forested habitats and structures such as bridges and culverts for roosting. The tricolored bat is a proposed species for federal listing. Due to impacts to suitable habitat, the anticipated effect determination is *May Affect, Not Likely to Adversely Affect* the tricolored bat. As the timeline for construction is better defined, the Enterprise will adhere to the applicable commitment for the tricolored bat below:

- Upon listing of the tricolored bat, if the project contains suitable habitat and requires tree trimming and/or clearing, FDOT will not conduct tree trimming/clearing activities during the tricolored bat pup season (May 1st to July 15th) and when bats may be in torpor (when temperatures are below 45 degrees Fahrenheit).

- Upon listing of the tricolored bat, if the project contains suitable habitat and FDOT needs to trim or clear trees or perform work on bridges/culverts during the maternity season and/or when the temperature is below 45 degrees Fahrenheit, then FDOT will survey the project area for evidence of the tricolored bat. The Indiana Bat and Northern Long-eared Bat Survey Guidance (USFWS), appendix J acoustic survey protocol in the year-round range (mist netting is not being conducted in Florida at this time), will be used for areas with tree trimming/clearing. For bridges and culverts, the Indiana Bat and Northern Long-eared Bat Survey Guidance, appendix K, Assessing Bridges and Culverts for Bats, will be used.
    a. if the surveys result in no tricolored bats detected, then FDOT can proceed with the project activities. Negative results from bridge/culvert surveys are valid for 2 years. Negative results for acoustic surveys are valid for 5 years. However, negative results for either survey may be invalidated if additional tricolored bat survey data is submitted to FWS showing presence of the species within the vicinity of the project area. Additional survey work by FDOT, or application of the avoidance and minimization measures noted in #4, may be required if updated detections are reported, and may result in reinitiation of consultation with FWS.
    b. If the surveys result in positive detections of the tricolored bat, FDOT will implement conservation measures such as: not conducting tree trimming/clearing activities during the tricolored bat pup season (May 1st to July 15th) when pups are not volant and not able to escape disturbance; similarly avoid tree trimming/clearing activities when the temperatures are below 45 degrees Fahrenheit when bats may be in torpor and unresponsive to disturbance.

Florida Scrub-jay

The project falls within the CA of the federally listed Threatened Florida scrub-jay (*Aphelocoma coerulescens*), and potential habitat is documented to occur within the study area. The closest historical observation was located seven miles southwest in 1992-1993 (Florida Scrub-Jay

Umbrella Habitat Conservation Plan, 2007). The ideal habitat conditions for scrub-jays consist of xeric areas dominated by scrub oaks growing on excessively well-drained sandy soils. In these habitats, bare sand patches are dominant, with sparse groundcover consisting of various short grasses and shrubs. Sand pines are typically scattered with less than 10% cover and high-intensity fires maintain the habitat. Florida scrub-jays may also live in less desirable areas like pine flatwoods, oak-dominated communities, or orange groves that are not well maintained. Existing habitat types that could potentially support the scrub-jay along the project corridor are FLUCFCS codes 320 (shrub and brushland), 411 (pine flatwoods), and 434 (upland hardwood - coniferous mix).

Suitable habitat for scrub-jays exists in the project corridor. However, these areas that provide potential habitat along the corridor are disturbed by fire suppression and either agricultural land use or surrounding urban land use. Therefore, bare sand patches are sparse (ground cover is more continuous), scrub oaks in some areas are dense with significant underbrush, and pines are denser than 10% cover. Since the likelihood of scrub-jay presence within the study area is low, it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the Florida scrub-jay. The Enterprise will initiate technical assistance with the USFWS to confirm this effect determination.

Red-cockaded Woodpecker

The red-cockaded woodpecker (*Picoides borealis*) is listed as Threatened by the USFWS and Federally designated Threatened by the FWC. Red-cockaded woodpeckers occupy mature, open pine forests consisting of either longleaf pine from 80 to 120 years old, or loblolly pine from 70 to 100 years old. Cooperative breeding groups need about 200 acres of forest for foraging. Suitable foraging habitat includes pine forests that have a low density of small pines, no hardwood, or pine mid-story, and usually have abundant native grasses and forbs as groundcover.

The northern portion of the project corridor falls inside of the USFWS consultation area for the red-cockaded woodpecker. Suitable habitat is present in the study area in the FLUCFCS code 410 (upland coniferous forest) and 411 (pine flatwoods) communities. Habitat conditions are poor due

to fire suppression and high tree densities. The likelihood of red-cockaded woodpecker presence within the study area is considered low; it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the red-cockaded woodpecker. The Enterprise will initiate technical assistance with the USFWS to confirm this effect determination. Currently, no species specific surveys are anticipated to be required.

Wood Stork

The project is within the 15-mile Core Foraging Area (CFA) of two wood stork (*Mycteria americana*) nesting colonies (Gatorland and Lake Russell). This federally listed Threatened wading bird prefers freshwater and estuarine habitats for nesting, roosting, and foraging. Typical foraging sites for the wood stork include freshwater marshes and 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. Because of their specialized feeding behavior, wood storks forage most effectively in shallow-water areas (2-15 inches of water). During the design and permitting phase of this project, a Wood Stork Foraging Analysis will be conducted to determine the amount of biomass lost from surface water and wetland impacts in accordance with USFWS methodology. Impacts to wetlands within the study area will be mitigated for within the CFA of one or more of the affected rookeries or at a regional mitigation bank that has been approved by the USFWS or pursuant to Section 373.4137, F.S. Based on the implementation and Wood Stork Determination of Effect Key (A>B>C>D>E "MANLAA"), it has been determined that the project it is anticipated that the project *May Affect, Not Likely to Adversely Affect* the wood stork.

American Alligator

The American alligator (*Alligator mississippiensis*) is listed as Threatened by the USFWS due to similarity of appearance to the American crocodile (*Crocodylus acutus*) and Federally designated Threatened due to similarity of appearance by the FWC. This species inhabits swampy areas, rivers, streams, lakes, and ponds.

No American alligators were observed on-site; however, marginal habitat is present. Alligators are highly mobile, and it is likely that they would leave areas of disturbance or if habitat impacts occur. It is anticipated that the Project will have *No Effect* on the American alligator.

Eastern Indigo Snake

The Eastern indigo snake (*Drymarchon couperi*), federally listed as Threatened, inhabits pine flatwoods, hardwood forests, moist hammocks, and areas that surround cypress swamps. This species could occur in many habitat types throughout the corridor but is often found in habitats containing gopher tortoises. Therefore, it is more likely to be found in the upland locations. The FWC Rare Snake Sightings GIS database was reviewed for Eastern indigo snake sightings. No sightings have been documented within the study area. The Enterprise will implement the Standard Protection Measures for the Eastern Indigo Snake and based on the Eastern Indigo Snake Determination of Effect Key (A>B>C>D>E "MANLAA"), it has been determined that the project *May Affect, Not Likely to Adversely Affect* the Eastern indigo snake. The Enterprise will initiate technical assistance with the USFWS to confirm this effect determination.

Sand and Blue-tailed Mole Skink

The project falls within the CA of the federally listed Threatened sand skink (*Neoseps reynoldsi*) and blue-tailed mole skink (*Eumeces egregious lividus*). These species require habitat that contains sandy soils (USFWS has identified 28 soils that could support the species) and an elevation above 82 feet NAVD. Many areas within the suitable habitat contain extensive rooted vegetation or are otherwise disturbed such that there is no potential to support skinks. Preferred skink habitat is dominated by xeric vegetation such as oak-dominated scrub, turkey oak barrens, high pine, and xeric hammocks. Skinks typically occur in habitats that contain a mosaic of open sandy patches interspersed with forbs, shrubs, and trees.

Potential habitat exists throughout the corridor, where suitable soil type and elevation overlap. They are generally the same areas as the potential scrub-jay habitat areas, plus the addition of several areas of residential and commercial development. An updated evaluation and consultation

between the Enterprise and USFWS will occur and agency coordination is expected. This project *May Affect* the sand skink and blue-tailed mole skink and surveys for these species are recommended during the design phase.

Monarch Butterfly

The monarch butterfly *(Danaus plexippus)* is a candidate species for federal listing under the Endangered Species Act throughout the United States. Monarchs can be found throughout Florida with a preferred habitat that includes wildflowers and specifically milkweeds.

Monarch butterflies were not detected during field surveys, but they are highly mobile and potential exists for monarch butterflies to occupy vegetated areas within the project limits. If the Monarch butterfly is listed by USFWS as Threatened or Endangered and the project may affect the species, the Enterprise will request technical assistance with the USFWS to determine appropriate avoidance and minimization measures for protection of the newly listed species.

Federally Protected Plants

All plants listed in Table 7.19.1 are known to require the conditions of high pine and/or scrub habitat types. While these habitats are not present along the corridor, these species could potentially be found in the communities identified by FLUCFCS codes 320 (shrub and brushland), 411 (pine flatwoods), and 434 (upland hardwood - coniferous mix). In addition, certain areas mapped as FLUCFCS codes 190 (open land), 210 (cropland and pastureland), 310 (herbaceous), and 330 (mixed rangeland), have a low likelihood of supporting the species. No federally protected plant species were observed during the field review.

Table 7.19.1: Federally Listed Species Effect Determination

Species	Common Name	USFWS Status	Effect Determination
Caracara plancus	Crested caracara	T	May affect, but not likely to adversely affect
Laterallus jamiacensis ssp. Jamaicensis	Eastern black rail	T	May affect, but not likely to adversely affect
Rostrhamus sociabilis plumbeus	Everglade snail kite	E	May affect, but not likely to adversely affect
Aphelocoma coerulescens	Florida scrub-jay	T	May affect, but not likely to adversely affect
Picoides borealis	Red-cockaded woodpecker	T	May affect, but not likely to adversely affect
Mycteria americana	Wood stork	T	May affect, but not likely to adversely affect
Danaus plexippus	Monarch butterfly	C	--
Eumops floridanus	Florida bonneted bat	E	May affect, but not likely to adversely affect
*Perimyotis subflavus**	Tri-colored bat	E	May affect, but not likely to adversely affect
Alligator mississippiensis	American alligator	T (S/A)	No effect
Eumeces egregious lividus	Blue-tailed mole skink	T	May affect
Drymarchon couperi	Eastern indigo snake	T	May affect, but not likely to adversely affect
Neoseps reynoldsi	Sand skink	T	May affect
Crotalaria avonensis	Avon park harebells	E	No effect
Nolina brittoniana	Britton's beargrass	E	No effect
Warea carteri	Carter's mustard	E	No effect
Ziziphus celata	Florida Ziziphus	E	No effect
Hypericum cumulicola	Highlands scrub hypericum	E	No effect
Polygala lewtonii	Lewton's polygala	E	No effect
Paronychia chartacea	Papery Whitlow-wort	T	No effect
Clitoria fragrans	Pigeon wings	T	No effect
Chionathus pygmaeus	Pygmy fringe-tree	E	No effect
Polygonella myriophylla	Sandlace	E	No effect
Liatris ohlingerae	Scrub blazingstar	E	No effect
Eriogonum longifolium var. *gnaphalifolium*	Scrub buckwheat	T	No effect
Dicerandra frutescens	Scrub mint	E	No effect
Conradina brevifolia	Short-leaved rosemary	E	No effect
Polygonella basiramia	Wireweed	E	No effect

Ranking: E - endangered, T – threatened, C – candidate, T (S/A) – threatened by Similarity of Appearance
*Proposed species for federal listing as Endangered

State Listed Species

Florida Burrowing Owl

The Florida burrowing owl (*Athene cunicularia floridana*) is state-listed as Threatened and is known to inhabit open upland prairies in Florida that have very little understory vegetation. Burrowing owls may also use golf courses, airports, pastures, agriculture fields, and vacant lots. Although no burrows were observed that appeared to be indicative of burrowing owl presence, potentially suitable habitat exists within the study area. The Enterprise will initiate technical assistance with to determine the need and extent for pre-construction surveys pursuant to the FWC Imperiled Species Management Plan and Permitting Guidelines for the Florida burrowing owl. If burrowing owls are found, technical assistance with the FWC will establish avoidance, minimization, and permitting options. With the implementation of these measures, it has been determined that the project will have *No Adverse Effect Anticipated* on the Florida burrowing owl.

Wading Birds

State-protected wading birds with potential to occur in the study area include the little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), and roseate spoonbill (*Platalea ajaja*). These birds are state-listed as Threatened and prefer shallow wet areas for foraging. A rookery was documented in 1999 1.4-miles north of the project limits. No wading bird rookeries have been documented or observed within the study area, but there are several areas that could provide suitable foraging habitat; these areas include wetlands and the shallow edges of surface waters. All wetland impacts will be mitigated to prevent a net loss of wetland functions and values. Based on the implementation of these measures, it has been determined that the proposed project will have *No Adverse Effect Anticipated* on the little blue heron, tricolored heron, and roseate spoonbill.

Southeastern American Kestrel

The southeastern American kestrel *(Falco sparverius paulus)*, a state-listed Threatened nonmigratory subspecies of kestrel, favors open pine savannahs, sandhills, dry flatwoods, prairies, fields, and pastures. Several of these habitat types exist within the study area. This species typically

nests in cavities created by woodpeckers in large dead trees. No individuals were observed during field reviews, and there are no records of occurrences near the project limits.

The Enterprise will initiate technical assistance to determine the need and extent for preconstruction surveys pursuant to the FWC Imperiled Species Management Plan and Permitting Guidelines for the southeastern American kestrel. If southeastern American kestrel nests are found, technical assistance with the FWC will establish avoidance, minimization, and permitting options. With the implementation of these measures, it has been determined that the proposed project will have *No Adverse Effect Anticipated* on the southeastern American kestrel.

Florida Sandhill Crane

The Florida sandhill crane (*Grus canadensis pratensis*) is a state-listed Threatened non-migratory bird that prefers freshwater marshes, prairies, and pastures for breeding but can be found foraging in almost any habitat type. Several wetland communities within the corridor offer foraging habitat and potential nesting habitat for this species. The Enterprise will survey areas of suitable nesting habitat prior to construction if construction activities take place during the nesting season (January through July) and will initiate technical assistance with the FWC if active nests are identified within 400 feet of the project's construction limits. With the implementation of these measures, it has been determined that the proposed project will have *No Adverse Effect Anticipated* on the Florida sandhill crane.

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is a state-listed Threatened species. Gopher tortoises prefer well-drained, sandy soils found in habitats such as longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. They are also found in a variety of disturbed habitats including pastures and urban areas. Active gopher tortoise burrows were observed during the field reviews and several upland communities within the study area are considered suitable habitat.

The FWC Gopher Tortoise Permitting Guidelines (FWC, 2023) will be implemented for gopher tortoise burrows found within 25 feet of the limits of construction. Pursuant to the guidelines, development activity on a Project must avoid impacts to potentially occupied gopher tortoise burrows by 25 feet in all directions from the mouth of all burrows.

The Enterprise will secure an FWC Gopher Tortoise Relocation Permit to relocate the tortoises and associated commensal species if the gopher tortoise burrows cannot be avoided. With the implementation of these measures, it has been determined that the proposed project will have *No Adverse Effect Anticipated* on the gopher tortoise.

Short-tailed Snake

The short-tailed snake (*Lampropeltis extenuata*) is a state-listed Threatened species that can primarily be found burrowed in sandy soils, particularly longleaf pine and xeric oak sandhills, but may also be found in scrub and xeric hammock habitats. Sub-optimal habitats exist within the corridor.

The Enterprise will survey the Preferred Alternative for gopher tortoise burrows prior to construction and will initiate technical assistance with the FWC to secure a Gopher Tortoise Relocation Permit to relocate gopher tortoises and associated commensal species, such as the short-tailed snake, prior to construction. With the implementation of these measures, it has been determined that the proposed project will have *No Adverse Effect Anticipated* on the short-tailed snake.

Florida Pine Snake

The Florida pine snake (*Pituophis melanoleucus mugitus*) is a state-listed Threatened species that inhabits areas that feature well-drained sandy soils with a moderate to open canopy. Such habitats exist within the corridor, specifically areas coded as FLUCFCS codes 410 (upland coniferous forests), 411 (pine flatwoods), 420 (upland hardwood forests), 434 (hardwood-conifer mixed). The pine snake often coexists with pocket gophers and gopher tortoises.

The Enterprise will survey the Preferred Alternative for gopher tortoise burrows prior to construction and will initiate technical assistance with the FWC to secure a Gopher Tortoise Relocation Permit to relocate gopher tortoises and associated commensal species, such as the Florida pine snake, prior to construction. With the implementation of these measures, it has been determined that the proposed project will have *No Adverse Effect Anticipated* on the Florida pine snake.

State Protected Plants

The plants listed in Table 7.19.2 are classified below according to preferred habitat type. No state protected plants have been documented within the study area. Some appropriate habitat exists within and adjacent to the project area for all of these species. However, the existing right-of-way is generally not conducive to supporting these listed plants given regular maintenance activities including mowing and nuisance/exotic species management. Per Florida Statutes Title 35 Section 581.185, the FDACS is to be notified prior to highway construction that may affect state-listed species, to allow for the coordination and preservation of any plants on the regulated plant index, such as via seed harvesting or relocation. As needed, during the design and permitting phases of this project, a general plant survey will be conducted, and if any federally or state protected plant species are found within 25 feet of construction limits, coordination will occur with the USFWS and the FDACS to secure any necessary permits.

Wetland Plants - State-listed plants that favor wetland habitat types include the following species:

- Many-flowered grass-pink (*Calopogon multiflorus*)
- Chapman's sedge (*Carex chapmanii*)
- Piedmont jointgrass (*Coelorachis tuberculosa*)
- Hartwrightia (*Hartwrightia floridana*)
- Star anise (*Illicium parviflorum*)
- Pondspice (*Litsea aestivalis*)
- Celestial lily (*Nemastylis floridana*)
- Cutthroat grass (*Panicum abscissum*)

- Florida willow (*Salix floridana*)

These plants have the potential to occur in wetlands and the edges of surface waters. These habitat types include FLUCFCS codes 617 (mixed wetland hardwood), 630 (wetland forested mixed), 631 (wetland shrub), 641 (freshwater marsh), 643 (wet prairies), 644 (emergent aquatic vegetation), 520 (lakes), and 530 (reservoirs); these wetlands and surface waters can be found scattered throughout the project corridor. However, no individuals were observed during field reviews. Given that wetland communities are protected by state and federal regulations, land management activities in wetlands tend to be of more limited scope as compared to upland areas. Therefore, the potential for these wetland dependent state-listed species to occur in the project corridor was deemed to be higher than that of the following state listed species that depend on upland conditions.

High Pine and Scrub Plants - State-listed plants that favor high pine and scrub habitat types, such as sandhill, scrubby flatwoods, scrub, oak scrub, and pine flatwoods, include the following species:

- Variable-leaved Indian-plantain (*Arnoglossum diversifolium*)
- Incised groove-bur (*Agrimonia incisa*)
- Ashe's savory (*Calamintha ashei*)
- Sand butterfly pea (*Centrosema arenicola*)
- Nodding pinweed (*Lechea cernua*)
- Paper nailwort (*Paronychia chartacea*)
- Giant orchid (*Pteroglossaspis ecristata*)
- Scrub bluestem (*Schizachyrium niveum*)

These species have the potential to occur in high pine and scrub habitat types (FLUCFCS code 411), as well as certain disturbed areas (FLUCFCS code 210). No individuals were observed, and upland areas are subject to routine maintenance including mowing, nuisance/exotic vegetation control, and other land management activities that can preclude establishment of native plant communities. To summarize potential involvement with state-listed plant species, there are several

areas along the corridor that could provide habitat. As needed, during the design and permitting phases of this project, the Enterprise will conduct a general plant survey and if any protected plant species are found within 25 feet of construction limits, coordination will occur with the FDACS to secure any necessary permits. In an effort to mitigate impacts to protected plant species within the study area, the Enterprise will coordinate with the FDACS prior to construction for possible relocation of protected plants. Therefore, the project will have no effect anticipated on state listed plant species that occur in uplands and *No Adverse Effect Anticipated* on state listed plant species that occur in wetlands.

Table 7.19.2: State Listed Species Effect Determination

Species	Common Name	FWC Status	Effect Determination
Athene cunicularia floridana	Florida burrowing owl	T	NAEA
Egretta caerulea	Little blue heron	T	NAEA
Egretta tricolor	Tricolored heron	T	NAEA
Falco sparverius paulus	Southeastern American kestrel	T	NAEA
Grus canadensis pratensis	Florida sandhill crane	T	NAEA
Platalea ajaja	Roseate spoonbill	T	NAEA
Gopherus polyphemus	Gopher tortoise	T	NAEA
Lampropeltis extenuata	Short-tailed snake	T	NAEA
Pituophis melanoleucus mugitus	Florida pine snake	T	NAEA
Agrimonia incisa	Incised groove-bur	T	NAEA
Arnoglossum diversifolium	Variable- leaved Indian-plantain	T	NAEA
Calamintha ashei	Ashe's savory	T	NAEA
Calopogon multiflorus	Many- flowered grass-pink	E	NAEA
Carex chapmanii	Chapman's sedge	T	NAEA
Centrosema arenicola	Sand butterfly pea	E	NAEA
Coelorachis tuberculosa	Piedmont jointgrass	T	NAEA
Hartwrightia floridana	Hartwrightia	T	NAEA
Illicium parviflorum	Star anise	E	NAEA
Lechea cernua	Nodding pinweed	T	NAEA
Litsea aestivalis	Pondspice	E	NAEA
Matelea floridana	Florida spiny-pod	E	NAEA
Nemastylis floridana	Celestial lily	E	NAEA
Nolina atopocarpa	Florida beargrass	T	NAEA

Species	Common Name	FWC Status	Effect Determination
Panicum abscissum	Cutthroat grass	E	NAEA
Paronychia chartacea	Paper nailwort	E	NAEA
Pteroglossaspis ecristata	Giant orchid	T	NAEA
Salix floridana	Florida willow	E	NAEA
Schizachyrium niveum	Scrub bluestem	E	NAEA

Ranking: E – endangered, T – threatened, NAEA= No Adverse Effect Anticipated

Managed and Protected Species

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is protected by the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). Habitat for this species includes estuaries, lakes, and reservoirs, near which they build nests in tall trees or other structures. No bald eagle nests have been documented within 660 feet of the Preferred Alternative and no bald eagle nests were observed during the field reviews. Three bald eagle nests have been documented within one mile of the project area; PO184, PO172, and PO172a. Each of these documented nests are located more than 1,000 feet east of the Preferred Alternative.

An updated survey will be completed during the final design and permitting phase of the project to evaluate the status of the currently documented nests and to identify potential new nests within 660 feet of the study area. If new nests are identified in the study area, work within 660 feet of nests will adhere to the criteria outlined by the USFWS, and the Enterprise will coordinate with USFWS should active nests be identified within 330 feet of proposed work.

Osprey

The osprey (*Pandion haliaetus*) is protected by the MBTA. Habitat for this species includes estuaries, lakes, and reservoirs, near which they build nests in trees or other structures. No osprey nests were observed during the field reviews. Since a permit is not required for the removal of inactive nests, any required nest removal can be scheduled to occur during times of non-nesting.

Florida Black Bear

Florida black bear (*Ursus americanus floridanus*) is no longer listed as a threatened species by the FWC. While it was removed from the state list of protected species in August 2012, it is still protected through the Florida Administrative Code 68A-4.009 Florida Black Bear Conservation. The project occurs within the primary range of the Ocala population within the South-Central Bear Management Unit, and bears are considered abundant in the study area. In total, two nuisance reports of Florida black bears occurred within the study area in 2023. Although suitable habitat occurs in pockets surrounding the study area, this project is not anticipated to result in an increase in the chance for road-associated mortalities given the existing developed nature of the transportation corridor. A review of the Wildlife Incident Management System (WIMS) database maintained by the FWC noted no black bear road mortality within the project area.

Bat Species

All bat species are protected in Florida per chapter 68A of the Florida Administrative Code. The following bat species are known to occur in the region: the Mexican free-tail (*Tadarida brasiliensis*), tri-colored (*Perimyotis subflavus*), evening (*Nycticeius humeralis*), big brown (*Eptesicus fuscus*), northern yellow (*Dasypterus intermedius*), and Rafinesque's bigeared (*Corynorhinus rafinesquii*). Bats utilize structures such as bridges as well as cavities in trees for roosting habitat. The eastern part of the study area falls within the CA for the Florida bonneted bat (*Eumops floridanus*), a federally endangered species, and potential habitat occurs on the study area. An updated evaluation and technical assistance with the USFWS will occur and agency coordination is expected. This project *May Affect* the Florida bonneted bat and surveys for these species are recommended during the design phase.

7.19.3.2 Wetlands and Other Surface Waters

Wetland and surface waters within the study area were field verified by project scientists between January 17th and 27th, 2025. Preliminary wetland and surface water boundaries were determined, and habitat quality was assessed. There are numerous freshwater wetlands and surface waters within and adjacent to the project right of way. Wetland functional assessments were performed

using the Uniform Mitigation Assessment Method (UMAM) and all wetlands were classified according to the FLUCFCS code subcategories.

There are several ditches, ponds, and lakes within and adjacent to the study area. All surface waters are freshwater, and none are considered Essential Fish Habitat or provide access to any marine or estuarine species. These surface waters can provide habitat for aquatic species such as fish, alligators, and turtles, as well as birds. Wet areas that are inundated by two to 15 inches of water could provide suitable foraging habitat for wood storks and wading birds when surface water is present. Wetlands and surface water locations within the Preferred Alternative are listed in Table 7.19.3.

Table 7.19.3: Wetland and Other Surface Water Impacts

Wetland / Surface Water Identification	FLUCFCS	Impact Area (Acres)
W51, W63	610	0.46
W46, W49, W51, W52, W57, W61, W63	615	38.33
W40	621	0.64
W3, W9, W16	630	14.62
W48, W50, W54, W62	640	3.25
W2, W4, W11, W21, W25, W27, W41, W47, W62, W64, W66	641	16.02
	Total Acres	**73.32**

Avoidance and Minimization

Avoidance and minimization measures include utilizing existing roadway fill areas for bridge approaches and roadway widening, and siting stormwater treatment facilities outside of wetland areas to the extent feasible. Additionally, proposed impacts will be minimized by adjusting slopes where safely possible and stormwater treatment locations will avoid wetlands when practicable. Surficial runoff from additional impervious areas will be treated to prevent increased water quality degradation as a result of the proposed transportation improvements.

Due to the incorporation of stormwater treatment facilities, the proposed project will not result in the degradation of water quality in the wetlands and other surface waters of the study area. Additionally, sedimentation and erosion control measures (i.e., silt fences, turbidity barriers) will

be implemented during construction to minimize soil exposure and siltation into the water column, further reducing adverse impacts to wetlands and other surface waters.

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

Indirect and Cumulative Effects

Indirect Effects are reasonably foreseeable effects that occur as a result of an action but occur later in time or are removed from the action location. Indirect impacts resulting from construction of the Preferred Alternative include secondary wetland and surface water impacts in the proposed study area. These impacts are anticipated to be minor because they are already associated with the existing roadways. Habitats along the edge of the existing roadways were disturbed when these areas were constructed and have since experienced constant disturbance from right of way maintenance and exposure to nuisance/exotic species. This "edge effect" will remain with the construction of the proposed project but would migrate to the new transitional area between remaining wetlands and new construction. Therefore, these disturbed edges are not expected to increase in areas where the roadways already exist.

Cumulative Effects result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. The Enterprise will minimize direct and indirect impacts to the extent practicable to reduce potential contribution to the cumulative effects. Unavoidable impacts to wetland function and value will be offset at an approved mitigation bank within the service area and drainage basin of the impacts.

Uniform Mitigation Assessment Method

Functional loss was calculated by wetland and natural other surface water habitat type using the UMAM. Table 7.19.4 provides a summary of the UMAM evaluation for wetland anticipated to be impacted by the Preferred Alternative. Construction of the project results in an estimated loss of 35.00 UMAM functional units.

Table 7.19.4: Wetland Impacts and UMAM Score

Roadway Improvements	FLUCFCS	Impact Area (Acres)	Location & Landscape Support		Water Environment		Community Structure		Score (sum/30)	UMAM Functional Loss
Wetland/ Surface Water Identification			Current	With	Current	With	Current	With		
W51, W63	610	0.46	5	0	6	0	6	0	0.57	0.26
W46, W49, W51, W52, W57, W61, W63	615	38.33	4	0	3	0	5	0	0.40	15.33
W40	621	0.64	5	0	4	0	6	0	0.50	0.32
W3, W9, W16	630	14.62	5	0	6	0	6	0	0.57	8.28
W48, W50, W54, W62	640	3.25	6	0	6	0	4	0	0.53	1.73
W2, W4, W11, W21, W25, W27, W41, W47, W62, W64, W66	641	16.02	6	0	6	0	5	0	0.57	9.08
Subtotal		**73.32**								**35.00**

Conceptual Mitigation Plan

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

Compensatory mitigation for this project will be provided using mitigation banks and other mitigation options to satisfy state and federal requirements. Compensatory mitigation will be provided 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. In accordance with EO 11990.

The project falls within the Kissimmee Ridge watershed. Four mitigation banks are listed as having available credits within this watershed: Reedy Creek Mitigation Bank, Kissimmee Ridge Mitigation Bank, Lake Livingston Mitigation Bank, and Crooked Lake Mitigation Bank.

7.19.4 Physical Resources

7.19.4.1 Highway Traffic Noise

A Noise Study Report (NSR) was prepared for the proposed project to evaluate future noise impacts and determine potentially feasible and reasonable noise abatement measures to be recommended for further consideration during the design phase.

Within the project limits, noise levels were predicted at 354 noise receptor locations, representing 481 residences and 16 Special Land Use (SLU) sites. Of these sites, noise levels at 159 residences and eight SLU sites are predicted to approach or exceed the Noise Abatement Criteria (NAC) in the design year (2050) for the Build condition. Additionally, 27 residences and one SLU site are expected to have a substantial noise increase [≥15 dB(A)] over existing noise conditions. Nine residences are expected to have both a substantial noise increase and noise levels that approach or exceed the NAC.

The project is expected to impact a total of 195 residences and nine SLU sites (with the Equivalent Residential (ER) value of 15.64), when contributing railroad noise is included. Because a noise barrier must benefit a minimum of two impacted noise sensitive sites for a noise barrier to be feasible, noise abatement was not considered for three isolated receptors.

Twelve noise barriers were evaluated for the remaining 183 impacted residences and the nine impacted SLU sites. The results of the noise barrier evaluation conclude that eight of the evaluated noise barriers do not meet the FDOT noise abatement feasibility and/or reasonableness criteria. Refer to the NSR for more detailed description of the locations that were not determined to meet FDOT criteria.

Four noise barrier systems found to be a feasible and/or reasonable method to abate traffic-related noise impacts will provide at least a 5 dB(A) benefit to 97 impacted residences in five common noise environments, as shown in Table 7.19.5.

Statement of Likelihood

FTE is committed to the construction of feasible and reasonable noise abatement measures. Four potentially feasible and reasonable noise barrier systems have been identified for this project (see Table 7.19.5 for more detail on the noise barriers) contingent upon the following conditions:

- Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
- Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to FTE; and
- Safety and engineering aspects have been reviewed, and any conflicts or issues resolved.

During the design phase, a land use review will be performed to identify all noise sensitive sites that may have received a building permit subsequent to the noise study but prior to the project's Date of Public Knowledge (DPK). The date that the State Environmental Impact Report (SEIR) is approved by FTE will be the DPK. If the review identifies noise sensitive sites that have been permitted prior to the DPK, then those sensitive sites will be evaluated during the design phase for traffic noise impacts and abatement considerations.

Table 7.19.5: Potentially Feasible and Reasonable Noise Barrier Evaluation Summary

Common Noise Environment (CNE)	Number of Impacted Residences & SLU Equivalent Residences (ERs) [1]	Noise Barrier Approx. Begin Station	Noise Barrier Approx. End Station	Preliminary Noise Barrier Height (ft)	Preliminary Noise Barrier Length (ft) [2]	Preliminary Noise Barrier Location	Preliminary Noise Barrier Cost [3]	Number of Residences & ERs Potentially Benefited by a Noise Barrier [4]		Cost Per Benefited Residence
								Impacted	Total	
NOISE BARRIERS NORTHBOUND SIDE OF US 17/92										
NB03 *Kissimmee MH & RV Resort*	19	85+20	101+00	22	1,580	ROW [5]	$1,390,400	19	43	$32,335
NOISE BARRIERS SOUTHBOUND SIDE OF US 17/92										
SB02 *Horse Creek Village & Shady Oaks*	24.09 [8]	1048+15	1053+80	22	547	ROW [5]	$1,640,320	23.00	58.04	$28,262
		1054+10	1057+00	22	301	ROW [5]				
		1057+65	1060+50	22	283	ROW [5]				
		1060+80	1062+10	22	127	ROW [5]				
		1062+40	1064+15	22	172	ROW [5]				
		1064+40	1067+20	22	278	ROW [5]				
		1067+40	1069+00	22	156	ROW [5]				
SB05 *Aviana* ***SB06*** *Pointe Grand Apts*	51	N/A	N/A	22	574	ROW [5]	$1,987,040	32	36	$55,196
		N/A	N/A	22	1,124	ROW [5]				
		N/A	N/A	22	560	ROW [5]				
NOISE BARRIERS NORTHBOUND SIDE OF CENTRAL POLK PARKWAY EAST										
NB05 *Providence*	19	1283+00	1286+00	8	306	ST [6]	$1,505,760	19	37	$40,696
		1286+00	1311+00	14	2,514	SHLDR [7]				

1 Includes both NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.
2 Full height is for length indicated. The length for any required taper in height at a shoulder noise barrier termination would be in addition to the length indicated. (See FDOT Standard Plans)
3 Unit cost of $40 per square foot for all barrier segments.
4 Total includes impacted/benefited residences with a predicted noise level that does not approach or exceed 67 dB(A) but are incidentally benefited.
5 ROW -Noise barrier system located within Florida's Turnpike Enterprise or FDOT right of way.
6 ST – Noise barrier system located on CPP East bridge structure or mechanically-stabilized earth (MSE).
7 SHLDR – Noise barrier located on CPP East outside shoulder. Any required tapers in height at a shoulder noise barrier termination would be in addition to the length indicated. (See FDOT Standard Plans)
8 Number of impacts differs from that shown in Appendix B-1. Noise abatement evaluation scenario without the addition of rail noise selected as most beneficial to receptors. Refer to Section 3.8.2 for further explanation.

Note: Potential noise barriers are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as overhead utilities, drainage, etc., could alter barrier system placement, dimensions, and access. Such changes could render noise barriers no longer constructible or not meet FDOT noise abatement criteria. Assuming barriers are still feasible and reasonable in the design phase, community input may be solicited to confirm support.

7.19.4.2 Air Quality

The proposed project is located in Polk and Osceola Counties, an area currently designated as being in attainment for particulate matter (2.5 microns in size and 10 microns in size) and carbon monoxide (CO).

The Preferred Alternative was vetted through a CO screening model called CO Florida 2024 that makes various conservative worst-case assumptions related to site conditions, meteorology and traffic. The FDOT's CO Florida 2024 model uses the latest USEPA approved software to produce estimates of one-hour and eight-hour CO at default air quality receptor locations. The one-hour and eight-hour estimates can be directly compared to the current one-and eight-hour National Ambient Air Quality Standards (NAAQS) for CO.

Estimates of CO were predicted for the default receptors which are located 10 feet to 150 feet from the edge of the roadway. Based on the results from CO Florida 2024, the highest project related CO one- and eight-hour levels are not predicted to meet or exceed the one- or eight-hour NAAQS for this pollutant.

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all NAAQS. Therefore, the Clean Air Act conformity requirements do not apply to the project. Additionally, the project is expected to improve the LOS and reduce delays and congestion on all facilities within the study area.

More information about air quality within the project area is located in the Air Quality Technical Memorandum (AQTM), available in the project file.

7.19.4.3 Contamination

A Contamination Screening Evaluation Report (CSER) was conducted for this project and is available in the project file. The objectives of this Level I Assessment were to identify and evaluate potential contamination sources that could impact the proposed project.

Based on the methodologies performed, 32 contamination sites were identified near the Preferred Alternative which may impact this project. Using the FDOT Risk Ratings, three No Risk sites, 18 Low Risk sites, 10 Medium Risk sites, and one High Risk site were identified.

The following eight Medium rated locations should be considered for Level II testing related to contamination conditions that may impact construction:

- Site 2: Peter's Property
- Site 4: Apostolic Church of Jesus
- Site 5: Ingram Grove Service Inc.
- Site 11: R&S Insulation Corp.
- Site 13: Sherry's
- Site 21: Ruth Gotts Property/Air Props Inc.
- Site 25: Row Crops
- Site 26: Railroad Corridor

Evaluation of potential asbestos should be considered for all existing bridge structures prior to renovation or demolition. The Preferred Alternative was designed to avoid or minimize involvement with known or potential contamination sites, where possible.

A total of 44 stormwater pond alternative locations and 38 floodplain compensation sites were evaluated to address stormwater management. Of those, 19 locations were assigned no risk, 41 locations were assigned a low risk and 22 locations were assigned a medium risk. The preferred pond and floodplain compensation sites include six no risk sites, 15 low risk sites, and 11 medium risk sites.

The Preferred Alternative was designed to avoid or minimize involvement with known or potential contamination sites, where possible. However, some sites could not be avoided, and minor

right-of-way acquisition is required. More information about contamination is located in the CSER, available in the project file.

7.20 Special Features

No special features are proposed for this project.

7.21 Utilities

Twenty-seven Utility Agency/Owners have been identified through the project corridor. The existing utilities include fiber optic cable, gas, electric, telephone, water, and sewer. Conflicts may occur where roadway widening and turn lanes are proposed. Conflicts will occur where locations of concrete sheet pile walls and retaining walls are proposed. Table 7.21.1 shows the utility conflicts within the project corridor.

Table 7.21.1: Utility Conflict Matrix

Utility Agency / Owner	Utility Type	Anticipated Conflict
Central Florida Expressway Authority	Unknown	TBD
CenturyLink	Fiber	Minimal Impacts
Charter Communications/Spectrum	Buried Television/Fiber	Minimal Impacts
City of Davenport	Water/Sewer	No Facilities
City of Haines City	Water/Sewer	No Facilities
City of Lake Wales	Water/Sewer	No Facilities
Cogent Communications	Fiber	TBD
Comcast Cable	Fiber	Minimal Impacts
Duke Energy Distribution	Electric	Major Impacts
Duke Energy Fiber	Fiber	Major Impacts
Duke Energy Transmission	Electric	Major Impacts
Enbridge Sabal Trail Transmission	Gas	TBD
Florida Gas Transmission	Gas	No Facilities
Florida Public Utilities	Gas	TBD
Florida Southeast Connection	Gas	Minimal Impacts
Frontier Communications	Fiber	TBD
Gulfstream Natural Gas System	Gas	Minimal Impacts

Utility Agency / Owner	Utility Type	Anticipated Conflict
Kinder Morgan/Central Florida Pipeline	Gas	Minimal Impacts
Kissimmee Utility Authority (KUA)	Gas	Minimal Impacts
Level 3 Communications	Fiber	Minimal Impacts
MCI/Verizon Business	Fiber	Minimal Impacts
Polk County Utilities	Water/Sewer	Minimal Impacts
Summit Broadband	Fiber	Minimal Impacts
TECO People Gas	Gas	Minimal Impacts
TOHO Water Authority	Water	Minimal Impacts
Uniti Fiber	Fiber	Minimal Impacts
Zayo Group LLC	Fiber	TBD

Communication has been established with Comcast Cable, Florida Southeast Connection (NextEra Energy Pipeline Services Co.), and Kinder Morgan/Central Florida Pipeline following their initial notification of the project through online outreach. Meetings were held with Florida Southeast Connection on April 17, 2025, and with Comcast Cable on June 11, 2025, to review project status, evaluate potential impacts to existing utility infrastructure, and discuss next steps for data sharing and conflict resolution.

Two utility parcels will potentially be relocated as part of the Preferred Alternative: a cell tower and a Comcast hub. For more information about utility locations and conflicts, see the Utility Assessment Package, available in the project file.

The Sea Board Coast Line Railroad, owned by CSX, and currently used by freight trains runs parallel on the west side to US 17/92. Coordination with CSX is anticipated, in order to extend the Ernie Caldwell bridge over CPP East.

7.22 Cost Estimates

The FDOT Long-Range Estimate (LRE) system was utilized to estimate the construction costs for the Preferred Alternative. Appendix D contains the LREs for this project. The total estimated cost for the Preferred Alternative is $1.4 billion. This total is comprised of the following:

- Design: $66 million
- Roadway Right-of-way Cost: $119 million;
- Stormwater Pond and Floodplain Compensation Site Right-of-way Cost: $30 million;
- CEI Cost: $109 million; and
- Construction Cost: $1.1 billion.

Note, the CEI costs are based on 10% of the construction cost.