

**State of Florida Department of Transportation
TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM**

1. GENERAL INFORMATION:

County:	Hernando		
Project Name:	SR 50 Project Development and Environment Study		
Project Limits:	West of I-75 to US 301 (SR35/Treiman Boulevard)		
Project Numbers:	<u>3391</u>	<u>416732-2</u>	<u>TBD</u>
	ETDM (if applicable)	WPIS No.	Federal-Aid

2. PROJECT PURPOSE AND NEED:

a. Purpose and Need

The need for improvements to SR 50 (Cortez Boulevard) in the study area is based on several factors including regional connectivity, future population and employment growth, projected travel demands, and consistency with Hernando County's Comprehensive Plan and the Hernando County Metropolitan Planning Organization (MPO)'s Long Range Transportation Plan (LRTP). The 2035 No-Build Planning traffic operational analyses conducted for the purpose of this study indicated that this portion of SR 50 (Cortez Boulevard) will operate at failing Level of Service (LOS) conditions. Additionally, this portion of SR 50 (Cortez Boulevard) is an evacuation route.

b. Proposed Improvements

SR 50 (Cortez Boulevard) is proposed to be widened from four to six lanes from west of I-75 to US 98 (SR 700/Treiman Boulevard) and from two to four lanes from US 98 (SR 700/Treiman Boulevard) to US 301 (SR 35/Treiman Boulevard) within Hernando County, Florida (Roadway ID 08 070 000). Continuous sidewalks will be also provided throughout the project limits in both directions. The study limits extend from west of Interstate 75 (I-75) easterly to US 301 (SR 35/Treiman Boulevard). The I-75 ramp terminal intersections and approaching segments (length 0.9 miles [mi]) were exempted out of the study since those improvements were analyzed as part of the I-75 Project Development and Environment (PD&E) Study, Work Program Item Segment (WPIS) Number: 411014-1, and will be constructed first under a separate project. The total length of the project (including the I-75 interchange area) is approximately 6.3 mi. See **Figure 1** for the project location map.

- c. Project Planning Consistency: disregard providing historical details, instead focus on future phases of segments being advanced. If more than one segment is being advanced additional tables should be added.

**Plan Consistency for Project 416732-3
SR 50 from US 98 (McKethan Road) to US 301**

Currently Adopted LRTP	2035 Hernando County Metropolitan Planning Organization Long Range Transportation Plan, Adopted October 27, 2009, as amended on November 19, 2013 Cost Affordable List of Roadway Projects Page 3-3					
Y/N	Yes					
Phase	LRTP \$	Currently Approved TIP	Currently Approved STIP	TIP/STIP FY	TIP/STIP \$	Comments
PE (Final Design)	\$1,802,000 FY 2009-2014 Committed Cost Affordable	FY 2014-2018 TIP Amended 11/19/13	STIP Approved 11/19/13	FY 2014	TIP/STIP \$1,802,000	Federal Funds
ROW	\$5,342,327 FY 2021-2025 \$4,478,455 FY 2026-2030	No	No	No	TIP/STIP Amendmen ts Needed	
Construction	\$10,495,090 FY 2026-2030 \$9,146,474 FY 2031-2035	No	No	No	TIP/STIP Amendmen ts Needed	

**Plan Consistency for Project 416732-4
SR 50 from Windmere Road/Bronson Boulevard to US 98 (McKethan Road)**

Currently Adopted LRTP	2035 Hernando County Metropolitan Planning Organization Long Range Transportation Plan, Adopted October 27, 2009, as amended on November 19, 2013 Cost Affordable List of Roadway Projects Page 3-3					
Y/N	Yes					
Phase	LRTP \$	Currently Approved TIP	Currently Approved STIP	TIP/STIP FY	TIP/STIP \$	Comments
PE (Final Design)	\$2,002,000 FY 2009-2014 Committed Cost Affordable	FY 2014-2018 TIP Amended 11/19/13	STIP Approved 11/19/13	FY 2014	TIP/STIP \$2,002,000	
ROW	Project Not In LRTP	No	No	No	TIP/STIP Amendment s Needed	
Construction	Project Not In LRTP	No	No	No	Unfunded	

*TIP/STIP/LRTP pages are in Appendix A

3. CLASS OF ACTION

a. Class of Action:

Type 2 Categorical Exclusion

b. Other Actions:

Section 4(f) Evaluation

Section 106 Consultation

Endangered Species Biological

Assessment

c. Public Involvement:

1. A public hearing is not required, therefore, approval of this Type 2 Categorical Exclusion constitutes acceptance of the location and design concepts for this project.
2. A public hearing was held on (September 27, 2012) and a transcript is included. Approval of this determination constitutes location and design concept acceptance for this project.
 An opportunity for a public hearing was afforded and a certification of opportunity is included. Approval of this determination constitutes acceptance of the location and design concepts for this project.
3. A public hearing will be held and the public hearing transcript will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.
 An opportunity for a public hearing will be afforded and a certification of opportunity will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.

d. Cooperating Agency: COE USCG FWS EPA NMFS NONE

4. REVIEWERS' SIGNATURES



FDOT Environmental Administrator or Designee


1 / 21 / 14
Date



FDOT ISD Manager or Designee

1 / 21 / 14
Date

5. FHWA CONCURRENCE



FHWA Division Administrator or Designee

2 / 3 / 14
Date

6. IMPACT EVALUATION

Topical Categories	Impact Determination*				Basis for Decision*
	Sig	NotSig	None	NoInvol	
A. SOCIAL & ECONOMIC					
1. Land Use Changes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment A-1
2. Community Cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment A-2
3. Relocation Potential	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment A-3
4. Community Services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment A-4
5. Nondiscrimination Considerations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment A-5
6. Controversy Potential	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment A-6
7. Scenic Highways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Attachment A-7
8. Farmlands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Attachment A-8
B. CULTURAL					
1. Section 4(f)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment B-1
2. Historic Sites/Districts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment B-2
3. Archaeological Sites	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment B-3
4. Recreation Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment B-4
C. NATURAL					
1. Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment C-1
2. Aquatic Preserves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Attachment C-2
3. Water Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment C-3
4. Outstanding FL Waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment C-4
5. Wild and Scenic Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Attachment C-5
6. Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment C-6
7. Coastal Zone Consistency	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment C-7
8. Coastal Barrier Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Attachment C-8
9. Wildlife and Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment C-9
10. Essential Fish Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Attachment C-10
D. PHYSICAL IMPACTS					
1. Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment D-1
2. Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment D-2
3. Construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment D-3
4. Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment D-4
5. Aesthetic Effects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment D-5
6. Bicycles and Pedestrians	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment D-6
7. Utilities and Railroads	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Attachment D-7
8. Navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Attachment D-8
a. [X]FHWA has determined that a USCG Permit IS NOT required in accordance with 23 CFR 650, Subpart H.					
b. []FHWA has determined that a USCG Permit IS required in accordance with 23 CFR 650, Subpart H.					

* **Impact Determination:** Sig = Significant; NotSig = Not significant; None = Issue present, no impact; NoInvol = Issue absent, no involvement, Basis of decision is documented in the referenced attachment(s).

E. PERMITS REQUIRED

PERMIT	ISSUING AGENCY
Section 404 Dredge/Fill Permit	USACE
Environmental Resource Permit (ERP)	SWFWMD
National Pollutant Discharge Elimination System (NPDES) Permit	FDEP

7. COMMITMENTS AND RECOMMENDATIONS

Commitments

The FDOT has established the following commitments:

- Gopher tortoise: Due to the presence of gopher tortoise habitat and burrows within and adjacent to the existing right-of-way (ROW), a gopher tortoise survey in appropriate habitat within construction limits (including roadway footprint, stormwater management ponds and floodplain compensation sites) will be performed within 90 days of the construction project's letting date. The Florida Department of Transportation (FDOT) will secure any relocation permits needed for this species during the project permitting phase of the project.
- Eastern indigo snake: The FDOT commits to reinitiate informal consultation with the U.S. Fish and Wildlife Service (USFWS) during the project's Design phase to provide additional information necessary to allow the Service to complete their analysis of the project's effects to the eastern indigo snake, and complete informal consultation on the project prior to advancing the project to construction to comply with Title 23 Code of Federal Regulations (CFR) Part 771.133. The FDOT commits to utilizing the Service's revised *Standard Protection Measures for the Eastern Indigo Snake*, dated August 12, 2013 or later measures if they have been updated by the USFWS.
- Wood stork: FDOT will evaluate impacts to suitable foraging habitat (SFH) within the Core Foraging Area (CFA) during design and provide any additional wetland mitigation necessary to offset permanent impacts to SFH through the United States Army Corps of Engineers (USACE) permit.
- FDOT will resurvey for Sherman's fox squirrel nests, southeastern American kestrel nest cavities, burrowing owl burrows and bald eagle nests during the project's design phase. Coordination with the USFWS and the Florida Fish and Wildlife Conservation Commission (FWC) will be initiated as appropriate.
- FDOT will resurvey for Britton's beargrass, Robin's Bellflower, and Cooley's Water-willow prior to construction. Coordination with the USFWS and FWC will be initiated as appropriate.
- Widening of the bridges over the Withlacoochee Bridge will be completed so as to not impact the Withlacoochee State South Paddling Trail or access to it, and the paddling trail will remain open during the construction phase. The FDOT will add a plan note into the General Notes of the project's final design plans to ensure that contractor equipment staging, materials stockpiling or storing activities will not be allowed within the Withlacoochee River South Paddling Trail "property" or along Paul R. Steckle Lane which is located within the FDOT SR 50 ROW. This local roadway provides access to the riverbank and is also the primary access to adjoining residential parcels. In addition, FDOT plans to maintain access to any future existing unimproved pathway(s) down the riverbank to the Trail that are within the SR 50 ROW. The Withlacoochee River South Paddling Trail "property"

within the limits of the project's construction area will be restored to a condition which is at least as good as that which existed prior to the project being started.

- Coordination with the Florida Department of Environmental Protection (FDEP) will take place during design to ensure connectivity of the proposed sidewalks along S.R. 50 to the Withlacoochee State Trail.
- No construction related activities such as stockpiling or staging of equipment will take place on any of these properties:
 - Withlacoochee State Forest-Croom Tract
 - Withlacoochee State Trail and Park (other than constructing two sidewalk connections)
 - Withlacoochee River South Paddling Trail
 - Cypress Lakes Preserve and Florida National Scenic Trail
- A land use review will be performed during the design phase of the project to ensure that all noise-sensitive land uses that have received a building permit prior to the project's Date of Public Knowledge are evaluated.

Recommendations

The Build Alternative has been selected as the Recommended Alternative. Details are provided below.

Typical Sections:

Figure 2 shows the existing and proposed typical sections that were evaluated for the Build Alternative from west of I-75 to Kettering Road. The proposed typical section is a six-lane divided suburban roadway with a 46-foot (ft) median, which includes a 33-ft raised grass median, including Type E curb and gutter. Three 12-ft travel lanes with 6.5-ft inside shoulders and 8-ft flush outside shoulders (5 ft paved), are provided in each direction. This typical section also contains open drainage ditches on both sides of the roadway. Sidewalks, 5 ft wide, are provided adjacent to the ROW line. The proposed design speed for this typical section is 50 miles per hour (mph), the minimum design speed for a Strategic Intermodal System (SIS) facility. This typical section fits within the existing 200 ft of ROW. These improvements will tie into the SR 50 (Cortez Boulevard) improvements within the I-75 interchange area constructed as part of the I-75 widening project.

Figure 3 shows the existing and proposed typical sections that were evaluated for the Build Alternative between Kettering Road and US 98 (SR 700/McKethan Road). The proposed typical section includes both inside and outside widening to result in a six-lane divided rural roadway with a 40-ft depressed grass median and flush inside and outside shoulders. Since the Annual Average Daily Traffic (AADT) volumes are considered low volume east of Kettering Road, 8-ft inside unpaved shoulders and 8-ft outside shoulders (5 ft paved), are provided in each direction. This typical section also contains open drainage ditches and 5-ft sidewalks adjacent to the ROW line. The proposed design speed for this typical section is 65 mph. This typical section fits within the existing 200 ft

of ROW since a Design Variation has been granted. A preliminary drainage review supports the reduced border width. In some areas, the existing ROW width will allow the standard 40-ft border. In other areas where right turn lanes are needed, the standard border width will be reduced to stay within existing ROW.

Figure 4 shows the widening of the two existing bridges over the Withlacoochee River. In order to facilitate maintenance of traffic (MOT) and limit the bridge widening to just one side of each bridge, the proposed roadway median width will transition from 40 ft to 54 ft on each approach. The outside concrete barrier of each bridge will be removed, along with the deck to the center of the first beam. Each bridge will then be widened to accommodate three 12-ft lanes, 10-ft inside and outside shoulders, and a 5-ft sidewalk separated from the shoulder with a concrete barrier. Florida I-Beams will support the widened portion of the deck. In addition, the inside barrier on the westbound bridge will be replaced to meet current standards.

Figure 5 shows the existing and proposed typical sections from US 98 (SR 700/McKethan Road) to US 301 (SR 35/Treiman Boulevard). The proposed improvements in this segment consist of widening SR 50 (Cortez Boulevard) from a two-lane undivided rural roadway to a four-lane divided roadway by removing the crown from the existing roadway, which will become the new westbound lanes. New pavement, 24 ft wide, will be constructed 40 ft south of the existing roadway, to become the new eastbound roadway. The completed four-lane rural roadway will have a 40-ft depressed grass median and flush 6-ft inside shoulders (0 ft paved) and 8-ft outside shoulders (5 ft paved). This typical section also contains open drainage ditches and 5-ft sidewalks adjacent to the ROW line. The proposed design speed for this typical section is 65 mph.

This typical section fits within the existing 200 ft of ROW. The proposed improvements will follow the existing alignment, which is generally centered within the existing 200-ft ROW. The existing two-lane undivided section from US 98 (SR 700/McKethan Road) to US 301 (SR 35/Treiman Boulevard) was originally constructed such that future widening to a rural divided multilane highway would accommodate a 40-ft median centered within the ROW.

Hernando County Frontage Road Ordinance Chapter 24 Roads and Bridges, Article 1, Sec. 24-2 (c) states that developers of properties adjacent to the major arterial highway grid must provide, at the developer's expense, a frontage road from property line to property line parallel to the arterial highway upon demonstration of need and demand by the county. Since construction improvements are not currently programmed and concepts have not yet been developed for the frontage roads (planned by Hernando County), Lockhart Road or Kettering Road, these improvements are considered in this study for planning purposes and information only. Future studies (by others) will determine the specific typical sections, lane configuration and alignments of the future frontage roads.

In order to evaluate the Build and No-Build Alternatives, a qualitative and quantitative evaluation matrix (**Table 1**) was prepared using criteria from a multitude of categories including socioeconomic, environmental, cultural, potential hazardous material/petroleum contamination, and costs (design, ROW, construction, operations and maintenance, and construction engineering inspection). The matrix data was developed utilizing raster-based aerial photography depicting the proposed ROW needs for each alternative. More details on the anticipated environmental effects are documented in the *Final Environmental Technical Compendium* (ETC) (September, 2013), *Final Noise Study Report* (September 2013), *Final Historic Structures Survey Update* (February 2012), and *Final Preliminary Alternative Stormwater Management Facilities Report* (September 2013). The ETC is a comprehensive document that covers the environmental analysis performed for wetlands, threatened and endangered species, location hydraulics, and contamination. The traffic and engineering analyses are documented in the *Final Traffic Report* (September 2013) and *Final Preliminary Engineering Report* (September 2013), respectively.

Figure 1: Project Location Map

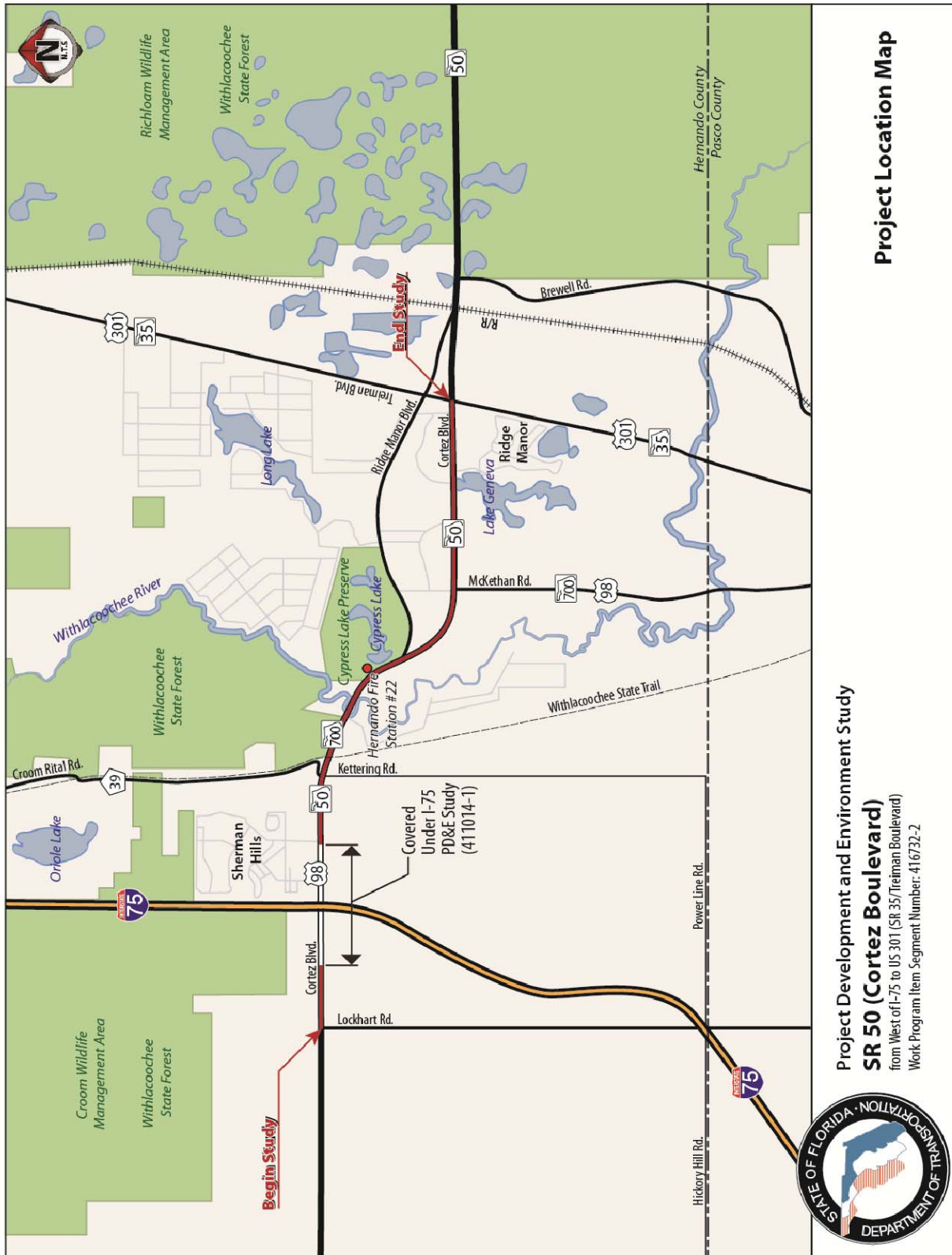
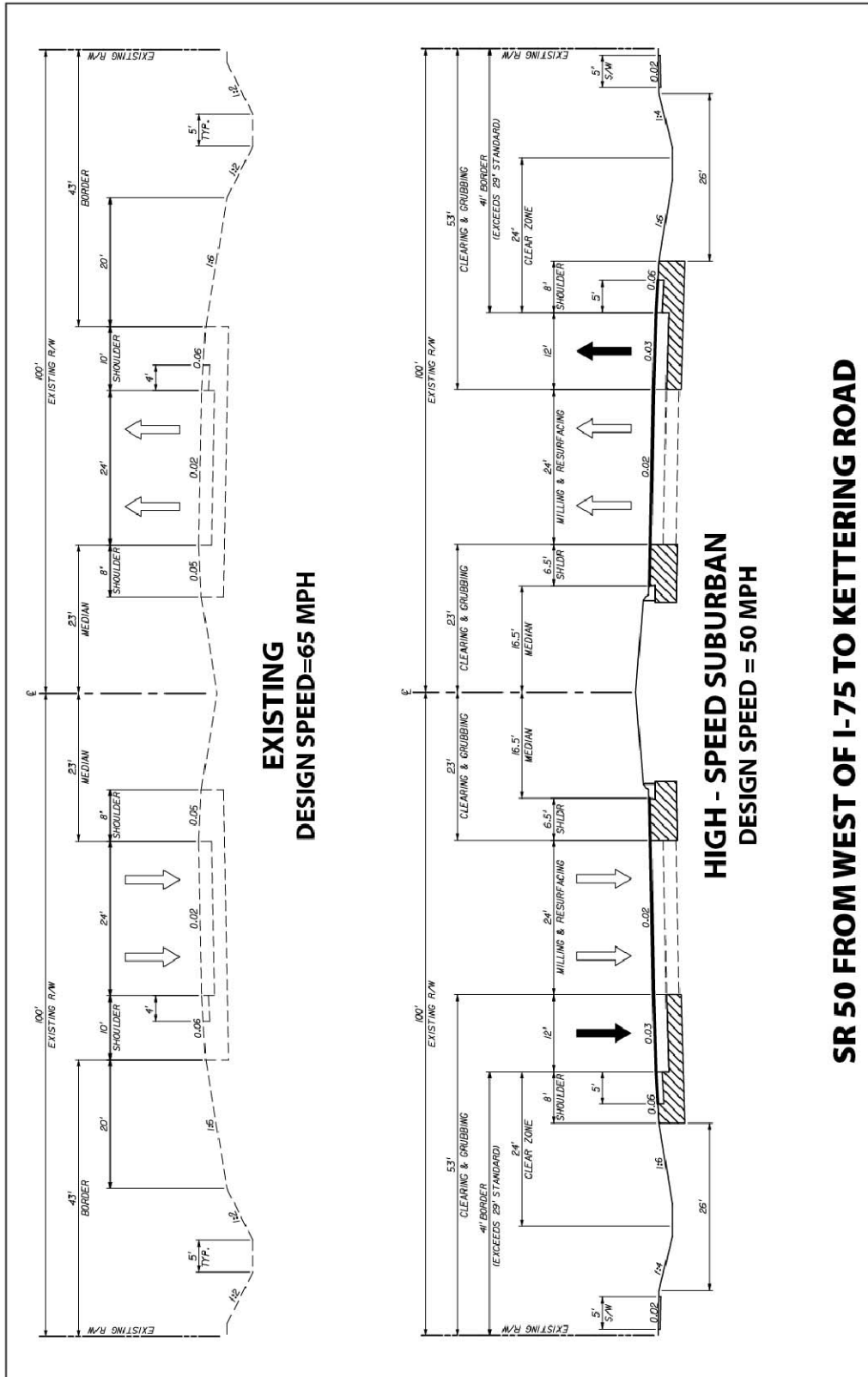


Figure 2: Proposed Typical Section from West of I-75 to Kettering Road



**Proposed Roadway
Typical Section**

SR 50 FROM WEST OF I-75 TO KETTERING ROAD

Project Development and Environment Study
SR 50 (Cortez Boulevard)
 from West of I-75 to US 301 (SR 35/Treiman Boulevard)
 Work Program Item Segment Number: 416732-2



**Figure 3: Proposed Typical Section from Kettering Road to US 98
(SR 700/McKethan Road)**

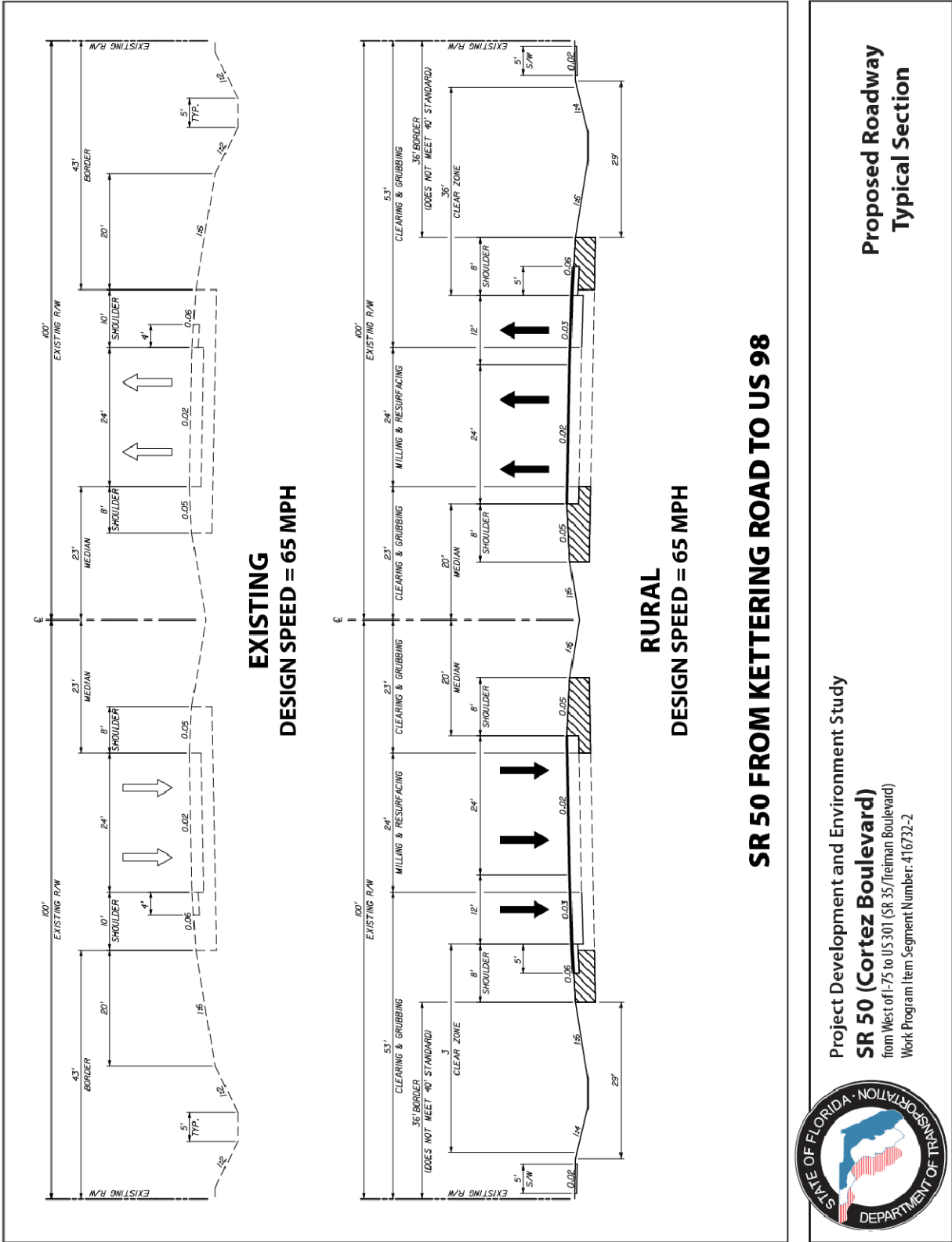
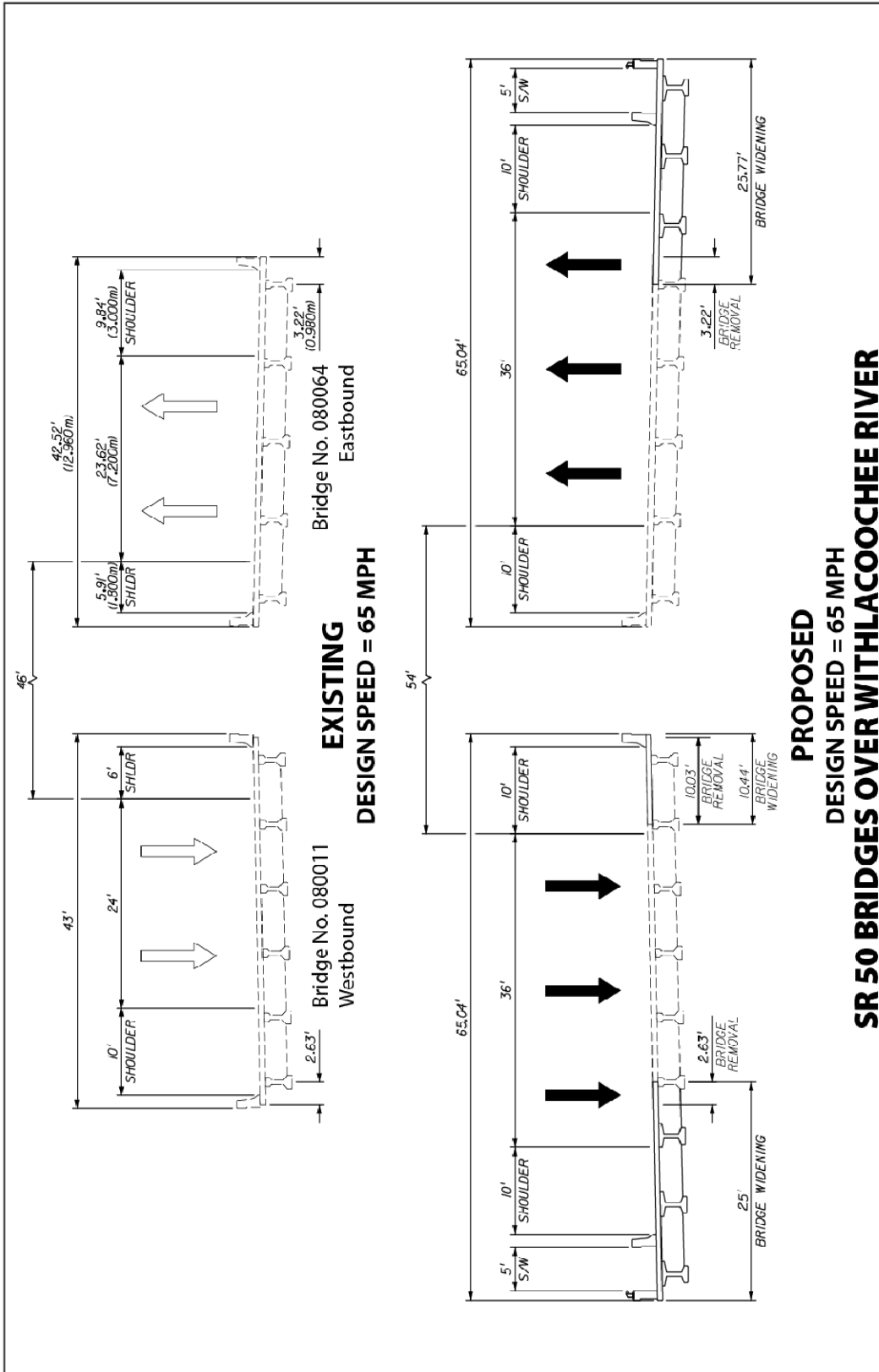



Figure 4: Proposed Bridge Typical Section





STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

Project Development and Environment Study
SR 50 (Cortez Boulevard)
 from West of I-75 to US 301 (SR 35/Treiman Boulevard)
 Work Program Item Segment Number: 416732-2

**Proposed
Bridge Typical Section**

**Figure 5: Proposed Typical Section from US 98
(SR 700/McKethan Road) to US 301 (SR 35/Treiman Boulevard)**

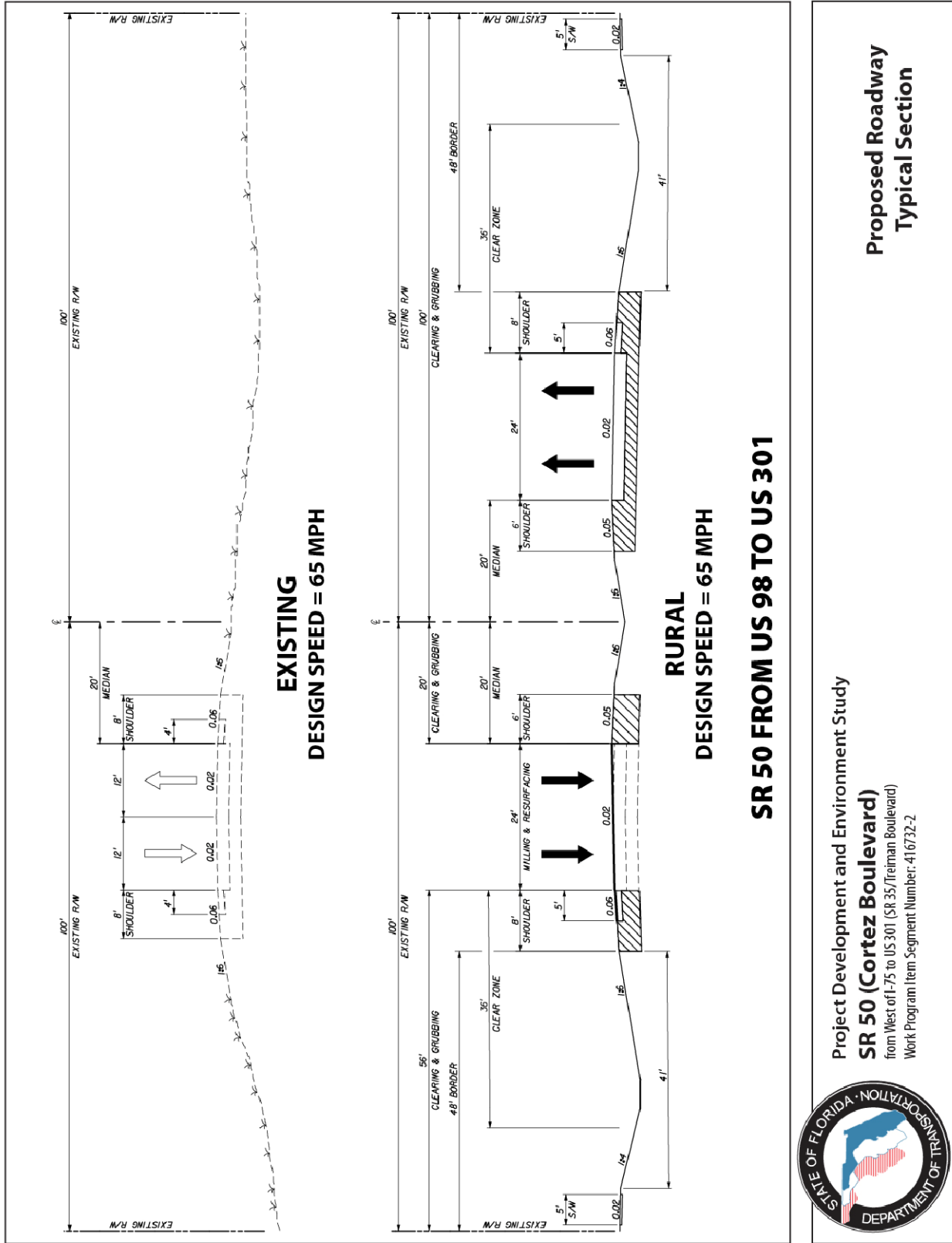


Table 1: Alternative Comparative Evaluation Matrix

Evaluation Factors	No-Build Alternative	Recommended Build Alternative
Right-of-Way (ROW) Impacts		
Number of Parcels Affected	0	12
ROW Acquisition – US 98 and US 301 Roadway (acres [ac])	0	20.417
ROW Acquisition – Stormwater Management Facilities and Floodplain Compensation Sites (ac)	0	20.700
Business Relocations	0	0
Residential Relocations	0	0
Natural, Environmental and Physical Effects		
Species/Habitat (Potential Impacts)	None	Low
Potential Contamination Sites (Medium and High risk)	0	5
Wetlands and Other Surface Waters within Proposed ROW (ac) [includes existing ponds]	0	7.29
Noise Sensitive Sites (within 66 dB(A) isopleth)	0	18
Community Facilities (schools, police, fire, medical, etc.)	0	0
Historic/Archaeological Sites	0	0
Estimated Costs (2011 Dollars)		
Design (12 percent of Roadway and Bridge Construction)	\$0	\$2,619,737
Roadway Right-of-way	\$0	\$4,788,600
Pond Right-of-Way	\$0	\$1,500,200
Construction*	\$0	\$21,831,144
CEI (12 percent of Construction)	\$0	\$2,619,737
Total Cost (Present Day Cost)	\$0	\$33,359,418

* Includes roadway, earthwork, shoulder, median, drainage, bridge widening, signing, signalization, maintenance of traffic, mobilization, unknowns/contingency

* Does not include exempted area

ATTACHMENT A SOCIAL IMPACTS

A-1. Land Use Changes

Existing Land Use

The project is within unincorporated Hernando County. There is no existing land use map within the *Hernando County Comprehensive Plan* last amended October 26, 2010. The Hernando County MPO 2035 Cost Affordable LRTP (December 2009) was reviewed and a recent field survey of land use types was undertaken. This review indicates that the existing land use in the area adjacent to and surrounding SR 50 (Cortez Boulevard) consists of mostly residential, agricultural, vacant parcels, commercial, and conservation (**Figure 6**). The Withlacoochee State Forest (Croom Tract) is adjacent to the study area north of SR 50 (Cortez Boulevard).

Overall, the existing land use is rural in nature, but there has been development occurring near the I-75 interchange and the US 301 (SR 35/Treiman Boulevard) intersections.

According to Section 1 of the *Hernando County Comprehensive Plan (amended October 26, 2010)*, within the project area are two Planned Development Districts (PDD); I-75/SR 50 and Hickory Hill. The I-75/SR 50 PDD will allow for commercial, industrial, residential, multi-family, recreation, and public facilities. Within this PDD is the Sunrise Development of Regional Impact (DRI) approved to be located in the southeast quadrant of I-75 and SR 50 (**Figure 7**). The development is proposed to include mixed use residential, retail commercial, and office. The I-75/SR 50 PDD is also identified in the *Hernando County Comprehensive Plan*, Map G - Regional Attractors and Regional Activity Centers. The Hickory Hill PDD is located further south of SR 50 (Cortez Boulevard), east of Lockhart Road. Hickory Hill has been designated as both a PDD and DRI. This will be a master planned residential community with recreational amenities along with integrated neighborhood commercial and ancillary uses.

Future Land Use

A review of the adopted *Hernando County Comprehensive Plan* last amended October 26, 2010, Future Land Use Map (FLUM) reveals that SR 50 (Cortez Boulevard) will consist of mostly residential, planned development, commercial, conservation, rural, industrial, and mining uses (**Figure 8**).

Overall, the future land use shows more development occurring along the SR 50 (Cortez Boulevard) mainline, as well as near the I-75 interchange and the US 301 (SR 35/Treiman Boulevard) intersection.

The proposed project does not directly pass through any downtown core of any municipality, as it is located within unincorporated Hernando County. The Build Alternative fits within the existing 200 ft of ROW along SR 50 (Cortez Boulevard). ROW acquisition along the US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard) approaches to SR 50 (Cortez Boulevard) is needed to provide additional lanes in order to meet the acceptable LOS at the intersections. In addition, stormwater management facilities (SMFs) and floodplain compensation sites will be required that

would involve ROW impacts. However, existing SMFs will be used where feasible to minimize or avoid ROW impacts. Land use around the major intersections and the I-75 interchange is proposed to change according to the FLUM.

Land use impacts associated with the proposed widening of SR 50 (Cortez Boulevard) are expected to be minimal along the mainline and major intersections. The FLUM shows that Hernando County is planning for growth within the project area, showing a shift from rural/agricultural to large scale DRIs and commercial around I-75 and industrial and mining around US 301 (SR 35/Treiman Boulevard).

A-2. Community Cohesion

The proposed project involves widening an existing facility that does not traverse through an existing neighborhood or cause splitting or isolation of any neighborhoods. The project is not anticipated to adversely impact elderly persons, handicapped individuals, non-drivers and transit-dependent individuals, or minorities. It is anticipated that the project improvements will have minimal impact to community cohesiveness. Therefore, this project is being developed to comply with Executive Order 12898, Environmental Justice, issued on February 11, 1994.

A-3. Relocation Potential

There are no residential or business relocations anticipated for this project.

A-4. Community Services

Community services typically serve the needs of the surrounding area and provide a focal point for adjacent neighborhoods and communities. Community services include churches, cemeteries, schools, parks, recreational facilities, and public buildings and facilities. Parks and recreational facilities are discussed in Attachment B.3. The following community services are located within the project study area, and shown in **Figure 9**.

Cultural Centers

There is one cultural center within the study area, Ridge Manor Community Center, located at 34240 SR 50 (Cortez Boulevard).

There will be no impacts to the cultural center.

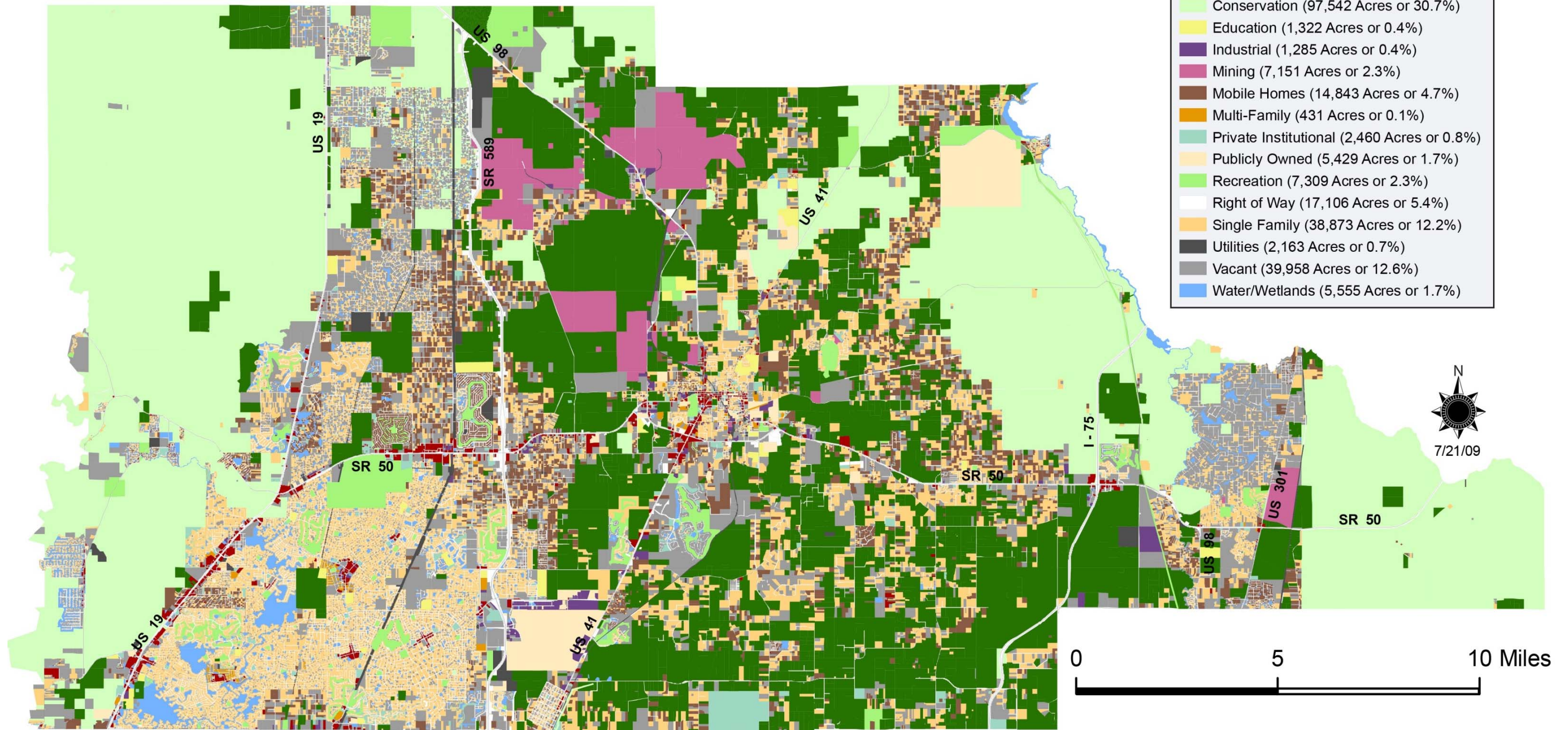
Fire Stations

There is one fire station within the study area, Hernando County Fire Station 22, located at 32409 SR 50 (Cortez Boulevard).

There will be no impacts to the fire station.

Figure 6: Hernando County 2035 L RTP Existing Land Use Map

Existing Land Use (ELU) - Hernando County, Florida



Source: Hernando County Property Appraiser - GIS.V_PARCELS

Figure 7: Hernando County Large Developments (2035 LRTP Map 7-15)

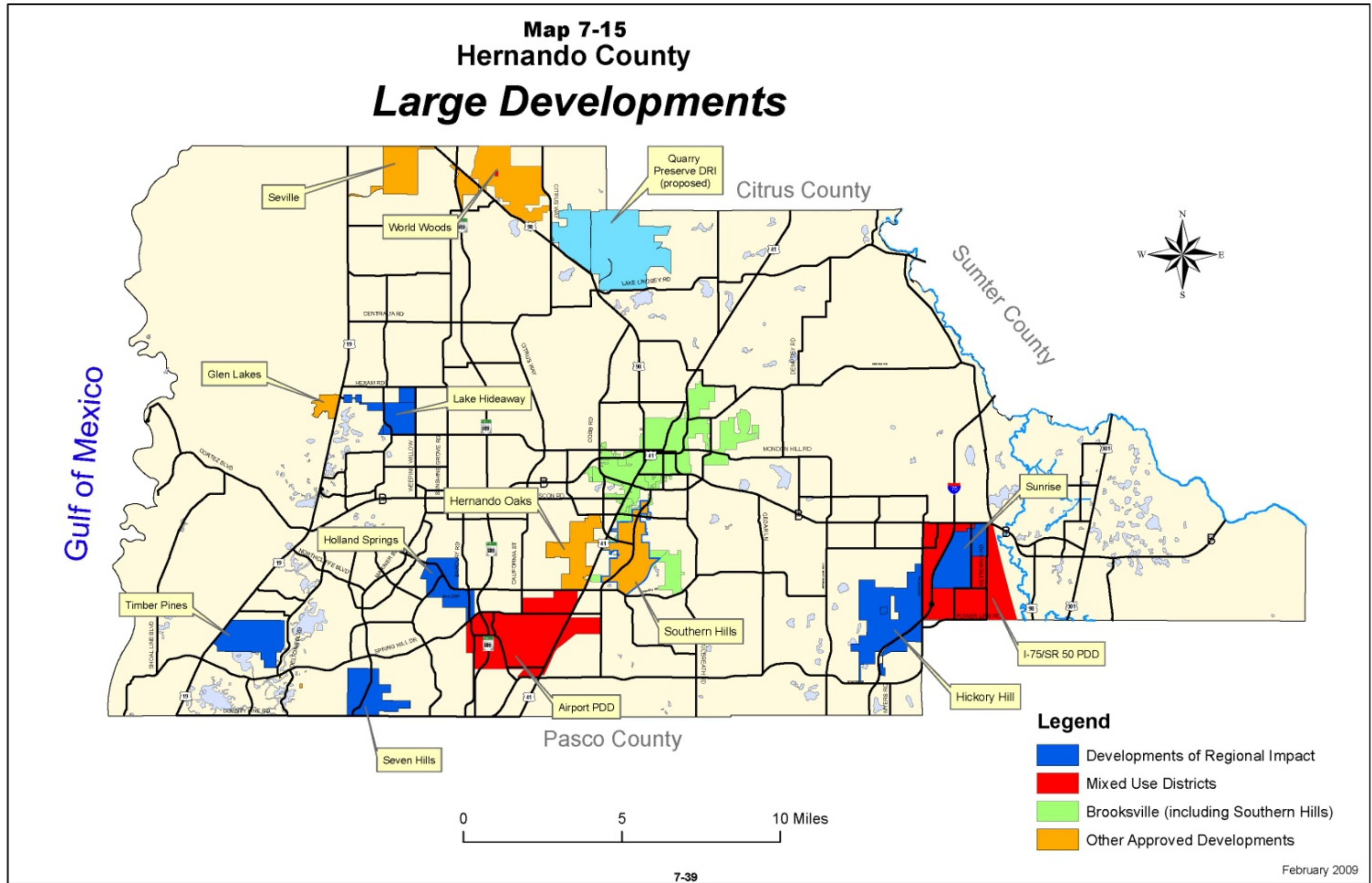


Figure 8: Hernando County Comprehensive Plan Future Land Use Map

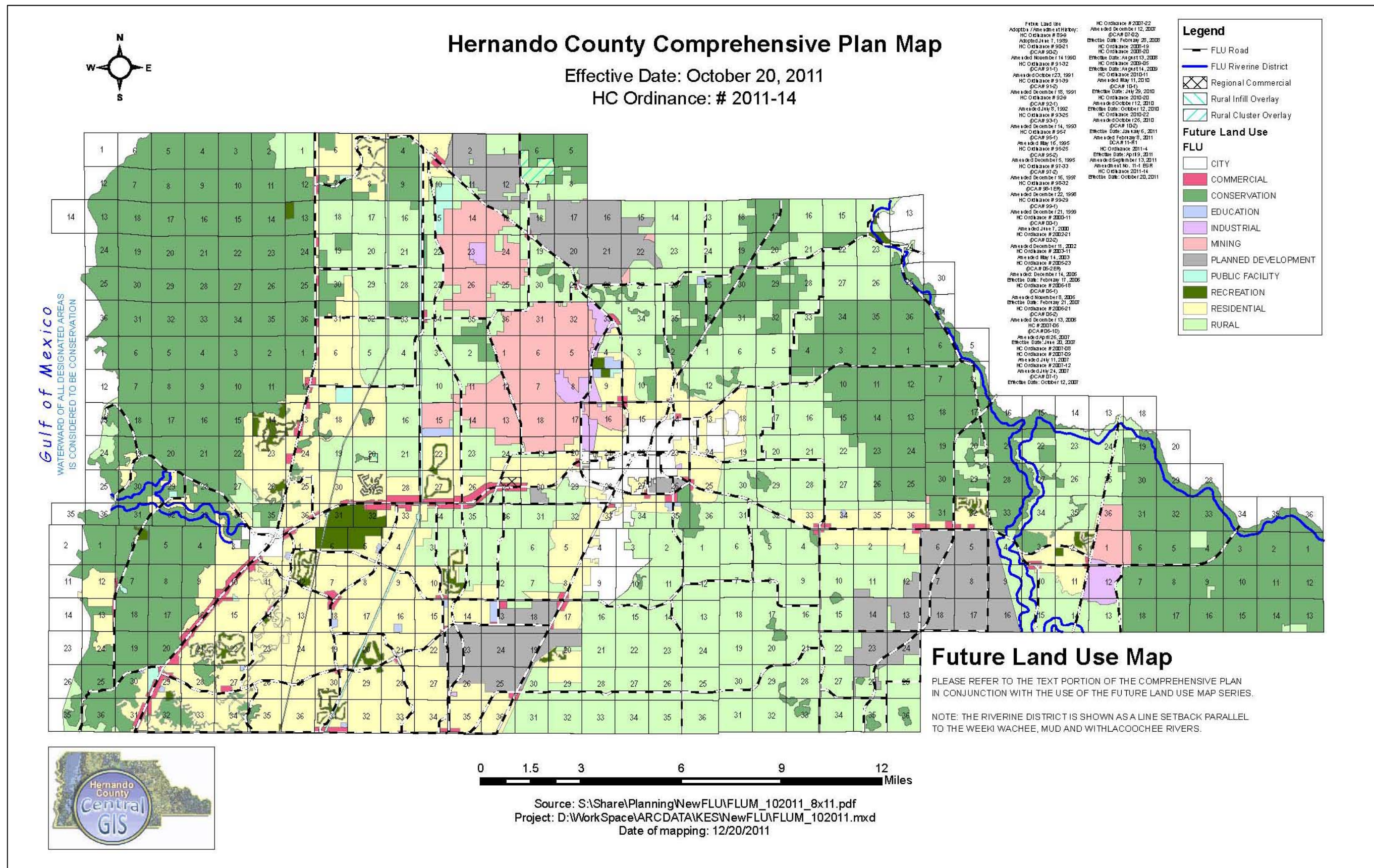
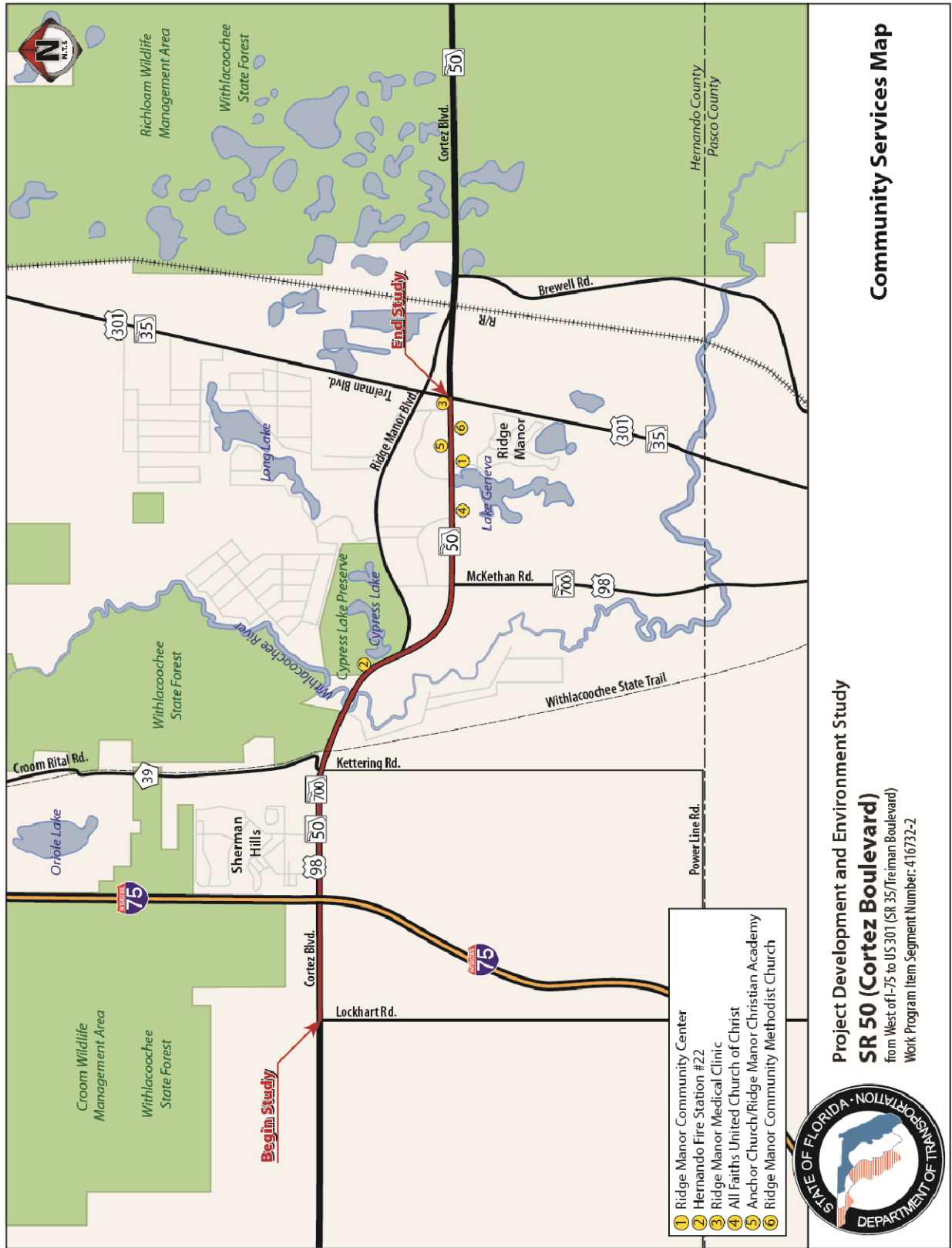


Figure 9: Community Service Map



Medical Facilities

There is one medical facility within the study area, Ridge Manor Medical Clinic, located at 34498 SR 50 (Cortez Boulevard).

There will be no impact to the Ridge Manor Medical Clinic.

Churches and Schools

There are three churches and one school within the study area:

- All Faiths United Church of Christ, 34006 SR 50 (Cortez Boulevard)
- Anchor Church/Ridge Manor Christian Academy, 34275 SR 50 (Cortez Boulevard)
- Ridge Manor Community United Methodist Church, 34350 SR 50 (Cortez Boulevard)

There are no impacts anticipated for the churches or the school.

Based on these impacts, the project will have a minimal impact to community services and facilities. Potential impacts to parks and recreational facilities are discussed in Attachment B of this document.

A-5. Nondiscrimination Considerations

In February 1994, the President of the United States issued Executive Order 12898 (Environmental Justice) requiring federal agencies to analyze and address, as appropriate, disproportionately high adverse human health and environmental effects of federal actions on ethnic and cultural minority populations and low income populations, when such analysis is required by the National Environmental Policy Act of 1969 (NEPA). An adverse effect on minority and/or low-income populations occurs when: (1) the adverse effect occurs primarily to a minority and/or low-income population; or, (2) the adverse effect suffered by the minority and/or low-income population is more severe or greater in magnitude than the adverse effect suffered by the non-minority and/or non-low-income populations. An evaluation of environmental, public health and interrelated social and economic effects of proposed projects on minority and/or low-income populations is required. All proposed projects should include measures to avoid, minimize, and/or mitigate disproportionately high and adverse impacts and provide off-setting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by these activities.

The 17 Environmental Justice criteria identified in Executive Order 12898 are: (1) air pollution; (2) noise; (3) water pollution; (4) soil contamination; (5) destruction of manmade resources; (6) destruction of natural resources; (7) diminution of aesthetic values; (8) detriment to community cohesion; (9) diminution of economic viability; (10) detriment to facilities access - public and private; (11) detriment to services access - public and private; (12) vibration; (13) diminution of employment opportunities; (14) displacement; (15) traffic congestion and impairment to mobility; (16) exclusion, isolation, or separation; and, (17) diminution of US Department of Transportation (USDOT) benefits.

In addition to compliance with Executive Order 12898, any proposed federal project must comply with the provisions of Title VI of the Civil Rights Act of 1964 and other nondiscrimination laws and regulations which prohibit discrimination on the basis of race, color, religion, sex, national origin, marital status, disability, or family composition relative to federal, state, or local government programs. Title VIII of the 1968 Civil rights Act guarantees each person equal opportunity in housing.

In August 2000, the President of the United States issued Executive Order 13166 (Improving Access to Service for Persons with Limited English Proficiency), to clarify Title VI of the Civil Rights Act of 1964. Its purpose was to ensure accessibility to programs and services to eligible persons who are not proficient in the English language.

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, Executive Order 12898 (Environmental Justice) and other nondiscrimination laws and regulations.

United States Census 2010 shows that there are two Census Blocks within the study area that have a majority percentage for minority populations (120530401011030 and 120530401021001) and two Census Block Groups that have a majority percentage of being below poverty level (120530401013 and 120530402023).

United States Census 2010 shows that there are 5,948 people over the age of five within the Census Block Groups (120530401012, 120530402023, and 120530403011) for the project area data. Of the 5,948 people, there are 134 people (2.2 percent) who speak English “not well” and 16 people (0.3 percent) that speak English “not at all.” Therefore, written translation obligations under “safe harbor” are not expected for this project since the eligible Limited English Proficiency (LEP) language group threshold did not constitute 5 percent or 1,000 persons. FDOT offers translation assistance if necessary.

The percentage of population in the study area over 65 years old is 21 percent.

Many aspects of this project will be enhancements to the standard of living for all residents in the study area and users of the facility, minority or otherwise. The project will improve mobility throughout the area for all users. There will be no relocations nor isolation or splitting of neighborhoods as a result of the project. Therefore, FDOT does not anticipate that the proposed project will result in any disproportionately high and adverse effects on protected groups in any of the above-identified environmental justice criteria. Title VI information was available at the Public Hearing.

A-6. Controversy Potential

A comprehensive Public Involvement Program has been completed for this project. This program is in compliance with the FDOT *Project Development and Environment Manual*, Section 339.155, Florida Statutes (F.S.); Executive Orders 11990 and 11988; Council on Environmental Quality Regulations for implementing the procedural provisions of the NEPA; and 23 CFR 771.

Through the Advance Notification (AN) process FDOT informed numerous federal, state, and local agencies of the project and its scope. The AN Package was transmitted to the Florida State Clearinghouse (FSC), Department of Environmental Protection/Office of Intergovernmental Programs, on September 20, 2011. In addition, FDOT submitted this project simultaneously with the AN package in the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) (ETDM #3391 – SR 50 [Cortez Boulevard] from Lockhart Road to US 301). During the 45 day review, the Environmental Technical Advisory Team (ETAT) provided their comments on the project's purpose and need, and issued their Degree of Effect (DOE) findings by resource area for each of the proposed corridors. Upon completion of the ETDM Programming Screen review, a *Programming Screen Summary Report* was developed and entered into the EST which provided the FDOT's response to each DOE finding as well as discussion about the overall project. As a result of the AN and EST screening, there were no controversial comments received.

The FDOT held a public hearing on September 27, 2012 from 5:00 pm to 7:00 pm at the Ridge Manor Community Center, 34240 Cortez Boulevard, Dade City, Florida. The purpose of the hearing was to provide an opportunity for the public to provide comments regarding the location and conceptual design of the proposed improvements to SR 50 (Cortez Boulevard) within the project limits. In accordance with Section 335.188, F.S., the public hearing was also held to provide the opportunity for public comment on the proposed access management reclassification for SR 50 (Cortez Boulevard) from Kettering Road to east of US 301 (SR 35/Treiman Boulevard) from Access Class 4 to Access Class 3 due to proposed changes from a non-restrictive to a restrictive median. Project documents were on display for public review from Thursday, September 6, 2012 to Monday, October 8, 2012 during normal operating hours at the East Hernando Branch Library and FDOT, District Seven.

A Newsletter announced the public hearing and were sent via electronic mail to public officials, and first class mail to property owners and agencies on the mailing list. In accordance with FDOT's *PD&E Manual* guidelines, an advertisement was published in the *Florida Administrative Weekly (FAW)* on September 14, 2012, and a quarter-page legal display advertisement was published in the *Hernando Times* on September 6, 2012, and again on September 22, 2012.

Approximately 37 citizens and 18 staff members signed the attendance sheets at the public hearing. Two individuals gave statements to the court reporter during the informal portion, five people spoke during the formal presentation, one written comment was received at the hearing, and six written comments were mailed to the FDOT project manager during the comment period. The court reporter recorded all verbal comments and prepared a verbatim public hearing transcript. All written comments postmarked by October 8, 2012 were included in the transcript, as well. Written comments may be found in the project files and are documented in the *Final Comments and Coordination Report* (September 2013).

The public hearing comment period was advertised to end on Monday, October 8, 2012. One written comment was received at the hearing and six were mailed to the FDOT by

the end of the comment period. A total of seven oral comments were received at the hearing; two were given to the court reporter during the informal portion, and five individuals spoke during the formal portion. The majority of comments were access and operational change requests. FDOT considered the comments and accommodated several of the changes in the preferred alternative.

As a result of the coordination with the public and agencies there has been no controversy associated with the proposed improvements.

A-7. Scenic Highways

There are no scenic highways or byways in the study area. Therefore, there is no involvement with Scenic Highways.

A-8. Farmlands

On February 13, 2013, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) determined that Hernando County does not have any Unique or Locally Important Farmlands. Therefore, there is no involvement with Farmlands.

ATTACHMENT B CULTURAL IMPACTS

B-1. Section 4(f)

There are four potential Section 4(f) resources that have been identified adjacent to and crossing the project corridor:

- Withlacoochee State Forest-Croom Tract
- Withlacoochee State Trail (WST) and Park
- Withlacoochee River South Paddling Trail
- Cypress Lakes Preserve and Florida National Scenic Trail

The approximate locations of the resources are shown in **Figure 10**. The Withlacoochee State Forest is located adjacent to SR 50 (Cortez Boulevard) on the north side. WST and Park crosses SR 50 (Cortez Boulevard) within Segment 2 just east of Croom Rital Road. The Withlacoochee River South Paddling Trail also crosses underneath SR 50 (Cortez Boulevard) within Segment 2. The Cypress Lakes Preserve and Florida National Scenic Trail is located adjacent to SR 50 (Cortez Boulevard) on the north side, also within Segment 2. **Table 2** gives a brief summary of the characteristics of the potential 4(f) properties within the project corridor. A Determination of Applicability (DOA) package was submitted to the Federal Highway Administration (FHWA) to assist the agency in evaluating the applicability of Section 4(f) to these properties. On October 24, 2013, the FHWA determined that further coordination with the FDEP should occur due to the project's temporary involvement with the Withlacoochee River South Paddling Trail during its construction. On November 5, 2013, after review of a temporary occupancy memorandum and additional evidence of coordination with the Florida Paddling Trails Coordinator at FDEP, the FHWA made the determination that the Paddling Trail meets the criteria described in 23 CFR 774.13 (d) for temporary occupancy and thus is exempt from Section 4(f) approval (Appendix B).

There is no ROW acquisition required from any of these resources. Sidewalk connections to the WST have been proposed within Segment 2. Commitments have also been added to ensure that no construction activities will take place on any of these properties.

Figure 10: Section 4(f) Resources Map



Project Development and Environment Study
SR 50 (Cortez Boulevard)
 from West of I-75 to US 301 (Treiman Boulevard)
 Work Program Item Segment Number: 416732-2

Project ROW Line

**Parks & Recreation
 Location Map**

Table 2
Characteristics of Potential Section 4(f) Properties within the SR 50 Corridor

NAME OF PROPERTY	LOCATION	OWNER	SIZE	FACILITIES AVAILABLE	DISTANCE FROM PROJECT	ROW REQUIRED	ACCESS CHANGE
Withlacochee State Forest-Croom Tract	North side of SR 50, just east of Croom Rital Road within Segment 2.	Board of Trustees of the Internal Improvement Trust Fund (TIITF); Managed by Florida Department of Agriculture and Consumer Services-Division of Forestry	23,488 ac.	Camping is available at 6 campgrounds, 2 hunt camps, 2 primitive camp zones, and 2 canoe camps.	Approximately 1.70 miles from existing facilities west of WST and 0.25 miles from proposed facilities east of WST within Segment 2.	None	None
Withlacochee State Trail and Park	Ridge Manor Trail Head is off of and just east of Croom Rital Road.	Board of Trustees of the Internal Improvement Trust Fund (TIITF); Managed by Florida Department of Environmental Protection	46 mi.	50'-200' pedestrian trail crossing 3 counties; 6 trailheads with various amenities; access to 7 major parks and recreation areas.	Crosses project within Segment 2.	None	None
Withlacochee River South Paddling Trail	Crosses SR 50 just east of Croom Rital Road, Access #3 off of Amelia Lane.	Florida Fish and Wildlife Conservation Commission; Managed by Florida Department of Environmental Protection	76 mi.	Canoe/kayak paddling trail along the Withlacochee River; camp areas adjacent to the trail.	Crosses project within Segment 2.	None	None
Cypress Lakes Preserve and Florida National Scenic Trail	North side of SR 50, Trailhead is just east of Paul R. Speckle Lane and Cedric and Catalia Streets.	Hernando County	324 ac	Environmentally Sensitive Lands with secondary passive recreation uses.	Trail is approximately 0.41 miles north of Segment 2 within the Preserve which is adjacent to SR 50.	None	None

B-2. Historic Sites / Districts

In accordance with procedures contained in Chapter 267 F.S. and FDOT procedures, the study team conducted a *Historic Resources Update Survey* to locate and identify any historic resources located within the project area of potential effect (APE) and to assess their significance in terms of eligibility for listing in the *National Register of Historic Places* (NRHP). This investigation is an update of the historical structures survey element of the CRAS (March 1989) of SR 50 (Cortez Boulevard) from SR 50/50A to US 301 (SR 35/Treiman Boulevard) performed by George Ballo of the FDOT Central Environmental Management Office (CEMO). The previous systematic archaeological survey of the SR 50 (Cortez Boulevard) project corridor (within a potential 300-ft-wide ROW within the current project limits) that was conducted by CEMO meets today's survey standards. Additionally, because it extended beyond the APE of this current project, no additional archaeological survey was required as part of this update effort.

Archaeological Consultants, Inc. (ACI) also prepared a *Cultural Resource Assessment Survey (CRAS) Technical Memorandum* (December 1995) for 12 proposed pond sites along SR 50 (Cortez Boulevard) from Rital Croom Road to east of US 98 (SR 700/McKethan Road). Some of these pond sites have already been constructed and will be utilized for this project; however, additional pond sites will be evaluated in future phases of the project. Both of these previous CRAS documents were coordinated with the State Historic Preservation Officer (SHPO) and are located in the project file.

The project APE for this historical survey update extended approximately 330 ft from the existing and proposed ROW for SR 50 (Cortez Boulevard), US 301 (SR 35/Treiman Boulevard), and US 98 (SR 700/McKethan Road). Work included background research and a historical/ architectural field survey. The preliminary background research indicated that no NRHP-listed or eligible historic resources are located within the SR 50 (Cortez Boulevard) project APE.

As a result of field survey, 16 historic resources, including 15 historic buildings (8HE679-693) and one resource group (8HE678), were newly identified, recorded, and evaluated. These include Masonry Vernacular, Frame Vernacular, and Modern style residential and commercial buildings constructed between ca. 1956 and 1962. None is considered to be potentially eligible for listing in the NRHP due to their commonality of style and lack of significant historical associations.

The *Final Historic Resource Update Survey* (February 2012) was sent to the SHPO for approval on February 27, 2012. The SHPO concurred on March 23, 2012 (Appendix C) that none of the 16 historic resources are considered to be potentially eligible for listing in the NRHP.

The *Final Historic Resource Update Survey* (February 2012) was sent to the Seminole Tribe of Florida on March 29, 2012 based on their request in ETDM #3391 to review the CRAS. In a letter dated May 22, 2012, the Seminole Tribe of Florida stated that they have no objections to the findings at this time.

The *Final Historic Resource Update Survey* (February 2012) was sent to FHWA on May 2, 2013, when the Hernando County MPO determined that the project should remain eligible for federal funding. FHWA concurred on June 5, 2013 (Appendix C) that none of the 16 historic resources are considered to be potentially eligible for listing in the NRHP. FHWA stated in an email to FDOT District Seven dated June 5, 2013, that the *Final Historic Resource Update Survey* doesn't need to be submitted to the other tribes since there doesn't appear to be anything of tribal interest among the structures surveyed.

B-3. Archaeological Sites

A CRAS (March 1989) of SR 50 (Cortez Boulevard) from SR 50/50A to US 301 (SR 35/Treiman Boulevard) was performed by George Ballo of the FDOT CEMO. Since the previous systematic archaeological survey of the SR 50 (Cortez Boulevard) project corridor (within a potential 300-ft-wide ROW within the current project limits) was conducted by CEMO, meets the survey standards of today, and because it extended beyond the APE of this current project, no additional archaeological survey was required as part of this update effort. ACI also prepared a *CRAS Technical Memorandum* (December 1995) for 12 proposed pond sites along SR 50 (Cortez Boulevard) from Rital Croom Road to east of US 98 (SR 700/McKethan Road). Some of these pond sites have already been constructed and will be utilized for this project; however, additional pond sites will be evaluated in future phases of the project.

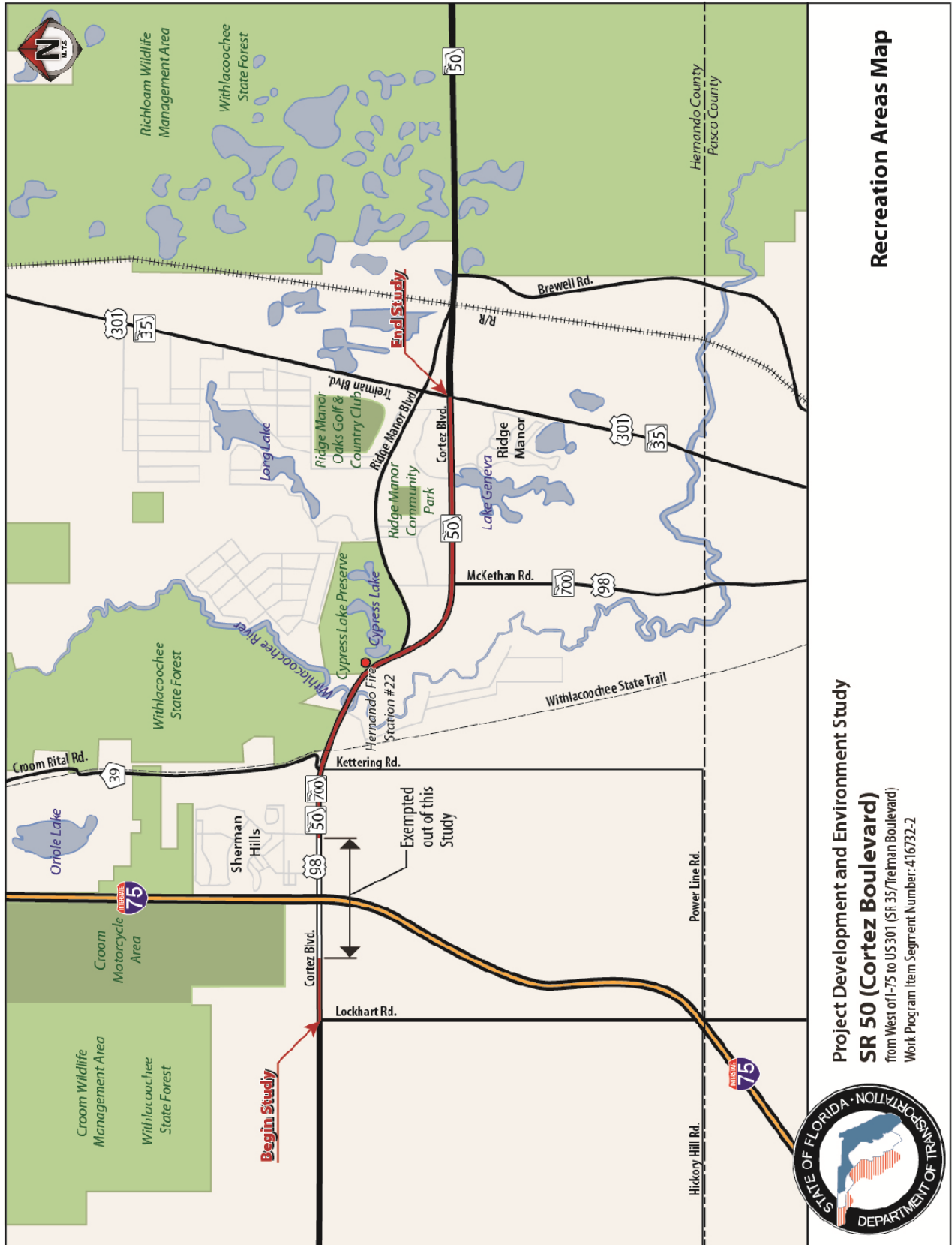
The two previous FDOT CRAS documents prepared in 1989 and 1995 along the project corridor were sent to the Seminole Tribe of Florida on March 29, 2012 based on their request in ETDM #3391 to review the CRAS. These previous surveys identified and evaluated archaeological resources. None of the archaeological sites located within these current project limits were determined eligible for listing in the NRHP. In a letter dated May 22, 2012, the Seminole Tribe of Florida stated that they have no objections to the findings at this time; however, the Seminole Tribe of Florida would like to be informed if cultural resources that are potentially ancestral or historically relevant to the Seminole Tribe of Florida are inadvertently discovered during construction.

The *Final Historic Resource Update Survey* (February 2012) was sent to FHWA on May 2, 2013. The FHWA concurred on June 5, 2013 (Appendix C) that none of the 16 historic resources are considered to be potentially eligible for listing in the NRHP. FHWA stated in an email to FDOT District Seven dated June 5, 2013, that the *Final Historic Resource Update Survey* doesn't need to be submitted to the various tribes since there doesn't appear to be anything of tribal interest among the structures surveyed.

B-4. Recreation Areas

There are numerous recreational areas within the project area most of which are part of the Withlacoochee State Forest (Croom Tract) as shown in **Figure 11**.

Figure 11: Recreation Areas Map



The Withlacoochee State Forest is located adjacent to SR 50 (Cortez Boulevard), east of Kettering Road, and the Withlacoochee State Trail, a regionally significant bicycle and pedestrian trail, crosses SR 50 (Cortez Boulevard) on a bridge. The Withlacoochee State Trail was one of the first trails purchased under the Rails to Trails Program and has been incorporated into the FDEP Office of Greenways and Trails (OGT). Improvements to SR 50 (Cortez Boulevard) can be constructed without impacting the bridge.

In addition, sidewalk connections are proposed to connect SR 50 (Cortez Boulevard) sidewalks to the Withlacoochee State Trail. The Withlacoochee River is a Florida designated paddling trail for recreational boaters. There will be no ROW acquisition from these areas and access will be maintained; therefore, the Recommended Alternative is not anticipated to cause any impacts.

Cypress Lake Preserve, a Hernando County Park consisting mainly of walking and hiking trails, including the Florida National Scenic Trail, is located adjacent to SR 50 (Cortez Boulevard) at Ridge Manor Boulevard, but will not be impacted.

The Ridge Manor Oaks Golf and Country Club is located north of SR 50 (Cortez Boulevard) along US 301. Discussion of noise impacts to the golf course is located in Attachment D1.

Ridge Manor Community Park is located north of the project area on Ridge Manor Boulevard and does not have direct access to SR 50 (Cortez Boulevard).

ATTACHMENT C NATURAL ENVIRONMENT

C-1. Wetlands

Pursuant to Presidential Executive Order 11990 entitled "Protection of Wetlands," the USDOT has developed a policy, (DOT Order 5660.1A), Preservation of the Nation's Wetlands, dated August 24, 1978, which requires all federally funded highway projects to protect wetlands to the fullest extent possible. In accordance with this policy, as well as Part 2, Chapter 18 Wetlands of the FDOT PD&E Manual, the study area was evaluated for any wetlands that have potential involvement with the proposed improvements.

Upland, wetland and other surface water area estimates within 300 ft of the existing edge of pavement were developed using Geographic Information Systems (GIS) technology.

This boundary (300-ft from edge of pavement) also defines the limits of the study area. Wetland type descriptions are based on wetland types detailed in the Florida Land Use, Cover and Forms Classification System (FLUCFCS) Handbook (FDOT, January 1999) and the USFWS Classification of Wetlands and Deepwater Habitats of the United States. A field review was conducted on April 20, 2011, and the FLUCFCS codes adjusted based on the review. A second field review was conducted on January 16, 2012, to review additional areas not included in the original study area. Formal wetland delineations were not conducted during these site inspections. More accurate wetland boundaries will be recorded during field ground-truthing efforts for the future design of the Recommended Alternative.

Eight wetland or surface water community types were identified on the corridor. The location of the wetlands and surface waters are included on the Concept Plans located in the Final Preliminary Engineering Report (PER). The area represented by each FLUCFCS and USFWS code is shown in **Table 3**.

Table 3: Wetland and Surface Water Communities in the Study Area

FLUCFCS Code	FLUCFCS Description	USFWS Code	Acreage in Study Area	Acreage in Proposed ROW
510	Streams and Waterways	R2UB	1.88	1.16
530	Reservoirs	PUBx	0.58	0.58
615	Streams and Lake Swamps	PFO2C	1.07	0
621	Cypress	PFO2	5.04	0.10
641	Freshwater Marshes	PEM1	2.10	0
643	Wet Prairie	PEM1	0.35	0
644	Emergent Aquatic Vegetation	PAB4	1.19	0
653	Intermittent Ponds	PUBJx	5.45	5.45
TOTAL			17.66	7.29

The project corridor is an existing roadway alignment with wetlands and surface waters within the ROW. Therefore, impacts to wetlands and other surface waters are unavoidable. Measures to minimize and avoid impacts to the greatest extent practicable will be implemented both in the design phase and the construction phase of the project. It is anticipated that impacts will primarily occur in the existing ROW. Facilities to treat, convey, or attenuate surface waters will be provided as part of the project. Impacts due to the construction of stormwater treatment facilities were not reviewed during this PD&E study.

The acreages are provided as both impacts resulting from the entire study area that included a 300-ft buffer from the edge of pavement being impacted and those resulting from just the habitat within the existing ROW being impacted. Both of these acreages are expected to be reduced during design of the project. For instance, the existing pond sites will largely remain intact; impacts to SW-1 (Withlacoochee River) will only be pilings rather than the entire area; and the project will not impact the entire study area. The wetland and surface water habitats identified within the study area totaled 17.66 ac (**Table 4**). The wetland and surface water habitats identified within the proposed ROW totaled 7.29 ac. The Uniform Mitigation Assessment Method (UMAM) value of wetlands within the study area ranged from 0.3 to 0.8 per ac, with differences based on degree of isolation and degradation due to the adjacent existing roadway. A UMAM value of 0.3 per ac was also calculated for one of the existing stormwater pond sites (OSW-1), since any permanent impact to this pond would require compensation for wood stork SFH within their CFA. The other five stormwater pond sites do not have SFH based on hydrology and were therefore not evaluated via UMAM.

Table 4: Potential Wetland and Other Surface Waters Impact

Wetland or Surface Water	FLUCFCS Code	USFWS Code	Potential Wetland Impact Within Study Area (AC)	Potential Impact Within Proposed ROW (AC)	UMAM Value per Acre	UMAM Value within Study Area	UMAM Value within ROW
SW-1	510	R2UB	1.88	1.16	0.8	1.50	0.93
OSW-1	530	PUBx	0.58	0.58	0.3	0.17	0.17
W-2	644	PAB4	0.42	0.00	0.6	0.25	0.00
W-2	621	PFO2	5.04	0.10	0.6	3.02	0.06
W-3	644	PAB4	0.42	0.00	0.5	0.21	0.00
W-4	644	PAB4	0.33	0.00	0.5	0.17	0.00
W-5	641	PEM1	0.78	0.00	0.3	0.23	0.00
W-6	643	PEM1	0.35	0.00	0.3	0.11	0.00
OSW-7	653	PUB1x	1.60	1.60	n/a	n/a	n/a
OSW-8	653	PUB1x	0.92	0.92	n/a	n/a	n/a
W-9	615	PFO2C	1.07	0.00	0.4	0.43	0.00
OSW-10	653	PUBJx	1.21	1.21	n/a	n/a	n/a
W-11	641	PEM1	0.44	0.00	0.5	0.22	0.00
W12	644	PEM1	0.02	0.00	0.5	0.01	0.00
W-13	641	PEM1	0.88	0.00	0.3	0.26	0.00
OSW-14	653	PUB1x	0.64	0.64	n/a	n/a	n/a
OSW-15	653	PUB1x	1.08	1.08	n/a	n/a	n/a
TOTAL			17.66	7.29		6.59	1.16

Mitigation

No mitigation requirements were anticipated for impacts to the other surface waters based on current regulations. Mitigation for wetland impacts will be provided through the purchase of mitigation bank credits, if available at the time of permitting or through the FDOT Mitigation Program in accordance with Chapter 373.4137 F.S. [Program]. Recent cost estimates of the Green Swamp Mitigation Bank are \$180,000 per UMAM credit for freshwater forested impacts. There are currently no bank credits available for freshwater herbaceous impacts. Mitigation through the Program is currently available at a cost of \$109,599 per acre of impact for FY 2013/14. Therefore, the estimated cost of mitigation for the project ranges from \$1,019,580 (combination of bank/Program) to \$1,068,590 (Program only) for impacts within the study area. The mitigation cost estimate ranges from \$543,600.00 (Bank) to \$552,379.00 (Program) for impacts within the existing ROW. Other alternatives may be developed prior to or during permitting of this project. In any instance, the mitigation for wetlands should also include the purchase of sufficient additional credits to offset impacts to wood stork SFH within their CFA.

C-2. Aquatic Preserves

There are no aquatic preserves in the study area. Therefore, there is no involvement with Aquatic Preserves.

C-3. Water Quality

A Water Quality Impact Evaluation (WQIE) has been prepared for this study and is available in the project files.

C-4. Outstanding Florida Waters (OFWs)

OFWs are designated and specially protected because of their natural attributes, (Section 403.061, F.S.). Based on a review of the FDEP designation list, the Withlacoochee Riverine and Lake System is designated as an OFW. Additional water quality treatment will be implemented, as required. FDOT will coordinate and consult with the FDEP and SWFWMD regarding specific permitting requirements as it relates to the OFW.

C-5. Wild and Scenic Rivers

There are no wild and scenic rivers in the study area. The Withlacoochee River is not included on the National Wild and Scenic River System. Therefore, there is no involvement with Wild and Scenic Rivers.

C-6. Floodplains

In accordance with Executive Order 11988, "Floodplain Management," USDOT Order 5650.2, "Floodplain Management and Protection," and Chapter 23, CFR, Part 650A, encroachment to floodplains from the construction of the proposed project alternatives will be considered later in future project phases.

The Federal Emergency Management Agency (FEMA) completed the Flood Insurance Study (FIS) for Hernando County in 1981. There was a revision made to the FIS in January 2010 and February 2012.

Portions of the study area for the proposed SR 50 (Cortez Boulevard) widening are located within the floodplain limits shown on the FEMA Flood Insurance Rate Map (FIRM) Community Panels 12053C0219D, 12053C0238D, 12053C0239D, and 12053C0243D. Portions of SR 50 (Cortez Boulevard) from Kettering Road to US 301 (SR 35/Treiman Boulevard) lie within Zone AE which is within the 100-yr floodplain.

The recent FIRM also delineates floodplains within the existing SR 50 (Cortez Boulevard) ditches, and linear water management systems and SMFs. It is assumed that these stormwater management systems accommodate and treat the ultimate six-lane typical section. These water management systems will be evaluated in the design phase.

The floodplain is primarily from the Withlacoochee River and wetland system associated with it. The existing SR 50 (Cortez Boulevard) alignment is a transverse encroachment to freshwater floodplains. All of the floodplain encroachments will be minimal due to the proposed roadway alignment following the same alignment as the existing roadway.

Floodplain compensation for any freshwater encroachments may be required by SWFWMD. There are no designated floodplains within the project limits.

The existing cross drains have been identified for the length of the project. There are approximately nine cross drains and one bridge located within the study limits. A cross drain analysis was determined not to be commensurate with the purpose of the study. A cross drain analysis will be performed as part of the design phase; however, it is anticipated that most of the cross drains will need to be extended and potentially upsized.

The proposed project is consistent with the *Hernando County Comprehensive Plan* (October 2010). The proposed project will not encourage floodplain development due to local FEMA floodplain and SWFWMD regulations. The project drainage design will be consistent with local FEMA, FDOT, and SWFWMD design guides. Therefore, no significant change in the base flood elevation or limits will occur. The proposed roadway will follow the same general alignment as the existing roadway. Therefore, no natural or beneficial floodplain values will be significantly affected, but there will be 9 ac of floodplain impacts resulting from the roadway improvements.

The *Location Hydraulic Report* (LHR) documents the floodplain encroachments. Based on the information collected during this study, the proposed improvements can be categorized as STATEMENT 4: PROJECTS ON EXISTING ALIGNMENT INVOLVING REPLACEMENT OF EXISTING DRAINAGE STRUCTURES WITH NO RECORD OF DRAINAGE PROBLEMS, as defined in Chap. 24 of the FDOT *Project Development and Environment Manual*, Part 2, Figure 24.1.

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

C-7. Coastal Zone Consistency

FSC staff had reviewed FDOT District Seven's USDOT funding proposal under the following authorities: Presidential Executive Order 12372; § 403.061(42), *F.S.*; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

Based on the information contained in the submittal and the state agency comments received during the ETDM Programming Screen, the state had no objections to allocation of federal funds for the subject project and, therefore, the funding award is consistent with the Florida Coastal Management Program (FCMP). To ensure the project's continued consistency with the FCMP, the concerns identified by the reviewing agencies must be addressed prior to project implementation. The state's continued

concurrence will be based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of issues identified during this and subsequent regulatory reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process, in accordance with Section 373.428, F.S.

C-8. Coastal Barrier Resources

According to the USFWS Coastal Barrier Resource Act website, there are no coastal barrier resource units in Hernando County. Therefore, there is no involvement with Coastal Barrier Resources.

C-9. Wildlife and Habitat

This project was evaluated for potential impacts to wildlife and habitat resources, including protected species in accordance with 50 CFR Part 402 of the Endangered Species Act of 1973, as amended; 50 CFR 17 (federal animal list); Section 379.2291 F.S., Endangered and Threatened Species Act; Chapter 68A-27.003 F.A.C. (Endangered species list); 68A-27.004 F.A.C. (Threatened species list); 68A-27.005 F.A.C. (Species of Special Concern list), and Chapter 27 of the FDOT *Project Development and Environment Manual*, Wildlife and Habitat Impacts. This evaluation was documented in the Final ETC.

Agency database searches and a preliminary field review of potential habitat areas were conducted to identify state and federally protected wildlife species and/or critical habitat occurring or potentially occurring within the project area. Project scientists conducted the general wildlife field review on April 20, 2011. A second field review was conducted on January 16, 2012, to review additional areas not included in the original study area. Further evaluation of federally-listed species occurred through discussions with conservation land managers at Withlacoochee State Forest and Cypress Lake Preserve, followed by field reviews August 6-7, 2013. The following resources were utilized to determine this assessment:

- FDOT FLUCFCS, 3rd edition 1999.
- SWFWMD Land Use Data
- Aerial derived photographs
- FWC, Florida's Endangered Species and Threatened Species, November 2010
- Florida Natural Areas Inventory (FNAI), Hernando County, Florida
- FWC Bald Eagle Nest locator website
- Breeding Atlas of Herons and their Allies Database
- Wood Stork Colony Location Database (GIS/FWS data)

Several state and federally protected wildlife species occur or have the potential to occur within the study area. During the field verification, the presence of protected species was noted. However, species specific surveys were not conducted and the field review was limited to what could be observed in the ROW.

Potential Protected Plant Species

The database review conducted for the FNAI protected plant list for Hernando County resulted in a list of twenty potential species that could possibly occur in the habitat types on this project (**Table 5**). Of the twenty species identified, seventeen are designated as Endangered by the state and three are designated as Threatened by the state. Only three of the species are designated as federally protected (Endangered), as well as being listed by the state: Britton's beargrass (*Nolina brittoniana*), Robin's Bellflower (*Companula robinsiae*), and Cooley's Water-willow (*Justicia cooleyi*). Potential habitat for these plants occurs within the study area based on FNAI data and field evaluation. Britton's beargrass generally occurs on scrub, sandhill, scrubby flatwoods, and xeric hammock, flowering March through May. Robin's bellflower is typically found along the margins of ponds and marshes with fluctuating water levels and moist seepage areas surrounded by pastures, and has been documented at sites in Hernando and Hillsborough counties flowering as water levels recede following the rainy season. Cooley's water-willow occurs on hardwood hammocks over limestone, flowering from August to December. Scientists equipped with a field guide for these species did not observe them in the field during any of the field reviews, and the managers of nearby conservation lands (Withlacoochee State Forest and Cypress Lake Preserve) also were not aware of their presence in this vicinity. Based on this information, the project "may affect, not likely to adversely affect" these three species. However, portions of the study area were not accessible due to access constraints. Therefore, to assure that these plant species are not present in the project area, additional surveys would be undertaken during design of the future SR 50 (Cortez Boulevard) widening projects.

Table 5: Protected Plant Species Potentially Present in Project Study Area

Scientific Name	Common Name	Federal Status	State Status
<i>Adiantum tenrum</i>	Brittle Maidenhair Fern	NL	E
<i>Agrimonia incise</i>	Incised Groove-Bur	NL	E
<i>Asplenium erosum</i>	Auricled Spleenwort	NL	E
<i>Asplenium pumilum</i>	Dwarf Spleenwort	NL	E
<i>Blechnum occidentale</i>	Sinkhole Fern	NL	E
<i>Campanula robinsiae</i>	Robin's Bellflower	E	E
<i>Centrosema arenicola</i>	Sand Butterfly Pea	NL	E
<i>Coelorachis tuberculosa</i>	Piedmont Jointgrass	NL	T
<i>Justicia cooleyi</i>	Cooley's Water-Willow	E	E
<i>Lechea divaricata</i>	Drysand Pinweed	NL	E
<i>Monotropis reynoldsiae</i>	Pygmy Pipes	NL	E
<i>Nolina brittoniana</i>	Britton's Beargrass	E	E
<i>Pecluma dispersa</i>	Widespread Polypody	NL	E
<i>Pecluma plumula</i>	Plume Polypody	NL	E
<i>Pecluma ptilodon</i>	Swamp Plume Fern	NL	E
<i>Pepeomia humilis</i>	Terrestrial Peperomia	NL	E
<i>Pteroglossaspis ecristata</i>	Giant Orchid	NL	T
<i>Pycnanthemum floridanum</i>	Florida Mountain-Mint	NL	T
<i>Schizachyrium niveum</i>	Scrub Bluestem	NL	E
<i>Triphora craigheadii</i>	Craighead's Nodding-Caps	NL	E

Legend: T=Threatened; E=Endangered; NL=Not Listed

Potential Protected Wildlife Species

Potential species were preliminarily identified with a data search of the FNAI website. Based on habitats identified with the SWFWMD land use data and preliminary field reviews, this list was modified to show only the species that were observed or are known to utilize the habitat types present on the corridor. The species with the potential to occur in the study area based on habitat type are listed in **Table 6** with the likelihood of occurrence rated as low, moderate, high, or none. A low rating indicated that the species was known to occur in Hernando County, but preferred habitat was not present or limited on the corridor. The low rating also was utilized for species for which preferred habitat was present, but current databases provided strong evidence that the species was not present in the corridor. A moderate rating indicated the species is known to occur in Hernando County and that suitable habitat for that species is well represented on the project corridor, but that no observations or positive indicators were observed during field reviews to verify the species' presence. Species with a moderate rating may require Standard Construction Precautions to provide additional protections during construction. A high rating indicated the species occurs in Hernando County, is suspected within the project corridor based on known ranges and existence of sufficient preferred habitat on the corridor, is known to occur adjacent to the corridor, was observed during field reviews, or has been previously observed or documented in the vicinity. A high rating also indicated that the project is located within a Consultation Area for the species.

Table 6: Potentially Occurring Protected Wildlife Species

Scientific Name	Common Name	State Status	Federal Status	Preferred Habitat	Probability of Involvement
<i>Rana capito</i>	Gopher Frog	SSC	–	Various habitats, gopher tortoise burrows	Moderate
<i>Drymarchon couperi</i>	Eastern Indigo Snake	FT	T	Various habitats, gopher tortoise burrows	Moderate
<i>Gopherus polyphemus</i>	Gopher Tortoise	ST	C	Xeric habitats	High
<i>Lampropeltis extenuata</i>	Short-tailed Snake	ST	–	Xeric habitats	Low
<i>Pituophis melanoleuccus mugitus</i>	Florida Pine Snake	SSC	—	Xeric habitats	Low
<i>Pseudemys concinna suwanniensis</i>	Suwannee Cooter	SSC	–	Freshwater rivers and lakes	Moderate
<i>Aphelocoma coerulescens</i>	Florida Scrub Jay	FT	T	Sand pine scrub	Low
<i>Aramus guarauna</i>	Limpkin	SSC	—	Freshwater marshes, wet prairies, cypress swamps, hardwood swamps	Low
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	SSC	—	Dry prairies, open grassland	Moderate
<i>Egretta caerulea</i>	Little Blue Heron	SSC	—	Freshwater and salt marshes, wet prairies, cypress swamps, hardwood swamps	Low

Table 6: Potentially Occurring Protected Wildlife Species

Scientific Name	Common Name	State Status	Federal Status	Preferred Habitat	Probability of Involvement
<i>Egretta thula</i>	Snowy Egret	SSC	—	Freshwater and salt marshes, wet prairies, cypress swamps, hardwood swamps	Low
<i>Egretta tricolor</i>	Tricolored Heron	SSC	—	Freshwater and salt marshes, wet prairies, cypress swamps, hardwood swamps	Low
<i>Eudocimus albus</i>	White Ibis	SSC	—	Freshwater and salt marshes, wet prairies, various habitats	Low
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	ST	—	Open habitats, dry prairies, agriculture habitats	Moderate
<i>Grus canadensis pratensis</i>	Florida Sandhill Crane	ST	—	Dry prairies, freshwater marshes, wet prairies	Moderate
<i>Haliaeetus leucocephalus</i>	Bald Eagle	*	*	Various habitats	Low
<i>Pandion haliaetus</i>	Osprey	SSC	-	Various habitats	Moderate
<i>Mycteria americana</i>	Wood stork	FE	E	Freshwater marshes, wet prairies, cypress swamps, hardwood swamps	Moderate
<i>Picoides borealis</i>	Red-Cockaded Woodpecker	FE	E	Pine flatwoods	Moderate
<i>Platalea ajaja</i>	Roseate Spoonbill	SSC	—	Freshwater and salt marshes, wet prairies, cypress swamps, hardwood swamps	Moderate
<i>Podomys floridanus</i>	Florida Mouse	SSC	—	Various habitats, gopher tortoise burrows	Moderate
<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	SSC	—	Pine flatwoods	Low

* The bald eagle is no longer protected by the Endangered Species Act (ESA). However, it is protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act (MBTA), and state Bald Eagle rule. The osprey is also not protected under state or federal ESA, but is protected under the MBTA.

Legend: FE- Federally-Designated Endangered; FT-Federally-Designated Threatened; ST – State-Designated Threatened; SSC –State Species of Special Concern; C-Candidate for Federal listing

Federally Listed Species

Species protected both federally and by the state with the potential to occur in the study area include the Eastern indigo snake (*Drymarchon couperi*), Florida scrub jay (*Aphelocoma coerulescens*), wood stork (*Mycteria americana*), and red-cockaded woodpecker (*Picoides borealis*).

The Eastern indigo snake is a federally and state listed threatened species. The project was evaluated in accordance with the Eastern Indigo Snake Programmatic Effect Determination Key (USFWS, 2010 and 2013). The study area includes several types of habitat with potential for Eastern indigo snake, including presence of gopher tortoise burrows and mammal burrows within mesic and xeric habitats. Further, staff at the Withlacoochee State Forest (Vince Morris) and Cypress Lake Preserve (Jim King)

indicated during telephone discussions that Eastern indigo snakes have been frequently observed in this vicinity. Therefore, the FDOT will utilize the USFWS' Standard Protection Measures for the Eastern Indigo Snake, dated August 12, 2013 http://www.fws.gov/northflorida/IndigoSnakes/20130812_Eastern_indigo_snake_Standard_Protection_Measures.htm. Thirty-three (33) gopher tortoise burrows were observed during field evaluations within the 300-ft study area of the approximate 6.3 mi long study corridor. In accordance with the USFWS key (couplet D), the project corridor "may affect" the Eastern indigo snake since more than twenty-five burrows were observed within the study corridor during field surveys. It should be noted that the field evaluations did not include a 100% burrow survey of gopher tortoise habitat. The FDOT will therefore conduct an additional formal survey for active and inactive (i.e., potentially occupied) burrows within two years prior to construction, and will re-initiate informal consultation with USFWS prior to permitting. Furthermore, should the results of the survey and informal consultation illustrate the need, the most current USFWS eastern indigo snake survey protocol will be utilized.

The Florida scrub jay is a federally and state listed threatened species. The red-cockaded woodpecker is a federally and state listed endangered species. The project area was within USFWS Consultation Areas for both of these species, and a letter from FWC on May 16, 2013 recommends pre-construction surveys for these species. Discussions with the conservation land managers at the Withlacoochee State Forest and Cypress Lake Preserve indicated that the nearest known locations of red-cockaded woodpecker colonies are approximately 4 mi northwest of the SR 50 (Cortez Boulevard) intersection with I-75, and one mile east of the SR 50 (Cortez Boulevard) intersection with U.S. 301. Long-leaf pine (*Pinus palustris*) and slash pine (*Pinus elliotii*) trees that are 60 years or older based on increment-boring or with a diameter at breast height (dbh) greater than 6 inches are assumed to be suitable for nesting. Based on field evaluation, suitable long-leaf pine and slash pine occur within portions of the project area, although no nest sites were observed. Based on these discussions and field reviews, red-cockaded woodpeckers are not anticipated in the project area. Field reviews and discussions with the conservation land managers also determined that scrub jays are not likely to occur within the project area. Areas with potential scrub jay habitat based on FLUCFCS data were evaluated during the August 6-7, 2013 field reviews. These areas were determined to have limited potential as scrub jay habitat due to vegetation that is too densely forested to support scrub jay nesting sites. Therefore, it is anticipated that the project "may affect, not likely to adversely affect" red-cockaded woodpeckers and Florida scrub jays.

The wood stork is a federally and state listed endangered species. The project was evaluated in accordance with the Wood Stork Key for Central and North Peninsular Florida (USFWS, 2008). The project is located within the 15.0 mi CFA of three wood stork colonies. Wood stork colony 61104 is located 12.0 mi north of the project study area, colony 611305 is located 11.1 mi west of the project study area, and colony 611021 is located 8.2 mi east of the project study area. Because the study corridor area is within these three CFAs, compensation of any impacted habitat within a future design segment that is SFH for this species will be evaluated during its design and the appropriate mitigation will be provided to compensate for the loss of SFH within the

CFA. The FDOT will coordinate with the USACE and USFWS during the future projects' design and permitting activities to determine the quantity of the impacts and compensate for SFH in accordance with the wood stork key, concurrent with mitigation for wetland impacts. Mitigation is anticipated to be required only for permanent impacts to SFH within the CFA. In-kind relocation or replacement of a ditch or stormwater pond containing SFH is generally considered only a temporary impact, not requiring compensatory mitigation. With appropriate mitigation provided for permanent impacts at the time of permitting, the project "may affect, not likely to adversely affect" the wood stork.

The Florida manatee (*Trichechus manatus latirostris*), a federally listed endangered species, is not present within the project but is included here for purposes of discussion. The Withlacoochee River crosses under SR 50 between Cyril Dr/Amelia Lane and Ridge Manor Blvd. Portions of the Withlacoochee River support manatees; however, based on a review of manatee survey and mortality data, those areas are significantly downstream of the project, west of US 41 (SR 45). Numerous water management structures within the Withlacoochee River between SR 45 and SR 50 (Cortez Boulevard) prevent manatee movement. Therefore, the proposed project will have "no effect" on the manatee.

The gopher tortoise (*Gopherus polyphemus*), a state listed threatened species and candidate for federal listing within the southeastern U.S., is located within the project area. During the field reviews a total of thirty-three (33) gopher tortoise burrows were identified within the existing ROW; however, the field reviews were not a formal gopher tortoise burrow survey. During a project's design and prior to construction, FDOT will conduct the appropriate gopher tortoise survey, coordinate with the FWC to permit and relocate gopher tortoises located within a project's limits of construction, and provide compensation as required through that permitting process.

State Listed Species

State-designated protected species with the potential to occur included the gopher frog (*Rana capito*), short-tailed snake (*Lampropeltis extenuate*), Suwannee cooter (*Pseudemys concinna suwanniensis*), Florida mouse (*Podomys floridanus*), gopher tortoise (*Gopherus polyphemus*), Florida pine snake (*Pituophis melanoleuccus mugitus*), limpkin (*Aramus guarauna*), Florida burrowing owl (*Athene cunicularia floridana*), Southeastern American kestrel (*Falco sparverius paulus*), Florida sandhill crane (*Grus canadensis pratensis*), and state-protected wading birds. The potential of occurrence was based primarily on habitat types and database information. Of these, the only species directly observed during field reviews was the gopher tortoise.

Of the species that occurred in the vicinity, the short-tailed snake, the Florida pine snake, and the Suwannee cooter are not anticipated to be impacted by the project due to a lack of suitable habitat. The project is anticipated to have no effect on these species as described below.

The **short-tailed snake** is a state protected threatened species. This species is typically found in xeric habitats such as sandhill or sand pine scrub areas. Because of the lack of

appropriate habitat, this species would not be affected by the project. In addition, protective measures in place for the Eastern indigo snake would also benefit this species. The **Florida pine snake** is a state protected species of special concern. This species is typically found in xeric habitats such as turkey oak communities, sandhill, and scrub. Because of a lack of this type of habitat, this species would not be affected by the project. In addition, protective measures in place for the Eastern indigo snake would also benefit this species. The **Suwannee cooter** is a state protected species of special concern that inhabits freshwater waterways. However, due to the anticipated limited work in the water, as well as the transient nature of this species, this species would not be affected by the project.

Limited foraging and/or nesting habitat is present in the corridor for the state protected wading birds and the **Florida sandhill crane**. Because mitigation will be provided for all impacts to wetlands and surface waters suitable for foraging or nesting, the impacts to these species, if any, will be minimal. The state-protected wading bird species in the project area include the **limpkin**, **little blue heron** (*Egretta caerulea*), **snowy egret** (*Egretta thula*), **tricolored heron** (*Egretta tricolor*), **roseate spoonbill** (*Platalea ajaja*), and **white ibis** (*Eudocimus albus*), which are all state listed species of special concern. While small foraging areas utilized by these species may be affected by this project, there would be no permanent impacts to nesting areas or rookeries. The FWC in a letter to FDOT dated May 16, 2013 recommended that potential impacts to wading birds be rated as “moderate” rather than “low” due to foraging habitat within the shoreline area of the Withlacoochee River. However, impact to this area is not anticipated other than potential placement of bridge piling(s) in order to widen the bridges. With appropriate mitigation for wetlands as described above, the project may affect, but is not likely to adversely affect, the state-protected wading birds.

The **Florida sandhill crane** is a state protected threatened species. This species is primarily affected from the disruption of nesting and the destruction of nesting habitat. Sandhill cranes were not observed during field reviews and habitat for nesting was very limited. Because no impacts to nesting or foraging habitat are anticipated, this species will not be affected by the project. The **gopher tortoise**, a state listed threatened species, was observed within the corridor’s study area. During the field reviews a total of thirty-three (33) gopher tortoise burrows were identified within the approximate 6.3 mi long study corridor; however, the field review was not a formal gopher tortoise survey. During a project’s future design and prior to construction, FDOT will conduct the appropriate gopher tortoise survey, coordinate with the FWC to permit and relocate gopher tortoises located in the project area, and provide compensation as required through that permitting process. This permitting effort should also afford protection to the gopher tortoises’ commensals, the **gopher frog** and **Florida mouse**. With the appropriate permitting and relocation effort, the project may affect but is not likely to adversely affect the gopher tortoise, Florida mouse, and gopher frog.

The following species were not observed in the project area. However, due to the limited nature of the surveys conducted and FWC comments, additional surveys to reevaluate these species are planned to be done during the future design of the projects.

The **Southeastern American kestrel** nests in the spring (March through June) typically using snags (dead standing trees) containing abandoned woodpecker-created cavities. From the fall through the spring, the more northern, migratory American kestrel (*F. s. sparverius*) also occurs. This subspecies of kestrel does not nest in Florida and is not protected by the USFWS or the FWC. However, it is not easily distinguishable from the southeastern American kestrel and occurs in similar habitat. To avoid misidentification, the FWC recommends that surveys for the southeastern subspecies occur from April through August, when the American kestrel does not occur in Florida. Some suitable foraging and nesting habitat occurs within the project study area. However, during field evaluations, no kestrels, nest sites, or nest cavities were observed. Direct impacts to the kestrel occur when the nest cavity is removed. However, due to the limited nature of the field evaluations, additional surveys during the design phase of the project are recommended by FWC in a letter dated May 16, 2013.

The **Florida burrowing owl** is a state protected species of special concern. Additional surveys during design were recommended by FWC in their May 16, 2013 letter to determine if burrows are located within the areas to be impacted as a result of this project. Suitable habitat for burrowing owl burrows exists within the project study area for this species, although none were observed. However, portions of the study area were not available for survey. It was anticipated that the project is not likely to adversely affect this species, and the Department plans to conduct an additional survey for burrows during design of the projects.

Sherman's fox squirrel (*Sciurus niger shermani*), is a state protected species of special concern. Nest surveys during design were recommended in the FWC letter. Although this species' preferred habitat (mature longleaf pine-turkey oak sand hills and flatwoods) does not occur within the study area, the presence of longleaf and slash pine in portions of the project provide potential nesting sites. No nests were observed during field observations. It is anticipated that this project may affect but is not likely to adversely affect this species, and the Department plans to conduct an additional survey during design of the projects.

Non-Listed Protected Species

The **bald eagle** (*Haliaeetus leucocephalus*) is not listed as threatened, endangered, or special concern by the USFWS or FWC; however, this species is protected at the federal level by the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act (MBTA), and in Florida by the Bald Eagle rule (68A-16.002, F.A.C). The FWC letter dated May 16, 2013 recommends a nest survey prior to construction. Bald eagles use forested habitats for nesting, particularly large trees within densely forested areas within 1.8 mi of open bodies of water (FWC). No bald eagle nests are mapped by FWC within 660 ft of the project area, and none were observed during the field reviews. It is anticipated that the project would not affect this species. However, visual observation will be conducted prior to construction activities during the bald eagle nesting season (October 1 to May 15) to confirm the absence of active eagle nests within 660 ft of construction activities, and implement protective measures in accordance with the FWC Bald Eagle Management Plan (FWC, 2008) in the event that active nests are observed. The **osprey** (*Pandion haliaetus*) is protected under the MBTA. No nests were observed

during field evaluations; however, in the event that nests are observed prior to or during construction, a nest removal permit will be obtained.

FDOT submitted the Final ETC to USFWS on September 19, 2013. In a letter dated November 18, 2013, the USFWS concurred with these findings. (Appendix D)

C-10. Essential Fish Habitat

Essential Fish Habitat (EFH) regulation applies primarily to estuarine and marine habitat, per the Magnuson-Stevens Fishery Conservation and Management Act of 2006. Since this project does not include estuarine and marine habitat, and the project does not affect other fish spawning, breeding and feeding habitat, there is no involvement with EFH.

ATTACHMENT D PHYSICAL ENVIRONMENT

D-1. Noise

As required by 335.17 F.S., a noise analysis was performed for the proposed project in accordance with CFR Title 23, Part 772 (23 CFR 772) following methodology and procedures established by FDOT in the *Project Development and Environment Manual, Part 2 Chapter 17* (May 24, 2011). Noise levels developed for the analysis are expressed in decibels (dB) using an “A”- scale weighting [dB(A)]. All noise levels are reported as hourly equivalent noise levels [Leq(h)], which can be compared directly to criteria levels established by FHWA. The Leq(h) is defined as the equivalent steady-state sound level that, in a given hourly period, contains the same acoustic energy as the time-varying sound for the same hourly period. Use of these noise metrics is consistent with 23 CFR 772. Detailed information on the noise analysis performed for each alternative is documented in the *Final Noise Study Report* (September 2013).

Noise levels at which abatement must be considered for various types of noise sensitive sites are established in 23 CFR 772. These noise levels are referred to as the Noise Abatement Criteria (NAC). As shown in **Table 7**, the NAC vary by Activity Category. Noise Abatement measures must be considered when predicted traffic noise levels for Design Year (2035) Proposed Recommended Alternative conditions approach or exceed the NAC. Following FDOT procedure, an “approach” is defined as within 1 dB(A) of the FHWA criteria.

Table 7: FHWA Noise Abatement Criteria

Activity Category	Leq(h)	Evaluation Location	Description of Land Use Activity Category
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	Exterior	Residential.
C	67	Exterior	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A – D or F.
F	-----	-----	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-----	-----	Undeveloped lands that are not permitted.

Source: 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise, FHWA, 2010.

Abatement measures must also be considered when a substantial increase in traffic noise would occur as a direct result of the transportation project. Following FDOT procedure, a substantial increase is defined as 15 dB(A), or more, above existing conditions. A substantial increase typically occurs in areas where traffic noise is a minor component of the existing noise environment but could become a major component after the project is constructed. SR 50 (Cortez Boulevard), I-75, US 98 (SR 700/McKethan Road and US 301 (SR35/Treiman Boulevard) are notable noise sources for noise sensitive sites adjacent to those existing highways. A comparison between existing noise levels and predicted design year (2035) build condition noise levels was made at all noise sensitive sites to identify substantial increases.

Noise sensitive land uses along SR 50 (Cortez Boulevard) are mostly residential including single-family homes and an apartment complex which are both classified as Activity Category B of the NAC. Other noise sensitive land uses within the project limits include:

- Activity Category C – United Methodist Church (playground), Anchor Church/Ridge Manor Christian Academy (day care, outdoor playground), Ridge Manor Oaks Golf and Country Club
- Activity Category D – All Faiths United Church of Christ, Ridge Manor Community Center, United Methodist Church, Ridge Manor Medical Clinic, Anchor Church, Ridge Manor Family Medicine, Family Dental Care
- Activity Category E – Days Inn Motel, Ridge Manor Motel, lounge with outdoor seating

Retail businesses, service shops, emergency services, and utility facilities (all in Activity Category F) also border SR 50 (Cortez Boulevard). As stipulated in 23 CFR 772, Activity Category F land uses do not require a noise analysis. Numerous undeveloped parcels of property (Activity Category G) border SR 50 (Cortez Boulevard). Noise contours provided by Activity Category and documented in the *Final Noise Study Report* can be used to minimize or eliminate noise impacts as the undeveloped land is permitted for development.

Noise levels were predicted at 182 receptor points representing 183 residences (i.e., single-family homes, multifamily dwellings and apartments), three churches (All Faiths United Church of Christ, United Methodist Church, and Anchor Church/Ridge Manor Christian Academy), two motels (Days Inn and Ridge Manor Motel), three medical facilities (Ridge Manor Medical Clinic, Ridge Manor Family Medicine, and Family Dental Care), the Ridge Manor Community Center, and a lounge with outdoor seating. Ridge Manor Oaks Golf and Country Club Hole #3 along US 301 (SR35/Treiman Boulevard) was represented by a grid of 279 receptor points placed at 15-ft intervals.

Within the project limits, outdoor noise levels at 17 residences and Ridge Manor Oaks Golf and Country Club Hole #3 were predicted to approach or exceed the NAC for the design year (2035) proposed build conditions. Comparing design year (2035) build conditions to existing conditions, the greatest predicted increase attributable to the

project was 9.3 dB(A). A substantial increase attributable to the project was not predicted to occur at any noise sensitive site.

Abatement was evaluated for all the noise sensitive sites identified as impacted by the Recommended Alternative. Abatement measures considered include traffic management, alignment modifications, buffer zones, and noise barriers. Traffic management measures such as a much reduced speed limit or prohibition of truck traffic would not be consistent with the designated use of SR 50 (Cortez Boulevard) and project objectives; consequently, traffic management was not a viable noise abatement measure. Horizontal and vertical alignments were established to make full use of the existing SR 50 (Cortez Boulevard) corridor; therefore, alignment modification was not a viable abatement measure. Consideration of buffer zones during planning of future development was identified as a viable abatement measure that can be implemented by local officials responsible for land use planning.

Noise barriers were also considered at the 17 impacted residences and the impacted portion of Ridge Manor Oaks Golf and Country Club Hole #3. Three of the 17 impacted residences are isolated. FDOT procedure stipulates that a noise barrier benefit two or more impacted residences to be considered feasible. A noise barrier was not feasible at these three locations because only one impacted residence may benefit [i.e., provided at least a 5 dB(A) reduction] from each noise barrier.

Four of the impacted residences located south of SR 50 (Cortez Boulevard) are contiguous. FDOT procedure stipulates that a noise barrier provide the noise reduction design goal of 7 dB(A) to at least one benefited residence. Because gaps in the evaluated noise barrier would be needed to accommodate the existing driveways, the noise reduction design goal could not be attained at any of the four residences. Consequently, a noise barrier was not considered reasonable.

Three of the impacted residences located north of SR 50 (Cortez Boulevard) are contiguous. FDOT procedure stipulates that a noise barrier provide the noise reduction design goal of 7 dB(A) to at least one benefited residence. Because gaps in the evaluated noise barrier would be needed to accommodate the existing driveways, the noise reduction design goal could not be attained at any of the three residences. Consequently, a noise barrier was not considered reasonable.

Noise barriers were determined to be a feasible abatement measure at the remaining seven residences with at least one benefited residence provided a 7 dB(A) reduction at each noise barrier location. Because of the small number of residences that would benefit, the noise barrier cost exceeded the upper cost limit established by FDOT (i.e., \$42,000 per benefited residence). Consequently, a noise barrier was determined to not be a cost reasonable abatement measure for these seven residences.

A noise barrier was determined to be a feasible abatement measure at the Ridge Manor Oaks Golf and Country Club Hole #3 with at least a portion of the golf course hole provided a 7 dB(A) reduction. The number of golfers needed in an average day to stay below the upper cost limit established by FDOT (i.e., \$995,935 per person-hour per sq ft

of noise barrier) would exceed the capacity of the golf course. Consequently, a noise barrier was determined to not be a cost reasonable abatement measure for the golf course Hole #3.

Traffic noise abatement was considered as part of the proposed project. There were no feasible and reasonable measures that can be implemented as part of the project to abate traffic noise at the 17 residences and Ridge Manor Oaks Golf and Country Club Hole #3 that would be impacted. Consequently, there is no further consideration of noise barriers is warranted during the Design phase of the project.

A land use review will be performed during the Design phase of the project to ensure that all noise-sensitive land uses that have received a building permit prior to the project's Date of Public Knowledge are evaluated. Notably, there was no ongoing construction observed during field reviews performed when establishing existing land use (April 25, 2011 and February 1, 2012).

Some of the existing land uses adjacent to SR 50 (Cortez Boulevard) are identified on the FDOT listing (*Project Development and Environment Manual*, Table 17.3) of noise- and vibration-sensitive sites (e.g., residences, medical facilities). Construction activities for the proposed roadway improvements are not expected to have any substantial noise or vibration impact. If additional sensitive land uses develop adjacent to the roadway prior to construction, increased potential for noise or vibration impacts could result. It is anticipated that the application of the FDOT *Standard Specifications for Road and Bridge Construction* will minimize or eliminate potential construction noise and vibration impacts. However, should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

D-2. Air

The project is in an area that has been designated as attainment for all of the National Ambient Air Quality Standards (NAAQS) established by the Clean Air Act and subsequent amendments. Therefore, the Clean Air Act conformity requirements do not apply to this project. An air quality analysis, specifically an analysis of carbon monoxide (CO) concentrations, was performed using methodology established in the FDOT *Project Development and Environment Manual*, Part 2, Chapter 16. CO levels were predicted using FDOT's screening test *CO Florida 2004*. All predicted CO concentrations for the No-Build and Build conditions in the opening year and design year were below the NAAQS.

D-3. Construction

Construction activities for this proposed project will have minimal, temporary, yet unavoidable, air, noise, water quality, traffic flow, and visual impacts for those residents and travelers within the immediate vicinity of the project.

The air quality effect will be temporary and will primarily be in the form of emissions from diesel-powered construction equipment and dust from construction activities. Air pollution associated with the creation of airborne particles will be effectively controlled through the use of watering or the application of other controlled materials in accordance with FDOT's *Standard Specifications for Road and Bridge Construction*.

Water quality effects resulting from erosion and sedimentation during construction will be controlled in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* and through the use of best management practices (BMPs).

Short term construction related wetland impacts will be minimized by adherence to FDOT's *Standard Specifications for Road and Bridge Construction*. These specifications include measures known as BMPs, which include the use of siltation barriers, dewatering structures, and containment devices that will be implemented for controlling turbid water discharges outside of construction limits.

MOT and sequence of construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used to provide notice of road closures and other pertinent information to the traveling public. The local news media will be notified in advance of construction-related activities so that motorists, residents, and business persons can make accommodations. All provisions of FDOT's *Standard Specifications for Road and Bridge Construction* will be followed.

Construction of the roadway and bridges may require excavation of unsuitable material (muck), placement of embankments, and use of materials, such as limerock, asphaltic concrete, and Portland cement concrete. Demucking will be controlled by Section 120 of FDOT's *Standard Specifications for Road and Bridge Construction*. The removal of structures and debris will be in accordance with state regulatory agencies permitting this operation. The contractor is responsible for his methods of controlling pollution on haul roads and in areas used for disposal of waste materials from the project. Temporary erosion control features, as specified in FDOT's *Standard Specifications for Road and Bridge Construction*, could consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

For the residents living in the project area, some of the materials stored for the project may be displeasing visually; however, this will be a temporary condition and should pose no substantial, long term problem.

D-4. Contamination

A Contamination Screening Evaluation was prepared in accordance with the FDOT *Project Development and Environment Manual*, Part 2, Chapter 22 and documented in the Final ETC (September 2013).

A preliminary evaluation of SR 50, from West of I-75 to US 301, was conducted to determine potential contamination concerns from properties or operations located with 1/8 mi of the SR 50 ROW. Since improvements to I-75 and certain portions of SR 50 on

either side of the I-75/SR 50 interchange would be done as a separate project, the I-75 ROW was excluded from the study area.

The initial step in the contamination evaluation was the review of a database provided by Environmental Data Management (EDM). The contamination evaluation included the following tasks:

- A search of files available from the FDEP.
- A review of historical aerial photographs of the project area was conducted via on-line and other sources of aerial photographs.
- Visual reconnaissance on April 8, 2011 and January 25, 2012 to identify sites or areas with indications of past or present contaminant storage, use, generation, or disposal.
- Determining the contamination potential for each property within the project limits.

The final step in the evaluation process was to determine the site rating. The contamination rating system is divided into four degrees of risk: No, Low, Medium, and High. This system expresses the degree of concern for potential contamination problems. A site with a High ranking might not necessarily present a significant cause for concern if the regulatory agencies involved with that site are aware of the situation and if clean-up activities are complete or underway at such a site. Sites were ranked in accordance with Part 2, Chapter 22 of the FDOT *Project Development and Environment Manual*.

A total of 17 potential contamination sites were identified along the project corridor, with risk evaluation ratings ranging from No to High Risk. There is 1 No, 11 Low, 4 Medium, and 1 High ranking site. A summary of the Medium and High ranking sites is presented in **Table 8**.

Table 8: Potential Contamination Sites with Medium and High Rankings

Site No.	EDM Map ID #	Site Name and Address	Facility ID No(s).	Distance from SR 50	Contamination Concern	Preliminary Ranking
5	6	Former Exxon #5285 30435 Cortez Boulevard	27-8508731	Adjacent - N	Leaking UST site; currently in monitoring; No Further Action recommended/pending	Medium
9	None	Withlacoochee State Trail/ Former Railroad Line, approx. 32000 Cortez Boulevard	None	Within ROW	Former railroad lines are frequently impacted by arsenic and PAHs	High
12	12	Ridge Manor Disposal Service Landfill, US 98 at SR 50	00040775	Adjacent - N	Closed solid waste landfill; groundwater monitoring not being performed	Medium
15	15	Former Circle K #7296 5235 Treiman Boulevard	27-8508842 FLD 984255141	Adjacent - N	Leaking UST site; USTs removed in 2001; No Further Action approved in 2002; groundwater flow to the south	Medium
16	16	Former Carl's Standard SR 50 at US 301	27-8508756	Adjacent - E	Leaking UST site; no cleanup required, but site received a score of 30 from FDEP	Medium

AST – Above-ground Storage Tank; E – East; N – North; PAHs – Polynuclear Aromatic Hydrocarbons; RCRA – Resource Conservation and Recovery Act; ROW – SR 50 Right of Way; SQG – Small Quantity Generator of Hazardous Waste; SRCO = Site Rehabilitation Completion Order; UST – Underground Storage Tank; S- South

If construction activities are to occur in an area with contamination concerns, then a site assessment would be performed to the degree necessary during final design to determine levels of contamination and evaluate clean-up options and associated costs. Excavation and/or dewatering for installation of underground structures or utilities in the vicinity of the contaminated sites could potentially encounter or exacerbate contamination.

Investigations should not be limited to the areas of roadway expansion but should also include the drainage areas located adjacent to the roadway.

Specific recommendations for the sites ranked Medium or High are as follows:

- Site 5 (Former Exxon #5285) is a former Leaking Underground Storage Tanks (UST) site that continues to exhibit petroleum-related impacts to the groundwater. However, the depth to groundwater is more than 30 ft at this site, so impacts to project construction activities are not likely. A determination would be made as to whether project improvements could impact the monitoring wells and treatment system at this site. FDEP files in Oculus would continue to be reviewed periodically to determine the status of this site.
- Site 9 (the Withlacoochee State Trail) is located on a former railroad line. Excavation activities at this site could potentially encounter soils impacted by arsenic and Polynuclear Aromatic Hydrocarbons (PAHs). Soil testing for arsenic and PAHs would be conducted in all proposed areas of excavation associated with project improvements at this site.

- Site 12 (Ridge Manor Disposal Service Landfill) is a former landfill, which has very little information about it. The depth to groundwater and the potential impacts to groundwater from the landfill are not known. If project construction activities are expected to occur in the immediate vicinity of the former landfill, soil and groundwater testing would be performed to determine the potential for impacts to the project.
- Site 15 (Former Circle K #7296) and Site 16 (Former Carl's Standard) are former Leaking UST sites that have the potential to impact the project, but they also may be benign or may have been successfully cleaned up. Depth to groundwater can be less than 10 ft in this area. FDEP files in Oculus would be reviewed to determine the status of these sites. If excavation or roadway construction activities are anticipated immediately adjacent to these sites, soil and groundwater investigations would be conducted to determine if there would be contamination impacts from these sites.

Procedures specifying the contractor's responsibilities in regards to encountering petroleum-contaminated soil and/or groundwater are set forth in FDOT's *Standard Specifications for Road and Bridge Construction*. Special provisions to the aforementioned standard specifications may be necessary if the presence of contamination is confirmed, which could impact construction.

FDOT has evaluated the existing and proposed ROW and has identified potentially contaminated sites for the various proposed alternatives. Results of this evaluation will be utilized in the selection of a preferred alternative. When a specific alternative is selected for implementation, a site assessment will be performed to the degree necessary to determine levels of contamination and, if necessary, evaluate the options to remediate along with the associated costs. Resolution of problems associated with contamination will be coordinated with appropriate regulatory agencies and appropriate action will be taken, where applicable.

D-5. Aesthetic Effects

FDOT may consider context sensitive solutions such as aesthetic features and landscaping during the design phase so that the project is in harmony with the community and preserves and/or enhances the natural, environmental, scenic, and aesthetic values of the area. No special aesthetic treatments have been requested nor are any planned to be provided as part of implementing the project. No other provisions or commitments were made regarding special aesthetic features, lighting, or noise walls.

D-6. Bicycles and Pedestrians

A field review of the project area identified the Withlacoochee State Trail, a regional north/south shared-use trail that crosses over SR 50 (Cortez Boulevard) on a bridge structure (Bridge No. 0809001) approximately 800 ft east of Kettering Road. Bicyclists can be accommodated along SR 50 (Cortez Boulevard) on the 4-ft paved outside

shoulders; however, there are no sidewalks. One crosswalk is located at the Windmere Road/Bronson Boulevard intersection (east approach only).

The Recommended Alternative will result in improved accommodations for bicyclists and pedestrians with the addition of 5 ft paved shoulders and 5-ft sidewalks throughout the project. In addition, a sidewalk connection to the Withlacoochee State Trail is planned to be provided.

Both Hernando County and the FDEP OGT have requested and recommended, respectively, that a 12 ft multi-use trail be constructed within the ROW as part of this project to connect to the Withlacoochee State Trail and lay groundwork for connections to nationally and regionally significant trails in the County. Since a multi-use trail is not consistent with the LRTP, and the County cannot commit to maintain it, no multi-use trail is proposed. Sidewalks, 5 ft wide, are currently being proposed in each direction, including connections to the Withlacoochee State Trail.

D-7. Utilities and Railroads

In order to evaluate potential surface and subsurface utility conflicts associated with the proposed project, information was collected concerning the location and characteristics of the existing utilities within the SR 50 (Cortez Boulevard) corridor. A list of the utility providers in the vicinity of the project was obtained by calling Call Sunshine (1-800-432-4770, design ticket #344001981). Base maps were sent to utility providers in accordance with Part 2, Chapter 10 of the FDOT *Project Development and Environment Manual* with a request to provide information on the location and type of any facilities owned, leased, maintained, or planned. Utility providers and contacts are included in the PER. Maps that were returned by each utility provider, showing specific locations of each utility, are included in the project files.

Existing utilities will likely be impacted by the project. Depending on the location and depth of the utilities, implementation of the recommended improvements for the project may require adjustment of some of these facilities. Impacts resulting from utility adjustments were considered in the selection of the Recommended Alternative; however, utility relocation costs are not included in the total estimated project costs.

There is no active railroad within the project limits. Street lighting is not proposed as part of providing the project improvements along SR 50 (Cortez Boulevard).

D-8. Navigation

SR 50 (Cortez Boulevard) crosses over the Withlacoochee River 2700 ft east of the Withlacoochee State Trail. The Florida Geographic Data Library (FGDL) Navigable Waterways data layer (Navigable Waterway Network in Florida – 2011) does not list the Withlacoochee River in the vicinity of the SR 50 project. However, small docks and boat ramps currently exist along its banks. The river is used by recreational boaters in small motorized and non-motorized craft. The river is posted as an “Idle Speed/No Wake” zone near the existing SR 50 bridges. There is approximately 3.26 ft of vertical

navigational clearance above the Normal High Water elevation 16.64 ft, and 14.17 ft between bridge piles.

Navigable waters for Coast Guard bridge permitting purposes are defined by 33 CFR § 2.36, unless specifically declared otherwise by Congress, to include:

- a. Territorial seas of the United States;
- b. Internal waters of the United States subject to tidal influence; and
- c. Internal waters of the United States not subject to tidal influence that:
 - (1) Are or have been used, or are or have been susceptible for use, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce, notwithstanding natural or man-made obstructions that require portage, or
 - (2) A governmental or non-governmental body, having expertise in waterway improvement, determines to be capable of improvement at a reasonable cost (a favorable balance between cost and need) to provide, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce.

Since none of these conditions apply, no United States Coast Guard bridge permit will be required.

Appendix A
TIP/STIP/LRTP PAGES

Facility	From	To	Lanes		Funding Source	Present Day Costs				Total	Year of Expenditure Cost					
			Existing or Committed	Improved Lanes		Right of Way	Time Period	Cost	PD&E/PE		Time Period	Cost	Time Period	Right of Way	Construction	Total
EVANS ST EXTENSION	MARINER BLVD (CR687)	SUNSHINE GROVE RD	00	20	Country				2015	2015		\$ 294,300	\$ 279,646	\$ 0	\$ 573,946	
EVANS ST EXTENSION	MARINER BLVD (CR687)	SUNSHINE GROVE RD	00	20	Country				2016-2020	2016-2020		\$ 659,200	\$ 659,200	\$ 0	\$ 1,318,146	
EVANS ST EXTENSION	MARINER BLVD (CR687)	SUNSHINE GROVE RD	00	20	Country				2016-2020	2016-2020		\$ 4,600,200	\$ 4,600,200	\$ 0	\$ 9,200,400	
EVANS ST EXTENSION	MARINER BLVD (CR687)	SUNSHINE GROVE RD	00	20	Country				2015-2020	2015-2020		\$ 156,100	\$ 156,100	\$ 0	\$ 312,200	
SUNSHINE GROVE RD	IRVING ST	CORTIZ BLVD (SR500)	00	20	Country				2025-2030	2025-2030		\$ 2,176,427	\$ 2,176,427	\$ 0	\$ 4,352,854	
SUNSHINE GROVE RD	IRVING ST	HIGHFIELD RD	00	20	Country				2031-2035	2031-2035		\$ 4,211,113	\$ 4,211,113	\$ 0	\$ 8,422,226	
HIGHFIELD RD	SUNSHINE GROVE RD	CALIFORNIA ST	00	20	Country				2031-2035	2031-2035		\$ 637,955	\$ 637,955	\$ 0	\$ 1,275,910	
US 19 (NB Frontage)	COURTY LINE RD	APPLIGATE DR	00	20	Country				2016-2020	2016-2020		\$ 1,505,115	\$ 1,505,115	\$ 0	\$ 3,010,230	
US 19 (NB Frontage)	COURTY LINE RD	APPLIGATE DR	00	20	Country				2016-2020	2016-2020		\$ 941,551	\$ 941,551	\$ 0	\$ 1,883,102	
US 19 (NB Frontage)	OSOWAW BLVD	TIMBER PINES DR	00	20	Country				2016-2020	2016-2020		\$ 47,896	\$ 47,896	\$ 0	\$ 95,792	
US 19 (NB Frontage)	OSOWAW BLVD	TIMBER PINES DR	00	20	Country				2016-2020	2016-2020		\$ 833,208	\$ 833,208	\$ 0	\$ 1,666,416	
US 19 (NB Frontage)	OSOWAW BLVD	TIMBER PINES DR	00	20	Country				2016-2020	2016-2020		\$ 1,171,704	\$ 1,171,704	\$ 0	\$ 2,343,408	
US 19 (NB Frontage)	BERKLEY MANOR BLVD	NIGHTWALKER RD	00	20	Country				2015	2015		\$ 2,561,769	\$ 2,561,769	\$ 0	\$ 5,123,538	
US 19 (NB Frontage)	APPLIGATE DR	NIGHTWALKER RD	00	20	Country				2016-2020	2016-2020		\$ 1,354,015	\$ 1,354,015	\$ 0	\$ 2,708,030	
US 19 (NB Frontage)	OSOWAW BLVD	COURTY LINE RD	00	20	Country				2016-2020	2016-2020		\$ 2,681,922	\$ 2,681,922	\$ 0	\$ 5,363,844	
US 19 (SB Frontage)	TIMBER PINES DR	OSOWAW BLVD	00	20	Country				2016-2020	2016-2020		\$ 807,170	\$ 807,170	\$ 0	\$ 1,614,340	
US 19 (SB Frontage)	TIMBER PINES DR	TIMBER PINES DR	00	20	Country				2016-2020	2016-2020		\$ 1,796,613	\$ 1,796,613	\$ 0	\$ 3,593,226	
US 19 (SB Frontage)	FOREST OAKS BLVD	TOLUCAN TRAIL	00	20	Country				2016-2020	2016-2020		\$ 1,171,731	\$ 1,171,731	\$ 0	\$ 2,343,462	
US 19 (SB Frontage)	NORCHIFF BLVD	BERKLEY MANOR BLVD	00	20	Country				2016-2020	2016-2020		\$ 651,000	\$ 651,000	\$ 0	\$ 1,302,000	
CORTIZ BLVD (SR500 EB FRONTAGE)	US 19 (SR655)	DELTONA BLVD	00	20	Country				2016-2020	2016-2020		\$ 893,349	\$ 893,349	\$ 0	\$ 1,786,698	
CORTIZ BLVD (SR500 EB FRONTAGE)	DELTONA BLVD	NIGHTWALKER RD	00	20	Country				2016-2020	2016-2020		\$ 2,604,089	\$ 2,604,089	\$ 0	\$ 5,208,178	
CORTIZ BLVD (SR500 EB FRONTAGE)	NIGHTWALKER RD	OAK HILL HOSPITAL	00	20	Country				2016-2020	2016-2020		\$ 600,147	\$ 600,147	\$ 0	\$ 1,200,294	
CORTIZ BLVD (SR500 EB FRONTAGE)	OAK HILL HOSPITAL	HIGHPOINT BLVD	00	20	Country				2016-2020	2016-2020		\$ 493,730	\$ 493,730	\$ 0	\$ 987,460	
CORTIZ BLVD (SR500 EB FRONTAGE)	HIGHPOINT BLVD	MARINER BLVD	00	20	Country				2016-2020	2016-2020		\$ 1,329,890	\$ 1,329,890	\$ 0	\$ 2,659,780	
CORTIZ BLVD (SR500 EB FRONTAGE)	HIGHPOINT BLVD	MARINER BLVD	00	20	Country				2016-2020	2016-2020		\$ 571,448	\$ 571,448	\$ 0	\$ 1,142,896	
CORTIZ BLVD (SR500 EB FRONTAGE)	MARINER BLVD	SUNSHINE GROVE RD	00	20	Country				2016-2020	2016-2020		\$ 338,556	\$ 338,556	\$ 0	\$ 677,112	
CORTIZ BLVD (SR500 EB FRONTAGE)	MARINER BLVD	SUNSHINE GROVE RD	00	20	Country				2016-2020	2016-2020		\$ 807,209	\$ 807,209	\$ 0	\$ 1,614,418	
CORTIZ BLVD (SR500 EB FRONTAGE)	BARCLAY AVE															

Appendix B

***FHWA CONCURRENCE OF EXEMPTION
FROM SECTION 4(f)***

From: Linda.Anderson@dot.gov [<mailto:Linda.Anderson@dot.gov>]
Sent: Tuesday, November 05, 2013 2:44 PM
To: Rhinesmith, Robin
Cc: Bello, Phillip; Benito.Cunill@dot.gov; Jackson, Roy
Subject: FHWA has Reviewed the Proposal for 4(f) Temporary Occupancy Exemption for SR 50 (Cortez Blvd.), from W. of I-75 to US 301, Hernando County, FL, WPID # 416732-2

FHWA has reviewed the attached Proposal for 4(f) Temporary Occupancy Exemption for the Withlacoochee River South Paddling Trail, SR 50 (Cortez Blvd.), from W. of I-75 to US 301, Hernando County, FL, WPID # 416732-2, and made the determination that the Paddling Trail meets the criteria described in 23 CFR 774.13 (d) for temporary occupancy and thus is exempt from Section 4(f) approval.

Linda Anderson
Environmental Protection Specialist
Federal Highway Administration
545 John Knox Rd., Ste. 200
Tallahassee, FL 32303
P: 850-553-2226
F: 850-942-8308

From: Rhinesmith, Robin [<mailto:Robin.Rhinesmith@dot.state.fl.us>]
Sent: Saturday, November 02, 2013 9:44 AM
To: Anderson, Linda (FHWA)
Cc: Bello, Phillip (FHWA); Cunill, Benito (FHWA); Bogen, Kirk
Subject: RE: FHWA has Reviewed the 4(f) DOA for SR 50 (Cortez Blvd.), from W. of I-75 to US 301, Hernando County, FL, WPID # 416732-2

Linda,

Please see the attachment which further addresses the Section 4(f) Temporary Occupancy for this trail, addressing each of the above elements (d)(1-5). A hard copy will be mailed to you on Monday, November 4th. Your expedited review would be appreciated. Contact me if I can be of further assistance.

Sincerely,

Robin M. Rhinesmith

Environmental Administrator
Intermodal Systems Development
District Seven
(813)975-6496 phone
(813) 975-6443 fax

robin.rhinesmith@dot.state.fl.us

From: Linda.Anderson@dot.gov [mailto:Linda.Anderson@dot.gov]

Sent: Thursday, October 24, 2013 10:23 AM

To: Rhinesmith, Robin

Cc: Bello, Phillip; Benito.Cunill@dot.gov

Subject: FHWA has Reviewed the 4(f) DOA for SR 50 (Cortez Blvd.), from W. of I-75 to US 301, Hernando County, FL, WPID # 416732-2

FHWA has Reviewed the 4(f) DOA for SR 50 (Cortez Blvd.), from W. of I-75 to US 301, Hernando County, FL, WPID # 416732-2, and has the following comments:

- 1) FHWA has made the determination that the Withlacoochee State Forest-Croom Tract, the Withlacoochee State Trail and Park, the Withlacoochee River South Paddling Trail, and The Cypress Lakes Preserve and Florida National Scenic Trail are Section 4(f) properties.
- 2) FHWA has also made the determination that this project, as described in the Section 4(f) DOA, will not impact the Withlacoochee State Forest-Croom Tract, the Withlacoochee State Trail and Park, and The Cypress Lakes Preserve and Florida National Scenic Trail.
- 3) However, there are potential impacts to the Withlacoochee River South Paddling Trail, which runs under the SR 50 (Cortez Blvd.) bridge over the Withlacoochee River, which will be widened as part of the project to expand SR 50 in this segment from four to six lanes.

However, it may be that this Trail is exempt from Section 4(f) approval under the Section 4(f) Temporary Occupancy exemption described in 23 CFR 774.13 (d)(1-5):

- (d) Temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f). The following conditions must be satisfied:
 - (1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
 - (2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
 - (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a *temporary* or permanent basis;
 - (4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
 - (5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

Please provide FHWA with a proposal for Section 4(f) Temporary Occupancy for this trail, that addresses each of the above elements (d)(1-5). This should include an explanation of:

- how the bridge will be widened, i.e., describe the construction techniques that will be used,
- how interference with the protected activity--paddling on the river trail--with be avoided temporarily as well as permanently, and
- how access to the river from the river bank will be maintained during construction, given that the Trail's website indicates that there is access to the

paddling trail at this bridge (even though, as the DOA states, it's "unmarked and very difficult to navigate").

- The 4-30-2013 letter from the Official with Jurisdiction is adequate and does not need to be replaced.

Phone me if you have questions.

Thanks.

Linda

Linda Anderson

Environmental Protection Specialist

Federal Highway Administration

545 John Knox Rd., Ste. 200

Tallahassee, FL 32303

P: 850-553-2226

F: 850-942-8308

Appendix C

SHPO / FHWA CONCURRENCE



Florida Department of Transportation

11201 N. McKinley Drive Tampa, FL 33612-6456 Phone (813) 975-6000 1-800-226-7220

RICK SCOTT
GOVERNOR

ANANTH PRASAD
SECRETARY

RECEIVED
BUREAU OF
STORIC PRESERVATION
2012 FEB 28 A 9:38

February 27, 2012

Mr. Robert F. Bendus
State Historic Preservation Officer
Florida Division of Historical Resources
500 South Bronough Street
Tallahassee, Florida 32399-0250

Attention: Transportation Compliance Review Program

RE: Work Program Item Segment No.: 416732-2
SR 50 (Cortez Boulevard) from Lockhart Road to US 301
(SR 35/Treiman Boulevard)
Hernando County

Dear Mr. Bendus:

Enclosed you will find one copy of the Final Historic Resources Update Survey (February 2012), 16 original Florida Master Site File (FMSF) forms, a CD with the FMSF photographs, and a Survey Log Sheet for the above referenced state funded project. Also enclosed are two previous Florida Department of Transportation (FDOT) cultural resource assessment survey (CRAS) documents prepared in 1989 and 1995 along this project corridor. The previous surveys identified and evaluated archaeological resources. None of the archaeological sites located within these current project limits were determined eligible for listing in the National Register of Historic Places (NRHP). Your office reviewed the previous documents and concurred with the findings.

FDOT, District Seven, is currently conducting a state funded Project Development and Environment (PD&E) Study to evaluate improvements to approximately 6.3 miles of SR 50 (Cortez Boulevard). SR 50 (Cortez Boulevard) is currently a four-lane divided roadway from Lockhart Road to US 98 (SR 700/McKethan Road) and a two-lane undivided roadway from US 98 (SR 700/McKethan Road) to US 301 (SR 35/Treiman Boulevard). The purpose of the proposed improvement project is to widen SR 50 (Cortez Boulevard) from a four- to six-lane divided facility from Lockhart Road to US 98 (SR 700/McKethan Road) and from a two-lane undivided to a four-lane divided facility from US 98 (SR 700/McKethan Road) to US 301

Mr. Robert F. Bendus
Work Program Item Segment No.: 416732-2
SR 50 (Cortez Boulevard) from Lockhart Road to US 301 (SR 35/Treiman Boulevard)
February 27, 2012
Page 2

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HISTORIC PRESERVATION
2012 FEB 28 AM 9:30

(SR 35/Treiman Boulevard). The widening will accommodate increases in traffic due to growth along the project corridor and the surrounding areas. Therefore, improvements to existing parallel facilities or development of a new facility on new alignment were not considered. One Build Alternative was evaluated with a different typical section for each project segment along SR 50 (Cortez Boulevard). These typical sections all fit within the existing 200 feet of right-of-way (ROW). Additional improvements are proposed for ½ mile along US 98 (SR 700/McKethan Road) south of SR 50 (Cortez Boulevard) and ½ mile along US 301 (SR 35/Treiman Boulevard), both north and south of SR 50 (Cortez Boulevard), to provide for future through and needed turn lanes along US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard). Some ROW will be required along US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard) to accommodate the future four-lane typical section for US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard).

This investigation is an update of the historical structures survey element of the CRAS of SR 50 (Cortez Boulevard) from SR 50/50A to US 301 (SR 35/Treiman Boulevard) performed by George Ballo of the FDOT Central Environmental Management Office in 1989 (enclosed). Since a systematic archaeological survey of the SR 50 (Cortez Boulevard) project corridor (within a potential 300-foot-wide ROW within the current project limits) was conducted by Ballo, no additional archaeological survey was required as part of this update effort. Archaeological Consultants, Inc. (ACI) also prepare a CRAS Technical Memorandum for 12 proposed pond sites along SR 50 (Cortez Road) from Rital Croom Road to east of US 98 (SR 700/Treiman Boulevard) in 1995 (also enclosed). Some of these pond sites have already been constructed and will be utilized for this project; however, additional pond sites will be evaluated in future phases of the project. Both of these previous CRAS documents were coordinated with SHPO.

In accordance with Chapter 267 Florida Statute and FDOT procedures, the purpose of the current study was to locate and identify any historic resources located within the project area of potential effect (APE) and to assess their significance in terms of eligibility for listing in the NRHP. The project APE for the historical survey extended approximately 330 feet from the existing and proposed ROW for SR 50 (Cortez Boulevard), US 301 (SR 35/Treiman Boulevard), and US 98 (SR 700/McKethan Road). Work included background research and a historical/architectural field survey. The preliminary background research indicated that no NRHP-listed or eligible historic resources are located within the SR 50 (Cortez Boulevard) project APE.

As a result of field survey, 16 historic resources, including 15 historic buildings (8HE679-693) and one resource group (8HE678), were newly identified, recorded, and

Mr. Robert F. Bendus
Work Program Item Segment No.: 416732-2
SR 50 (Cortez Boulevard) from Lockhart Road to US 301 (SR 35/Treiman Boulevard)
February 27, 2012
Page 3

evaluated. These include Masonry Vernacular, Frame Vernacular, and Modern style residential and commercial buildings constructed between ca. 1956 and 1962. None is considered to be potentially eligible for listing in the NRHP due to their commonality of style and lack of significant historical associations.

If you have any questions or if I may be of further assistance, please contact me at (813) 975-6496 or via e-mail at robin.rhinesmith@dot.state.fl.us, or Rebecca Spain Schwarz at (813) 281-8308 or via e-mail at rebecca.spain-schwarz@atkinsglobal.com.

Sincerely,



Robin Rhinesmith
Environmental Administrator

Enclosures

cc: Kirk Bogen (FDOT)
Roy Jackson (FDOT CEMO)
George Ballo (FDOT CEMO)
Doug Reed (Atkins)
Rebecca Spain Schwarz (Atkins)

=====
The Florida State Historic Preservation Officer finds the attached Historic Resource Update Survey complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2012-831.



Robert F. Bendus

**State Historic Preservation Officer
Director, Florida Division of Historical Resources**

3-23-2012
Date

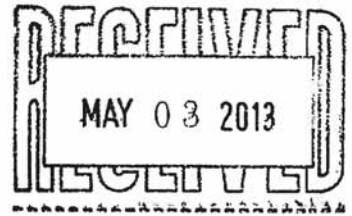


Florida Department of Transportation

11201 N. McKinley Drive Tampa, FL 33612-6456
Phone (813) 975-6000 1-800-226-7220

RICK SCOTT
GOVERNOR

ANANTH PRASAD, P.E.
SECRETARY



May 2, 2013

Ms. Linda Anderson
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

RE: Work Program Item Segment No.: 416732-2
SR 50 (Cortez Boulevard) from west of I-75
to US 301 (SR 35/Treiman Boulevard)
Hernando County

Dear Ms. Anderson:

The Florida Department of Transportation (FDOT) District Seven, in coordination with the Federal Highway Administration (FHWA), is conducting a Project Development and Environment (PD&E) Study to evaluate improvements to approximately 6 miles of SR 50 (Cortez Boulevard) in Hernando County, Florida. The purpose of the proposed project is to widen SR 50 (Cortez Boulevard) from a four- to six lane divided facility from west of I-75 to US 98 (SR 700/McKethan Road) and from a two-lane undivided to a four-lane divided facility from US 98 (SR 700/McKethan Road) to US 301 (SR 35/Treiman Boulevard). The I-75 ramp terminal intersections and approach segments (length 0.9 miles) are exempted out of the study since those improvements were analyzed as part of the I-75 PD&E Study, Work Program Item Segment No: 411014-1. The majority of the improvements will take place within the existing FDOT right of way (ROW).

This PD&E Study was being prepared as a State Environmental Impact Report (SEIR); however, the Hernando County Metropolitan Planning Organization (MPO) recently determined that the project represented by the SEIR should remain eligible for federal funding. FDOT is now preparing a Type 2 Categorical Exclusion (CE) for approval by the FHWA. Please note, the original PD&E study limits extended from Lockhart Road (which is to the west of I-75) to US 301 (SR 35/Treiman Boulevard). Now the project limits have been changed to begin west of I-75 instead of at Lockhart Road.

Enclosed you will find one copy each of the Final Historic Resources Update Survey (February 2012) for the above referenced project as well as two previous FDOT cultural resource assessment survey (CRAS) documents prepared in 1989 and 1995 along this project corridor. Since this current PD&E study was to be completed as a SEIR, these three documents were submitted by FDOT District Seven to the Director of the Florida Division of

Ms. Linda Anderson
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SR 50 (Cortez Boulevard) from west of I-75 to US 301 (SR 35/Treiman Boulevard)
May 2, 2013
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Historical Resources (DHR) on February 27, 2012 for review in accordance with Chapter 267, Florida Statutes. He reviewed the documents and rendered the opinion on March 23, 2012, that none of the recorded cultural resources located within the project's area of potential effect (APE) were eligible for listing in the National Register of Historic Places (NRHP). See enclosed coordination letter.

The cultural resource documents were also submitted by FDOT to the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) on March 29, 2012, since they had requested during the Efficient Transportation Decision Making (ETDM) review to see the CRAS. The STOF-THPO responded on May 2, 2012, that they had no objections to the findings at the time. However, they would like to be informed if cultural resources that are potentially ancestral or historically relevant to the STOF are inadvertently discovered during the construction process.

The proposed widening of SR 50 (Cortez Boulevard) will accommodate increases in traffic due to growth along the project corridor and the surrounding areas. Therefore, improvements to existing parallel facilities or development of a new facility on new alignment were not considered. One Build Alternative was evaluated with a different typical section for each project segment along SR 50 (Cortez Boulevard). These typical sections all fit within the existing 200 feet of ROW for SR 50. Additional improvements are proposed for ½ mile along US 98 (SR 700/McKethan Road) south of SR 50 (Cortez Boulevard) and ½ mile along US 301 (SR 35/Treiman Boulevard), both north and south of SR 50 (Cortez Boulevard), to provide for future through and needed turn lanes along US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard). Some ROW may be required in the future along US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard) to accommodate the future four-lane typical section for US 98 (SR 700/McKethan Road) and US 301 (SR 35/Treiman Boulevard) at the approaches to SR 50.

The previous 1989 and 1995 CRAS identified and evaluated archaeological resources along SR 50. None of the archaeological sites located within the current project limits were determined eligible for listing in the NRHP. One NRHP-eligible archaeological site, the Colorado Site (8HE241) recorded during the 1989 CRAS, is located at least 11 miles west of the current PD&E Study limits. FHWA reviewed the previous documents and coordinated with the State Historic Preservation Officer (SHPO) who concurred with the findings. Some of the previous coordination letters are enclosed.

The 2012 investigation is an update of the historical structures survey element of the 1989 CRAS of SR 50 (Cortez Boulevard) from SR 50/50A to US 301 (SR 35/Treiman Boulevard) that was performed by George Ballo of the FDOT Central Environmental Management Office (enclosed). Since a systematic archaeological survey of the SR 50 (Cortez Boulevard) project corridor (within a potential 300-foot-wide ROW within the current project limits) was conducted by Mr. Ballo in 1989, and since the proposed project would be

Ms. Linda Anderson
Work Program Item Segment No.: 416732-2
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contained within the existing 200 foot ROW previously surveyed, no additional archaeological survey was required as part of the 2012 update effort. Archaeological Consultants, Inc. (ACI) also prepared a CRAS Technical Memorandum for 12 proposed pond sites along SR 50 (Cortez Road) from Rital Croom Road to east of US 98 (SR 700/Treiman Boulevard) in 1995 (also enclosed). Some of these pond sites have already been constructed and will be utilized for this project; however, additional pond sites will be evaluated in future phases of the project. As noted above, these previous CRAS documents were coordinated with FHWA and SHPO. The enclosed 2012 coordination letters with the Florida DHR and STOF-THPO shows that the above information and all three documents were provided for their review. Both concurred that the proposed project should have no involvement with significant cultural resources.

The purpose of the 2012 study was to locate and identify any historic resources located within the project APE and to assess their significance in terms of eligibility for listing in the NRHP. The project APE for the historical survey extended approximately 330 feet (100 meters) from the existing and proposed ROW for SR 50 (Cortez Boulevard), US 301 (SR 35/Treiman Boulevard), and US 98 (SR 700/McKethan Road). Work included background research and a historical/architectural field survey. The preliminary background research indicated that no NRHP-listed or eligible historic resources are located within the SR 50 (Cortez Boulevard) project APE.

As a result of the field survey, 16 historic resources, including 15 historic buildings (8HE679-693) and one resource group (8HE678), were newly identified, recorded, and evaluated. These include Masonry Vernacular, Frame Vernacular, and Modern style residential and commercial buildings constructed between ca. 1956 and 1962. None is considered to be potentially eligible for listing in the NRHP due to their commonality of style and lack of significant historical associations.

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

As the lead federal agency, please review and approve the recommendations and findings in the enclosed cultural resource documents. As mentioned previously, the Director of the DHR (or SHPO) and the STOF-THPO have reviewed and concurred with the findings from the Final Historic Resources Update Survey on March 23, 2012, and May 22, 2012, respectively. It is FDOT's opinion that the project has not changed (except the project limits have been reduced slightly on the western end of the original SEIR study limits); therefore, the SHPO and STOF-THPO should not need to review these cultural resource documents again. Five CDs containing the three cultural resource documents are enclosed for your coordination with the other Native American tribes. Additional coordination will take place with

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SR 50 (Cortez Boulevard) from west of I-75 to US 301 (SR 35/Treiman Boulevard)
May 2, 2013
Page 4 of 4

your office during the design phase. These three documents and the previous coordination letters are for your files.

If you have questions, please contact me at (813) 975-6496 or robin.rhinesmith@dot.state.fl.us or contact Rebecca Spain Schwarz at (813) 281-8308 or rebecca.spain-schwarz@atkinsglobal.com.

Sincerely,



Robin Rhinesmith
Environmental Administrator

RR/rss

Enclosure

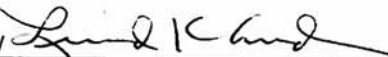
cc: Nahir DeTizio (FHWA)
Doug Reed (Atkins)

Roy Jackson (FDOT CEMO)
Rebecca Spain Schwarz (Atkins)

Kirk Bogen (FDOT)

The FHWA finds the Cultural Resource Assessment Survey Update provided with this letter to be complete and sufficient and approves / does not approve the above recommendations and findings.

FHWA Comments:

/s/ 
David Hawk
Acting Division Administrator
Florida Division
Federal Highway Administration

6-5-13
Date

Appendix D
USFWS COORDINATION



United States Department of the Interior

U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
FWS Log No. 41910-2013-I-0176

November 18, 2013

Robin M. Rhinesmith
District 7 Environmental Administrator
Florida Department of Transportation
11201 N. McKinley Drive
Tampa, Florida 33612-6456

RE: State Road 50 (Cortez Boulevard) from West of I-75 to US 301
FDOT Work Program No. 416732-2
Hernando County, Florida

Dear Mrs. Rhinesmith:

The U.S. Fish and Wildlife Service (Service) has completed its review of the Endangered Species Biological Assessment (BA) dated September 2013 for the proposal roadway improvements to State Road (SR) 50 (Cortez Boulevard) from west of Interstate 75 (I-75) to US 301 (SR 35/Treiman Boulevard) in Hernando County, Florida. The Service provides the following comments in accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*) and the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661 *et seq.*), as amended (16 U.S.C. 1361 *et seq.*).

The Service received a request from the Florida Department of Transportation (FDOT) for consultation on April 19, 2013, regarding proposed improvements to approximately 6 miles of SR 50. We were provided with an excerpt from the Environmental Technical Compendium (ETC) that included a project description and map, a wetland evaluation, and a BA. The project was classified as a Type 2 Categorical Exclusion under the National Environmental Policy Act (NEPA) by FDOT. In an email to FDOT dated June 12, 2013, we concluded that additional information was needed for the Service to assess potential project impacts to federally listed species. In a June 26, 2013, conference call we concluded that 'may affect' determinations were appropriate for some listed species, but that 'may affect, not likely to adversely affect' concurrence was premature at the existing stage of project planning. Following additional investigations, FDOT forwarded a letter to the Service September 19, 2013, asking for concurrence with listed species effect determinations. Included with the letter was a September 2013 ETC that included those effects determinations in an updated BA. Further coordination between the Service and FDOT established that further consultation under ESA will be required in the project design phase. FDOT provided the following commitment:

"The FDOT intends to request that the Service reinstate "informal" consultation for the project's effects on the listed species during the final design phase of the project and in conjunction with the project's permitting process. It is understood that the Service's consultation on the project will be concluded before the project is advanced to the construction phase. In this case, FDOT in compliance with 23 CFR 771.133 and Section 7 of the Endangered Species Act, agrees not to begin construction on the project, or otherwise make any irreversible or irretrievable commitment of resources that has the effect of foreclosing the formulation or implementation of any

reasonable and prudent alternative, or reasonable and prudent measures (which would not violate section 7(a)(2) of the Act), until consultation with the Service is completed. This agency understands that final PS&E approval for the project will not be granted by the FHWA until this consultation process is concluded. This constitutes a commitment by FDOT of reasonable assurance, which is to be stipulated in the Commitment and Recommendations Section of the final NEPA document for the project which is subject to FHWA approval."

Given this commitment and based on the information available for the current planning phase of the proposed project we provide the following review of the project's potential to affect species listed under the ESA.

Project Overview

FDOT has identified the need to accommodate future traffic demand on SR 50 in a safe and efficient manner. A preferred alternative was selected that minimizes natural, physical and socio-economic impacts while meeting the project's purpose and need. SR 50 is proposed as a four- to six-lane divided arterial within the study limits, west of I-75 to US 301, a distance of 6.3 miles. The I-75 ramp intersections and approaching segments (0.9 miles) were exempted from the study since those improvements were analyzed earlier as part of the I-75 Study.

SR 50 is a four-lane divided rural roadway from west of I-75 to just east of US 98, then transitions to a two-lane undivided rural roadway east to US 301. The existing right-of-way width is a minimum of 200 feet. From west of I-75 to Kettering Road the proposed typical section is a six-lane divided roadway with a 46-foot median. Between Kettering Road and US 98 the proposed typical section is a six-lane divided road with a 40-foot median. Both segments would entail inside and outside widening of the current roadway. From US 98 to US 301 the proposed improvements include widening from a two-lane undivided roadway to a four-lane divided roadway. The existing roadway location would become the westbound lanes while the eastbound lanes would be constructed 40 feet to the south, providing a 40-foot median. Including shoulders, a sidewalk, open drainage ditches, and prescribed borders on both sides, proposed typical sections generally fit within the 200-foot right-of-way. An exception is the segment from Kettering Road to US 98, where some portions will only fit within the 200-foot right-of-way only if a design variation is granted for a substandard border. The twin existing bridges over the Withlacoochee River would also require widening to accommodate proposed improvements.

All of the currently proposed impact areas and the equipment staging sites are located within the SR 50 right-of-way. A commitment has been made by FDOT to minimize and avoid impacts to the greatest extent practicable in the design and construction phases of the project. While impacts are expected to primarily occur in the existing right-of-way, facilities to treat, convey, or attenuate surface waters will be designed in a later phase of the project and therefore are not part of this review. We saw no mention of whether borrow areas will be needed for the project or their location. In addition, potential improvements for Lockhart Road and Kettering Road, and for planned frontage roads are to be developed by others and are not yet available.

Endangered Species Act

The September 2013 BA concluded 'may affect, not likely to adversely affect' determinations for the eastern indigo snake (*Drymarchon corais couperi*), Florida scrub-jay (*Aphelocoma coerulescens*), red-cockaded woodpecker (*Picoides borealis*), and wood stork (*Mycteria americana*). In addition, the BA concluded 'may affect, not likely to adversely affect' determinations for three listed plant species, Britton's beargrass (*Nolina brittoniana*), Brooksville (Robin's) bellflower (*Companula robinsiae*) and Cooly's water-willow (*Justicia cooleyi*).

The eastern indigo snake is a large, black, non-venomous snake found in the southeastern U.S. Indigo snakes need a mosaic of habitats to complete their annual cycle. Longleaf pine-turkey oak sandhills interspersed with wetlands, pine flatwoods, cypress swamps, freshwater marshes, and agricultural fields are prime habitat for this species. The study area for the project includes several habitat types with potentially to support the eastern indigo snake. Longleaf pine-xeric oak (89 acres), hardwood-conifer mixed (54 acres), upland hardwood forest (25 acres), pine plantations (8 acres), cropland and pastureland (65 acres), and several suitable wetland habitats are found within the project study area. Staff from nearby Withlacoochee State Forest and Cypress Lake Preserve confirmed indigo snake presence in the general area.

Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with gopher tortoise (*Gopherus polyphemus*) burrows, which provide shelter from winter cold and summer heat. The gopher tortoise is currently a federal candidate species for listing. In an initial but incomplete survey of gopher tortoise habitat within the study area, 33 gopher tortoise burrows were reported. Evaluation based on the Service's 2010 Eastern Indigo Snake Programmatic Effect Determination Key (as modified in 2013) indicates a 'may affect' determination is appropriate, since the proposed project has a potential to impact more than 25 active and inactive gopher tortoise burrows. However, the BA suggests that the project area should be considered in segments rather than one project and, that since less than 25 gopher tortoise burrows were found in any one segment, a 'may affect, not likely to adversely affect' determination is appropriate as determined by the key.

We do not agree with the suggested application of the key to project segments, as opposed to application to the project as a whole. In addition, the gopher tortoise survey was less than complete. The BA indicates that additional surveys will be conducted during the project's design phase and a commitment has been made for additional consultation with the Service at that time. The Service does not have enough information at this time to provide even a preliminary concurrence with the FDOT's determination regarding the eastern indigo snake. We note that standard FDOT construction precautions for the eastern indigo snake (Appendix I of the BA) are proposed. These precautions do not meet the Service's August 12, 2013, Standard Protection Measures for the Eastern Indigo Snake (available at <http://www.fws.gov/northflorida/Tools2Use/consult-landowner-refs.htm>). The FDOT construction precautions for the eastern indigo snake should be updated or a commitment to referenced Service protection measures should be made in their place.

Wood storks depend on wetlands for foraging and nesting. In North Florida, wood storks have been documented foraging in forested wetlands, cypress domes, fresh water marshes, retention ponds and roadside ditches. The Service is currently utilizing a 13 mile core foraging area around active colonies in North Florida to evaluate the effects of wetland destruction with respect to forage availability for wood storks. Several active nesting colonies and their associated core foraging areas are found within 13 miles of the proposed impact areas. Colony 61104 is located 12.0 miles north of the project study area, colony 61305 is 11.1 miles west, and colony 611021 is 8.2 miles east.

The FDOT is committed to continue reducing the direct and indirect impacts of this project on wetlands throughout the planning, design and permitting phase of this proposal. Nonetheless, suitable foraging habitats would be impacted by the project. The FDOT will provide appropriate mitigation areas to compensate for any loss of suitable foraging habitat. Based on this commitment and our review of the information available in the BA and WER we agree that a 'may affect, but is not likely to adversely affect' determination is currently appropriate for the wood stork.

In regard to other listed species, we also agree with the current FDOT evaluations of project effects on the Florida scrub-jay and red-cockaded woodpecker. Habitat likely to support the scrub-jay is lacking at or

near the project area. No known populations of scrub-jays are in the vicinity of the project. The red-cockaded woodpecker is present in favorable habitat about 4 miles north of the project area at Withlacoochee State Forest; however, viable habitat for the woodpecker does not extend southward and is not present within the project area. We agree that a determination of 'may affect, but is not likely to adversely affect' is currently appropriate for the Florida scrub-jay and the red-cockaded woodpecker.

To date, three listed plant species whose ranges include Hernando County (Britton's beargrass, Brooksville bellflower, and Cooly's water-willow) have not been documented in the project area. Their presence in the project area appears unlikely, therefore a 'may affect, but is not likely to adversely affect' seems appropriate. However, the FDOT has committed to additional surveys for these species prior to completing consultation under the ESA. These surveys should be conducted by qualified individuals familiar with these plant species, their requirements, and their appearance.

This letter this does not represent a biological opinion as described in section 7 of the ESA nor a final concurrence with project effects on listed species as determined by the FDOT. New information regarding species presence, changes to and refinement of the proposed project, and potential adverse effects not initially considered may increase the risk of adverse effects to a level at which take is reasonably certain to occur. All additional information available will be evaluated when ESA consultation is reinitiated.

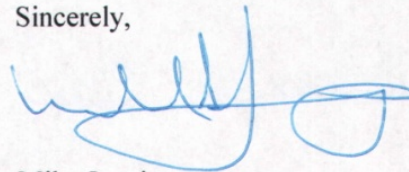
Fish and Wildlife Coordination Act

The FDOT is statutorily obligated to mitigate all wetland impacts according to the Clean Water Act and the Section 404 permitting process through the Army Corps of Engineers. In addition, the State of Florida also requires the demonstration of avoidance, minimization and mitigation of wetland impacts. During the design and permitting phase the FDOT has committed to avoiding and minimizing the direct and indirect effects of this project on wetland ecosystems.

Based on the information provided, 12.23 acres of wetlands and surface waters occur in the project right-of-way. In addition to avoidance and minimization of the filling, dredging, and destruction of wetlands, the Service recommends that the hydrology, function, and value of the wetlands be maintained for wildlife. The best available science should be used to consider implementing and designing wildlife friendly crossings, especially at the Withlacoochee River bridges, but also where culvert modifications are proposed.

If you have any questions, please contact Peter Plage at (904) 731-3085 or Jane Monaghan at (904)731-3119. Thank you for considering the effects of your proposal on fish and wildlife, and the ecosystems upon which they depend.

Sincerely,



Mike Jennings
Acting Field Supervisor

cc: Kevin O'Kieth, Corps (Tampa Regulatory Office)
Scott Sanders, FWC