



From Old Pasco Road to US 301 FPID No: 432734-1



Preliminary Engineering Report

September 2016





PRELIMINARY ENGINEERING REPORT

This preliminary engineering report contains detailed engineering information that fulfills the purpose and need for project:

Overpass Road PD&E Study

From Old Pasco Road to US 301 Pasco County, Florida

> FPID No: 432734-1 ETDM No: 9871

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ACRONYMS AND ABBREVIATIONS

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
AOs	Archaeological Occurrences
APE	Area of Potential Effect
BCC	Board of County Commissioners
CBC CEI CFR CIP CN COA CR CRAS CSER CSER CSRP CWA	Concrete Box Culvert Construction Engineering and Inspection Code of Federal Regulations Capital Improvement Plan Curve Numbers Class of Action County Road Cultural Resource Assessment Survey Contamination Screening Evaluation Report Conceptual Stage Relocation Plan Clean Water Act
dB(A)	weighted decibels
DDI	Diverging Diamond Interchange
FDEP	Florida Department of Environmental Protection
DRI	Development of Regional Impact
EA	Environmental Assessment
EDB	Ethylene Dibromide
ERPs	Environmental Resource Permits
EST	Environmental Screening Tool
ETDM	Efficient Transportation Decision Making
F.A.C.	Florida Administrative Code
F.S.	Florida Statutes
FDHR	Florida Division of Historical Resources
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FNAI	Florida Natural Areas Inventory
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FLUCFCS	Florida Land Use, Cover and Forms Classification System
FMSF	Florida Master Site File
FPC	Floodplain Compensation
FSUTMS	Florida Standard Urban Transportation Modeling Structure
FWC	Florida Fish and Wildlife Conservation Commission
FWS	U.S. Fish and Wildlife Service

ACRONYMS AND ABBREVIATIONS (CONTINUED)

FY	Fiscal Year
GIS	Geographic Information System
HOV	High Occupancy Vehicles
IJR	Interchange Justification Report
ITS	Intelligent Transportation Systems
L/A	Limited Access
LHR	Location Hydraulic Report
LOS	Level of Service
LRE	Long Range Estimate
LRTP	Long Range Transportation Plan
MEV	Million Entering Vehicles
MOT	Maintenance of Traffic
mph	Miles Per Hour
MPO	Metropolitan Planning Organization
MPUD	Master Planned Unit Development
NBI	National Bridge Inventory
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	Noise Study Report
OWJ	Official With Jurisdiction
PALMM	Publication of Archival Library and Museum Materials
PCP	Prestressed Concrete Piling
PCPT	Pasco County Public Transportation
PD&E	Project Development & Environment
PER	Preliminary Engineering Report
PIJR	Preliminary Interchange Justification Report
PPM	Plans Preparation Manual
PSR	Pond Siting Report
Route Study	Route Study
ROW	Right-Of-Way
SCS	Soil Conservation Service
SE	Socioeconomic
SHPO	State Historic Preservation Officer
SIS	Strategic Intermodal System
SPUI	Single Point Urban Interchange
SR	State Road
STIP	State Transportation Improvement Program
SWFWMD	Southwest Florida Water Management District

ACRONYMS AND ABBREVIATIONS (CONTINUED)

TAZ TBRPM TCP TIP TR	Traffic Analysis Zone Tampa Bay Regional Planning Model Traffic Control Plan Transportation Improvement Program Technical Report
U.S.	United States
U.S.C.	United States Code
UMAM	Uniform Mitigation Assessment Methodology
US 301	United States Highway 301
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
vpd	Vehicles Per Day
WEBAR WREC	Wetland Evaluation and Biological Assessment Report Withlacoochee River Electric Cooperative

Section 1.0 SUMMARY

Pasco County, in coordination with the Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA), is conducting a Project Development & Environment (PD&E) Study for evaluating capacity improvements to the existing Overpass Road and Kossik Road segments, the connection of these segments on new alignment, and the addition of an interchange at Overpass Road with I-75 in Pasco County, Florida. The purpose of the study is to identify and evaluate potential locations, develop conceptual alignments, and identify impacts and mitigation measures for the proposed improvements.

Due to the concurrent request for new access at Overpass Road with I-75 (the federal action), and the fact that the majority of the project occurs on new alignment, the study is being developed as an *Environmental Assessment* (EA) in accordance with the FHWA National Environmental Policy Act (NEPA) project development process. A *Preliminary Interchange Justification Report* (PIJR) for the proposed interchange at I-75 and Overpass Road has been prepared concurrently with the Overpass Road PD&E Study and is available under separate cover; the PIJR received a *Determination of Engineering and Operational Acceptability* by the FHWA on May 27, 2014.

The project limits extend from Old Pasco Road on the west to United States Highway 301 (US 301) on the east, for a total length of approximately 9.0 miles. The study corridor is shown on **Figure 1-1**. This *Preliminary Engineering Report* (PER) contains detailed engineering information that fulfills the purpose and need for the Overpass Road PD&E Study from Old Pasco Road to US 301.

FIGURE 1-1 PROJECT LOCATION MAP



Overpass Road is currently an east-west County roadway that is comprised of two unconnected segments. The first segment exists from Old Pasco Road to approximately 0.86 miles east of Boyette Road, while the second segment exists from 0.49 miles west of Curley Road to 1.45 miles east of Curley Road. It is located south of State Road (SR) 52 and north of County Road (CR) 54/SR 54 and traverses over I-75 without ramp connections to the interstate. The existing segments of Overpass Road serve mostly local trips and are classified as collector roadways. The existing number of lanes for each segment is as follows:

- Old Pasco Road to Boyette Road (two-lanes undivided)
- Boyette Road to 0.86 miles east of Boyette Road (four-lanes divided)
- 0.49 miles west of Curley Road to Curley Road (two- and four-lanes divided)
- Curley Road to Angelstem Boulevard (four-lanes divided)
- Angelstem Boulevard to 1.45 miles east of Curley Road (two-lanes divided)

The posted speed limit is 30 miles per hour (mph) between Old Pasco Road and Boyette Road and 45 mph east of Boyette Road.

Kossik Road currently exists as a two-lane undivided roadway from the intersection of Coolwood Drive/Ghost Train Lane east to the intersection with Green Slope Drive, where it transitions to a four-lane divided paved section and terminates at the intersection of US 301.

Throughout a major portion of the two-lane segment, the roadway is unpaved. The posted speed limit ranges from 25 mph to 35 mph from Coolwood Drive to US 301.

Blair Drive is currently a two-lane north-south roadway that intersects Overpass Road just west of I-75. As a privately-maintained facility, it provides residents of the Williams Acres subdivision with direct access to Overpass Road. While there is no posted speed limit along Blair Drive, Florida law states that any residential roadway speed limit is 30 mph unless otherwise posted.

The Overpass Road widening/extension and proposed interstate access are anticipated to play a significant role in the regional network in terms of enhancing connectivity, safety, and traffic circulation as the I-75 corridor serves as part of Florida's designated Strategic Intermodal System (SIS) network. The proposed interchange is projected to divert traffic demand from future over-capacity conditions at the two adjacent interchanges at I-75/SR 52 and I-75/CR 54, which are currently experiencing congestion from the northbound off-ramps queuing onto the I-75 mainline. In addition, the proposed project will enhance incident management capabilities by providing additional detour route options; enhance emergency management capabilities by providing additional access to I-75; and aid emergency evacuation within the County as Overpass Road runs parallel or connects to four primary state evacuation routes (SR 52, CR/SR 54, I-75, and US 301). Overall, the construction of a new interchange at I-75, as well as the extension and widening of Overpass Road to US 301, will be critical in accommodating anticipated travel demands and enhancing safety. These improvements will work to ensure that mobility is maintained on Florida's SIS and enhanced between existing/proposed developments along the roadway network in eastern Pasco County.

The Overpass Road project is consistent with locally adopted plans. The Pasco County Fiscal Year (FY) 2016-2020 Capital Improvement Plan (CIP) identifies full funding through construction (FY 2020/2021) for the first phase of the new interchange proposed at I-75 and Overpass Road and the widening of Overpass Road from Old Pasco Road to I-75 (two to four lanes) and I-75 to Boyette Road (two to six lanes plus two auxiliary lanes) [CIP 5020] and the PD&E Study for Overpass Road from I-75 to US 301 [CIP 5025]. The Design phase for the proposed interchange is fully funded in FY 2016/2017. Construction of a new interchange at I-75 and Overpass Road and the widening of the roadway from Curley Road to east of River Glen Drive to a four-lane divided facility is identified in the Pasco County Metropolitan Planning Organization (MPO) 2040 Cost Affordable Long Range Transportation Plan (LRTP) with construction funded during the 2020 to 2025 time frame. The four-lane widening of the existing segment of Overpass Road from Old Pasco Road to Boyette Road and the extension of the roadway as a four-lane divided facility from the future McKendree Road realignment to Curley Road and from east of River Glen Drive to Green Slope Drive is funded for construction in the 2026 to 2030 time frame. The 'Needs Plan' of the LRTP shows that the Overpass Road corridor is anticipated to warrant six lanes by the year 2040.

Overpass Road from Old Pasco Road to US 301 is shown as a four-lane facility on Map 7-22, *Future Number of Lanes (2035)*' of the Transportation Element of the adopted Pasco County Comprehensive Plan. Note, however, that a Comprehensive Plan Amendment was approved on August 10, 2010 for the Pasadena Hills Area Plan (Ordinance 10-21), which shows Overpass Road from Old Pasco Road to US 301 on Figure PH-4, '2050 Future Transportation Map' as a six-lane facility. While the Transportation Element of the Comprehensive Plan does not specifically identify the interchange improvements as cost-affordable, I-75 at Overpass Road is listed on Table 7-2B, 'Major Intersections with Entering Traffic Volumes Exceeding 75,000' as an intersection with entering traffic volumes greater than 100,000 vehicles per day (vpd). As such, Overpass Road and the proposed interchange are considered part of the County's future regional network and will serve both regional and local trips.

The Pasco County MPO FY 15/16-19/20 *Transportation Improvement Program* (TIP) was amended on June 9, 2016, to include the interchange at I-75 and Overpass Road. The interchange project also includes the widening of Overpass Road from Old Pasco Road to Boyette Road. Per CFR Title 23, Part 450.216(b), phases of the project identified using Local Funds (LF) are included in the *State Transportation Improvement Program* (STIP) by reference. In addition, the widening of I-75 from south of SR 56 to the Pasco/Hernando County line is currently included in the Pasco County MPO FY 15/16-19/20 TIP, as well as the STIP. Portions of the I-75 widening project are complete or construction is currently underway.

As part of the *Final Overpass Road Route Study* (March 2005), three Build Alternatives (O-1, O-2, and O-3) and a No-Build Alternative were evaluated and presented at several Public Workshops. At a publicly-advertised meeting held on April 26, 2005, the Pasco County BCC approved Alternative O-3 from the Route Study as the County's preferred alternative for further consideration. At the time of this study, a direct connection of the preferred alternative with I-75 was not evaluated. As such, additional evaluation and documentation for the Overpass Road corridor that includes a potential new interchange with I-75 was determined to be required in order to comply with both state and federal requirements.

As the concurrent request for new access at Overpass Road with I-75 constitutes a federal action, it was determined that a full PD&E Study and *Interchange Justification Report* (IJR) would be required in accordance with FHWA project development policies and procedures. The Overpass Road PD&E Study has further refined and evaluated all proposed build alternatives from the Route Study and identified additional improvements needed to alleviate existing transportation deficiencies and accommodate future population and employment growth. These additional improvements are described further in subsequent sections of this report. The PIJR for the proposed interchange at I-75 and Overpass Road is available under separate cover.

Based on previous planning efforts; engineering and environmental analyses; public comments submitted via the project website at <u>www.overpassroad.com</u> and received at the Alternatives Public Workshop held at the Victorious Life Church on November 29, 2012; the *Determination of Engineering and Operational Acceptability* of the PIJR received by the FHWA on May 27, 2014; and approval by the Pasco County BCC at a Board meeting held on April 23, 2013, the *Flyover Ramp Alternative* (Interchange) and *Alternative O-3* (Roadway) are being proposed as the Recommended Build Alternative. While it is recognized that the Diamond Interchange

Alternative is the least costly option and was preferred by the public, this alternative alone will not be able to satisfactorily handle the traffic volumes projected for the Design Year (2040). Therefore, while the PD&E Study including the EA and supporting technical documents required under the NEPA project development process will further evaluate and seek Location Design Concept Acceptance (LDCA) for the ultimate Flyover Ramp Alternative, actual construction of the interchange may occur in two phases. The first phase would construct a diamond interchange with dual westbound-to-southbound left-turn lanes in the Opening Year (2022); the second phase would construct the westbound-to-southbound Flyover Ramp when warranted by future traffic conditions. Note that the footprint of the diamond interchange falls within the proposed ROW of the ultimate improvements. Therefore, any impacts associated with the diamond interchange would be less than ultimately approved through the NEPA process. An additional advantage of the Flyover Ramp Alternative is that the ROW can be purchased for the ultimate construction footprint at current prices, making it a more economical option.

While Alternative O-3 is comparable in cost with the other two build roadway options, this alternative does not require any residential or business relocation and has the fewest number of potential noise-sensitive sites. In addition, Alternative O-3 is consistent with existing and planned development along the corridor and is supported by the majority of the public and stakeholders, including the Pasco County School Board.

The combined Recommended Build Alternative (Interchange and Roadway) for the PD&E Study, hereafter referred to as the *O-3 Flyover Alternative*, has been further evaluated in the supporting technical documents and subsequent sections of this document; the concept plans are provided in **Appendix A**. In addition to the Recommended Build Alternative, the No-Build Alternative will also continue to remain a viable option throughout the PD&E Study process.

1.1 DESCRIPTION OF PROPOSED ACTION

This proposed roadway improvement project in Pasco County involves the widening of existing segments of Overpass Road (Old Pasco Road to 0.86 miles east of Boyette Road, 0.49 miles west of Curley Road to 1.45 miles east of Curley Road) and Kossik Road (Coolwood Drive/Ghost Train Lane to US 301); the addition of an interchange at Overpass Road and Interstate 75 (I-75); and the connection of existing segments of Overpass Road and Kossik Road on new alignment (0.86 miles east of Boyette Road to 0.49 miles west of Curley Road and 1.45 miles east of Curley Road to Coolwood Drive/Ghost Train Lane). The proposed improvements for Overpass Road include the following:

- Four lanes from Old Pasco Road to I-75
- A new interchange at I-75 and Overpass Road
- Six lanes plus two auxiliary lanes from I-75 to Boyette Road
- Six lanes from Boyette Road to United States Highway 301 (US 301)

In addition to these improvements, several access modifications will be required. The existing Blair Drive access to Overpass Road will be closed and a new two-lane paved roadway will be constructed with a connection to Old Pasco Road. The existing McKendree Road access at Overpass Road will also be relocated to an alternate location on Boyette Road (north of Overpass Road). At the Wesley Chapel District Park, vehicular access will be eliminated at the existing secondary entrance located on Overpass Road (approximately 1,000 feet east of I-75). The park entrance will be reconfigured to enhance access for alternative modes of transportation, including pedestrians and bicyclists, during the design phase of the project.

While the PD&E Study including the EA and supporting technical documents required under the NEPA project development process will further evaluate and seek Location Design Concept Acceptance (LDCA) for the ultimate interchange concept (Flyover Ramp Alternative), actual construction of the interchange may occur in two phases. The first phase would construct a diamond interchange with dual westbound-to-southbound left-turn lanes in the Opening Year (2022); the second phase would construct the westbound-to-southbound Flyover Ramp when warranted by future traffic conditions. Note that the footprint of the diamond interchange falls within the proposed ROW of the ultimate improvements. Therefore, any impacts associated with the diamond interchange would be less than ultimately approved through the NEPA process.

1.2 COMMITMENTS AND RECOMMENDATIONS

Preliminary commitments and recommendations have been developed based on the draft supporting engineering and environmental technical documents for the PD&E Study. Note that an Interlocal Agreement which clearly defines the responsibilities of Pasco County and FDOT will be developed at the appropriate stage in the project's implementation process. *The list of commitments and recommendations will be finalized upon completion of the Public Hearing*.

1.2.1 WILDLIFE AND HABITAT

- 1. Due to the presence of gopher tortoise habitat and the observance of potentially occupied burrows adjacent to the project study area, a gopher tortoise survey within the construction limits (including the roadway footprint and stormwater management ponds) will be performed prior to construction per FWC guidelines. Relocation permits needed for this species will be secured during design and any gopher tortoises will be relocated prior to the construction phase of the project.
- 2. Due to the presence of Florida burrowing owl habitat and the documentation of potentially occupied burrows within the project study area, a burrowing owl survey within the construction limits (including the roadway footprint and stormwater management ponds) will be performed during design and permitting and prior to construction per FWC guidelines. Any relocation permits needed for this species will be secured during the design and construction phases of the project.
- 3. Due to the presence of Florida sandhill cranes and suitable nesting areas located within the project study area, a sandhill crane nest survey will be performed within the construction limits (including the roadway footprint and stormwater management ponds)

prior to construction per FWC guidelines. Coordination will occur with FWC during the design and construction phases of the project.

- 4. Due to the presence of Sherman's fox squirrel habitat and documentation of potentially occupied habitat within one mile of the project study area, a survey for fox squirrel nests will be performed within the construction limits (including the roadway footprint and stormwater management ponds) prior to construction per FWC guidelines. If fox squirrel nests are found within the project area, coordination will occur with the FWC to ensure project construction will not adversely impact this species.
- 5. To avoid potential adverse impacts to the wood stork, informal Section 7 consultation will be re-initiated with the FWS during project design and permitting. The loss of suitable wood stork habitat located within the preferred alignment will be mitigated to confirm that there is no net loss of wetlands. Mitigation for lost foraging habitat will be provided within the core foraging range of known habitat rookeries to comply with the FWS *Standard Local Operating Procedures for Endangered Species* (SLOPES) requirements.
- 6. The FWS *Standard Protection Measures* for the eastern indigo snake (Appendix I of the WEBAR, available under separate cover) will be adhered to during construction of the proposed project.
- 7. Although no bald eagle nests have been documented within one mile of the project study area according to the FWC online database, surveys will be completed during project design. Should a bald eagle nest be observed within 660 feet of the construction area, standard construction precautions will be followed based on FWC guidelines. Monitoring of any eagle nests located between 330 to 660 feet from the construction impact area will be conducted during the nesting season, and construction will be avoided within the primary protection zone (330 feet from any bald eagle nest) during the nesting season. Any permits required will be secured prior to construction.
- 8. Although no protected plant species have been documented within one mile of the project study area according to the FNAI database/report, coordination will occur with FDACS prior to construction to allow for seed collection and/or relocation to adjacent habitat or other suitable protected lands if protected plant species are observed within the preferred alignment during the design phase.

1.2.2 ACCESS

1. Prior to commencement of construction of the proposed interchange, the existing McKendree Road access at Overpass Road (approximately 750 feet east of I-75) will be relocated to an alternate location on Boyette Road (north of Overpass Road). An action plan will be developed in coordination with the property owner (developer) of the Wildcat Groves MPUD located in the northeast quadrant of the interchange during the design phase of the project which shows that reasonable access to Overpass Road (via Boyette Road) will be available prior to interchange construction. Note that conditions have been established in the Pasco County Comprehensive Plan (Policy FLU 7.1.26 Overpass at I-75) that requires the Wildcat Groves MPUD to address the realignment of McKendree Road through their property prior to final development approvals.

- 2. Pasco County will design and construct a new two-lane paved roadway will be designed and constructed in the southwest quadrant of the proposed interchange to relocate the existing Blair Drive access at Overpass Road (approximately 950 feet west of I-75) to an alternate location on Old Pasco Road (south of Overpass Road).
- 3. Pasco County commits to eliminating vehicular access to the Wesley Chapel District Park at the existing secondary entrance located on Overpass Road (approximately 1,000 feet east of I-75) will be eliminated. The park entrance will be reconfigured to enhance access for alternative modes of transportation, including pedestrians and bicyclists, during the design phase of the project.

1.2.3 NOISE AND VIBRATION

- 1. Pasco County is committed to the construction of noise barriers will be constructed at the locations identified in the NSR, contingent upon the following:
 - Detailed noise analysis during the final design process supports the need for, and the feasibility and reasonableness of providing the barriers as abatement
 - The detailed analysis demonstrates that the cost of the noise barrier will not exceed the cost reasonable limit
 - The residents/property owners benefitted by the noise barrier desire that a noise barrier be constructed
 - All safety and engineering conflicts or issues related to construction of a noise barrier are resolved
- 2. In accordance with the FDOT PD&E Manual Part 2, Chapter 22 Contamination Impacts, limited sampling and testing will be conducted at "Medium" and "High" rated contaminated sites during the design phase of the project.

1.2.4 WATER QUALITY AND QUANTITY

- 1. The proposed storm water facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by the SWFWMD in Rule 40D-4, FAC.
- 2. Pasco County will hold a permit Pre-Application meeting will be held with the SWFWMD to discuss the proposed project improvements and any procedures for permit submittal prior to construction.

1.2.5 UTILITIES

- 1. Coordination will occur during the design phase and prior to construction of the interchange, with respect to utilities and other infrastructure such as Intelligent Transportation Systems (ITS) components.
- 2. Coordination will occur with the Pasco County Public Utilities Department regarding the Boyette Reclaimed Water Reservoir and the Boyette Water Treatment Plant located in the northeast quadrant of the Overpass Road and Boyette Road intersection.
- 3. Coordination will occur with all of the utility companies with resources located within the project area through the design and construction phases of the project. These companies include Duke Energy, Withlacoochee River Electric Cooperative (WREC), Frontier Communications and Bright House Networks.

1.2.6 PUBLIC INVOLVEMENT

1. Stakeholder involvement will continue to occur throughout the design and construction phases of the project.

1.2.7 RELOCATION

1. In order to minimize the unavoidable effects of ROW acquisition and displacement of people, a ROW acquisition and relocation program will be carried out in accordance with Florida Statute (F.S.) 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

Section 2.0 PURPOSE AND NEED FOR IMPROVEMENT

2.1 PURPOSE

Pasco County (the County), in coordination with the FDOT and the FHWA, is conducting a PD&E Study for evaluating capacity improvements to the existing Overpass Road segment and extension of Overpass Road on a new corridor in Pasco County, Florida. The purpose of the study is to identify and evaluate potential locations, develop conceptual alignments, and identify impacts and mitigation measures for the proposed improvements. Due to the concurrent request for new access at Overpass Road with I-75, and the fact that the majority of the project occurs on new alignment, the study is being developed as an EA in accordance with the FHWA NEPA project development process. A PIJR for the proposed interchange at I-75 and Overpass Road has been prepared concurrently with the Overpass Road PD&E Study; the PIJR received a *Determination of Engineering and Operational Acceptability* by the FHWA on May 27, 2014.

The Overpass Road widening/extension and proposed interstate access are anticipated to play a significant role in the regional network in terms of enhancing connectivity, safety, and traffic circulation as the I-75 corridor serves as part of Florida's designated SIS network. The proposed interchange is projected to divert traffic demand from future over-capacity conditions at the two adjacent interchanges at I-75/SR 52 and I-75/CR 54, which are currently experiencing congestion from the northbound off-ramps queuing onto the I-75 mainline. In addition, the proposed project will enhance incident management capabilities by providing additional detour route options; enhance emergency management capabilities by providing additional access to I-75; and aid emergency evacuation within the County, as Overpass Road runs parallel or connects to four primary state evacuation routes (SR 52, CR/SR 54, I-75, and US 301). Figure 1-1 provides the general vicinity of the proposed corridor; **Figure 2-1** provides the proposed interchange location and spacing between the existing adjacent interchanges.

Overall, the construction of a new interchange at I-75, as well as the extension and widening of Overpass Road to US 301, will be critical in accommodating anticipated travel demands and enhancing safety. These improvements will work to ensure that mobility is maintained on Florida's SIS and enhanced between existing/proposed developments along the roadway network in eastern Pasco County.

FIGURE 2-1 PROPOSED INTERCHANGE SPACING



During the project's planning phase, the County previously developed and evaluated three Build Alternatives (O-1, O-2, and O-3) and a No-Build Alternative. The results of this effort are documented in the *Final Overpass Road Route Study* (Route Study) dated March 2005. Based upon engineering and environmental analyses, as well as comments received at the Public Workshop held on March 3, 2005, Alternative O-3 was established to be the Preferred Alternative during the planning phase. The Overpass Road PD&E Study has further refined and evaluated all proposed build alternatives from the Route Study and identified future improvements needed to alleviate existing transportation deficiencies and accommodate future population and employment growth. The proposed Build Alternatives have been developed to avoid or minimize impacts to sensitive features such as wetlands, existing structures, wildlife and habitat, contamination sites, and cultural resources.

Based upon the engineering and environmental analyses results, an alternatives comparison matrix was developed and is provided in **Tables 7-2 and 7-3** of this PER. The matrix identifies the effects of each alternative on the social, economic, cultural, natural, and physical environment.

2.1.1 FUTURE POPULATION AND EMPLOYMENT GROWTH

The large amount of population growth experienced in Pasco County has resulted in increased traffic volumes and congestion at the interchanges of I-75 with SR 56, CR 54, and SR 52, as well as on CR/SR 54 and SR 52. Numerous developments have been approved within the east central area of Pasco County and are in various stages of planning and construction. For example, in 2008, the County approved a *Comprehensive Plan Amendment for Pasadena Hills* (Pasadena Hills Area Plan) consisting of 20,000 acres in east central Pasco County. Specific new land uses approved in the amendment include 41,987 residential units; 2.26 million non-residential square feet; and 500,000 square feet of office development.

The impact of these developments is reflected in the projected increases in population, employment, and the number of dwelling units in the general area. A comparison of socioeconomic data between the 2006 and 2035 Tampa Bay Regional Planning Model (TBRPM) for Development of Regional Impact (DRI) and Master Planned Unit Development (MPUD) projects in the surrounding area of the project indicates that the population in these traffic analysis zones (TAZs) is projected to grow from 53,000 in the year 2006 to 218,000 in the year 2035, with an estimated growth of 300 percent between 2006 and 2035. **Figure 2-2** shows the DRI and MPUD projects that are planned and/or approved in the project area.

FIGURE 2-2 PROPOSED DEVELOPMENTS IN THE STUDY AREA



Note: Numbers provided on figure represent specific developments. Please refer to Appendix B for a table of the corresponding development names.



The dramatic increases in population and employment projected to occur over the next 25 years in east central Pasco County will likely result in significant increases in traffic volumes throughout the area. The existing interchanges located at I-75/SR 56, I-75/CR 54, and I-75/SR 52 and the corresponding roadways of SR 54 and SR 52, are already experiencing congestion and are not expected to be able to effectively serve the future vehicular demand entering or exiting I-75 in the study area. The Overpass Road improvements along with the proposed new interchange at I-75 and Overpass Road would better serve the future traffic demand resulting from the forecasted population and employment growth.

2.1.2 **REGIONAL MOBILITY AND CONNECTIVITY**

The proposed I-75/Overpass Road interchange and Overpass Road corridor improvements are anticipated to play a significant role in terms of enhancing regional mobility and connectivity, as the I-75 corridor serves as part of Florida's designated SIS network and connects major residential and employment centers throughout the state. In addition, the widening and extension of Overpass Road will provide an additional major east-west corridor, facilitating travel between I-75 and US 301. Furthermore, as Overpass Road runs parallel to two primary state evacuation routes (SR 52 and SR 54), the extension and widening is anticipated to further enhance traffic flow and aid in emergency evacuation within Pasco County. The proposed Overpass Road improvements will be critical in improving overall safety, emergency access, and traffic circulation within eastern Pasco County, as the corridor is ideally positioned parallel to two major north-south facilities (I-75 and US 301).

2.1.3 FUTURE TRAVEL DEMAND

Table 2-1 presents existing 2010 and projected 2040 Annual Average Daily Traffic (AADT) volumes, as well as Levels of Service (LOS) for facilities surrounding Overpass Road (I-75, SR 52, CR 54/SR 54, and US 301). The existing and projected AADT volumes and LOS have been derived from the approved PIJR (available under separate cover). These volumes were developed using the TBRPM, which included adjustments during development of the PIJR to account for approved and proposed developments within the study area. Based on the increase in population and employment figures, traffic projections were extrapolated to the Design Year (2040).

	2010		2040	
Segment	AADT	LOS	AADT	LOS
I-75 (SR 54 to SR 52)	51,000	С	165,800	F
SR 52 (I-75 to McKendree Road)	20,800	F	71,500	F
CR 54/SR 54 (I-75 to Boyette Road)	35,500	D	91,500	F
US 301 (SR 54 to SR 52)	22,500	В	43,400	В

 TABLE 2-1

 EXISTING YEAR (2010) AND DESIGN YEAR (2040) AADT VOLUMES AND LOS

As noted previously, the eastern portion of Pasco County is experiencing dramatic population and employment growth due to an increase in development. The significant increase in growth has resulted in high traffic volumes and deficient LOS at the SR 52 and CR 54 interchanges with I-75. Accordingly, the LOS on facilities surrounding Overpass Road are anticipated to degrade to a LOS F if no interchange is added or capacity improvements do not occur.

2.1.4 RELIEF TO PARALLEL FACILITIES

The proposed interchange and the extension and widening of the Overpass Road corridor to US 301 are anticipated to reduce traffic congestion on the east-west arterials of SR 52 and CR 54/SR 54 (parallel facilities) by providing an additional connection with I-75, as well as divert traffic demand from the projected over-capacity conditions at the adjacent SR 52 and CR 54 interchanges with I-75.

2.1.5 EMERGENCY EVACUATION

I-75 and US 301 are primary facilities of the state evacuation route network established by the Florida Division of Emergency Management. While Overpass Road does not currently serve as part of the state or the County evacuation route network, its role in facilitating traffic during emergency evacuation periods is anticipated to be significant as the proposed interchange would provide access to I-75 and US 301.

The addition of the proposed interchange will enhance incident management capabilities by providing additional detour route options and enhance emergency management capabilities by providing additional access to I-75, one of the state's primary evacuation routes. While incident/emergency management capabilities are not the primary purpose or need for the project, they are a tertiary need and logical benefit realized through improved mobility, roadway connectivity, and access to the interstate system.

2.1.6 BICYCLE AND PEDESTRIAN FACILITIES

On the rural portions of Overpass Road from Old Pasco Road to Boyette Road, there are no existing bicycle facilities. From the transition area just east of the Boyette Road intersection to the Overpass Road eastern terminus and from Curley Road to Watergrass Parkway, there are 4-foot striped (undesignated) bicycle lanes.

There are no accommodations for pedestrians west of Boyette Road. Pedestrian facilities currently exist along Overpass Road between Boyette Road and the eastern terminus, where a 10-foot multi-use pathway exists on the south side. There is a short segment of sidewalk along the east side of Boyette Road south of the Overpass Road intersection. From Curley Road to Watergrass Parkway, sidewalks exist along both sides of Overpass Road.

Per *Policies 1.5.4 and 1.5.5* in the Transportation Element of the *Pasco County Comprehensive Plan*, bicycle and pedestrian facilities should be included in the planning and design of all roadway improvement projects involving widening or new construction. In addition, both the

Comprehensive Plan and the Pasco County MPO 2040 LRTP identify a planned multi-use trail along the Overpass Road corridor. As such, both pedestrian and bicycle facilities will be constructed as part of the Overpass Road project.

2.1.7 TRANSIT

Public transportation services in Pasco County are provided by the Pasco County BCC through Pasco County Public Transportation (PCPT). The services predominantly consist of fixed-route transit buses and paratransit service operating throughout West Pasco, Dade City, and the City of Zephyrhills. According to the *Pasco County Comprehensive Plan* and the Pasco County MPO 2040 LRTP, Overpass Road (including the proposed extension to US 301) will serve as a future transit route.

2.1.8 STUDY COORDINATION

The County, in coordination with the FDOT, informed federal, state, and local government agencies of the scope of this PD&E study. The FDOT initiated a Programming Screen event for the project through the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) on February 13, 2008, as ETDM #9871 *Overpass Road from Old Pasco Road to US 301*. The *Final Programming Screen Summary Report*, including the Class of Action (COA) determination and acceptance by FHWA, was published on August 12, 2008, and is included in the EA.

An Advance Notification Package for the current PD&E Study was sent to the State of Florida Department of Environmental Protection (FDEP) – State Clearinghouse on June 29, 2012. In addition, the County distributed a Public Official/Agency Kickoff letter and newsletter for the Overpass Road PD&E Study on August 24, 2012.

2.1.9 TRANSPORTATION PLAN CONSISTENCY

The Overpass Road project is consistent with locally adopted plans. The *Pasco County Fiscal Year (FY) 2016-2020 Capital Improvement Plan* (CIP) identifies full funding through construction (FY 2020/2021) for the first phase of the new interchange proposed at I-75 and Overpass Road and the widening of Overpass Road from Old Pasco Road to I-75 (two to four lanes) and I-75 to Boyette Road (two to six lanes plus two auxiliary lanes) [CIP 5020] and the PD&E Study for Overpass Road from I-75 to US 301 [CIP 5025]. The Design phase for the proposed interchange is fully funded in FY 2016/2017. Construction of a new interchange at I-75 and Overpass Road and the widening of the roadway from Curley Road to east of River Glen Drive to a four-lane divided facility is identified in the Pasco County Metropolitan Planning Organization (MPO) *2040 Cost Affordable Long Range Transportation Plan* (LRTP) with construction funded during the 2020 to 2025 time frame. The four-lane widening of the existing segment of Overpass Road from Old Pasco Road to Boyette Road and the extension of the roadway as a four-lane divided facility from the future McKendree Road realignment to Curley Road and from east of River Glen Drive to Green Slope Drive is funded for construction in the

2026 to 2030 time frame. The '*Needs Plan*' of the LRTP shows that the Overpass Road corridor is anticipated to warrant six lanes by the year 2040.

Overpass Road from Old Pasco Road to US 301 is shown as a four-lane facility on Map 7-22, *Future Number of Lanes (2035)*' of the Transportation Element of the adopted Pasco County Comprehensive Plan. Note, however, that a Comprehensive Plan Amendment was approved on August 10, 2010 for the Pasadena Hills Area Plan (Ordinance 10-21), which shows Overpass Road from Old Pasco Road to US 301 on Figure PH-4, *2050 Future Transportation Map*' as a six-lane facility. While the Transportation Element of the Comprehensive Plan does not specifically identify the interchange improvements as cost-affordable, I-75 at Overpass Road is listed on Table 7-2B, *Major Intersections with Entering Traffic Volumes Exceeding 75,000*' as an intersection with entering traffic volumes greater than 100,000 vehicles per day (vpd).

The Pasco County MPO FY 15/16-19/20 *Transportation Improvement Program* (TIP) was amended on June 9, 2016, to include the interchange at I-75 and Overpass Road. The interchange project also includes the widening of Overpass Road from Old Pasco Road to Boyette Road. Per CFR Title 23, Part 450.216(b), phases of the project identified using Local Funds (LF) are included in the *State Transportation Improvement Program* (STIP) by reference. In addition, the widening of I-75 from south of SR 56 to the Pasco/Hernando County line is currently included in the Pasco County MPO FY 15/16-19/20 TIP, as well as the STIP. Portions of the I-75 widening project are complete or construction is currently underway.

3.1 TYPICAL SECTIONS

Overpass Road currently exists as an east-west County roadway that extends from Old Pasco Road to approximately 0.86 miles east of Boyette Road. From Old Pasco Road to Boyette Road, the facility is a two-lane undivided roadway with 11-foot lanes and rural shoulders. Intermittent swales exist on both sides of the roadway to accommodate stormwater runoff. From Boyette Road to the eastern terminus, Overpass Road exists as a four-lane divided urban typical section with 12-foot lanes separated by a 20-foot median, including paved shoulders and raised curb and gutter on both sides. On the south side, there is an existing 10-foot multi-use pathway (**Figures 3-1 and 3-2**).

The study area includes an additional existing roadway section of Overpass Road that begins at Curley Road and extends to Watergrass Parkway for a distance of approximately one mile. This segment is a four-lane divided urban (boulevard) section with a raised median and curb and gutter on both sides. There are also sidewalks on both sides through this segment (**Figure 3-3**).

Kossik Road currently exists as a rural two-lane undivided roadway from the intersection of Coolwood Drive/Ghost Train Lane east to the intersection with Green Slope Drive, where it transitions to a four-lane divided urban section and terminates at the intersection of US 301. Throughout a major portion of the two-lane segment, the roadway is unpaved (Figures 3-4 and 3-5).

Blair Drive is currently a two-lane north-south roadway that intersects Overpass Road just west of I-75. As a privately-maintained facility, it provides residents of the Williams Acres subdivision with direct access to Overpass Road. While there is no posted speed limit along Blair Drive, Florida law states that any residential roadway speed limit is 30 mph unless otherwise posted.

FIGURE 3-1 EXISTING TYPICAL SECTION OVERPASS ROAD WEST OF BOYETTE ROAD (LOOKING WEST)



FIGURE 3-2 EXISTING TYPICAL SECTION OVERPASS ROAD EAST OF BOYETTE ROAD (LOOKING EAST)



FIGURE 3-3 EXISTING TYPICAL SECTION OVERPASS ROAD EAST OF CURLEY ROAD (LOOKING EAST)



FIGURE 3-4 EXISTING TYPICAL SECTION KOSSIK ROAD EAST OF WAYFARER DRIVE (LOOKING EAST)



FIGURE 3-5 EXISTING TYPICAL SECTION KOSSIK ROAD JUST WEST OF US 301 (LOOKING EAST)



3.2 RIGHT-OF-WAY

The existing ROW varies from 50 to 60 feet between Old Pasco Road and Boyette Road and is approximately 128 feet from Boyette Road to the eastern terminus of the existing section of Overpass Road. The section from Curley Road to Watergrass Parkway has existing ROW that varies from 128 feet to 166 feet. Kossik Road has existing ROW that varies from 142 to 166 feet between Coolwood Drive and US 301. **Figure 3-6** graphically depicts the existing ROW along the corridor.

FIGURE 3-6 EXISTING RIGHT-OF-WAY



3.3 ROADWAY CLASSIFICATION

The current functional classification for Overpass Road is a two-lane undivided rural collector between Old Pasco Road and Boyette Road and a four-lane divided urban collector east of Boyette Road to the existing terminus. The posted speed limit is 30 mph between Old Pasco Road and Boyette Road and 45 mph east of Boyette Road. The roadway currently serves mostly local trips.

Kossik Road is a local collector road that serves local residential communities and businesses in the vicinity of the intersection with US 301. The posted speed limit ranges from 25 mph to 35 mph from Coolwood Drive to US 301.

Blair Drive is currently a north-south roadway that intersects Overpass Road just west of I-75. As a privately-maintained facility, it provides residents of the Williams Acres subdivision with direct access to Overpass Road. While there is no posted speed limit along Blair Drive, Florida law states that any residential roadway speed limit is 30 mph unless otherwise posted.

3.4 **PROPERTY OWNERS**

Currently, the following owners, businesses and developments have property abutting Overpass Road:

- 1. Williams Acres (Residential/Mobile Home)
- 2. Wildcat Groves (Mixed-Use/Employment Center)
- 3. Wesley Chapel District Park (Public, Pasco County)
- 4. Kids R Kids (Commercial)
- 5. Pasco County Water Treatment Plant (Public, Pasco County)
- 6. Water's Edge Community Church (Institutional)
- 7. Palm Cove Development (Residential)
- 8. EPCO Ranch (MPUD/Mixed Use)
- 9. Epperson Ranch LLC (MPUD/Mixed Use)
- 10. Promenade Town Center (Town Center/Mixed Use)
- 11. Watergrass Town Center North (Town Center/Mixed Use)
- 12. CKB Development LLC (Mixed Use)
- 13. Watergrass Community Development District (Residential)

- 14. Windchase (Residential)
- 15. Watergrass Elementary (Institutional, Pasco County School Board)
- 16. RLE Ranch, Inc. (Agricultural/Residential)
- 17. Comas Trust (MPUD/Residential)
- 18. Fredda Barlow Trust (MPUD/Agricultural/Residential)
- 19. Pasco County School Board (Vacant Land, Pasco County)
- 20. Suntech Investments, Inc. & Freemar Development, Inc. (Agricultural/Residential)
- 21. LD Mitchell, Inc. (Agricultural/Residential)
- 22. Smith Cemetery (Cemetery)
- 23. Grand Horizons (Residential)
- 24. Lowes (Commercial)

3.5 HORIZONTAL AND VERTICAL ALIGNMENTS

The existing horizontal alignment from the intersection of Old Pasco Road extends east along a tangent alignment overpassing I-75 to the intersection of Boyette Road where it transitions to a four-lane section. The transition consists of a short curvilinear section to match the offset for the four-lane portion. From the intersection of Boyette Road, the alignment extends on tangent approximately 0.86 miles to a dead end terminus.

The vertical alignment, from west to east for the two-lane undivided section begins at an elevation of approximately 110 feet. The profile grade is relatively flat except for the approaches to the bridge over I-75. The vertical alignment for the four-lane divided segment from Boyette Road to the existing eastern terminus have gradual, positive profile grades that include minimum gutter grades. At the eastern terminus, the roadway has an elevation of approximately 125 feet.

The existing roadway section between Curley Road and Watergrass Parkway has a horizontal curvilinear alignment. The vertical alignment has relatively gradual gutter grades, with profile grade elevations that range from approximately 102 to 120 feet.

The existing horizontal alignment of Kossik Road is on tangent from Coolwood Drive to US 301. The two-lane rural section of Kossik Road has gradual positive grades. The four-lane divided portion has ascending/descending profile grades with a vertical curve. Kossik Road has road elevations that range approximately from 110 to 147 feet.

3.6 PEDESTRIAN ACCOMMODATIONS

Pedestrian facilities currently exist along Overpass Road between Boyette Road and its terminus approximately 0.86 miles eastward, where a 10-foot multi-use pathway exists on the south side. There is a short segment of sidewalk along the east side of Boyette Road south of the Overpass Road intersection. From Curley Road to Watergrass Parkway, sidewalks exist along both sides of the roadway to accommodate pedestrians. There are no accommodations for pedestrians along Overpass Road west of Boyette Road. On Kossik Road, there are existing sidewalks extending from Green Slope Drive to US 301.

3.7 BICYCLE FACILITIES

On the rural portions of Overpass Road from Old Pasco Road to Boyette Road, there are no existing bicycle facilities. From the transition area just east of the Boyette Road intersection to its terminus approximately 0.86 miles eastward and from Curley Road to Watergrass Parkway, there are four-foot striped (undesignated) bicycle lanes. There are no paved shoulders on the two-lane undivided portion of Kossik Road; therefore, there are no facilities for bicyclists. Additionally, striped bike lanes do not exist along the four-lane divided portion of Kossik Road.

3.8 LIGHTING

Roadway lighting is currently not provided along Overpass Road from Old Pasco Road to its terminus approximately 0.86 miles eastward or on Blair Drive. There is existing lighting along the boulevard section from Curley Road to Watergrass Parkway on both sides of the road. There is no lighting currently provided along Kossik Road from Coolwood Drive to US 301.

3.9 INTERSECTION LAYOUT

Six intersections exist on the roadway within the project area. On the western end, Overpass Road forms a "T" intersection with Old Pasco Road (**Figure 3-7**). There are no exclusive turn lanes at this intersection and the westbound Overpass Road approach is stop controlled.

The intersection with Boyette Road (**Figure 3-8**) is a four-way configuration with exclusive leftturn lanes for both the eastbound and westbound movements and shared through/right-turn lanes in both directions. Boyette Road has designated left-turn lanes and one through lane in the northbound and southbound directions.

At Curley Road, a "T" intersection exists with Overpass Road (**Figure 3-9**); the westbound approach has exclusive left- and right-turn lanes and channelized striping for future widening. The southbound approach on Curley Road has a designated left-turn lane and through lane. The northbound approach has a through and exclusive right-turn lane.
FIGURE 3-7 OVERPASS ROAD AT OLD PASCO ROAD



FIGURE 3-8 OVERPASS ROAD AT BOYETTE ROAD



FIGURE 3-9 OVERPASS ROAD AT CURLEY ROAD



The roadway has a "L-shaped" intersection with Watergrass Parkway (Figure 3-10); the eastbound approach terminates with exclusive left- and right-turn lanes and channelized striping for future widening. The southbound approach of Watergrass Parkway has an exclusive right-turn lane and through lane, which terminates just south of the intersection.

At the Green Slope Drive intersection (**Figure 3-11**), Kossik Road transitions from a two- to four-lane divided roadway through the intersection. The eastbound approach has through lanes in both directions. The westbound approach has exclusive left-turn and through lanes with channelized striping for future widening. The northbound approach of Green Slope Drive has exclusive left- and right-turn lanes.

Kossik Road has a full intersection with US 301 (**Figure 3-12**). The eastbound approach has dual left-turn lanes and exclusive through and right-turn lanes. The northbound and southbound approaches of US 301 have exclusive left- and right-turn lanes with two through lanes. The westbound approach has dual left-turn lanes, one through lane, and one exclusive right-turn lane.

FIGURE 3-10 OVERPASS ROAD AT WATERGRASS PARKWAY



FIGURE 3-11 KOSSIK ROAD AT GREEN SLOPE DRIVE



FIGURE 3-12 KOSSIK ROAD AT US 301



3.10 TRAFFIC SIGNALS

The only signalized intersection along the alignment is at Kossik Road/US 301.

3.11 POSTED SPEEDS

The posted speed limit for the two-lane rural section of Overpass Road from Old Pasco Road to Boyette Road is 30 mph. For the four-lane divided section from Boyette Road to the eastern terminus the posted speed limit is 45 mph. The four-lane divided section from Curley Road to Watergrass Parkway has a posted speed limit of 30 mph.

The posted speed along Kossik Road ranges from 25 to 30 mph for the unpaved potions from Coolwood Drive to Green Slope Drive. The paved portion from Green Slope Drive to US 301 has a posted speed limit of 35 mph.

While there is no posted speed limit along Blair Drive, Florida law states that any residential roadway speed limit is 30 mph unless otherwise posted.

3.12 RAILROAD CROSSINGS

There are no railroad crossings along the study area alignment.

3.13 PAVEMENT CONDITIONS

The existing pavement along the rural portions is in fair condition exhibiting some areas of pavement distress, wear and pavement edge cracking. The four-lane divided section from Boyette Road to the eastern terminus is in fair condition exhibiting areas of cracking and isolated rutting from excessive wear. In some isolated locations, there are signs of structural failures under the pavement from possible subsurface drainage issues. The section from Curley Road to Watergrass Parkway is in good to fair condition showing signs of wear.

The rural sections of Kossik Road from Coolwood Drive to Green Slope Drive are mostly unpaved and will require paving to prevent erosion and subgrade failures. The paved portion from Green Slope Drive to US 301 is in good to fair condition.

Blair Drive is a substandard local roadway with poor pavement conditions.

3.14 EXISTING CONDITIONS

From Old Pasco Road to Boyette Road, Overpass Road currently exists as a two-lane nondivided roadway, with surface drainage conveyed by sheet flow to roadside drainage ditches. The existing roadway proceeds via an overpass over I-75; drainage from the bridge deck is conveyed to roadside ditches via scuppers in the bridge deck. The existing drainage also contributes flow to wetlands and low-lying areas along I-75. Currently, there are no stormwater management facilities (ponds) within this segment of the project. A 4' x 4' concrete box culvert (CBC) cross drain passes beneath I-75 immediately south of the existing Overpass Road and several other smaller cross drains that convey flow generally from east to west exist within the I-75 ROW, including a cross drain located approximately 900 feet north of the current roadway.

From Boyette Road to US 301, there are three portions of existing roadway along the Recommended Alternative of the new roadway. Existing Roadway 1 extends from Boyette Road eastward (Sta. 54+32.81) to Sta. 100+02.50, through the Palm Cove subdivision, a distance of approximately 4,570 feet. Surface drainage from this portion of roadway is managed within stormwater ponds constructed for the Palm Cove subdivision. Existing Roadway 2 extends from Sta. 172+76 (the centerline of Curley Road) to Sta. 224+23.16 (the centerline of Watergrass Parkway), a distance of approximately 5,147 feet. Surface drainage from this portion of roadway, through the western portion of the Watergrass development, is managed within stormwater ponds constructed adjacent to the roadway. East of Handcart Road, the Recommended Alternative roughly follows the current Fairview Heights Avenue from Sta. 313+59.79 (centerline of Handcart Road) to Sta. 395+00, a distance of 8,140 feet. Existing Roadway 3 (Kossik Road) extends eastward approximately from Sta. 485+00 to the eastern end of the project (1,430 feet), and comprises a multi-lane divided urban roadway, with curb and gutter stormwater collection systems and a large existing stormwater management pond located at the southwest corner of the intersection of Kossik Road and US 301.

A portion of the alignment is located east of the Palm Cove subdivision and west of Curley Road, through an area of vacant land that is earmarked for development. This parcel, known as Epperson Ranch, is currently in the permitting process for construction of Overpass Road through their property. Once permitted, the development will include residential and commercial areas as well as open space parks. The design and construction of Overpass Road through Epperson Ranch will be the responsibility of the developer and is included in the development Conditions of Approval and permit applications. As such, the *Pond Siting Report* (PSR) excludes a drainage evaluation for this portion of the Recommended Alternative and begins at Curley Road.

The stormwater ponds along the existing roadways discharge into the natural drainage system located south of the roadway alignment. The natural drainage system is a portion of the Pasco Drain, a large wetland area/drainage basin located adjacent to I-75 that ultimately discharges to the Anclotte River basin, or to drainage basins for the following water bodies: New River, Bayou Branch, Bayou Lake, Southside Branch and the Hillsborough River. None of the drainage basins along the roadway alignment are closed basins.

The existing drainage systems along the existing roadways and the proposed portion through the Epperson Ranch MPUD are urban roadway sections. Runoff from the existing four-lane divided roadways with paved mixed-use trails and sidewalks flows off the roadway and into roadside curb and gutter drainage structures, with curb inlets that convey flow to existing detention ponds within the Palm Cove and Watergrass developments, the proposed ponds within the planned Epperson Ranch development, or the FDOT-owned pond at US 301. All cross drains associated with the roadway and any floodplain impact compensation were included in the permitting and construction of these developments. The existing stormwater management ponds within the two existing developments, the third planned development and the FDOT pond have sufficient capacity to accommodate runoff from the small increased impervious area that will result from the recommended Overpass Road typical sections through these areas.

3.14.1 Floodplains and Floodways

A review of the currently effective FIRM maps reveals several areas where the proposed project ROW contains portions of regulatory floodplains or floodways identified as Flood Zone A or Flood Zone AE.

For floodplain impacts within the four sub-basins located at the Recommended Build Alternative (Flyover Ramp) with Overpass Road and Interstate 75, floodplain compensation (FPC) will be achieved utilizing the excess storage capacity in the two stormwater ponds proposed for construction along the I-75 mainline (Pond 3-1 and Pond 3-2). FPC sites are preliminarily planned for Sub-Basin 3-1 and Sub-Basin 3-4 adjacent to planned stormwater ponds, and compensation for the minor floodplain encroachment in Sub-Basin 3-9 will be achieved within stormwater Pond 3-11 and Pond 3-12.

Pasco County maintenance personnel were contacted to acquire information related to past problems due to flooding along the project corridor. According to the County Maintenance personnel, no reports of significant flooding within the project corridor have been reported.

3.15 TRAFFIC DATA

Traffic operational analysis for the Overpass Road PD&E Study was conducted as part of the PIJR process for the proposed new interchange at I-75 and Overpass Road. The PIJR has been prepared concurrently with the Overpass Road PD&E Study and received a *Determination of Engineering and Operational Acceptability* by the FHWA on May 27, 2014. The Existing Year (2010) AADT volumes are shown on **Figure 3-13**. Detailed traffic information and analysis are contained within the PIJR, available under separate cover.

FIGURE 3-13 EXISTING YEAR (2010) AADT VOLUMES



3.16 CRASH DATA

Crash data for the most recent five years of data available (as of March 2015) for I-75, SR 56, SR 54/CR 54, SR 52, and the Overpass Road corridors in the project study area were obtained from the FDOT Unified Basemap Repository Geographic Information System (GIS) data management. The corridors include I-75 from south of the SR 56 interchange to north of the SR 52 interchange (including the interchanges) and Overpass Road from Old Pasco Road to Boyette Road.

For the five-year period (2009-2013), there were 1,179 crashes reported with an average of 235.8 crashes per year. Rear-end type crashes were the most common crash type recorded for the corridor with 36.6 percent of total crashes followed by angle crashes with 16.5 percent of the total crashes. The crash data summaries for the I-75 corridor segments and the three interchanges are shown in **Tables 3-1 and 3-2**, respectively. The I-75 corridor experienced a crash rate higher than the FDOT average for similar facilities. Furthermore, the three interchanges and the segment of Overpass Road also experienced crash rates higher than similar FDOT facilities. A majority of the crashes along the Overpass Road segment were concentrated at the intersections with Old Pasco Road and Boyette Road.

TABLE 3-1 **CRASH SUMMARY BY FREQUENCY**

(JANUARY 2009 THROUGH DECEMBER 2013) I-75 - FROM SOUTH OF SR 56 TO NORTH OF SR 52

Segm	ent				Fr	equenc	y by Ci	rash Ty	ре			Fr Cra	equen ash Se	cy by verity	Corridor C	rash Rates
Description	Functional Class	Length (Miles)		Total	Rear End	Angle ¹	Side swipe	Guardrail	Concrete Wall	Hit/Collision with Fixed Object on Road	All Other ²	Fatality	Injury	Property Damage	Project Crash Rate (crashes/ MVMT)	Statewide Average Rate ³ (crashes/ MVMT)
I-75: SR 56 to	Urban Interstate	3.769	5-Year	390	144	42	19	37	16	21	111	5	202	183	0.840	0.745
SR 54/CR 54			Average	78.0	28.8	8.4	3.8	7.4	3.2	4.2	22.2	1.1	40.4	36.6		
I-75: SR 54/CR 54 to	Transitioning	Transitioning 2.042	5-Year	139	29	11	8	17	1	19	54	1	68	70	0.511	0.386
Overpass Road		5.045	Average	27.8	5.8	2.2	1.6	3.4	0.2	3.8	10.8	0.2	13.6	14.0	0.511	0.380
I-75: Overpass Road to SR	Transitioning	2 708	5-Year	171	39	10	6	25	2	20	69	6	87	78	0.596	0.296
52	Transitioning	5.708	Average	34.2	7.8	2.0	1.2	5.0	0.4	4.0	13.8	1.2	17.4	15.6	0.586	0.380
L 75 Consider Sum		10.52	5-Year	700	212	63	33	79	19	60	237	12	357	331	0.72(0.50(
1-75 Corridor Sun	imary	10.52	Average	140.0	42.4	12.6	6.6	15.8	3.8	12.0	46.8	2.4	71.4	66.2	0.720	0.300

Includes angle, left-, and right-turn type crashes.
 Includes all other crash types not listed.
 Statewide average crash rates are based on the 5-year data (2009-2013).
 Source: FDOT Unified Basemap Repository (2009-2013).

TABLE 3-2 CRASH SUMMARY BY FREQUENCY

(JANUARY 2009 THROUGH DECEMBER 2011) SR 56, SR 54/CR 54, SR 52, AND OVERPASS ROAD NEAR I-75

Segn	nent					Freq	uency b	oy Cras	h Type				Fre Cra	equenc sh Sev	cy by verity	by crity Corridor Crasl				
Description	Functional Class	Length (Miles)		Total	Rear End	Angle ¹	Side swipe	Pedestrian/ Bicycle	Guardrail	Concrete Wall	Hit/Collision with Fixed Object on Road	All Other ²	Fatality	Injury	Property Damage	Project Crash Rate (crashes/ MEV)	Statewide Average Rate ³ (crashes/ MEV)			
SR 56 at I-75	Urban		5-Year	161	88	32	5	1	12	0	7	16	0	84	77	1 107	0.502			
	Interstate		Average	32.2	17.6	6.4	1.0	0.2	2.4	0.0	1.4	3.2	0.0	16.8	15.4	1.107	1.107 0.575			
SD 54/CD 54 at 1 75	Transitioning	Transitianina		5-Year	160	72	48	14	1	3	1	8	13	0	80	80	1.0(1	0.502		
SK 34/CK 34 at 1-73								Average	32.0	14.4	9.6	2.8	0.2	0.6	0.2	1.6	2.6	0.0	16.0	16.0
SD 52 -+ 1 75	Tana siti sa in s		5-Year	137	54	54	6	1	0	0	6	16	0	63	74	2 1 2 4	0.496			
SR 52 at 1-75	Transitioning		Average	27.4	10.8	10.8	1.2	0.2	0.0	0.0	1.2	3.2	0.0	12.6	14.8	3.134	0.480			
Overpass Road from Old	т. :/: :	1.7	5-Year	21	4	10	0	0	1	0	3	3	0) 14 7	2.417	1.012				
Road	Iransitioning	1./	Average	4.2	0.8	2.0	0.0	0.0	0.2	0.0	0.6	0.6	0.0	2.8	1.4	2.41/	1.813			

¹ Includes angle, left-, and right-turn type crashes.
 ² Includes all other crash types not listed.
 ³ Statewide average crash rates are based on the 5-year data (2009-2013).

Note: For the interchanges of SR 56, SR 54/CR 54, and SR 52 at I-75, the crash rates calculated per million entering vehicles (MEV) treating them as spots (intersections) instead of segments. This assumption is due to the short length of these segments. Ramp crashes within the influence of the intersection are included in the spot crash analysis, therefore, excluded from the I-75 corridor segment analysis.

For Overpass Road, the crash rate shown is in crashes per million vehicle miles traveled (MVMT). Source: FDOT Unified Basemap Repository (2009-2013).

3.17 EXISTING UTILITIES

Table 3-3 shows the utility companies that have existing or proposed facilities within the project study limits.

Utility Owner/Agent	Facilities
Pasco County Utilities	Water and Sewer
Progress Energy	Electric and Gas
Withlacoochee Electric Cooperative	Electric
Verizon Communications	Telephone, Fiber Optic Cable
Bright House Networks	Cable TV

TABLE 3-3 EXISTING UTILITIES

There is a Pasco County water treatment plant located in the northeast quadrant of the Overpass Road and Boyette Road intersection. In addition, Pasco County recently began construction of the Boyette Reclaimed Water Reservoir, located adjacent to this treatment plant.

3.18 EXISTING STRUCTURES

Bridge Number 140052, which carries Overpass Road over I-75 in Pasco County, is located approximately 3.0 miles north of the CR 54/I-75 interchange, and approximately 3.6 miles south of the SR 52/I-75 interchange. **Figures 3-14 and 3-15** show an aerial and an elevation view, respectively, of this structure. This bridge is the only interstate crossing between these two interchanges. Overpass Road over I-75 is currently designated as a rural minor collector with two lanes of traffic and a posted speed limit of 30 mph. I-75 is a four-lane divided highway with a 64-foot median at the Overpass Road bridge location.

The four-span bridge was built in 1964. The superstructure consists of American Association of State Highway and Transportation Officials (AASHTO) Type II and III prestressed concrete beams with a composite concrete deck measuring 7 inches in thickness. The four-span lengths measure 41 feet, 72.5 feet, 72.5 feet, and 38 feet, with an overall bridge length of 224 feet. The structure crosses I-75 at an angle of 71.81 degrees (skewed 18.19 degrees from normal). The intermediate piers are multi-column founded on 14-inch square prestressed concrete piling (PCP). Similarly, the end bents are founded on 18-inch square PCP.

Despite the bridge having an age of 46 years, it still is in good shape. The most recent Bridge Inspection Report with an inspection date for the Overpass Road bridge of January 2, 2013, gives the structure a Health Index of 89.18 and a Sufficiency Rating of 63.0. Additionally, the National Bridge Inventory (NBI) reports the following bridge condition ratings: Deck - 8 (Very Good), Superstructure - 7 (Good), and Substructure - 8 (Very Good).

FIGURE 3-14 AERIAL VIEW OF OVERPASS ROAD BRIDGE OVER I-75



FIGURE 3-15 ELEVATION (LOOKING SOUTH) OF OVERPASS ROAD BRIDGE OVER I-75



While the bridge is structurally in good shape, and the latest Bridge Inspection Report lists the bridge as being neither functionally obsolete nor structurally deficient, it is noted that the structure is designated as a rural minor collector. As such, the substandard barriers, 2-foot shoulder widths, and less than 16-foot vertical clearance over I-75, do not flag the structure as being deficient or obsolete. However, if the structure designation is changed from rural minor collector then these noted deficiencies (substandard barriers, shoulder widths, and vertical clearance) would most certainly flag this structure as either functionally obsolete or structurally deficient, or both.

3.19 SOILS AND GEOTECHNICAL

Pasco County is characterized by discontinuous highlands in the form of ridges separated by broad valleys. The ridges are above the static level of the water in the aquifer, but the valleys are below it. Broad shallow lakes are common in the valley floors, and smaller, deep lakes are on the ridges. Based on physiography, the study area is located in the Brooksville Ridge, which extends from Hernando County to about the area of Zephyrhills between SR 581 on the west and US 301 on the east. The elevations in this area range from 70 to 300 feet above sea level. Most of the surface is covered by a few feet of sand with the thickest deposits located near the western side of the ridge.

The soils within the Overpass Road study area were reviewed in the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey of Pasco County, Florida. The various soil types encountered across the project area are predominantly fine sands, with variations in permeability and water table depth due to topography and proximity to surface water bodies or wetlands. Generally, soils in the project area are gently sloping and poorly drained, with relatively shallow water tables regardless of topography. The soil types encountered within a 300-foot buffer surrounding the project area are summarized in **Table 3-4**.

TABLE 3-4 SOILS DATA

				Water Table
	Мар	Hydrologic		Depth
Soil Type	Symbol	Group	Permeability	(ft)
Adamsville fine sand	11	А	Somewhat poorly drained	1.5 – 3.5
Arrendondo fine sand, 0-5% slopes	43	А	Well drained	3.5 - 6.0
Basinger fine sand	22	A/D	Poorly drained	1.5 - 3.5
Basinger fine sand, depressional	23	A/D	Very poorly drained	1.5 - 3.5
Blitchton fine sand, 0-2% slopes	49	C/D	Poorly drained	1.5 - 3.5
Cassia fine sand	46	В	Somewhat poorly drained	1.5 - 3.5
Chobee, frequently flooded	39	C/D	Very poorly drained	1.5 - 3.5
Electra variant fine sand, 0-5% slopes	18	А	Somewhat poorly drained	1.5 - 3.5
Felda fine sand	4	A/D	Poorly drained	1.5 - 3.5
Kendrick fine sand, 0-5% slopes	45	В	Well drained	3.5 - 6.0
Lake fine sand, 0-5% slopes	32	А	Excessively drained	3.5 - 6.0
Lochlossa fine sand, 0-5% slopes	48	А	Somewhat poorly drained	1.5 - 3.5
Millhopper fine sand, 0-5% slopes	69	А	Moderately well drained	3.5 - 6.0
Myakka fine sand	5	A/D	Poorly drained	1.5 - 3.5
Narcoossee fine sand	26	В	Somewhat poorly drained	1.5 - 3.5
Newman fine sand, 0-5% slopes	59	А	Somewhat poorly drained	1.5 - 3.5
Okeelanta-Terra Ceia assoc.	30	A/D	Very poorly drained	1.5 - 3.5
Palmetto-Zephyr-Sellers complex	60	A/D	Poorly drained	1.5 - 3.5
Placid fine sand	70	A/D	Very poorly drained	1.5 - 3.5
Pomona fine sand	2	B/D	Poorly drained	1.5 - 3.5
Sellers mucky loamy fine sand	8	A/D	Very poorly drained	1.5 - 3.5
Smyrna fine sand	21	A/D	Poorly drained	1.5 - 3.5
Sparr fine sand, 0-5% slopes	7	А	Somewhat poorly drained	1.5 - 3.5
Tavares sand, 0-5% slopes	6	А	Moderately well drained	3.5 - 6.0
Wauchula fine sand, 0-5% slopes	1	A/D	Poorly drained	1.5 - 3.5
Zephyr muck	16	C/D	Very poorly drained	1.5 - 3.5
Zolfo fine sand	73	А	Somewhat poorly drained	1.5 - 3.5

Source: Soil Survey of Pasco County.

The need for additional east-west capacity has long been evaluated and documented by the Pasco County MPO as part of the long-range transportation planning process. Currently, the study area is served by only three major east-west roadways: SR 56, CR/SR 54 and SR 52. The TBRPM 2035 Cost Affordable network used in the projection of traffic volumes for both this PD&E Study and the PIJR includes programmed improvements to these existing facilities based on the FDOT Five Year Work Program and/or the Pasco County MPO 2035 Cost Affordable LRTP, such as the following:

- SR 56 four-lane extension from Meadow Pointe Boulevard to US 301
- I-75 and CR 54 interchange modifications
- SR 54 widening to six lanes from SR 581 (Bruce B Downs Boulevard) to CR 577/Curley Road and four lanes from CR 577/Curley Road to CR 579/Morris Bridge Road
- SR 52 widening to four lanes from CR 580 (Bellamy Brothers) to Old Pasco Road, six lanes from I-75 Southbound Ramps to Boyette Road, and four lanes from McKendree Road to Emmus Cemetery Road

It should be noted that even with improvements to these parallel corridors, the demand for additional east-west capacity in the study area still remains. Therefore, in consideration of future land use plans and growth projections, the Pasco County MPO identified the need and general location for a new east-west corridor parallel to CR/SR 54 and SR 52. Since projected growth is expected to significantly affect mobility in the area, it was determined that a corridor route study was needed to assist the County in reaching a decision based on project need, location, conceptual design, potential impacts, and estimated cost for any needed improvements. As such, the *Overpass Road Route Study* (Route Study) was commissioned on September 23, 2003 to evaluate viable capacity and safety improvement alternatives from Old Pasco Road to Fort King Road in east-central Pasco County. This Route Study was developed in accordance with criteria set forth in the FDOT *PD&E Manual*, NEPA project development process, and Pasco County standard ROW requirements established in the *Pasco County Standard Roadway Typical Sections for Collector and Arterial Roadways* and addressed five major criteria: Long Range Planning, Safety, Property and Social Impacts, Environmental Impacts, and Cost.

Upon initiation of the corridor Route Study, two Build Alternatives (O-1 and O-2) as well as a No-Build Alternative were studied. Alternatives O-1 and O-2 were developed to address long range planning and safety needs and to minimize social, environmental, and economic impacts, as well as comments received from the public and other pertinent factors. Alternatives O-1 and O-2 were presented by the County at a Public Workshop on October 28, 2004.

Based on public comments received in opposition to both Alternatives O-1 and O-2 at the Public Workshop, a new Build Alternative (O-3) was developed to reduce, to the extent feasible, impacts to residents located south of Fairview Heights Road and east of Handcart Road. From west to east, Alternative O-3 followed the same corridor alignment as Alternative O-2 to approximately 5,000 feet west of Handcart Road. At this point, Alternative O-3 turned northeast across the southeast corner of the Kirkland Ranch property before curving east to intersect Handcart Road at the west end of Fairview Heights Road. Alternative O-3 then followed the Fairview Heights ROW, or slightly north, to the point where Fairview Heights Road turned south. From this point, Alternative O-3 followed the same proposed alignment as Alternatives O-1 and O-2. Figure 4-1 provides aerial displays of the three corridor alignments considered during the Route Study; Figure 4-2 provides these same alignments on one graphic.

Alternative O-3, along with Alternative O-2 (which was preferred to Alternative O-1 at the first workshop), were presented by the County at a second Public Workshop held on March 3, 2005. Based on the five major criteria evaluated in the Route Study and comments received from both public workshops, Alternative O-3 (with a four-lane urban typical section), was recommended at the conclusion of the corridor phase because of the following:

- Utilized the existing ROW to the maximum extent feasible, thereby reducing impacts to residents and ROW acquisition costs
- Satisfied the long range planning objectives of the Pasco County Comprehensive Plan and LRTP
- Had the least amount of affected parcels and potential relocations
- Had the least impact on local residents (most of public agreed at workshop)
- Was the least costly of all alternatives

The typical section for Alternative O-3 consisted of two 12-foot travel lanes in each direction separated by a 46-foot-wide landscaped median that would provide for expansion to six lanes if warranted by future needs. Four-foot bicycle lanes were included within the paved shoulder. A 5-foot sidewalk and 10-foot multi-use path, which would meander through 32-foot landscaped borders and utility zones, were also included.

At a publicly-advertised meeting held on April 26, 2005, the Pasco County BCC approved Alternative O-3 from the Route Study as the County's preferred alternative for further consideration. At the time of this study, a direct connection of the preferred alternative with I-75 was not evaluated. As such, additional evaluation and documentation for the Overpass Road corridor that includes a potential new interchange with I-75 was determined to be required in order to comply with both state and federal requirements.

As the concurrent request for new access at Overpass Road with I-75 constitutes a federal action, it was determined that a full PD&E Study and IJR would be required in accordance with FHWA

project development policies and procedures. The Overpass Road PD&E Study has further refined and evaluated all proposed build alternatives from the Route Study and identified additional improvements needed to alleviate existing transportation deficiencies and accommodate future population and employment growth. These additional improvements are described further in subsequent sections of this report.

FIGURE 4-1 OVERPASS ROAD ROUTE STUDY ALIGNMENTS (AERIAL)





FIGURE 4-2 OVERPASS ROAD ROUTE STUDY ALIGNMENTS (GRAPHIC)

Section 5.0 **DESIGN CONTROLS AND STANDARDS**

Design controls and standards used to develop the proposed typical sections and roadway improvements for Overpass Road and the proposed interchange are described in this section. Although Overpass Road is a Pasco County arterial, design criteria based on FDOT standards were adopted as the proposed interchange with I-75 constitutes a federal action. Table 5-1 presents the roadway design criteria used in the development of the alternatives. The design criteria used are based on design parameters outlined in FDOT's Roadway Plans Preparation Manual (PPM), 2012 Edition.

Design Element	Design Criteria	Reference			
A. General					
Classification	Urban Arterial	Pasco Co. Comprehensive Plan			
Design Vehicle	WR 62EL & Dessenger Cor	PPM Vol. 1, Section 1.12,			
Design venicie	WB-02FE & Lassenger Car	AASHTO (2011), Table 2-1b			
Design Speed	45 MPH (30 mph through the	PPM Vol. 1 Table 1.9.1, AASHTO			
	Promenade Town Center limits ¹)	(2011), P. 2-54			
Traffic Data					
Opening Year	2022	PIJR, Appendix J			
Design Year	2040	PIJR, Appendix J			
Opening AADT	11,500-47,800	PIJR, Appendix J			
Design AADT	23,000-73,100	PIJR, Appendix J			
B. Typical Sections					
Minimum Pavement Width	$15' (11' lane + 4' bike lane^2)$	PPM Vol. 1, Tables 2.1.1, 2.1.2			
Minimum Shoulder Width	4 ft. inside	PPM Vol. 1, Section 2.16.5			
HS Urban & Suburban	6.5 ft outside	PPM Vol. 1, Section 2.16.5 Table			
	0.5 11. 0015100	2.3.2 - Rural			
Minimum Lane Widths	11 ft.	PPM Vol. 1, Table 2.1.1			
Standard Pavement Cross-slopes	0.02 -0.03	PPM Vol. 1, Figure 2.1.1			
Median Width	22 ft.	PPM Vol. 1, Table 2.2.1			
Clear Zone From Edge of Travel	24 ft	PPM Vol. 1 Table 2 11 11			
Lane	211.				
Front Slope	1:2 or to suit property owner, not	PPM Vol 1 Table 2.4.1			
	flatter than 1:6	11111 1011 1, 14010 2.1.1			
Back Slope	1:2 or to suit property owner, not	PPM Vol. 1. Table 2.4.1			
	flatter than 1:6				
Transverse Slope	1:4	PPM Vol. 4.1, Table 2.4.1			
C. Horizontal Geometry					
Maximum Superelevation	0.05	PPM Vol. 1, Table 2.9.2			
Maximum Curvature (30 mph)	$20^{\circ} 00'$ (with superelevation, emax	PPM Vol 1 Table 2.9.2			
	= 0.05)	11111 1011 1, 14010 2.9.2			
Maximum Curvature (45 mph)	8° 15' (with superelevation, emax =	PPM Vol 1 Table 2.9.2			
	0.05)				
Superelevation Ratio	1:150	PPM Vol. 1, Table 2.9.4			
Minimum Full Super Length	Sum of 80% of transition of curves	PPM Vol. 1, Section 2.9			

TABLE 5-1 **PROJECT DESIGN STANDARDS**

September 2016

Overpass Road PD&E Study From Old Pasco Road to US 301 **Preliminary Engineering Report**

TABLE 5-1 (CONTINUED) PROJECT DESIGN STANDARDS

Design Element	Design Criteria	Reference
Superelevation Transition Length	75'	PPM Vol. 1, Table 2.9.4
Minimum Length of Horizontal Curve	15V =825', not less than 400'	PPM Vol. 1, Table 2.8.2a
Minimum Stopping Sight Distance	360 ft	PPM Vol. 1, Table 2.7.1
Maximum Deflection without a Horizontal Curve	1° 00'00"	PPM Vol. 1, Table 2.8.1a
Minimum Passing Sight Distance	N/A	PPM Vol. 1, Table 2.7.2
D. Vertical Geometry		
Maximum Grade	6% (Flat Terrain)	PPM Vol. 1, Table 2.6.1
Minimum Grade	0.3%	PPM Vol. 1, Table 2.6.4
Maximum Change in % Grade Without a Vertical Curve	0.70	PPM Vol. 1, Table 2.6.2
Minimum K Value for Crest Vertical Curve	98	PPM Vol. 1, Table 2.8.5
Minimum K Value for Sag Vertical Curve	79	PPM Vol. 1, Table 2.8.6
Length of Vertical Curve	L=KA	PPM Vol. 1, Table 2.6.1
Minimum Length of Vertical Curve	3 x DS (mph) = 90 ft (30 mph) 3 x DS (mph) = 135 ft (45 mph)	PPM Vol. 1, Table 2.8.5, 2.8.6 PPM Vol. 1, Table 2.8.5, 2.8.6

* Design criteria based on the design parameters outlined in the FDOT *Roadway Plans Preparation Manual PPM* (2012 Edition)
 ¹ The Promenade Town Center section of the project assumes Transportation Design for Livable Communities (TDLC) features, where PPM Vol. 1, Table 1.9.1 allows for a reduced design speed.

² Five-foot bike lanes will be evaluated in the Design phase when adjacent to right-turn lanes, parking, guardrail or other barriers.

Section 6.0 TRAFFIC

Traffic operational analysis for the proposed interchange at I-75 and Overpass Road and the entire Overpass Road corridor to US 301 was conducted as part of the PIJR process for the proposed new interchange at I-75 and Overpass Road. Note that for traffic purposes, the limits of the PIJR and PD&E Study do not functionally differ. Therefore, the traffic analysis for the Overpass Road corridor was conducted concurrent with development of the PIJR, ensuring that consistent methodologies, socioeconomic data and travel demand forecasts were developed and employed. The PIJR (available under separate cover) received a *Determination of Engineering and Operational Acceptability* by the FHWA on May 27, 2014. This section summarizes the existing and future traffic volumes and LOS for the No-Build Alternative, Build Interchange Alternatives.

The existing (2010) traffic volumes for various roadways in the PD&E study area were developed from traffic counts conducted for the PIJR and obtained from FDOT sources. The existing AADT volumes are shown in **Figure 6-1**.

Travel demand forecasting for this project was performed using the TBRPM (version 7.0). The TBRPM is based on the Florida Standard Urban Transportation Modeling Structure (FSUTMS) and is recognized by both FDOT District Seven, as well as the Tampa Bay Area MPOs as the accepted travel demand forecasting tool. The TBRPM was validated to the year 2006 and also includes Cost Feasible network and socioeconomic (SE) data for the year 2035. The ultimate roadway network reflects the adopted 2035 Cost Affordable LRTPs for all counties in the District.

The TBRPM was reviewed and the land use data, roadway network, and TAZs were updated to reflect recent approved developments in the project study area. In addition, appropriate development levels for the Pasadena Hills Area Plan are represented in the SE data. This area plan (approved by Pasco County) encompasses the eastern portion of the county located north of SR 54, south of SR 52, east of CR 577/Curley Road, and west of Handcart Road. Land use data from the recently proposed Pasco County Comprehensive Plan Amendments for Gateway Hub, Wildcat Groves, and Cracchiolo developments located in the project study area were also verified. Based on the updated SE data used in this analysis, the project study area is projected to have 80,200 dwelling units and 51,450 employees by 2025 and 105,000 dwelling units and 75,600 employees by 2035.

Comments were received from the review agencies (FDOT and FHWA) during development of the traffic forecasts regarding the economic recession and its potential effects on traffic projections in the study area. In an attempt to address the recession and stimulate the economy, the State has passed growth management legislation which includes build-out date extensions, development incentives and local government control over concurrency provisions in their jurisdictions. As such, Pasco County is one of only a handful of local governments that has rescinded transportation concurrency county-wide and now implements a "Mobility Fee" structure where the County has agreed to subsidize development fees for preferred land uses. Although it is understood that short-term delays in development have occurred, the long-term vision of Pasco County (as reflected in their Comprehensive Plan) includes a significant increase in residential, commercial, industrial and employment land uses.

The growth rates and AADT projections are based on the approved regional model used for planning and project development in the Tampa Bay Region. As stated above, all land uses included have been based on the Pasco County MPO 2035 LRTP and other approved developments in the area, the majority of which are still active and plan to develop in the future. Pasco County population growth has historically exceeded the Bureau of Economic and Business Research (BEBR) projections. Thus, the Pasco County MPO determined that the BEBR "High" projections would be used for the update of the LRTP to year 2040, potentially resulting in even higher traffic growth for this area.

For the Design Year (2040), the model was run using the 2035 network and SE data and the traffic projections were obtained by applying a one percent per year growth rate to the 2035 volumes. Note that the majority of future development in the study area is already reflected in the 2035 land use data; therefore, growth beyond 2035 is assumed to be limited.

The Design Year (2040) AADT volumes for the No-Build and Build Alternatives are shown in **Figures 6-2, 6-3, and 6-4**, respectively. Note that since the number of lanes assumed for travel demand forecasting is consistent across all Build Roadway Alternatives (O-1, O-2 and O-3), the resulting traffic volumes are the same.

FIGURE 6-1 EXISTING YEAR (2010) AADT VOLUMES



FIGURE 6-2 DESIGN YEAR (2040) AADT VOLUMES NO-BUILD ALTERNATIVE



FIGURE 6-3 DESIGN YEAR (2040) AADT VOLUMES BUILD INTERCHANGE ALTERNATIVES



FIGURE 6-4 DESIGN YEAR (2040) AADT VOLUMES BUILD ROADWAY ALTERNATIVES



Table 6-1 shows a comparison of the Design Year (2040) AADT volumes for the interchanges and segments directly adjacent to the proposed Overpass Road interchange and roadway.

	Projected 2	2040 AADT	Difference
Location	No-Build	Build	(Build vs. No-Build)
I-75 from CR 54 to SR 52	165,800	204,400	+23%
I-75 NB off-ramp to CR 54	36,900	25,700	-31%
I-75 SB on-ramp from CR 54	36,900	25,700	-31%
I-75 NB on-ramp from CR 54	15,900	20,500	+28%
I-75 SB off-ramp to CR 54	15,900	20,500	+28%
I-75 NB off-ramp to SR 52	32,400	27,200	-16%
I-75 SB on-ramp from SR 52	32,400	27,200	-16%
I-75 NB on-ramp from SR 52	10,600	9,000	-15%
I-75 SB off-ramp to SR 52	10,600	9,000	-15%
CR 54 east of I-75	91,500	80,600	-12%
CR 54 east of I-75	79,100	73,100	-8%
SR 52 east of I-75	71,500	66,400	-7%
SR 52 east of I-75	63,000	57,600	-9%

TABLE 6-1DESIGN YEAR (2040) AADT COMPARISON

The following LOS standards have been used for the state-designated study area roadways:

- I-75: South of CR 54 = LOS D; North of CR 54 = LOS C
- SR 56: LOS D
- CR 54/SR 54: LOS D
- SR 52: LOS D

All other County/local roadways analyzed (including Overpass Road) utilized the County standard, which in all cases for the proposed project is LOS D. Signalized intersections analyzed utilized the most conservative LOS standard applicable to each road at the intersection, whether it is LOS C or D.

Table 6-2 provides a comparison of LOS projected for the Design Year (2040) at the adjacent interchanges with and without the proposed Overpass Road interchange.

	No-	Build	Bu	ild	Difference	~
Location	Delay	LOS	Delay	LOS	(Build vs. No-Build)	Congestion Effect
I-75 northbound ramps at CR 54	178.5	F	120.2	F	-32%	Positive
I-75 southbound ramps at CR 54	344.8	F	210.3	F	-40%	Positive
I-75 northbound ramps at SR 52	491.4	F	140.4	F	-71%	Positive
I-75 southbound ramps at SR 52	408.1	F	244.1	F	-40%	Positive

TABLE 6-2 DESIGN YEAR (2040) TRAFFIC OPERATIONS COMPARISON

Note: Delay is expressed in sec/veh. The worst-case among a.m./p.m. hours was compared for each intersection.

These traffic projections demonstrate that:

- The study area is forecasted to experience significant traffic delays by the Design Year (2040).
- The Overpass Road corridor and proposed interchange with I-75 attract significant traffic volumes, as well as provide relief to the existing interchanges at CR 54 and SR 52 and several segments of SR 54 and SR 52.

Traffic analysis results presented in **Table 6-3** indicate that the majority of the geometry proposed along the Overpass Road extension provides acceptable LOS through the Design Year (2040), with the exception of the intersections at the Future McKendree Road Realignment and Curley Road/CR 577. The western leg of the Future McKendree Road Realignment is constrained due to existing residential development and the Boyette Reclaimed Water Reservoir/Boyette Water Treatment Plant located at the southwest and northwest sides of the intersection, respectively. The intersection at Curley Road/CR 577 is part of the approved Promenade Town Center concept, where ROW is constrained to only 128 feet in order to promote a more pedestrian and bicycle-friendly streetscape.

	Control	AM P	Peak	PM Peak		
Intersection	Туре	Delay	LOS	Delay	LOS	
Overpass Road at Future McKendree Road Realignment	Signalized	68.8	Е	67.8	Е	
Overpass Road at Curley Road/CR 577	Signalized	70.0	Е	72.8	Е	
Overpass Road at Watergrass Parkway/New River Boulevard	Signalized	42.8	D	21.1	С	
Overpass Road at Future Sunshine Road	Signalized	23.0	С	25.5	D	
Overpass Road at Handcart Road/CR 579	Signalized	39.7	D	35.1	D	
Overpass Road at Fort King Road	Signalized	45.1	D	29.3	С	
Overpass Road at US 301/Gall Boulevard	Signalized	53.3	D	39.2	D	

TABLE 6-3 DESIGN YEAR (2040) INTERSECTION LOS BUILD ROADWAY ALTERNATIVES

Note: Delay reported is in seconds per vehicle (sec/veh).

Table 6-4 summarizes the traffic analysis results for the five proposed Build Interchange Alternatives. While all interchange concepts are projected to operate at or above the LOS standard, results indicate that the Flyover Ramp Alternative provides the best LOS for the predominant movements (southbound ramps to/from I-75) out of all interchange configurations.

	Control	AM I	Peak	PM Peak		
Intersection	Туре	Delay	LOS	Delay	LOS	
DIAMOND IN	TERCHANGE	C				
I-75 northbound ramps at Overpass Road	Signalized	17.2	В	25.2	С	
I-75 southbound ramps at Overpass Road	Signalized	47.6	D	28.4	С	
Overpass Road at Boyette Road	Signalized	44.8	D	47.6	D	
Overpass Road at Old Pasco Road	Signalized	47.7	D	31.8	С	
SPUI CONF	IGURATION					
I-75 northbound/southbound ramps at Overpass Road	Signalized	54.0	D	37.2	D	
Overpass Road at Boyette Road	Signalized	44.8	D	47.6	D	
Overpass Road at Old Pasco Road	Signalized	47.7	D	31.8	С	
DDI CONF.	IGURATION					
I-75 northbound ramps at Overpass Road	Signalized	19.5	В	16.2	В	
I-75 southbound ramps at Overpass Road	Signalized	12.4	В	13.2	В	
Overpass Road at Boyette Road	Signalized	44.8	D	47.6	D	
Overpass Road at Old Pasco Road	Signalized	47.7	D	31.8	С	
FLYOVER RAMP CONFIGURATIO	N (WESTBOU	ND TO SO	UTHBOU	JND)		
I-75 northbound ramps at Overpass Road	Signalized	18.3	В	27.6	С	
I-75 southbound ramps at Overpass Road	Signalized	10.6	В	9.1	А	
Overpass Road at Boyette Road	Signalized	44.8	D	47.6	D	
Overpass Road at Old Pasco Road	Signalized	47.7	D	31.8	С	
LOOP RAMP CONFIGURATION	(WESTBOUND) TO SOUT	FHBOUN	D)		
I-75 northbound ramps at Overpass Road	Signalized	43.3	D	41.4	D	
I-75 southbound ramps at Overpass Road	Signalized	10.6	В	9.1	А	
Overpass Road at Boyette Road	Signalized	44.8	D	47.6	D	
Overpass Road at Old Pasco Road	Signalized	47.7	D	31.8	C	

TABLE 6-4DESIGN YEAR (2040) TRAFFIC OPERATIONS COMPARISONBUILD INTERCHANGE ALTERNATIVES

Note: Delay reported is in sec/veh.

The alternatives development process for Overpass Road and a new interchange at I-75 took the following items into consideration:

- Results of the Route Study All previous alignments considered were refined to account for development and construction since 2005, as well as any Master Roadway Plans or designs included as conditions of approved future development.
- Extension of the eastern terminus for the Overpass Road corridor from the Route Study (Fort King Road) to US 301 The extension was requested by FHWA during the methodology meeting for the I-75 and Overpass Road PIJR. The signed PIJR *Methodology Letter of Understanding* was approved by representatives of the County, FDOT, and FHWA in August 2010.
- Engineering Factors Design, location, and alignment of the improved and new facilities
- Environmental Factors Social, economic, cultural, natural, and physical factors
- Public Involvement Factors Needs and concerns of the community and local governments
- Economic Factors Project costs and the opportunity to optimize benefits

Based on these factors, several Build Alternatives and a No-Build Alternative have been developed as part of this study. The following sections describe the No-Build Alternative, as well as the conceptual alignments and interchange configurations developed for the Build Alternatives and the evaluation methods used to compare these alternatives.

7.1 EVALUATION FACTORS AND METHODOLOGY

The following sections provide further details on the factors and methodologies used to systematically evaluate and compare each of the alternatives based on the selected criteria.

7.1.1 POTENTIAL PARCELS AFFECTED

All of the proposed Build Alternatives were evaluated for their potential impacts to individual parcels. The analysis was based on information obtained from the Pasco County Property Appraiser's Office and overlaid on project aerials. Parcels intersected by a proposed Build Alternative by any amount were counted as "affected."

7.1.2 POTENTIAL RELOCATIONS

All of the proposed Build Alternatives were evaluated for their potential relocation impacts to residential and business uses. Potential residential relocations were identified from the affected parcels when the proposed ROW for the alternative or a stormwater pond was determined to have a direct impact on a structure. Direct impacts include residential structures that are located within the ROW limits or within 20 feet of the alternative or stormwater pond. A distance of 20 feet was chosen as this is generally the minimum setback distance between the ROW and a residential structure permitted by most jurisdictions. Potential business relocations also included impacts to parking and access.

7.1.3 CHURCHES

All of the proposed Build Alternatives were evaluated for their potential impacts to churches. The analysis was based on information obtained from the Pasco County Property Appraiser's Office and overlaid on project aerials then field verified. Church parcels intersected by a proposed Build Alternative by any amount were counted as "affected."

7.1.4 SCHOOLS

All of the proposed Build Alternatives were evaluated for their potential impacts to schools. The analysis was based on information obtained from the Pasco County Property Appraiser's Office and overlaid on project aerials then field verified. School parcels intersected by a proposed Build Alternative by any amount were counted as "affected."

7.1.5 PARKS/RECREATION

All of the proposed Build Alternatives were evaluated for their potential impacts to properties that are publicly-owned parks, recreation areas, or wildlife and waterfowl refuges. Those properties that were determined to potentially be either directly or indirectly affected by a proposed Build Alternative were identified and quantified.

7.1.6 CULTURAL RESOURCES

All of the proposed Build Alternatives were evaluated for their potential impacts to significant cultural resources and included an assessment of potential effects to archaeological sites and historic resources. Potential effects were based on the known presence of significant cultural resources within the Area of Potential Effect (APE) established for each proposed Build Alternative.

The broad corridor study area selected for the preliminary analysis measured approximately 500 feet to both sides of the existing roadway and three proposed Build Roadway Alternatives, including proposed pond sites. The study area for the proposed new interchange at I-75 and Overpass Road encompassed the footprint of all five proposed Build Interchange Alternatives, including the proposed pond sites.

Known or potentially significant cultural resources are defined as those properties either listed, determined eligible, or considered potentially eligible for listing in the National Register of Historic Places (NRHP). Study methods included a review of the available data, including Florida Master Site File (FMSF) records, NRHP listings, U.S. Department of Agriculture (USDA) Soil Survey and U.S. Geological Survey (USGS) quadrangle maps, Publication of Archival Library and Museum Materials (PALMM) aerials, relevant previous *Cultural Resource Assessment Survey* (CRAS) reports conducted in the project area, and other documents. A field reconnaissance was also conducted for the purpose of identifying any potentially significant resources, as well as to "ground truth" the general archaeological site location predictive model.

7.1.7 **POTENTIAL NOISE-SENSITIVE SITES**

All of the proposed Build Alternatives were evaluated for potential noise-sensitive sites. Land uses such as residences, motels, schools, churches, recreation areas, and parks are considered incompatible with highway noise levels exceeding the Noise Abatement Criteria (NAC). In order to compare the various alternatives, noise level contours were developed for the future improved roadway facility based on projected traffic for the Design Year (2040). These noise contours delineate the distance from the improved roadway's edge-of-travel lane to where 66 A-weighted decibels [dB(A)] (FDOT/FHWA criteria for residential, parks, places of worship, schools and other ancillary activities) is expected to occur in the future (2040).

Within the project limits, the contours extend 194 feet from the proposed roadway's edge-oftravel lane for each proposed Build Alternative. The contours were drawn on project aerials and potential noise-sensitive sites located within the contour lines were counted and field verified for each alternative.

7.1.8 WETLANDS

In order to assess the approximate locations and boundaries of existing wetland communities within the study area, available site-specific data was collected and reviewed prior to field reviews. The study area for the purpose of the wetland and surface water analysis is defined as a 300-foot buffer extending from both sides of the project corridor for each proposed Build Alternative. The following information was collected and analyzed:

- True color aerials of the project study area, (1 inch = 200 ft.) 2012
- USDA, Natural Resource Conservation Service (NRCS), Soil Survey of Pasco County, Florida (1982)
- Florida Association of Professional Soil Scientists, Hydric Soils of Florida Handbook (Hurt, 2007)
- USGS 7.5 minute San Antonio and Dade City quadrangle maps (1997)

- U.S. Fish and Wildlife Service (FWS), Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al., 1979)
- FDOT, Florida Land Use, Cover and Forms Classification System (FLUCFCS), 3rd edition, January 1999
- Southwest Florida Water Management District's (SWFWMD's) GIS FLUCFCS Database

Environmental scientists familiar with Florida natural communities conducted field reviews of the study area. Field evaluations consisted of pedestrian transects throughout all natural habitat types found within and immediately adjacent to the study area. The purpose of the reviews was to verify and/or refine preliminary habitat boundaries and classification codes established through in-office literature reviews and aerial photograph interpretation. Approximate wetland boundaries were identified in accordance with the *Florida Wetlands Delineation Manual* (Gilbert *et al.*, 1995), Chapter 62-340, Florida Administrative Code (F.A.C.) and the guidelines found within U.S. Army Corps of Engineers (USACE) *Regional Supplement to the Corps of Engineers Delineations Manual: Atlantic and Gulf Coastal Plain Region* (USACE, 2010). During field investigations, each wetland and surface water habitat within the project study area was visually inspected and photographed. Attention was given to identifying plant species composition for each community. Exotic plant infestations and other disturbances such as soil subsidence, clearing, canals, power lines, etc. were noted. Attention was also given to identifying wildlife and signs of wildlife usage at each wetland and adjacent upland habitat within the study area.

All wetland and other surface water habitats within the project study area were classified using FLUCFCS (FDOT, 1999) and the FWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, *et al.*, 1979).

Based on the data collected, potential wetland and surface water impacts were quantified for each proposed Build Alternative. The impact area of each wetland/surface water body equals its total acreage for each alternative and includes the proposed stormwater ponds.

7.1.9 FLOODPLAINS

The current Flood Insurance Rate Maps (FIRMs) for unincorporated areas of Pasco County, published by the Federal Emergency Management Agency (FEMA), were reviewed to determine the location of floodplains within the study area. The footprint of each of the Build Alternatives was overlaid on the aerial-based floodplain map and the intersecting areas were calculated. Note that this exercise did not develop site-specific avoidance or minimization options. Each proposed Build Alternative was evaluated to determine its additional impacts above and beyond any existing floodplain impacts within the existing ROW.

7.1.10 POTENTIAL THREATENED AND ENDANGERED SPECIES

The study area for the purpose of the threatened and endangered species analysis was defined as a 300-foot buffer extending from both sides of the proposed ROW for each proposed Build Alternative. The study area was evaluated for potential occurrences of federally- and state-listed plant and animal species in accordance with 50 Code of Federal Regulations (CFR) 17 and Chapters 5B-40 and 68A-27, F.A.C. The *Florida Natural Areas Inventory* (FNAI) was also contacted for available information on listed species occurrences within a one-mile radius of the study area. The evaluation also consisted of literature review, database searches, and field assessments of the project study area to identify the potential occurrence of protected species and/or presence of federally-designated critical habitat.

Based on an evaluation of collected data and results of the field reviews, the potential for federally- and state-listed species to occur within or adjacent to the proposed Build Alternatives was identified.

7.1.11 POTENTIAL CONTAMINATION SITES

The study area for the contamination screening was defined as 0.25-mile from the centerline of the project corridor. Potential contamination sites were identified as a result of database searches, review of historical aerial photography, previous *Contamination Screening Evaluation Reports* (CSER) conducted in the area, and field reconnaissance surveys. Each proposed Build Alternative was then ranked "High," "Medium," "Low," or "No" risk for potential contamination, consistent with criteria outlined in Part 2, Chapter 22 of the FDOT *PD&E Manual*. High or medium ranked potential contamination parcels intersected by a proposed Build Alternative by any amount were counted as "affected."

7.1.12 COSTS

Preliminary estimates were developed for the costs associated with each proposed Build Alternative. These costs include Design, ROW, Construction, and Construction Engineering and Inspection (CEI) amounts. The FDOT Long Range Estimate (LRE) data was used to estimate costs for the proposed construction. These costs include estimates for all known aspects of construction to date for roadway, structures, and construction costs related to pond sites and floodplain mitigation, as well as for Maintenance of Traffic (MOT), Mobilization, and any contingencies. Design and CEI costs were estimated at 10 percent of the estimated construction costs for each proposed Build Alternative. All engineering estimates provided reflect present day costs.

The ROW costs for the Build Interchange Alternatives were estimated using unit costs established based on future land uses for any potential parcels affected (as used in development of Pasco County's CIP) and were coordinated with the Pasco County Property Appraiser's Office. The unit costs agreed upon are as follows:
•	Northwest Quadrant:	\$8 per square foot
•	Northeast Quadrant:	\$10 per square foot
•	Southwest Quadrant:	\$8 per square foot
•	Southeast Quadrant:	\$5 per square foot

A base cost was calculated using the unit cost and the estimated ROW required. The base cost was multiplied by a factor of 2.5 to estimate the total acquisition cost and a 25 percent contingency factor was added to reach the total ROW cost.

The ROW costs for the Build Roadway Alternatives were estimated using the "just market value" of land and structures for any potential parcels affected, as obtained from the Pasco County Property Appraiser's Office (via the website). This base cost was multiplied by a factor of 2.5 and 3.0 to estimate a range for the total acquisition cost.

7.2 NO-BUILD ALTERNATIVE

The No-Build Alternative assumes that the proposed Overpass Road corridor and interchange at I-75 are not constructed and no improvements other than those currently programmed in the Pasco County MPO Cost Affordable LRTP or FDOT Five Year Work Program will be implemented. Certain advantages would be associated with implementation of the No-Build Alternative, including the following:

- No major construction costs
- No disruption to existing land uses due to construction activities
- No ROW acquisitions
- No disturbance to natural resources

The disadvantages of the No-Build Alternative include the following:

- Increased traffic congestion and deficient operational conditions on the surrounding roadway network
- Not consistent with the local transportation plans
- Does not enhance regional mobility or connectivity
- Increased roadway maintenance costs on the surrounding roadway network

Detailed traffic operational analysis for the No-Build Alternative is provided in the PIJR, which received a *Determination of Engineering and Operational Acceptability* by the FHWA on May

27, 2014. The No-Build Alternative will remain a viable alternative throughout the PD&E Study process.

7.3 TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS ALTERNATIVE

The FHWA defines TSM&O as "an integrated program to optimize the performance of existing multimodal infrastructure through implementation of systems, services, and projects to preserve capacity and improve the security, safety, and reliability of our transportation system." The TSM&O Alternative seeks to optimize the efficiency of the current transportation system by implementing low-cost strategies such as the following:

- Adding turn or auxiliary lanes, and converting high occupancy vehicles (HOV) lanes to reversible lanes
- Optimizing traffic signals (improves overall operation) including signal coordination
- Improving interchange termini
- Milling and resurfacing to extend pavement life
- Improving roadway signage and pavement markings
- Traffic management strategies
- Enhancing pedestrian facilities

Typically, TSM&O improvements are implemented to reduce or eliminate the need for roadway widening or construction of a new facility. As the majority of the Overpass Road corridor does not exist, TSM&O improvements are not viable options for implementation along this facility. It is noted that some TSM&O concepts have already been implemented along parallel facilities such as CR/SR 54 and SR 52. However, they will not provide adequate long-term capacity necessary to reduce or eliminate the need for the project. It was determined that the TSM&O Alternative does not satisfy the purpose and need for the proposed project because of the following:

- It does not accommodate future population and employment growth
- It does not improve regional mobility and connectivity
- It does not accommodate future travel demand
- It does not provide relief to parallel facilities
- It does not improve emergency evacuation capabilities or response times

The TSM&O Alternative does not directly impact any of the other evaluation factors. Based on this alternative's failure to satisfy the purpose and need for this project, the TSM&O Alternative has been eliminated from further consideration.

7.4 MULTIMODAL ALTERNATIVE

The Multimodal Alternative for the Overpass Road PD&E Study is limited to existing, planned and programmed service operated by PCPT. Multimodal transportation options such as bus and mass transit were considered as part of the Pasco County LRTP process and determined to be not sufficient to exclusively meet the travel demands within the study area. However, the proposed project is not intended to preclude future implementation of any of these options, nor does it preclude the implementation of other options such as managed lanes in the future. It was determined that the Multimodal Alternative does not satisfy the purpose and need for the proposed project because of the following:

- It does not accommodate future population and employment growth
- It does not improve regional mobility and connectivity
- It does not accommodate future travel demand
- It does not improve emergency evacuation capabilities or response times

The Multimodal Alternative does not directly impact any of the other evaluation factors. Based on this alternative's failure to satisfy the purpose and need for this project, the Multimodal Alternative has been eliminated from further consideration.

7.5 BUILD ALTERNATIVES

The proposed typical sections, Build Interchange Alternatives, and Build Roadway Alternatives are described in this section.

7.5.1 TYPICAL SECTIONS

The typical sections developed for Overpass Road provide for four lanes from Old Pasco Road to I-75; six lanes (plus two auxiliary lanes) from I-75 to Boyette Road; and six lanes from Boyette Road to US 301. **Table 7-1** identifies the various typical sections evaluated throughout the project corridor. **Figures 7-1 through 7-7** graphically depict these typical sections, which are the same for each of the Build Roadway Alternatives O-1, O-2, and O-3.

TABLE 7-1
TYPICAL SECTION EVALUATION

Location	Typical Section Description	Typical Section Width (ft.)
Old Pasco Road to I-75	Four-Lane Divided, Urban	142
I-75 to Boyette Road	Six-Lane Divided plus Two Auxiliary Lanes, Urban	190
Boyette Road to Future McKendree Road Realignment	Six-Lane Divided, Urban	128
Future McKendree Road Realignment to Promenade Town Center	Six-Lane Divided, Urban	166
Through Promenade Town Center	Six-Lane Divided, Urban	128
Promenade Town Center to Fort King Road	Six-Lane Divided, Urban	166
Fort King Road to US 301	Six-Lane Divided, Urban	128

FIGURE 7-1 FOUR-LANE DIVIDED URBAN TYPICAL SECTION OLD PASCO ROAD TO I-75



FIGURE 7-2 SIX-LANE DIVIDED PLUS TWO AUXILIARY LANES URBAN TYPICAL SECTION I-75 TO BOYETTE ROAD



FIGURE 7-3 SIX-LANE DIVIDED URBAN TYPICAL SECTION BOYETTE ROAD TO FUTURE MCKENDREE ROAD REALIGNMENT



FIGURE 7-4 SIX-LANE DIVIDED URBAN TYPICAL SECTION FUTURE MCKENDREE ROAD REALIGNMENT TO PROMENADE TOWN CENTER



FIGURE 7-5 SIX-LANE DIVIDED URBAN TYPICAL SECTION THROUGH PROMENADE TOWN CENTER



FIGURE 7-6 SIX-LANE DIVIDED URBAN TYPICAL SECTION PROMENADE TOWN CENTER TO FORT KING ROAD







7.5.2 BUILD INTERCHANGE ALTERNATIVES

Five Build Interchange Alternatives have been developed at the proposed interchange of I-75 and Overpass Road and were analyzed based on the criteria and methodologies described in Section 7.1, as well as results of the traffic operational analysis presented in the PIJR. In addition, the ultimate number of lanes needed for Overpass Road between Old Pasco Road and Boyette Road are included with each Build Interchange Alternative. A detailed description of each alternative is provided below and shown graphically on **Figures 7-8 through 7-12**. Note that each of the

proposed Build Interchange Alternatives satisfies the purpose and need for the project because of the following:

- It will accommodate future population and employment growth
- It will improve regional mobility and connectivity
- It will accommodate future travel demand
- It will provide relief to parallel facilities
- It will improve emergency evacuation capabilities and response times

Detailed traffic operational analyses for each of the Build Interchange Alternatives are provided in the PIJR, which received a *Determination of Engineering and Operational Acceptability* by the FHWA on May 27, 2014.

7.5.2.1 Diamond Interchange Alternative

A diamond interchange is the most basic interchange form with a four-ramp configuration connecting the freeway to the surface road. This alternative provides two-lane on-/off-ramps to/from the south and single-lane on-/off-ramps to/from the north. **Figure 7-8** shows the proposed geometry for the Diamond Interchange configuration, along with existing and future ROW lines.

The Diamond Interchange Alternative affects a total of 22 parcels (no business, 10 residential, and 12 other), with one potential residential relocation located on the south side of Overpass Road between Old Pasco Road and Blair Drive. This represents the lowest impact to overall parcels and second lowest impact to residential parcels of the proposed Build Interchange Alternatives. There are two potential noise-sensitive sites affected for the Diamond Interchange Alternative. No churches or schools are affected by this alternative.



DIAMOND INTERCHANGE ALTERNATIVE

The Diamond Interchange Alternative potentially affects approximately 4.74 acres of one recreational resource, the Wesley Chapel District Park. It is important to note that the County designed the park anticipating the widening of the I-75 mainline and/or the addition of an interchange at Overpass Road. Therefore, no park facilities are located or planned within the areas that are potentially impacted by the interchange. No NRHP-eligible or -listed cultural resources were identified within or adjacent to this alternative.

Five recorded archaeological sites (8PA463, -464, -465, -623, and -2038) are located within or near the footprint for the Diamond Interchange Alternative. Of these, one archaeological site (8PA465) was determined eligible for listing in the NRHP by the State Historic Preservation Officer (SHPO). No historic resources that are listed, determined eligible, or considered potentially eligible for the NRHP are associated with the Diamond Interchange Alternative including pond sites. The Diamond Interchange Alternative is ranked Medium in terms of its potential for significant archaeological sites and Low for potential for significant historic resources.

Potential total impacts to wetlands (including other surface waters) related to the Diamond Interchange Alternative have been estimated at 12.3 acres, representing the second lowest impact to wetland resources. The Diamond Interchange Alternative is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within the Diamond Interchange Alternative, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of two potential contamination sites identified in the vicinity of the Diamond Interchange Alternative both are ranked as having a Low risk for potential contamination impact. In addition, two suspect well locations (7943 Blair Drive and 7826 Dowd Drive) were observed for the Diamond Interchange Alternative.

The total cost for the Diamond Interchange Alternative is \$51.6 million, which includes \$3.3 million for Design, \$12.2 million for ROW, \$32.8 million for Construction, and \$3.3 million for CEI. The total ROW acreage required for this alternative is 12.45 acres. The Diamond Interchange Alternative has the lowest ROW and total costs among the proposed Build Interchange Alternatives.

This type of interchange minimizes impacts to the adjacent properties more than the other types of interchanges and avoids the interweaving traffic flows that occur in other configurations. However, this alternative creates the highest number of conflict points and requires triple left-turn lanes for the westbound-to-southbound movement; without triple left-turn lanes, this

alternative will not provide adequate capacity to accommodate the design year travel demand, which does not meet the purpose or satisfy the need of the project.

While it is recognized that the Diamond Interchange Alternative is the least costly option and was preferred by the public, this alternative alone will not be able to satisfactorily handle the traffic volumes projected for the Design Year (2040). In addition, providing triple left-turn lanes onto the I-75 southbound on-ramp is not an operationally safe or practicable option. As such, the Diamond Interchange Alternative has been eliminated from further detailed evaluation.

7.5.2.2 Diverging Diamond Interchange Alternative

A Diverging Diamond Interchange (DDI) Alternative was developed for this area due to the high number of vehicles turning left from westbound Overpass Road to southbound I-75. **Figure 7-9** shows the proposed geometry for the DDI Alternative along with existing and future ROW lines. A DDI has a higher capacity for left-turn movements when compared to the conventional diamond interchange. While the ramp configuration is similar to a traditional diamond interchange, traffic on the crossroad moves to the left side of the roadway for the segment between signalized ramp intersections. By moving traffic to the left, left-turning vehicles can enter the limited access highway without the need for a left-turn signal phase at the signalized ramp intersections. In addition, left-turning vehicles on the crossroad do not conflict with opposing through traffic and may turn without stopping.

All signalized ramp terminal intersections operate in a highly efficient manner because there are only two phases. Traffic signals do not control the entry of vehicles onto I-75; therefore, vehicle platoons generated by an up-stream traffic signal would be dissipated in the DDI Alternative.

The DDI Alternative affects a total of 24 parcels (no business, 12 residential, and 12 other), including one potential residential relocation located on the south side of Overpass Road between Old Pasco Road and Blair Drive. There are two potential noise-sensitive sites affected for the DDI Alternative. No churches or schools are affected by this alternative.

The DDI Alternative potentially affects approximately 7.45 acres of one recreational resource, the Wesley Chapel District Park. It is important to note that the County designed the park anticipating the widening of the I-75 mainline and/or the addition of an interchange at Overpass Road. Therefore, no park facilities are located or planned within the areas that are potentially impacted by the interchange. No NRHP-eligible or -listed cultural resources were identified within or adjacent to this alternative.

Five recorded archaeological sites (8PA463, -464, -465, -623, and -2038) are located within or near the footprint for the DDI Alternative. Of these, one archaeological site (8PA465) was determined eligible for listing in the NRHP by the SHPO. No historic resources that are listed, determined eligible, or considered potentially eligible for the NRHP are associated with the DDI Alternative including pond sites.



FIGURE 7-9 DDI ALTERNATIVE

The DDI Alternative is ranked Medium in terms of its potential for significant archaeological site and Low for potential for significant historic resources.

Potential total impacts to wetlands (including other surface waters) related to the DDI Alternative have been estimated at 15.2 acres, representing the second highest impact to wetland resources. The DDI Alternative is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within the DDI Alternative, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of two potential contamination sites identified in the vicinity of the DDI Alternative both are ranked as having a Low risk for potential contamination impact. In addition, three suspect well locations (7943 Blair Drive, 7852 Dowd Drive, and 7826 Dowd Drive) were observed for the DDI Alternative.

The total cost for the DDI Alternative is \$55.8 million, which includes \$3.2 million for Design, \$17.7 million for ROW, \$31.7 million for Construction, and \$3.2 million for CEI. The total ROW acreage required for this alternative is 18.0 acres. The DDI Alternative has the third lowest ROW and second lowest total costs among the proposed Build Interchange Alternatives.

A DDI has a higher capacity for left-turn movements when compared to the conventional diamond interchange. While the ramp configuration is similar to a traditional diamond interchange, traffic on the cross street moves to the left side of the roadway for the segment between signalized ramp intersections. By moving traffic to the left, left-turning vehicles can enter the limited access highway without the need for a left-turn signal phase at the signalized ramp intersections. In addition, left-turning vehicles on the crossroad do not conflict with opposing through traffic and may turn without stopping. The configuration operates best when there are proportionally fewer vehicles traveling straight through on the cross street, and may become inferior to other diamond interchange configurations when ramp movement volumes approach through movement volumes.

While there are several positive attributes to the configuration from an operational standpoint, a DDI concept does not meet standard driver expectancy, as vehicles are required to drive on the left side of the roadway through the interchange. As such, it is recommended that the DDI Alternative be eliminated from further detailed evaluation.

7.5.2.3 Flyover Ramp Alternative

The Flyover Ramp Alternative provides a two-lane westbound-to-southbound flyover gradeseparated free-flow movement in lieu of triple left-turn lanes for the predominant movement. This improves the signal operations at both ramp terminal intersections by removing a large volume of traffic and reduces the number of lanes through the interchange in the westbound direction. **Figure 7-10** shows the proposed geometry for the Flyover Ramp Alternative along with existing and future ROW lines.

The Flyover Ramp Alternative affects a total of 24 parcels (no business, 13 residential, and 11 other), including eight potential residential relocations located on the south side of Overpass Road between Old Pasco Road and Blair Drive. There are two potential noise-sensitive sites affected for the Flyover Ramp Alternative. No churches or schools are affected by this alternative.

The Flyover Ramp Alternative potentially affects approximately 4.80 acres of one recreational resource, the Wesley Chapel District Park. It is important to note that the County designed the park anticipating the widening of the I-75 mainline and/or the addition of an interchange at Overpass Road. Therefore, no park facilities are located or planned within the areas that are potentially impacted by the interchange. No NRHP-eligible or -listed cultural resources were identified within or adjacent to this alternative.

Five recorded archaeological sites (8PA463, -464, -465, -623, and -2038) are located within or near the footprint for the Flyover Ramp Alternative. Of these, one archaeological site (8PA465) was determined eligible for listing in the NRHP by the SHPO. No historic resources that are listed, determined eligible, or considered potentially eligible for the NRHP are associated with the Flyover Ramp Alternative including pond sites. The Flyover Ramp Alternative is ranked Medium in terms of its potential for significant archaeological site and Low for potential for significant historic resources.

Potential total impacts to wetlands (including other surface waters) related to the Flyover Ramp Alternative have been estimated at 13.4 acres, representing the third lowest impact to wetland resources. The Flyover Ramp Alternative is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within the Flyover Ramp Alternative, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of two potential contamination sites identified in the vicinity of the Flyover Ramp Alternative both are ranked as having a Low risk for potential contamination impact. In addition, six suspect well locations (7943 Blair Drive and 7852, 7840, 7826, 7810, and 7752 Dowd Drive) were observed for the Flyover Ramp Alternative.

The total cost for the Flyover Ramp Alternative is \$95.9 million, which includes \$6.0 million for Design, \$24.1 million for ROW, \$59.8 million for Construction, and \$6.0 million for CEI. The total ROW acreage required for this alternative is 23.0 acres. The Flyover Ramp Alternative has the second highest ROW and highest total costs among the proposed Build Interchange Alternatives.



FIGURE 7-10 FLYOVER RAMP ALTERNATIVE

While this alternative adds a third level to the interchange resulting in increased costs for the bridge, retaining walls, and earthwork, the Flyover Ramp Alternative provides optimal traffic operations compared to all other Build Interchange Alternatives. As such, the Flyover Ramp Alternative is recommended for further detailed evaluation.

7.5.2.4 Loop Ramp Alternative

The Loop Ramp Alternative provides a two-lane westbound-to-southbound loop ramp in the northwest quadrant of the interchange in lieu of at-grade triple left-turn lanes. This alternative replaces the left-turn movement with a right-turn movement and eliminates some conflict points. **Figure 7-11** shows the proposed geometry for the Loop Ramp Alternative along with existing and future ROW lines.

The Loop Ramp Alternative affects a total of 22 parcels (no business, eight residential, and 14 other), including one potential residential relocation located on the south side of Overpass Road between Old Pasco Road and Blair Drive. There are two potential noise-sensitive sites affected for the Loop Ramp Alternative. No churches or schools are affected by this alternative.

The Loop Ramp Alternative potentially affects approximately 4.33 acres of one recreational resource, the Wesley Chapel District Park. It is important to note that the County designed the park anticipating the widening of the I-75 mainline and/or the addition of an interchange at Overpass Road. Therefore, no park facilities are located or planned within the areas that are potentially impacted by the interchange. No NRHP-eligible or -listed cultural resources were identified within or adjacent to this alternative.

Five recorded archaeological sites (8PA463, -464, -465, -623, and -2038) are located within or near the footprint for the Loop Ramp Alternative. Of these, one archaeological site (8PA465) was determined eligible for listing in the NRHP by the SHPO. In addition to the five archaeological sites, a segment of historic Overpass Road (8PA2069) abuts the Loop Ramp Alternative. No other historic resources that are listed, determined eligible, or considered potentially eligible for the NRHP are associated with the Loop Ramp Alternative including pond sites. The Loop Ramp Alternative is ranked Medium in terms of its potential for significant archaeological site and Low for potential for significant historic resources.

Potential total impacts to wetlands (including other surface waters) related to the Loop Ramp Alternative have been estimated at 41.4 acres. The Loop Ramp Alternative also impacts 2.1 acres of floodplains. This alternative has the largest wetland and floodplain impacts among all proposed Build Interchange Alternatives.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within the Loop Ramp Alternative, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.



LOOP RAMP ALTERNATIVE

Out of a total of two potential contamination sites identified in the vicinity of the Loop Ramp Alternative both are ranked as having a Low risk for potential contamination impact. In addition, one suspect well location (7943 Blair Drive) was observed for the Loop Ramp Alternative.

The total cost for the Loop Ramp Alternative is \$94.1 million, which includes \$3.5 million for Design, \$52.4 million for ROW, \$34.7 million for Construction, and \$3.5 million for CEI. The total ROW acreage required for this alternative is 49.10 acres. The Loop Ramp Alternative has the highest ROW and second highest total costs among the proposed Build Interchange Alternatives.

The Loop Ramp Alternative provides a two-lane westbound-to-southbound loop ramp in the northwest quadrant of the interchange in lieu of an at-grade triple left-turn movement. This configuration replaces the triple left-turn movements with a right-turn movement and eliminates some conflict points. Although it improves the operation of the westbound-to-southbound movement, this alternative requires the largest amount of ROW and has the greatest wetland and floodplain impacts of all the Build Interchange Alternatives. As such, the Loop Ramp Alternative has been eliminated from further detailed evaluation.

7.5.2.5 Single Point Urban Interchange Alternative

The Single Point Urban Interchange (SPUI) Alternative provides two-lane on-/off-ramps to/from the south and single-lane on-/off-ramps to/from the north. **Figure 7-12** shows the proposed geometry for the SPUI Alternative, along with existing and future ROW lines. A SPUI is similar to a diamond interchange except the two ramp terminal intersections are combined into a single intersection. While the SPUI ROW requirements are similar to a diamond interchange, the footprint of the interchange is considerably wider. Therefore, two bridge options were evaluated for the SPUI configuration:

- A conventional rectangular bridge and
- A bow-tie shape bridge mirroring the turning movements

The conventional rectangular bridge would employ typical construction with parallel girders spanning between parallel substructure elements. The beams would generally be of the same type, design, and construction. Likewise, standard details could be used for the superstructure slab, barriers, and substructure elements. The relative uniformity of the bridge elements means this bridge option would likely have lower construction costs. This bridge option does require the construction of more bridge deck than is required for the movements, but the reduction in construction cost would likely offset the addition of material costs. The additional space has the potential to be fitted with landscaping and/or hardscaping.



FIGURE 7-12 SPUI ALTERNATIVE

The bow-tie bridge would employ flared concrete girders or curved steel girders with stringers. This option would reduce the plan area of concrete deck required for the rectangular bridge, as it would mimic the movements of the intersection. It is also likely to be a more aesthetically pleasing structure, when compared to the rectangular bridge. However, the design and construction costs of this option would likely be higher than the more conventional rectangular bridge due to the relatively complex girder arrangement, atypical superstructure slab, and irregular substructure elements. This option may be appropriate if aesthetics are a high priority at this intersection.

The SPUI Alternative affects a total of 23 parcels (no business, 12 residential, and 11 other), with no potential residential or business relocations. There are two potential noise-sensitive sites affected for the SPUI Alternative. No churches or schools are affected by this alternative.

The SPUI Alternative potentially affects approximately 4.67 acres of one recreational resource, the Wesley Chapel District Park. It is important to note that the County designed the park anticipating the widening of the I-75 mainline and/or the addition of an interchange at Overpass Road. Therefore, no park facilities are located or planned within the areas that are potentially impacted by the interchange. No NRHP-eligible or -listed cultural resources were identified within or adjacent to this alternative.

Five recorded archaeological sites (8PA463, -464, -465, -623, and -2038) are located within or near the footprint for the SPUI Alternative. Of these, one archaeological site (8PA465) was determined eligible for listing in the NRHP by the SHPO. No historic resources that are listed, determined eligible, or considered potentially eligible for the NRHP are associated with the SPUI Alternative including pond sites. The SPUI Alternative is ranked Medium in terms of its potential for significant archaeological site and Low for potential for significant historic resources.

Potential total impacts to wetlands (including other surface waters) related to the SPUI Alternative have been estimated at 10.9 acres, representing the lowest impact to wetland resources. The SPUI Alternative is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within the SPUI Alternative, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of two potential contamination sites identified in the vicinity of the SPUI Alternative both are ranked as having a Low risk for potential contamination impact. In addition, one suspect well location (7943 Blair Drive) was observed for the SPUI Alternative.

The total cost for the SPUI Alternative is \$63.9 million, which includes \$4.3 million for Design, \$12.4 million for ROW, \$42.9 million for Construction, and \$4.3 million for CEI. The total ROW acreage required for this alternative is 12.8 acres. The SPUI Alternative has the second lowest ROW and third lowest total costs among the proposed Build Interchange Alternatives.

The SPUI Alternative allows free-flow operations on the major roadway by creating a separate, signalized intersection at the arterial roadway with closely spaced ramp terminals. While the SPUI ROW requirements are similar to a diamond interchange, the footprint of the interchange is considerably wider. The SPUI Alternative also requires additional signage and its design makes pedestrian crossing difficult. As such, the SPUI Alternative has been eliminated from further detailed evaluation.

7.5.2.6 Build Interchange Alternatives Summary

Table 7-2 provides an evaluation matrix summarizing the impacts and estimated costs for all Build Interchange Alternatives. These alternatives, along with the No-Build Alternative, were presented at an Alternatives Public Workshop held on November 29, 2012.

	Diamond		Flyover	Loop		
Evaluation Factors	Interchange	DDI	Ramp	Ramp	SPUI	
Business Parcels Affected	0	0	0	0	0	
Residential Parcels Affected	10	12	13	8	12	
Other Parcels Affected	12	12	11	14	11	
Potential Business Relocations	0	0	0	0	0	
Potential Residential Relocations	1	1	8	1	0	
Churches	0	0	0	0	0	
Schools	0	0	0	0	0	
Parks/Recreation	1	1	1	1	1	
Cultural Resources	Low	Low	Low	Low	Low	
Potential Noise-Sensitive Sites	2	2	2	2	2	
Wetlands (Acres)*	12.3	15.2	13.4	41.4	10.9	
Floodplain (Acres)**	0.0	0.0	0.0	2.1	0.0	
Potential Threatened & Endangered Species Involvement	Yes	Yes	Yes	Yes	Yes	
Potential Contamination Sites (High/Medium)	0/0	0/0	0/0	0/0	0/0	
Estimated Costs (in millions)***						
Design****	\$3.3	\$3.2	\$6.0	\$3.5	\$4.3	
ROW	\$12.2	\$17.7	\$24.1	\$52.4	\$12.4	
Construction	\$32.8	\$31.7	\$59.8	\$34.7	\$42.9	
CEI****	\$3.3	\$3.2	\$6.0	\$3.5	\$4.3	
Total Costs (in millions)	\$51.6	\$55.8	\$95.9	\$94.1	\$63.9	

 TABLE 7-2

 BUILD INTERCHANGE ALTERNATIVES EVALUATION MATRIX

Notes: * Wetland impacts based on field review (September 2012); includes impacts to other surface waters. ** Floodplain impacts based on currently effective FEMA's FIRMs.

*** Engineering estimates are in present day costs. Costs include improvements on Overpass Road from Old Pasco Road to Boyette Road, plus the interchange.

**** 10% of construction cost.

7.5.3 BUILD ROADWAY ALTERNATIVES

Three Build Roadway Alternatives have been developed for the proposed widening and extension of Overpass Road. Each alternative has been analyzed based on the criteria and methodologies described in *Section 7.1*, as well as results of the traffic operational analysis presented in the PIJR. A detailed description of each alternative is provided below and shown graphically on **Figure 7-13**. Note that each of the proposed Build Roadway Alternatives satisfies the purpose and need for the project because of the following:

- It will accommodate future population and employment growth
- It will improve regional mobility and connectivity
- It will accommodate future travel demand
- It will provide relief to parallel facilities
- It will improve emergency evacuation capabilities

7.5.3.1 Alternative O-1

Alternative O-1 follows the existing segment of Overpass Road from Boyette Road to 0.86 miles east of Boyette Road along the north side of the Palm Cove subdivision. From there, Alternative O-1 turns southeastward to Curley Road then continues south and east and follows the newly constructed portion of Overpass Road through the WaterGrass development, adjacent to the WindChase subdivision and Watergrass Elementary School. The new alignment then heads in a southeasterly direction to Handcart Road. After crossing Handcart Road, this alternative turns northward to Fairview Heights Road, parallels Fairview Heights Road for a short distance, then curves slightly south and back north and east to intersect with Fort King Road, west of the Kossik Road Extension. From this point, Alternative O-1 heads east and follows Kossik Road to terminate at US 301.

Alternative O-1 affects a total of 63 parcels (one business, 26 residential, and 36 other). This represents the highest impact to residential parcels of the proposed Build Roadway Alternatives. There are three potential relocations along Alternative O-1, all single-family homes located on large (5 acres or greater) parcels between Handcart Road and Fort King Road. In addition, this alternative contains the second highest number of sites potentially sensitive to noise impacts (61).

Alternative O-1 affects one church located on the south side of Overpass Road, immediately west of the Palm Cove subdivision (Water's Edge Community Church) and one school located on the south side of Overpass Road within the Watergrass Community Development District (Watergrass Elementary); however, no impacts are anticipated to these facilities. No parks or recreation facilities are affected by this alternative.



FIGURE 7-13 BUILD ROADWAY ALTERNATIVES

Fourteen previously recorded archaeological sites are located within 500 feet of Alternative O-1. Of these sites, 8PA465 was determined eligible for listing in the NRHP. In addition, 11 previously recorded historic linear resources and structures are located within 500 feet of Alternative O-1. These include a segment of Old Pasco Road (8PA2069); a segment of US 301 (8PA2675); two residences (8PA2597 and 8PA2598), and the Country Cottages Resource Group (8PA2595), located at 8133 Gall Boulevard and comprised of six buildings constructed in 1950 (8PA2599 through 8PA2603, 8PA2227).

Potential total impacts to wetlands (including other surface waters) related to Alternative O-1 have been estimated at 25.9 acres, representing the second highest impacts to wetland resources. Alternative O-1 is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within Alternative O-1, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of eight potential contamination sites identified along Alternative O-1, two are ranked as having a Low risk for potential contamination impact and six are ranked as having No risk. In addition, one potable well at 36331 Fairview Heights Road and five suspect well locations were observed along Alternative O-1.

The total cost for Alternative O-1 ranges between \$121.5 and \$122.9 million, which includes \$9.5 million for Design, between \$7.3 and \$8.7 million for ROW, \$95.2 million for Construction, and \$9.5 million for CEI. The total ROW acreage required for this alternative is 107.84 acres. Alternative O-1 has the second lowest ROW and total costs among the proposed Build Roadway Alternatives.

7.5.3.2 Alternative O-2

Alternative O-2 follows approximately the same alignment as Alternative O-1, except that Alternative O-2 heads directly east from the WindChase subdivision and Watergrass Elementary School to cross Handcart Road approximately 760 feet north of Alternative O-1. East of Handcart Road, Alternative O-2 curves northeast to Fairview Heights Road and then turns east and follows the same alignment as Alternative O-1 to US 301.

Alternative O-2 affects a total of 60 parcels (one business, 21 residential, and 38 other). This represents the second highest impact to residential parcels and overall parcels of the proposed Build Roadway Alternatives. There are three potential relocations along Alternative O-2, all single-family homes located on large (5 acres or greater) parcels south of Fairview Heights Road between Rita Place and Artifact Drive. In addition, this alternative contains the highest number of sites potentially sensitive to noise impacts (70).

Alternative O-2 affects one church located on the south side of Overpass Road, immediately west of the Palm Cove subdivision (Water's Edge Community Church) and one school located on the south side of Overpass Road within the Watergrass Community Development District (Watergrass Elementary); however, no impacts are anticipated to these facilities. No parks or recreation facilities are affected by this alternative.

Thirteen previously recorded archaeological sites are located within 500 feet of Alternative O-2. Of these sites, 8PA465 was determined eligible for listing in the NRHP. In addition, 11 previously recorded historic linear resources and structures are located within 500 feet of Alternative O-2. These include a segment of Old Pasco Road (8PA2069); a segment of US 301 (8PA2675); two residences (8PA2597 and 8PA2598), and the Country Cottages Resource Group (8PA2595), located at 8133 Gall Boulevard and comprised of six buildings constructed in 1950 (8PA2599 through 8PA2603, 8PA227).

Potential total impacts to wetlands (including other surface waters) related to Alternative O-2 have been estimated at 17.0 acres. This represents the lowest overall wetland impacts of all proposed Build Roadway Alternatives. Alternative O-2 is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within Alternative O-2, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of eight potential contamination sites identified along Alternative O-2, two are ranked as having a Low risk for potential contamination impact and six are ranked as having No risk. In addition, one potable well at 36331 Fairview Heights Road and six suspect well locations were observed along Alternative O-2.

The total cost for Alternative O-2 ranges between \$120.9 and \$122.5 million, which includes \$9.4 million for Design, between \$8.1 and \$9.7 million for ROW, \$94.0 million for Construction, and \$9.4 million for CEI. The total ROW acreage required for this alternative is 110.69 acres. Alternative O-2 has the highest ROW cost; however, it has the lowest construction and total costs among the proposed Build Roadway Alternatives.

7.5.3.3 Alternative O-3

Alternative O-3 follows the same alignment as Alternatives O-1 and O-2 from Boyette Road to east of the Palm Cove subdivision. From there, Alternative O-3 curves north and then back south to follow the newly constructed portion of Overpass Road through the WaterGrass development and adjacent to the WindChase subdivision and Watergrass Elementary School. East of the WindChase subdivision, this alternative follows the same alignment as Alternative O-2 for a short distance, and then turns northeasterly to cross Handcart Road approximately 2,000 feet north of Alternative O-2, just north of Fairview Heights Road. Alternative O-3 parallels Fairview Heights Road to Cullen Smith Road. East of Cullen Smith Road, all three alternatives meet and then follow the same alignment east to US 301.

Alternative O-3 affects a total of 55 parcels (one business, 16 residential, and 38 other). This represents the lowest impact to residential and overall parcels of the proposed Build Roadway Alternatives. There are no potential relocations located along the proposed alignment. In addition, this alternative contains the fewest number of sites potentially sensitive to noise impacts (58).

Alternative O-3 affects one church located on the south side of Overpass Road, immediately west of the Palm Cove subdivision (Water's Edge Community Church) and one school located on the south side of Overpass Road within the Watergrass Community Development District (Watergrass Elementary); however, no impacts are anticipated to these facilities. No parks or recreation facilities are affected by this alternative.

Fourteen previously recorded archaeological sites are located within approximately 500 feet of Alternative O-3. Of these sites, 8PA465 was determined eligible for listing in the NRHP. Eleven previously recorded historic linear resources and structures are located within 500 feet of Alternative O-3. These include a segment of Old Pasco Road (8PA02069); a segment of US 301 (8PA02675); two residences (8PA02597 and 8PA02598), and the Country Cottages Resource Group (8PA2595), located at 8133 Gall Boulevard and comprised of six buildings constructed in 1950 (8PA2599 through 8PA2603, 8PA2227).

Potential total impacts to wetlands (including other surface waters) related to Alternative O-3 have been estimated at 28.3 acres. This represents the highest overall wetland impacts of all proposed Build Roadway Alternatives. Alternative O-3 is not estimated to impact any floodplains.

Several federally- and state-listed species (including the eastern indigo snake, wood stork, Florida burrowing owl, and Florida sandhill crane) were identified as having the potential to occur within Alternative O-3, due to the presence of suitable habitat and/or documented occurrences of the species within the proposed alignment. Effect determinations conducted indicate that this alternative "may affect, but is not likely to adversely affect" any listed species.

Out of a total of eight potential contamination sites identified along Alternative O-3, two are ranked as having a Low risk for potential contamination impact and six are ranked as having No risk. In addition, one potable well at 36331 Fairview Heights Road was observed along Alternative O-3.

The total cost for Alternative O-3 ranges between \$123.5 and \$124.3 million, which includes \$9.9 million for Design, between \$4.5 and \$5.3 million for ROW, \$99.2 million for Construction, and \$9.9 million for CEI. The total ROW acreage required for this alternative is

119.50 acres. Alternative O-3 has the lowest ROW cost; however, it has the highest construction and total costs among the proposed Build Roadway Alternatives.

7.5.3.4 Build Roadway Alternatives Summary

Table 7-3 provides an evaluation matrix summarizing the impacts and estimated costs for the Build Roadway Alternatives. These alternatives, along with the No-Build Alternative, were presented at an Alternatives Public Workshop held on November 29, 2012.

Evaluation Factors	Alternative O-1	Alternative O-2	Alternative O-3				
Business Parcels Affected	1	1	1				
Residential Parcels Affected	26	21	16				
Other Parcels Affected	36	38	38				
Potential Business Relocations	0	0	0				
Potential Residential Relocations	3	3	0				
Churches	1	1	1				
Schools	1	1	1				
Parks/Recreation	0	0	0				
Cultural Resources	Low	Low	Low				
Potential Noise-Sensitive Sites	61	70	58				
Wetlands (Acres)*	25.9	17.0	28.3				
Floodplain (Acres)**	0.0	0.0	0.0				
Potential Threatened & Endangered Species Involvement	Yes	Yes	Yes				
Potential Contamination Sites (High/Medium)	0/0	0/0	0/0				
Estimated Costs (in millions)***							
Design****	\$9.5	\$9.4	\$9.9				
ROW	\$7.3 - \$8.7	\$8.1 - \$9.7	\$4.5 - \$5.3				
Construction	\$95.2	\$94.0	\$99.2				
CEI****	\$9.5	\$9.4	\$9.9				
Total Costs (in millions)	\$121.5 - \$122.9	\$120.9 - \$122.5	\$123.5 - \$124.3				

 TABLE 7-3
 BUILD ROADWAY ALTERNATIVES EVALUATION MATRIX

Notes: * Wetland impacts based on field review (September 2012); includes impacts to other surface waters.

** Floodplain impacts based on currently effective FEMA's FIRMs.

*** Engineering estimates are in present day costs. Costs include improvements on Overpass Road from Old Pasco Road to Boyette Road, plus the interchange.

**** 10% of construction cost.

7.6 **PUBLIC INVOLVEMENT**

Public Involvement for the project has included, to date, the development of a project website and carrying out an Alternatives Public Workshop as described further below.

7.6.1 **PROJECT WEBSITE**

A project public website (<u>www.overpassroad.com</u>) has been set up to maintain and provide public information, meeting times, an online comment option and access to the PD&E Study documents prepared to date. The website has been updated with most recent information about the project.

7.6.2 ALTERNATIVES PUBLIC WORKSHOP

Pasco County, in coordination with the FDOT and the FHWA, conducted an Alternatives Public Workshop to present proposed improvements to Overpass Road in Pasco County. The workshop was held on Thursday, November 29, 2012 at the Victorious Life Church located at 6224 Old Pasco Road in Wesley Chapel, Florida. The informal open house was held from 5:30 p.m. to 8:00 p.m. and served to give interested persons an opportunity to express their views concerning the alternatives being analyzed for proposed improvements to and extension of Overpass Road to US 301 and a proposed new interchange at I-75.

A letter announcing the public meeting was emailed to public officials and mailed to agencies and property owners adjacent to the project alternatives on November 5, 2012. A display advertisement was published in the newspaper with the highest circulation in the area, the *Pasco Times*, on November 8, 2012; the Spanish newspaper, *Gaceta Latina*, on October 20, 2012; and the free newspaper, the *Laker*, on November 14, 2012. The *Florida Administrative Weekly* advertisement was published on November 20, 2012. In addition, a public website (www.overpassroad.com) was developed to maintain and provide public access to the PD&E Study documents. The project website includes information in Spanish and contact information for Spanish speakers.

A total of 119 members of the public and 16 staff signed the attendance sheets at the workshop. On display at the meeting were graphic boards showing the proposed Build Roadway and Interchange Alternatives, a project location map, the project schedule, and alternatives evaluation matrices, as well as citations and non-discrimination laws and regulations. Workshop handouts were provided to all attendees and included a project description, schedule, and contact information for the project. Pasco County, MPO, FDOT, and consultant staff were present to answer questions at the open house. A Spanish translator was also available at the workshop in an effort to engage minority populations or those who may be Limited English Proficient (LEP).

A total of 24 written comments were received at the workshop. An additional 12 comments were submitted by email, via the project website, by telephone, or by U.S. Mail during the 10-day comment period. Many of the comments received stated a preference for a particular alternative as provided in **Tables 7-4 and 7-5**.

Roadway Alternative	Alternative O-1	Alternative O-2	Alternative O-3	No-Build
Number of comments in favor	0	2	8	7

 TABLE 7-4

 PUBLIC COMMENTS FOR ROADWAY ALTERNATIVES

 TABLE 7-5

 PUBLIC COMMENTS FOR INTERCHANGE ALTERNATIVES

	Diamond		Flyover		
Interchange Alternative	Interchange	DDI	Ramp	Loop Ramp	SPUI
Number of comments in favor	6	0	1	0	0

7.7 RECOMMENDED ALTERNATIVE

Based on previous planning efforts; engineering and environmental analyses; public comments submitted via the project website at www.overpassroad.com and received at the Alternatives Public Workshop held at the Victorious Life Church on November 29, 2012; the Determination of Engineering and Operational Acceptability of the PIJR received by the FHWA on May 27, 2014; and approval by the Pasco County BCC at a Board meeting held on April 23, 2013, the Flyover Ramp Alternative (Interchange) and Alternative O-3 (Roadway) are being proposed as the Recommended Build Alternative. While it is recognized that the Diamond Interchange Alternative is the least costly option and was preferred by the public, this alternative alone will not be able to satisfactorily handle the traffic volumes projected for the Design Year (2040). Therefore, while the PD&E Study including the EA and supporting technical documents required under the NEPA project development process will further evaluate and seek Location Design Concept Acceptance (LDCA) for the ultimate Flyover Ramp Alternative, actual construction of the interchange may occur in two phases. The first phase would construct a diamond interchange with dual westbound-to-southbound left-turn lanes in the Opening Year (2022); the second phase would construct the westbound-to-southbound Flyover Ramp when warranted by future traffic conditions. Note that the footprint of the diamond interchange falls within the proposed ROW of the ultimate improvements. Therefore, any impacts associated with the diamond interchange would be less than ultimately approved through the NEPA process. An additional advantage of the Flyover Ramp Alternative is that the ROW can be purchased for the ultimate construction footprint at current prices, making it a more economical option.

While Alternative O-3 is comparable in cost with the other two build roadway options, this alternative does not require any residential or business relocation and has the fewest number of potential noise-sensitive sites. In addition, Alternative O-3 is consistent with existing and planned development along the corridor and is supported by the majority of the public and stakeholders, including the Pasco County School Board.

7.7.1 REFINEMENTS TO THE RECOMMENDED ALTERNATIVE

Subsequent to the Alternatives Public Workshop, draft versions of the supporting engineering and environmental technical documents prepared for the Recommended Build Alternatives were submitted to FDOT District Seven for review. Based on this review, FDOT District Seven commented that ponds are not to be located within the existing FDOT/I-75 ROW. As such, the four ponds initially proposed within the interchange infield areas for the Flyover Ramp Alternative were consolidated into two ponds and relocated to new locations.

Based on comments received during and following the Alternatives Public Workshop, the Victorious Life Church requested that a new access road for Blair Drive proposed through church-owned land be moved to the southern end of the property. After meeting with church representatives, the plans were changed to relocate the access road. **Figure 7-14** graphically depicts the revised Recommended Build Interchange Alternative and southern location of the Blair Drive access.

A portion of Alternative O-3 through the Epperson Ranch property has been realigned and the typical section width has been reduced to be consistent with the approved Epperson Ranch South MPUD Master Plan (Rezoning and Conditions of Approval) approved by the BCC on November 5, 2014. On September 1, 2015, the developer of the Epperson Ranch property received authorization to commence the eastern portion of the alignment from approximately 0.49 miles west of Curley Road to Curley Road through approval of the developer's Final Mitigation Plan and a Nationwide Permit issued by the USACE [Permit No. SAJ-2014-01744 (NW-TEH)]. The developer constructed this segment in order to access an approved single-family residential subdivision known as "Park Place", which received a Department of the Army permit from the USACE on September 10, 2015 [Permit No. SAJ-2006-07911 (SP-TEH)].

Additionally, a small segment of the Recommended Build Alternative just west of Fort King Road has been realigned, where Alternative O-3 originally curved to the south to avoid impacts to an existing structure. As this structure has recently been demolished, the property owner has requested that the roadway be straightened out to align with Fairview Heights Road.

The combined Recommended Build Alternative (Interchange and Roadway segments) for the PD&E Study, hereafter referred to as the *O-3 Flyover Alternative*, has been further evaluated in subsequent sections of this PER; the project plan sheets are provided in **Appendix A**. In addition to the Recommended Build Alternative, the No-Build Alternative will also continue to remain a viable option throughout the PD&E Study process.



FIGURE 7-14 **RECOMMENDED BUILD INTERCHANGE ALTERNATIVE**



FIGURE 7-15 RECOMMENDED BUILD ROADWAY ALTERNATIVE

Section 8.0 DESIGN DETAILS OF RECOMMENDED ALTERNATIVE

This section of the PER documents the details of the Recommended Build Alternative, as selected through the methodology included in *Section 7.0* of this report. *This section will be updated for the Preferred Alternative upon completion of the Public Hearing process.*

8.1 TYPICAL SECTIONS

The typical sections refined for the O-3 Flyover Alternative provide for four lanes from Old Pasco Road to I-75; six lanes (plus two auxiliary lanes) from I-75 to Boyette Road; and six lanes from Boyette Road to US 301. Separate typical sections were developed for various segments of Overpass Road in consideration of the identified lane requirements, ROW needs, development approvals and other environmental impacts. **Table 8-1** identifies the various typical sections recommended for the project corridor. **Figures 8-1 through 8-9** graphically depict these typical sections. *A Typical Section Package for the Preferred Alternative will be provided upon completion of the Public Hearing process.*

		Typical Section Width
Location	Typical Section Description	(ft.)
Old Pasco Road to I-75	Four-Lane Divided, Urban	142
I-75 to Boyette Road	Six-Lane Divided plus Two Auxiliary Lanes, Urban	190
Boyette Road to Future McKendree Road Realignment		128
Future McKendree Road Realignment to Future Epperson Ranch Boulevard		152
Future Epperson Ranch Boulevard to Promenade Town Center	Six-Lane Divided, Urban	128
Through Promenade Town Center		128
Promenade Town Center to Fort King Road		166
Fort King Road to US 301		128
Blair Drive Access	Two-Lane Undivided, Rural	74

 TABLE 8-1

 RECOMMENDED TYPICAL SECTIONS

FIGURE 8-1 RECOMMENDED FOUR-LANE DIVIDED URBAN TYPICAL SECTION OLD PASCO ROAD TO I-75



FIGURE 8-2 RECOMMENDED SIX-LANE DIVIDED PLUS TWO AUXILIARY LANES URBAN TYPICAL SECTION I-75 TO BOYETTE ROAD



FIGURE 8-3 RECOMMENDED SIX-LANE DIVIDED URBAN TYPICAL SECTION BOYETTE ROAD TO FUTURE MCKENDREE ROAD REALIGNMENT



FIGURE 8-4 RECOMMENDED SIX-LANE DIVIDED URBAN TYPICAL SECTION FUTURE MCKENDREE ROAD REALIGNMENT TO FUTURE EPPERSON RANCH BOULEVARD



FIGURE 8-5 RECOMMENDED SIX-LANE DIVIDED URBAN TYPICAL SECTION FUTURE EPPERSON RANCH BOULEVARD TO PROMENADE TOWN CENTER



FIGURE 8-6 RECOMMENDED SIX-LANE DIVIDED URBAN TYPICAL SECTION THROUGH PROMENADE TOWN CENTER


FIGURE 8-7 RECOMMENDED SIX-LANE DIVIDED URBAN TYPICAL SECTION PROMENADE TOWN CENTER TO FORT KING ROAD



FIGURE 8-8 RECOMMENDED SIX-LANE DIVIDED URBAN TYPICAL SECTION FORT KING ROAD TO US 301





8.2 HORIZONTAL AND VERTICAL ALIGNMENT

The horizontal alignment for the Recommended Build Alternative from Old Pasco Road to Boyette Road was established based on the interchange configuration with I-75 and ROW impacts, as well as alignment with the existing segment from Boyette Road to its eastern terminus. From the eastern terminus to the intersection with Curley Road, the portion of the curvilinear alignment was developed with a series of three curves based on maximizing upland development and minimizing potential impacts to the surrounding wetlands while maximizing the potential for future development and economic growth. In addition, this segment was developed to realign with the existing segment from Curley Road to Watergrass Parkway. From Watergrass Parkway to Fort King Road, the curvilinear alignment was developed with a series of eight curves based on maximizing upland development and minimizing potential impacts to the surrounding wetlands while maximizing the potential for future development and economic growth. From Fort King Road to US 301, the alignment essentially follows the existing tangent alignment for Kossik Road.

The vertical alignment will need to accommodate a minimum bridge clearance over I-75, as well as minimum gutter grades and allow for a minimum of 2 feet of base clearance above the seasonal high water table. The roadway cross section elements will also need to tie in behind the back of the multi-use path and sidewalk to accommodate future utilities and back of sidewalk drainage treatments.

8.3 PEDESTRIAN AND BICYCLE FACILITIES

The Recommended Build Alternative provides a 5-foot wide sidewalk on the south side and a 10-foot wide multi-use path on the north side of Overpass Road throughout the entire length of

the corridor. In addition, 4-foot wide bicycle lanes are provided in both directions throughout the project limits. These provisions are consistent with the Pasco County LRTP.

8.4 RIGHT-OF-WAY NEEDS AND RELOCATIONS

The proposed ROW required to accommodate the four and six-lane divided typical sections from Old Pasco Road to the existing eastern terminus will vary from 142 to 190 feet. From the existing eastern terminus to US 301, the ROW will vary from 128 to 166 feet. ROW acquisition is required from several property owners within the project limits; a portion of the ROW is proposed to be or has already been donated by development along the corridor. The Recommended Build Alternative proposes to extend the FDOT limited access (L/A) ROW on the east side of the proposed interchange.

The Recommended Alternative results in eight potential residential relocations, all located in the southwest quadrant of the proposed interchange. There are no other residential or business relocations required. The ROW acquisition and relocation will be carried out in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (Uniform Act) (Public Law 91-646), as amended by Public Law 100-17 for Federal and Federally Assisted Programs, 23 CFR and 49 CFR, Part 24 and with Sections 334.048, 339.09 and 421.55, Florida Statutes (F.S.) Rule 14-66, F.A.C. A *Conceptual Stage Relocation Plan* (CSRP) which provides further details on the impacted parcels and resulting relocations has been completed and is available under separate cover.

8.5 DRAINAGE

Drainage considerations for the Recommended Build Alternative, as presented in the PSR available under separate cover, are summarized below. *The information in this section will be updated for the Preferred Alternative upon completion of the Public Hearing process.*

8.5.1 **PROPOSED CONDITIONS**

The drainage system for this project will be designed in accordance with Pasco County and FDOT drainage standards and procedures to carry stormwater runoff away from the roadway and paved mixed-use trail/sidewalk in the natural flow directions of that particular basin. For the portions of the project that are located in areas where an existing multi-lane divided roadway exists (through the Palm Cove and Watergrass developments, as well as near the intersection of Kossik Road and US 301) or where permit applications have been submitted for a proposed development (Epperson Ranch MPUD), the proposed improvements for the project will be completed within the existing ROW. Outside of these developed areas, a ROW width varying from 128 feet to 166 feet will be established, and all improvements will be completed within that ROW, with individual stormwater management pond sites located outside and adjacent to the ROW boundaries.

The newly-constructed portions of the project will be graded such that runoff from the roadway, mixed-use trail and sidewalk will be managed within roadside curb and gutter drainage structures. The roadside gutters will convey collected runoff to a series of curb inlets and stormwater culverts, ultimately discharging into retention ponds.

8.5.1.1 Environmental Resource Permits

Some portions of the Overpass Road alignment are located within the limits of projects permitted by the SWFWMD. A total of 10 projects with approved Environmental Resource Permits (ERPs) include accommodations for roadway drainage from the Overpass Road ROW in projectrelated stormwater management ponds, as well as mitigation of roadway-impacted wetlands.

Two portions of Overpass Road that pass through existing development (Palm Cove and Watergrass, Parcels B1-B4 and C1-C2) have already been constructed. A third portion of Overpass Road will be constructed within the proposed Epperson Ranch development. Stormwater management for the roadway and mitigation of wetland impacts for these completed or planned development portions of Overpass Road has been accounted for in the applicable ERPs. Stormwater management and wetland impact mitigation for the portion of the new Overpass Road alignment that will pass through the future Epperson Ranch development has been included in the applicable ERPs for Epperson Ranch, which are currently in the agency review phase.

8.5.2 POND SITING ANALYSIS

An analysis of the Pre-Development and Post-Development drainage conditions for the Overpass Road alignment was conducted using the NRCS [formerly Soil Conservation Service (SCS)], method as outlined in the SCS *Technical Report No 55 (TR-55), Urban Hydrology for Small Watersheds.* Within the project limits, each of the drainage sub-basins has natural discharge pathways into other sub-basins or surface water bodies. Therefore, the ponds were designed using a 25-year, 24-hour storm event (SWFWMD criteria for open drainage basins). For the project area, this design storm would consist of 8.5 inches of rainfall in a 24-hour time frame.

For the Recommended Build Interchange Alternative, a total of two new stormwater ponds (Pond 3-1 and Pond 3-2) are proposed. Pond 3-1 will be located at the southwest corner of the interchange and will extend beneath the bridged portion of the flyover ramp to southbound I-75. Pond 3-2 will be constructed approximately 900 feet northwest of the interchange, adjacent to pond SMF 18-22 which is currently under construction for the FDOT as part of the I-75 Design-Build Project (FPID 258736-2-52-01) from north of CR 54 to north of SR 52. Runoff from four drainage sub-basins delineated along the alignment from Old Pasco Road to Boyette Road, including the impacted portions of the I-75 ROW but excluding the I-75 mainline, will be routed to the two ponds for water quantity attenuation and water quality treatment.

For the Recommended Build Roadway Alternative, a total of 10 new stormwater detention ponds are proposed to manage stormwater runoff generated from the Overpass Road construction and

expansion from Boyette Road to US 301, excluding the roadway alignment through the two existing developments (Palm Cove and Watergrass) and the one proposed development (Epperson Ranch). The portions of the Recommended Build Alternative located outside of the existing developed portions were divided into nine drainage sub-basins based upon the existing topography.

Weighted curve numbers (CN) were calculated for the Pre-Development and Post-Development conditions within each of the 13 total sub-basins based upon the percentage of impervious (paved) and pervious (landscaped) surfaces within the proposed ROW. The calculated CNs were then used to calculate the quantity of stormwater runoff generated from the roadway typical section, using the NRCS method.

8.6 **DESIGN TRAFFIC**

Design Traffic volumes were developed for the entire study area and an operational analysis was conducted as part of the PIJR process for the proposed new interchange at I-75 and Overpass Road. Forecasted traffic volumes for the study area varied from 73,000 to 23,000 vpd along the Overpass Road corridor. Traffic analysis showed that the Recommended Build Alternative (O-3 Flyover) provides the best traffic operations and accommodates the projected traffic demand for the Design Year (2040). Project traffic information is summarized in *Section 6.0* of this PER; the PIJR is available under separate cover.

8.7 INTERSECTION CONCEPTS AND SIGNAL ANALYSIS

There is one existing signalized intersection in the study corridor located at US 301 and Kossik Road. The Recommended Build Alternative proposes traffic signals at the following intersections:

- Overpass Road at Old Pasco Road
- Overpass Road at I-75 southbound ramps
- Overpass Road at I-75 northbound ramps
- Overpass Road at Boyette Road
- Overpass Road at Future McKendree Road Realignment
- Overpass Road at Curley Road
- Overpass Road at Watergrass Parkway/New River Boulevard
- Overpass Road at Sunshine Road
- Overpass Road at Handcart Road
- Overpass Road at Fort King Road
- Overpass Road at US 301

Lane geometries and turn lanes needed to accommodate the Design Year (2040) traffic volumes have been identified for the intersections. Signal timing optimization and coordination may be implemented as part of routine maintenance operations in the area.

8.8 ACCESS MANAGEMENT

The Recommended Build Alternative modifies the access for the segment of Overpass Road from I-75 to Boyette Road to accommodate the extension of the FDOT L/A ROW limits. The current access class for this segment is "Minor Collector". An "Arterial" access classification is proposed for the remainder of the Overpass Road corridor, which will be designed to meet Pasco County Access Management Standards.

8.9 PRELIMINARY TRAFFIC CONTROL

For Overpass Road from Old Pasco Road to Boyette Road, maintenance of traffic will require phased construction and staging for the proposed interchange at I-75 and widening reconstruction along the existing approaches to the Overpass Road bridge. Ramp terminals and connections can be built in initial phases while existing traffic is being maintained along I-75 and Overpass Road. Placement and construction of a new portion of the bridges will be stage constructed while traffic is operating on the existing bridge. Traffic detours and diversions, as well as possible night work and traffic pacing, may be required while the proposed bridge overpass structures are completed and placed for construction within the proposed interchange area. From Boyette Road to the eastern terminus, maintenance of traffic will require traffic control phasing and traffic shifts along the existing roadway segments to accommodate widening. Traffic control will also be of concern for the existing four-lane divided section from Curley Road to Watergrass Parkway.

From Watergrass Parkway to Kossik Road, the recommended alignment is through open land. These portions can be constructed without any major impacts to the surrounding roadways and traffic patterns. Therefore, through most of this section, traffic control will not be a major concern. The portion from Coolwood Drive to US 301 will need to be phase constructed with use of traffic shifts while new portions of the proposed widening improvements are being built. Construction of the new Blair Drive Access road, which is also through open land, will be complete prior to closure of the existing access on Overpass Road. *FDOT Design Standard Index Series 600* will be followed for maintenance of traffic. The *Traffic Control Plan* (TCP) will also consider pedestrian access and flow, as well as traffic flow for bicyclists and any transit. *A detailed TCP will be developed for the Preferred Alternative upon completion of the Public Hearing process*.

8.10 UTILITY IMPACTS

Coordination will be required with the Pasco County Public Utilities Department regarding the Boyette Reclaimed Water Reservoir and the Boyette Water Treatment Plant located in the

northeast quadrant of the Overpass Road and Boyette Road intersection. All of the utility companies with resources located within the project area will require coordination efforts through the design and construction phases of the project. These companies include Duke Energy, Withlacoochee River Electric Cooperative (WREC), Frontier Communications and Bright House Networks. Coordination will also be required during the design phase and prior to construction of the interchange with respect to utilities and other infrastructure such as Intelligent Transportation Systems (ITS) components.

8.11 PROJECT COSTS

Cost estimates include demolition, construction, mobilization, maintenance of traffic, design, and ROW costs, assuming both a low and high value. The average cost was used for the preliminary comparison of alternatives. The average cost estimate for the Recommended Build Alternative is \$219.8 million. This includes both the total cost for the Flyover Ramp Build Interchange Alternative (\$95.9 million) and the O-3 Build Roadway Alternative (\$123.9 million).

8.12 **PROJECT SCHEDULE**

The Overpass Road PD&E Study from Old Pasco Road to US 301 is scheduled to be completed by the middle of 2016. Construction of the interchange is expected to begin in 2020 with an Opening Year target of 2022.

8.13 ENVIRONMENTAL IMPACTS

The Recommended Build Alternative was evaluated for social, cultural, natural, and physical environmental impacts. Separate environmental technical studies have been prepared for the project including the *Wetland Evaluation and Biological Assessment Report* (WEBAR), *Air Quality Technical Memorandum*, CSER, *Noise Study Report* (NSR), and CRAS. The following sections summarize the environmental impacts of the Recommended Build Alternative. For additional information regarding environmental impacts, please refer to the reports referenced above, each of which is available under separate cover.

8.13.1 NOISE

An assessment of noise impacts was conducted for this project according to Title 23 CFR, Part 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*; Part 2, Chapter 17 of the FDOT *PD&E Manual*; and Chapter 335.17, F.S. This assessment also adheres to the FHWA traffic noise analysis guidelines contained in Report FHWA-HEP-10-025, *Highway Traffic Noise: Analysis and Abatement Guidance*, (January 2011) and the FDOT *PD&E Manual*, Part 2, Chapter 17 (May 2011). Results of the analysis are fully documented in the project's NSR (available under separate cover). *This section will be updated for the Preferred Alternative upon completion of the Public Hearing process*.

8.13.2 AIR QUALITY

The proposed improvements are located in Pasco County, Florida, an area currently designated by the USEPA as being in attainment for all National Air Quality Ambient Standards for all criteria air pollutants listed in the Clean Air Act. Because the project is in an attainment area and the project would reduce congestion, it is not likely that the proposed improvements will have an impact on local or regional air pollutant/pollutant precursor emissions or concentrations. Therefore, the Clean Air Act conformity requirements do not apply to the project.

8.13.3 SECTION 4(f)

Section 4(f) refers to the *Department of Transportation Act of 1966* which stipulated that the FHWA cannot approve the use of land from publicly-owned parks, recreation areas, wildlife and waterfowl refuges, or public and private historic sites unless the following conditions apply:

- There is no feasible and prudent alternative to the use of land
- The action includes all possible planning to minimize harm to the property resulting from use

The Recommended Build Alternative necessitates permanent use of approximately 4.8 acres (3.3%) of one recreational resource, the Wesley Chapel District Park. Pasco County owns and maintains the park, a 143.65-acre tract of land located in the southeast quadrant of I-75 and Overpass Road. Existing park amenities include athletic fields/courts, a fitness trail with stations, a covered picnic area/pavilion, a playground, a concession stand, restrooms and open space; all of these features are located in the southeast portion of the park property, buffered from I-75 by pineland/wetland areas.

It is important to note that throughout the ongoing master planning process for the park, the development of features in the northwest quadrant of the property (near I-75) has not been considered, as the need for both the widening of I-75 and the addition of a new interchange at Overpass Road have long been established within the County's Long Range Transportation and Comprehensive Plans. Therefore, no park facilities or amenities are currently located or planned within the areas that are potentially impacted by the Recommended Build Alternative. Pasco County, the official with jurisdiction (OWJ) over the park, has determined through the PD&E study that the proposed project will not adversely affect the activities, features, or attributes that make the Wesley Chapel District Park eligible for Section 4(f) protection. Accordingly, the FHWA provided an official email notification to FDOT (which forwarded it to the consultant representative of the OWJ of the Wesley Chapel District Park) that it plans to do a *de minimis* approval for impacts to this resource. Further documentation is provided in the EA (available under separate cover). *This section will be updated for the Preferred Alternative upon completion of the Public Hearing process.*

8.13.4 WETLANDS

A WEBAR was prepared to identify and assess potential impacts to state and federal jurisdictional wetlands within the footprint of the Recommended Build Alternative. The project study area was assessed for the presence of wetlands and a functional analysis of the wetlands was performed. The analysis included a characterization of size, contiguity, vegetative structural diversity, edge relationships, wildlife habitat value, hydrologic functions, public use, and integrity. The functional value of the wetlands was evaluated using Uniform Mitigation Assessment Methodology (UMAM) which determines the amount of mitigation required to offset impacts to wetlands and other surface waters.

For this PD&E Study, representative UMAM scores were developed for each wetland affected by the proposed project. The difference between the existing condition (current) scores and the proposed condition (with project improvements) scores for each wetland was then multiplied by the acreage of proposed impact to establish the estimated lost value of functions to fish and wildlife resulting from construction of the proposed project. The estimated total numeric value of functions to fish and wildlife lost as a result of construction of the Recommended Build Alternative is 24.41 (16.28 for the Build Roadway Alternative O-3 segment and 8.13 for the Flyover Ramp Build Interchange Alternative segment).

The Recommended Build Alternative will result in unavoidable wetland impacts to freshwater wetland habitats. Wetland impacts resulting from construction of the project are required to be mitigated to satisfy all mitigation requirements of United States Code (U.S.C.) 1344 and Part IV, Chapter 373 F.S. The mitigation would need to be sufficient to offset the UMAM functional loss resulting from the wetland impacts. The exact type of mitigation used to offset wetland impacts from the proposed Overpass Road improvements will be coordinated with USACE and SWFWMD during the state and federal permitting phase of this project.

8.13.5 CONTAMINATED SITES

A CSER was prepared for this project to identify and evaluate known or potential contamination problems, present recommendations and discuss possible impacts to the proposed roadway improvements. Based on the results of this evaluation, 13 sites located along the project corridor have been identified as having the potential to contain hazardous materials and/or petroleum contamination as defined by regulatory agencies within the vicinity of the project corridor.

Each of the sites identified was then assigned a degree of risk for potential contamination impact: "No", "Low", "Medium", or "High". These ratings are based on the criteria outlined in Part 2, Chapter 22 of the FDOT *PD&E Manual*. Of the 13 sites identified as having the potential to contain hazardous material and/or petroleum contamination in the vicinity of the project corridor, one site (Site FR-3 EPCO Ranch) was rated as having a "High" potential to impact the project corridor and two (2) sites (Site FR-1: Milton Jones Property and Site FR-2 Former Railway) were rated as having a "Medium" potential to impact the project corridor. In accordance with FDOT guidelines, limited sampling and testing is expected to be conducted at "Medium" and "High" risk sites.

At sites FR-1 and FR-3, soil and/or groundwater sample(s) are likely to be collected and analyzed for one or more of the following: Ethylene Dibromide (EDB) by USEPA Method 504, Organochlorine Pesticides by USEPA Method 8081, Organophosphorus Pesticides by USEPA Method 8141, Chlorinated Herbicides by USEPA Method 8151, and the metals arsenic, boron, copper, and zinc. Should the presence of contaminants be identified at concentrations above soil cleanup target levels, additional sample collection events may occur to delineate the soil impact limits for source removal activities prior to the roadway construction. In addition, should the presence of contaminants be identified at concentrations above groundwater cleanup target levels, additional sample collection events may occur to delineate the groundwater impact limits. The groundwater impact limits would be used to isolate a water control recovery system (for storage/treatment/disposal) should it be required during the construction of the proposed project.

At the FR-2 site, the lumber crossties, should they be encountered during project construction activities, be disposed of at a lined landfill permitted to receive this material.

The findings from the CSER investigation are based upon preliminary information only and are not intended to replace more detailed studies such as individual environmental site assessments and subsurface soil/groundwater investigations. Rather, this survey is intended as a preliminary guide for identifying potential contamination along the proposed project's Recommended Build Alternative. Other technical studies may be required to determine the existence of site contamination prior to ROW acquisition, utility relocation, or storm water pond construction.

8.13.6 CULTURAL RESOURCES

A CRAS report (available under separate cover) has been conducted for this project in accordance with the requirements set forth in the *National Historic Preservation Act of 1966* (NHPA) (Public Law 89-665, as amended) and the implementing regulations (36 CFR 800), NEPA, and Chapter 267, F.S. It has been carried out in conformity with Part 2, Chapter 12 (Archaeological and Historical Resources) of the FDOT's *PD&E Manual* and the Department's *Cultural Resource Management Handbook* (1999 revision) and the standards contained in the Florida Division of Historical Resources' (FDHR) *Cultural Resource Management Standards and Operational Manual* (FDHR, 2003). In addition, the study meets the specifications set forth in Chapter 1A-46, F.A.C. The archaeological APE within the CRAS report is defined as the existing and proposed ROW and proposed pond sites; the historical APE includes the archaeological APE as well as immediately adjacent properties within approximately 300 feet. The following provides a summary of the CRAS results.

Archeological Resources

As a result of archaeological field survey, six new archaeological sites (8PA02852 through 8PA02857) were recorded and four Archaeological Occurrences (AOs) were identified. The new sites are predominantly lithic scatters that date to the Middle/Late Archaic based upon the extensive use of coral and thermal alteration. One of the sites, 8PA02853, produced isolated pieces of aboriginal ceramic, indicating a post-Archaic period of utilization/occupation, as does the recovery of a Pinellas point from 8PA00465. None of the AOs, nor the newly recorded

archaeological sites, are considered significant. Although of interest in terms of settlement patterning, the assemblages all consist of lithic debitage, most of which is coral, and virtually no temporally or functionally diagnostic tools. These types of sites are abundant in the area, and thus, the research potential for these newly recorded sites is considered low. Thus, 8PA02852 through 8PA02857 do not meet NRHP eligibility Criterion D.

In addition, three previously recorded archaeological sites, 8PA00465, 8PA00623, and 8PA02038, were relocated within the project APE, and the boundary of 8PA00465 was expanded. 8PA00465 was determined eligible by the SHPO; the other two sites were evaluated as ineligible. The additional data collected during this survey provided no new significant data and supports the previous assessment of ineligibility for 8PA00623 and 8PA02038.

Historical Resources

Historical/architectural survey of the Overpass Road PD&E Study project APE resulted in the identification and evaluation of 14 historic resources. These include 10 buildings (8PA02227, 8PA02598 through 8PA02603, and 8PA02849 through 8PA02851); two linear resources (8PA02847 and 8PA02848); one cemetery (8PA02846); and one building complex resource group (8PA02595). Of the 14 historic resources located within the APE, eight (8PA02227, 8PA02595, and 8PA02598 through 8PA02603) were previously recorded in the FMSF, and six (8PA02846 through 8PA02851) were newly identified as a result of this survey. None of the historic resources is considered potentially eligible for listing in the NRHP because of their commonality of style and/or construction and their lack of significant historical associations. Further, there is no potential for a historic district within the APE. One previously recorded historic resource, 8PA02597, was documented as no longer extant.

No historic resources are associated with any of the proposed pond and FPC sites. However, previously and newly recorded archaeological sites are contained within six of the proposed pond and FPC sites, as follows: Pond 3-1 (8PA00465); Pond 3-2 (8PA00623); Pond 3-3 and FPC 3-1 (8PA02852); Pond 3-4 (8PA02853); and Pond 3-5 (8PA02855). Only mundane evidence of NRHP-eligible 8PA00465 was recovered within Pond 3-1; the other associated sites are not significant. Ponds 3-6 and 3-9 are associated with AOs #1 and #2, respectively.

In conclusion, although NRHP-eligible archaeological site 8PA00465 is located within the project APE, based on the limited cultural materials recovered, the lack of additional information of significance to our understanding of regional prehistory, and the extensive amount of disturbance, the portion of 8PA00465 located within the Overpass Road project APE is not considered contributing to the significance of the resource. Thus, given the results of background research and archaeological and historical/architectural field surveys, project development will have no involvement with any archaeological sites or historic resources that are listed, eligible, or considered potentially eligible for listing in the NRHP, and no further archaeological survey is recommended. These recommendations and findings (as presented in the CRAS report dated August 2015) received SHPO concurrence on October 2, 2015. The concurrence documentation is provided in Appendix F of the EA.

8.13.7 THREATENED AND ENDANGERED SPECIES

This project has been evaluated for potential impacts to threatened and endangered species in accordance with Section 7(c) of the Endangered Species Act of 1973 as amended by Rules 39-25.002, 39-27.002, and 39-27.011 of the Wildlife Code of the State of Florida (Chapter 39, FAC). In accordance with the FDOT *PD&E Manual*, Part 2, Chapter 27 – *Wildlife and Habitat Impacts* (dated October 1, 1991), a WEBAR has been prepared for this project and is available under separate cover.

The potential effects of the proposed project on state and federally listed species were assessed by determining the natural habitats that would be affected by the project and determining the potential use of these habitats by listed species. Prior to performing field reviews, a letter was sent to the FNAI, FWS and Florida Fish and Wildlife Conservation Commission (FWC) requesting information on documented occurrences of listed species within one mile of the project study area and wood stork rookeries located within 15 miles of the project study area. A list of threatened and endangered species with the potential for occurrence within the project study area was then compiled based on information received from the responding agencies and in-house research.

Federally and state listed animal species were identified as having the potential to occur within the project study area. **Table 8-2** summarizes the project impact determination for the federally and state listed species, respectively.

Federal Listed Species (FWS)	Status	Impact Determination
Eastern indigo snake (Drymarchon couperi)	Threatened	"May affect, but is not
Wood stork (Mycteria americana)		likely to adversely affect"
Florida scrub jay (Aphelocoma coerulescens)	Threatened	"No effect"
State Listed Species (FWC)		
Southeastern American kestrel (Falco sparverius paulus)	Threatened	"No effect"
Short-tailed snake (Stilosoma extenuatum)		
Gopher tortoise (Gopherus polyphemus)	Threatened	"May affect, but is not
Florida sandhill crane (Grus canadensis pratensis)		likely to adversely affect"
Limpkin (Aramus guarauna)	Species of Special Concern	"May affect, but is not likely to adversely affect"
Little blue heron (<i>Egretta caerula</i>)		
Reddish egret (Egretta rufescens)		
Snowy egret (Egretta thula)		
Tricolored heron (Egretta tricolor)		
Rosette spoonbill (Platalea ajaja)		
White ibis (<i>Eudcimus albus</i>)		
Florida burrowing owl (Athene cunicularia Floridana)		
Gopher frog (<i>Rana capito</i>)		
Florida pine snake (Pituophis melanoleucus mugitis)		
Florida mouse (Podomys floridanus)		
Sherman's fox squirrel (Sciurus niger shermani)		

 TABLE 8-2
 SUMMARY OF LISTED SPECIES IMPACT DETERMINATIONS

Based on the findings and commitments contained in the WEBAR, a determination has been made that the proposed project will either have *no effect* or *may affect, but is not likely to adversely affect* any state or federally listed animal or plant species nor will it affect any

designated Critical Habitat. On August 19, 2015, the WEBAR was sent to the FWC and FWS for their concurrence with the effect determinations for each species. FWC responded on September 2, 2015 and FWS responded on September 14, 2015 and both agencies concurred with the findings and effect determinations as presented. The agency concurrence documentation is provided in Appendix G of the EA.

Section 9.0 SUPPORTING DOCUMENTS

The following environmental and engineering evaluations and corresponding supporting technical studies have been prepared for this project:

- Air Quality Technical Memorandum
- CSRP
- CSER
- CRAS
- I-75 and Overpass Road PIJR
- EA
- Location Hydraulic Report (LHR)
- NSR
- PSR
- WEBAR

For additional information regarding impacts to a specific resource, please refer to the corresponding report (available under separate cover).

APPENDIX A

Project Plan Sheets



PASCO COUNTY

OVERPASS ROAD FROM OLD PASCO ROAD TO US 301

CIP NO: 5025 • FPID NO: 432734-1

PREPARED BY

URS CORPORATION SOUTHERN

ALTERNATIVE O3 ROADWAY



PROJECT LOCATION MAP

DRAFT - FOR PLANNING PURPOSES ONLY

PASCO COUNTY BOARD OF COUNTY COMMISSIONERS

CHAIRMAN OF THE BOARD : TED SCHRADER DISTRICT 1 : TED SCHRADER DISTRICT 2 : MIKE MOORE DISTRICT 3 : KATHRYN STARKEY DISTRICT 4 : MIKE WELLS DISTRICT 5 : JACK MARINAO COUNTY ADMINISTRATOR : MICHELE BAKER



INDEX OF PLANS

SHEET NO.

SHEET DESCRIPTION

I	COVER SHEET
П	LEGEND
III	TYPICAL SECTIONS
IV	TYPICAL SECTIONS
V	TYPICAL SECTIONS
1-17	PLANS

Aerial Photography Date: 2011

MAPS PREPARED BY:

URS CORPORATION SOUTHERN LICENSED BUSINESS NO. 6839 7650 WEST COURTNEY CAMPBELL CAUSEWAY TAMPA, FLORIDA 33607-1462

TELEPHONE (813) 286-1711

LEGEND **EXISTING RIGHT-OF-WAY PROPOSED SIGNAL** 000 **EXISTING L/A RIGHT-OF-WAY** -/-/-/-**EXISTING SIGNAL** PROPOSED RIGHT-OF-WAY O1-1 **PROPOSED POND SITE** ____ **PROPOSED L/A RIGHT-OF-WAY** 10' MULTI-USE PATH **PROPERTY LINES** WETLAND ROADWAY **FLOODPLAIN** BRIDGE **FLOODPLAIN COMPENSATION AREA** FPC 3-1 5' SIDEWALK -100-**CONTOUR LINE** CD<u>-1</u> __ __ **CROSS DRAIN** $\times \times \times \times$ TO BE REMOVED



OVERPASS ROAD Alternative O-3 From Old Pasco Road to US 301 Pasco County Florida

SHEET NO.






















































APPENDIX B

List of Developments in the Study Area

List of Developments Shown on Figure 2-2

Map No.	Development Name
6	Cannon Ranch
13	Fort King Ranch
14	Grand Oaks
20	Lake Bernadette
21	Lake Jovita
29	New River
30	Northwood
31	One Pasco Center
38	Saddlebrook Resorts
39	Seven Oaks
46	Tampa Bay Golf and Tennis
47	Livingston (nka Golden Ranch)
53	Wesley Chapel Lakes
57	Meadow Pointe
59	Oak Creek
62	Pine Ridge/54 Fork
66 & 67	Chanel Crossings (fka Harrison Bennett)
70	Wesley Pointe
91	Levington Oaks
82	Ahardaan Lakac
02 Q/	I view Melle Road
04	Country Walk (file Dalm Dointe)
20	Country Walk (Ika Palifi Pointe)
89	Cypress Creek
92	Wyndfields Chanad Diago
96	Chapel Pines
97	Bridgewater
98	Hillcrest Preserve
99	Lange Equestrian Village
100	Boyette Road (aka Palm Cove)
112	Cypress Creek Town Center
114	Chapel Hill
115	Boyette Oaks
124	The Grove at Wesley Chapel
127	Ho (aka Ashey Pines)
128	Watergrass (fka Comas)
129	Rucks (aka Cobblestone Preserve)
131	Parkview - Serino (aka Hamilton Park)
132 & 142	Wiregrass Ranch/Pulte SR 56
133	Chapel Creek
134	Zephyr Ridge (fka Geiger Hill)
135	Ashton Oaks (fka Houck Property/Crossings)
139	Christopher/Sims
140	Hillside
143	Pasco Town Centre
147	Epperson Ranch
149	Pasco Commerce Center
151	Feliciano (aka Legacy Hills)
154	Quail Woods
155	Ashley Groves
156	Main Street at Grandview Village Center (Pasadena Hills Area Plan) Village D
160	River Landing
161	Evans Parcel G-1 (Villages of Pasadena Hills) Village G
162	Grantham
164	Wyndrush
166	Evans Parcel F-1 (Villages of Pasadena Hills) Village F
170	Stanley Meadows
181	Harvest Hills (Villages of Pasadena Hills) Village D
185	Evans Parcel C-1 (Villages of Pasadena Hills) Village C