PRELIMINARY ENGINEERING REPORT

I-75 (SR 93)
PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
from north of SR 52 to south of CR 476B
Pasco, Hernando, and Sumter Counties; Florida

Work Program Item Segment Number: 411014 1
Federal Aid Project Number: 0751-120I

Prepared for:
Florida Department of Transportation
District Seven
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Tampa, Florida 33612-6476

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(Project Engineer PE Number)

June 2007

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APPENDIX A: INTERIM SIX-LANE TYPICAL SECTIONS FOR I-75

APPENDIX B: "PREFERRED" ALTERNATIVE CONCEPTUAL PLANS FOR IMPROVING I-75

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SECTION 1.0
EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) has conducted a Project Development and Environment (PD&E) Study to evaluate capacity improvements along the segment of Interstate 75 (I-75) -State Road (SR) 93- that extends from just north of SR 52 in Pasco County to just south of County Road (CR) 476B in Sumter County, Florida. The length of this segment is approximately 20.8 miles. The design year for the improvements is Year 2030.

I-75 is a four-lane, interstate, limited access freeway. The study area includes two interchanges and two rest areas (one in each direction). More specifically, a partial cloverleaf interchange is currently provided at CR 41 (Blanton Road) approximately 6.3 miles north of SR 52, in Pasco County, and a diamond interchange is provided at US 98/SR 50 (Cortez Boulevard) approximately 9.3 miles north of CR 41, in Hernando County. The rest areas are located in Sumter County approximately 5.0 miles north of SR 50 and 1.0 mile south of the northern project terminus. From north of SR 50 to the northern terminus of the project, a distance of approximately 6.0 miles, the Withlacoochee State Forest abuts the entire western border of I-75 and most of its eastern border. I-75 crosses the Withlacoochee River at the Hernando/Sumter County Line approximately 1.5 miles from the northern project terminus; this segment is under the jurisdiction of the FDOT District 5.

I-75 is included in the State Highway System (SHS), designated as SR 93, the *Florida Intrastate Highway System (FIHS)*[1], the *Strategic Intermodal System (SIS)*[2], and the Federal Aid Interstate System. I-75 also serves as a major evacuation route throughout the state. According to FIHS standards for a "transitioning" area type, all of the I-75 components (mainline, ramps, merge/diverge areas) should provide adequate capacity to operate at level of service (LOS) "C" or better.

The need for capacity improvements along this segment of I-75 is documented in the respective updated *Year 2025 Long-Range Transportation Plans (LRTP)*[3,4] of the Pasco

and Hernando counties MPOs, as well as the *Comprehensive Plans* of Pasco, Hernando, and Sumter counties[5,6,7]. The need for capacity improvements has also been verified through the analyses of the design year 2030 No-Build traffic conditions, which are presented in the *Traffic Technical Memorandum (TTM)*[8] that has been prepared as part of this PD&E Study. In addition to promoting vehicular mobility along I-75, the capacity improvements will also enhance motorist safety and reduce evacuation times.

The annual average daily traffic (AADT) volumes along I-75 during the design year 2030 are expected to range from 90,000 to 107,000 vehicles per day (vpd). To accommodate this projected transportation demand at LOS "C", I-75 will need to be widened to an eight-lane highway with four travel lanes in each direction. Improvements will also be needed at the interchanges of I-75 with CR 41 and SR 50.

1.1 RECOMMENDATIONS

The proposed improvements for this project were developed based on traffic analyses, review of local government plans, evaluation of several alternatives –including the No-Build Alternative–, and input collected from the various project stakeholders through the Public Involvement Program efforts. To make best use of the FDOT and the FHWA funds in implementing these improvements while ensuring that efficient and safe traffic operations are provided along the project at all times, it is recommended that the "preferred" alternative is constructed in two phases. A brief description of the improvements included in the "preferred" alternative and their construction phasing follows below.

1.1.1 Phase 1 Improvements

In Phase 1, the mainline of I-75 will be widened to provide six lanes by constructing a 12-foot-wide travel lane in each direction of I-75 within the median, along the existing inside lane. The widening of I-75 will be accommodated within the existing right of way. The remaining median width, after construction of the inside lanes, will for most of the project length be 40.0 feet wide; 24.0 feet less than the standard minimum median width for this type of facility. A design variation will be required to implement this design.

This phase will also include the replacement of the existing I-75 bridges over SR 50 to accommodate the need for additional lanes along SR 50. The proposed replacement bridges over SR 50 and the I-75 profile approaching the bridges will be at a higher elevation to meet current design standards. These elevation changes will require the ramps to be re-constructed and lengthened in order to "tie in" to the new roadway in a safe and efficient manner. With the exception of widening the existing structures at Croom Rital Road and the Withlacoochee River, it is not anticipated that other bridges in the study section will be affected during this phase of construction.

Phase 1 also includes right of way acquisition for construction of stormwater management facilities, as required, to accommodate the "ultimate" improvements of I-75.

It is estimated, based on the current traffic growth trends, that these improvements will be sufficient to accommodate the traffic demands along I-75 until the year 2021.

1.1.2 Phase 2 Improvements

In Phase 2, the mainline of I-75 will be widened to provide eight-lanes by constructing an additional travel lane in each direction of I-75 along the existing outside lane. With the construction of two new outside lanes, the border width will be reduced from 94.0 feet to 82.0 feet, which will require a design variation. In addition, to accommodate this widening and provide adequate horizontal clearances, all minor roadway overpass bridges with the exception of Church Road will need to be replaced. The widening of I-75 will occur within the existing right of way.

Phase 2 also includes the construction of the improvements at the interchanges of I-75 at CR 41 and SR 50 as described below.

- CR 41 Interchange: The existing northbound ramps in the northeastern quadrant will be replaced with a "diamond-type" interchange ramp arrangement similar to the existing SR 50 ramps. The new northbound diamond off-ramp will provide for additional deceleration and queuing of vehicles at the ramp terminal. Additional right of way will be required in the southeastern quadrant for construction of the new off-ramp.

The southbound ramps in the southwestern quadrant will be reconstructed with a partial clover configuration that will meet current design standards and provide sufficient queuing for vehicles at the ramp terminal with CR 41. Additional right of way will also be required in the southwestern quadrant to accommodate the expanded footprint of the new ramp design.

In order for the interchange to operate at an acceptable level of service, CR 41 will need to be widened to provide a four-lane rural typical section from east of the northbound ramps to west of the southbound ramps.

The improvements will also include the relocation of the existing access roads in the northwestern and southeastern quadrants of the improved interchange. The access road intersections will be relocated further from I-75 along CR 41 to allow for expansion of limited access right of way limits to meet current standards.

- SR 50 Interchange: A direct "flyover" ramp will be constructed to accommodate the motorists who are traveling northbound on I-75 and are destined to westbound SR 50, thus removing this traffic entirely from traveling through the signalized intersections of the termini of I-75 northbound and southbound off-ramps at SR 50. To avoid access and relocation impacts to several businesses along SR 50, the "touchdown" point of the ramp is proposed within the SR 50 median. The northbound exit ramp terminal will be constructed approximately 3,900 feet south of SR 50 to allow for sufficient distance for deceleration and decision time for the movement to either the westbound flyover ramp or the eastbound at-grade ramp. Additional right of way will be required along the east side of I-75 to accommodate this new northbound ramp design.

1.1.3 Project Construction Segments

Based on review of the land uses in the study corridor as well as the length and the geographic features of the project, the project has been divided into the following construction segments:

- Segment 1: from north of SR 52 to the Pasco/ Hernando County Line; 7.8 miles

- Segment 2: from the Pasco/Hernando County Line to SR 50; 7.0 miles
- Segment 3: from SR 50 to just south of CR 476B; 6.0 miles.

1.2 COMMITMENTS

Although the widening improvements for I-75 will be accomplished within its existing right of way without affecting the WSF property, a Section 4(f) resource, there is no prudent and feasible avoidance alternative to accommodate the stormwater runoff from the project but to store it within the WSF property. To minimize effects, use of the natural depressions within the WSF is planned instead of constructing stormwater management facilities.

The natural depression areas and natural conveyance areas within the WSF will be acquired by the FDOT through the execution of a perpetual transportation /drainage/maintenance easement from the Division of State Lands (DSL) (the present "fee owner" of the WSF lands). These perpetual easement agreements will be executed by the FDOT with the DSL during the project's future Right of Way Acquisition phase. It has not been determined at this time what the purchase value of the easement will be since this appraisal process will be handled during the agreement negotiation process between the FDOT and the DSL. The easement agreements will have exhibits which will indicate the surveyed boundary of the areas to be acquired by the FDOT for stormwater management and conveyance purposes. These areas will also be reflected in the SWFWMD permitting process so the easement agreements will match the areas outlined in the permits. These agreements will be executed once the depressional and conveyance areas are more accurately determined using detailed stormwater management models and then field surveyed (during design). Once the modeling and survey process is completed, the areas within the WSF will be acquired during the Right of Way Acquisition phase.

In a letter dated December 18, 2006, the Florida Division of Forestry (DOF) –the lead agency responsible for managing the WSF-Croom Tract– concurred with this solution for the project segments where there are no feasible sites to provide stormwater management facilities outside the WSF.

During the Final Design phase for the I-75 project(s) that would involve the use of the WSF, the FDOT will model the water flow and storage conditions within the WSF to assure that the available channels and natural depressions are sufficient for stormwater conveyance and storage. The FDOT will also continue to coordinate with the DOF to implement any appropriate measures to mitigate any stormwater flow and storage effects on the WSF property.

1.3 REFERENCES

1 *Florida Intrastate Highway System*; FDOT; March 2000.

2 *Florida's Strategic Intermodal System Plan*; FDOT; January 2005.

3 *Adopted 2025 Long-Range Transportation Plan*; Pasco County MPO; 2005.

4 *Adopted 2025 Long-Range Transportation Plan*; Hernando County MPO; 2005.

5 *Pasco County Comprehensive Plan*; Pasco County Growth Management Department; 2000, with revisions.

6 *Hernando County Comprehensive Plan*; Hernando County Board of County Commissioners; Adopted June 1989 and as amended.

7 *Sumter County Comprehensive Plan*; Sumter County Planning Department; adopted 1992, as amended.

8 *Traffic Technical Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

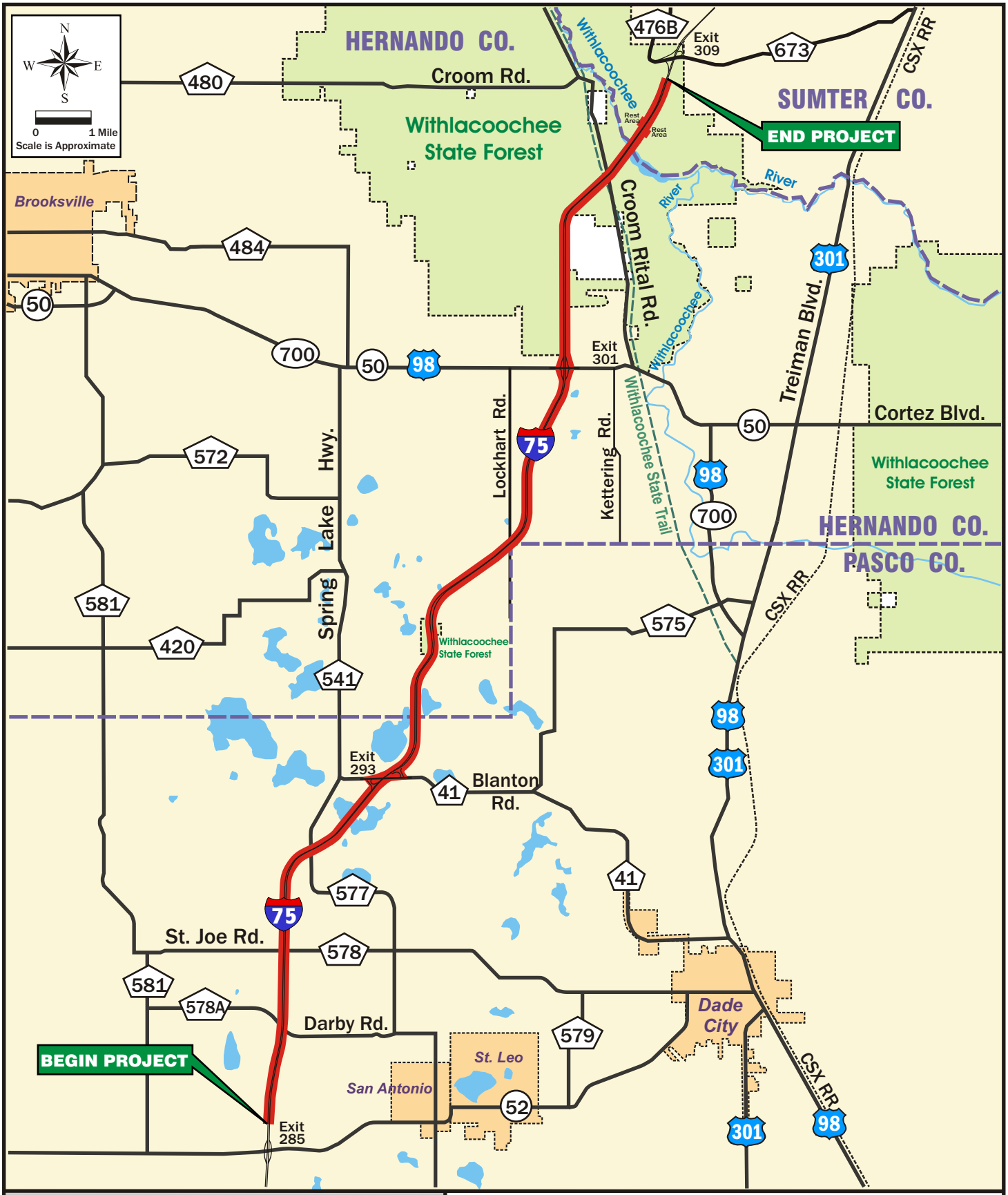
SECTION 2.0
INTRODUCTION

The Florida Department of Transportation (FDOT) has conducted a Project Development and Environment (PD&E) Study to evaluate capacity improvements along the segment of Interstate 75 (I-75) -State Road (SR) 93- that extends from just north of SR 52 in Pasco County to just south of County Road (CR) 476B in Sumter County, Florida. The length of this segment is approximately 20.8 miles. The design year for the improvements is Year 2030. **Exhibit 2-1** illustrates the location and limits of this project.

2.1 PURPOSE

The objective of this PD&E Study is to document the engineering and environmental analyses that were performed for this project so that the FDOT and the Federal Highway Administration (FHWA) can reach a decision on the type, location, and conceptual design of the necessary improvements of I-75 to accommodate future traffic demand in a safe and efficient manner. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives. Information related to the engineering and environmental characteristics, which are essential for the alternatives analysis, was collected. Design criteria were established and preliminary alternatives were developed. The comparison of alternatives was based on a variety of parameters utilizing a matrix format. This process identified the alternative that would have minimal impacts, while providing the necessary improvements.

The PD&E Study also satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), in order for this project to qualify for federal-aid funding of subsequent development phases (design, right of way acquisition, and construction).



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

WPI Seg. No.: 411014 1

FAP No: 0751-120I

Project Location Map

Exhibit 2-1

This *Preliminary Engineering Report* (*PER*) is one in a series of reports prepared as part of this PD&E Study. This report documents the need for the improvements, presents the key engineering and environmental considerations/criteria that influenced the development of the various improvement alternatives, and summarizes the comparative analyses and public involvement efforts that led to the selection of the recommended alternative.

2.2 PROJECT DESCRIPTION

2.2.1 Project Background

I-75 is an interstate, limited access freeway. It is included in the State Highway System (SHS) –designated as SR 93–, the Florida Intrastate Highway System (FIHS), the Strategic Intermodal System (SIS), and the Federal Aid Interstate System. I-75 also serves as a major evacuation route throughout the state.

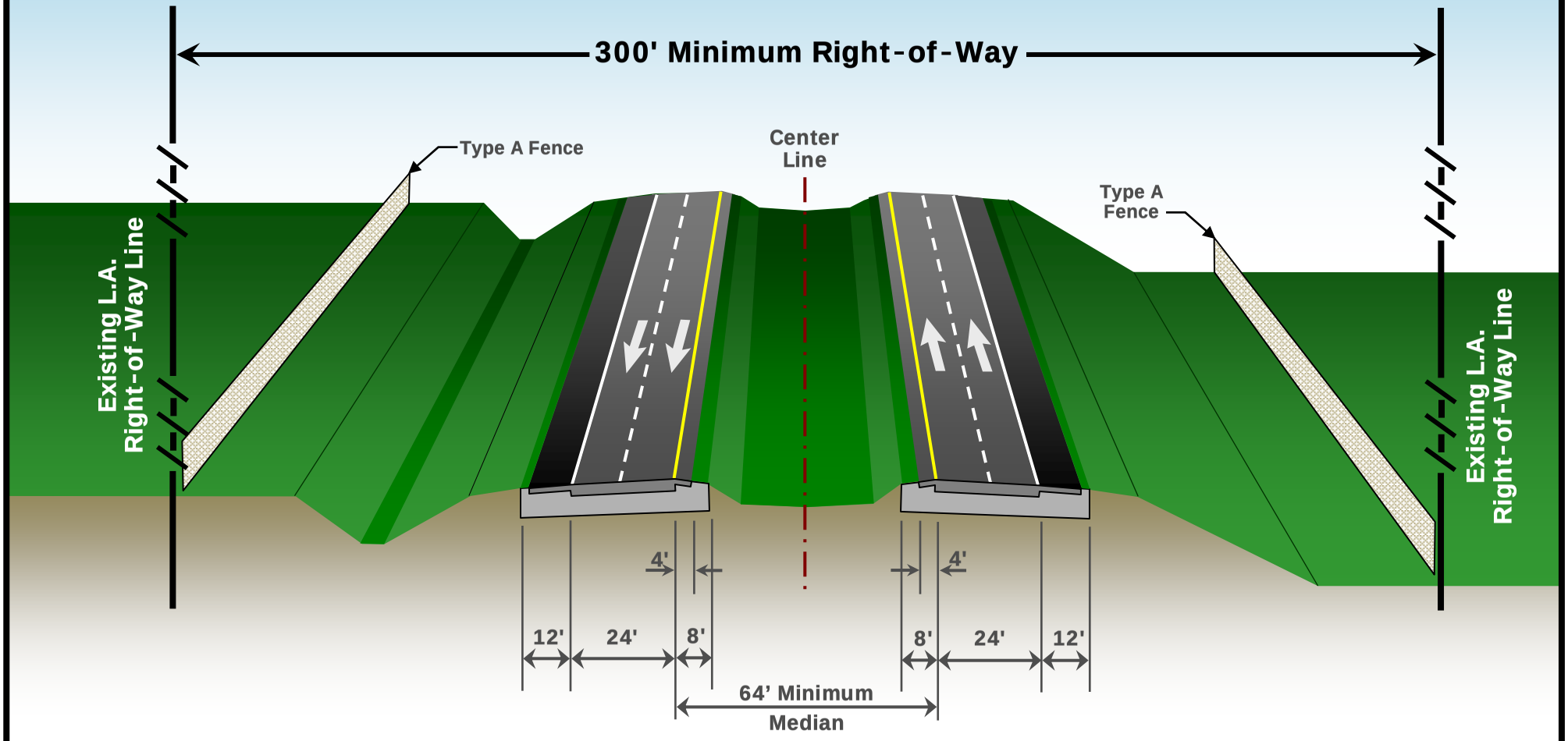
2.2.2 The Study Area

The study area for this project extends from just north of SR 52 in Pasco County to just south of County Road (CR) 476B in Sumter County, Florida; a distance of approximately 20.8 miles. The study area encompasses the following Sections, Townships, and Ranges:

- Pasco County:
  - Sections 5 and 8 of Township 25 S, Range 20 E
  - Sections 2, 3, 9, 10, 16, 17, 20, 21, 28, 29, 32, 33 of Township 24 S, Range 20 E
- Hernando County:
  - Sections 13, 23, 24, 26, 35 of Township 23 S, Range 20 E
  - Sections 5, 6, 7, 18 of Township 23 S, Range 21 E
  - Sections 16, 17, 19, 20, 29, 30, 31, 32 of Township 22 S, Range 21 E
- Sumter County:
  - Sections 4, 9, 16 of Township 22 S, Range 21 E.

Presently, within the project limits, I-75 is a four-lane, divided, limited access, rural highway that has a minimum of 300 feet of right of way. **Exhibit 2-2** displays the existing typical section of I-75. No major improvements have been made to this segment of I-75 since its original construction in the 1960s.

Roadway Typical Section



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
Pasco, Hernando & Sumter Counties
WPI Seg. No.: 411014 1
FAP No.: 0751- 120I

I-75 Mainline
Existing Typical Section

Exhibit 2-2

The study area includes two interchanges and two rest areas (one in each direction). More specifically, a partial cloverleaf interchange is currently provided at CR 41 (Blanton Road) approximately 6.3 miles north of SR 52, in Pasco County, and a diamond interchange is provided at US 98/SR 50 (Cortez Road) approximately 9.3 miles north of CR 41, in Hernando County. The rest areas are located in Sumter County, approximately 5.0 miles north of SR 50 and 1.0 mile south of the northern project terminus.

From north of SR 50 to the northern terminus of the project, the Withlacoochee State Forest abuts the entire western border of I-75 and most of its eastern border. I-75 crosses the Withlacoochee River at the Hernando/Sumter County Line approximately 1.5 miles from the northern project terminus; this segment is under the jurisdiction of the FDOT District 5.

2.2.3 Project Segments

To facilitate development and evaluation of the improvement alternatives, the project was divided into three segments:

- Segment 1: from north of SR 52 to the Pasco/ Hernando County Line; 7.8 miles
- Segment 2: from the Pasco/Hernando County Line to SR 50; 7.0 miles
- Segment 3: from SR 50 to just south of CR 476B; 6.0 miles.

2.2.4 Other Relevant Projects

This project has been coordinated with and considered the recommendations of two other on-going projects of the FDOT, as follows:

- A PD&E Study was completed in 2001 for the segment of I-75 that extends from south of SR 56 to just north of SR 52, in Pasco County, which is the southern terminus of this project. Similar to this project, I-75 currently provides four travel lanes along this segment within a minimum 300-foot-wide right of way. The PD&E Study recommended widening of I-75 to a six-lane facility. The PD&E Study has now advanced to the Final Design phase.
- A PD&E Study is now under way to evaluate improvement alternatives for the segment of I-75 that extends north of this project, from south of CR 476B to SR

44, in Sumter County. Similar to this project, I-75 currently provides four travel lanes along this segment within a minimum 300-foot-wide right of way. This project is being pursued by the FDOT District 5.

SECTION 3.0
NEED FOR IMPROVEMENT

The segment of I-75 (SR 93) that extends from north of SR 52 in Pasco County to just south of CR 476B in Sumter County has been evaluated for widening from a four-lane to an eight-lane freeway. The need for this improvement was established after consideration of the following factors:

- Evaluation of the current and future contribution of I-75 in accommodating regional travel and its importance in providing system-wide linkage within the overall roadway network.
- Review of the federal and state policies regarding I-75 and, where applicable, study of the comprehensive plans and the long-range transportation plans of the local governments involved in this project.
- Assessment of current and future social and economic demands.
- Study of the interrelationships of I-75 with other modes of transportation.
- Evaluation of the quality of traffic operations in the study area for the design year assuming that no capacity improvements will be implemented along this corridor (No-Build Alternative).
- Analyses of the traffic safety statistics for the period between 1999 and 2003.
- Comparison of the geometric characteristics of I-75 with current design standards as well as research of records for structural deficiencies along the project.

3.1 AREA NEEDS

3.1.1 System Linkage

I-75 is one of the most important corridors in the State of Florida with regards to regional and intraregional travel and transportation of goods. Highlighting its importance is the fact that I-75 is part of the *Florida Intrastate Highway System (FIHS)*[1] and the *Strategic Intermodal System (SIS)*[2]. In addition, SR 50 west of I-75, in Hernando County, is also designated as an FIHS/SIS facility.

I-75 traverses the state of Florida in a generally south-north direction from SR 826 (Palmetto Expressway) in Hialeah, Dade County, to the Georgia state border in Hamilton County; a distance of approximately 471 miles. Along its path, it connects with four interstate highways –I-595 in Broward County, I-4 in Hillsborough County, I-275 in Hillsborough and Manatee counties, and I-10 in Columbia County-, Florida's Turnpike in Dade and Sumter counties, the Crosstown Expressway in Hillsborough County, and numerous state and county roads.

Residential and commercial development, which is economically tied to the Tampa Bay area, continues to spread north into northern Pasco County and Hernando County. As this growth continues, the portion of I-75 within the project limits will serve as an increasingly important link between these growing areas and older, established residential and employment areas of the Tampa Bay region as well as several intermodal facilities including the Tampa International Airport and the Port of Tampa.

Improving I-75 within the study area would benefit both intraregional and interregional north-south travel.

3.1.2 Transportation Demand

3.1.2.1 Existing Traffic Demand

According to traffic counts performed in March 2005, current annual average daily traffic (AADT) volumes along I-75 range from 52,600 vehicles per day (vpd) between SR 52 and CR 41, to 49,400 vpd between CR 41 and SR 50, and to 45,800 vpd between SR 50 and CR 476B. A significantly large portion of these volumes consists of truck traffic which varies along these segments from 25.4%, to 33.0%, and 27.0%, respectively.

Current AADT volumes along CR 41 (Blanton Road) range from 3,600 to 4,200 vpd east and west of I-75, respectively. East of I-75, SR 50 (Cortez Boulevard) currently accommodates approximately 24,100 vpd of which 19.0% is comprised of truck traffic. West of I-75, SR 50 carries 20,600 vpd of which 15.5% is comprised of truck traffic.

3.1.2.2 Future Traffic Demand

According to the *Traffic Technical Memorandum (TTM)*[3] –prepared for this PD&E Study under separate cover–, daily volumes along I-75 during the design year 2030 should be expected to range from 90,000 to 107,000 vpd.

By the design year, CR 41 and SR 50 will also experience significant increases in the traffic volumes they carry, mainly due to the planned residential and commercial development in this region. CR 41 should be expected to carry 15,800 vpd and 18,400 vpd, east and west of I-75, respectively. SR 50 should be expected to carry 64,000 vpd west of I-75 and 75,000 vpd east of I-75.

3.1.3 Federal, State, and Local Government Authority Policies and Plans

A number of public agencies and decision-making bodies have identified a need for improving I-75 in the project study area to meet the growing transportation demand.

3.1.3.1 State Transportation Plan

The *2020 Florida Transportation Plan (FTP)*[4] establishes goals and objectives to satisfy statewide priorities for meeting the increasing transportation needs within the state. In 1990, Florida Legislature created the FIHS, which is statewide network of interconnected limited- and controlled-access roadways that accommodate high-speed and high volume traffic movements within the state. The FIHS was created to enhance transportation mobility, connectivity, and safety and to relieve congestion.

In 2003 the Florida Legislature enacted Senate Bill 676, Florida Statutes 339.61-64, that formally created the SIS. On January 20, 2005, the Secretary of Transportation adopted the SIS Strategic Plan which among other items designated facilities. The SIS aims to promote Florida's economic competitiveness by enhancing linkage of modal facilities - such as airports, seaports, and rail and bus stations. The SIS accomplishes its objective through targeted funding and management of specific transportation corridors, facilities, and services that serve this purpose.

The importance of I-75 in facilitating regional movement of people and goods and its role to supporting Florida's economic competitiveness is highlighted by its inclusion in the

FIHS and SIS. The segment of I-75 studied in this project (from just north of SR 52 to just south of CR 476B) is identified in the *2025 Cost Feasible Plan*[5] of the FIHS for widening to six lanes.

3.1.3.2 Regional Plans

The project falls under the jurisdiction of two of Florida's Regional Planning Councils: Pasco County is represented by the Tampa Bay Regional Planning Council (TBRPC) and Hernando and Sumter counties are represented by the Withlacoochee Regional Planning Council (WRPC). The proposed improvements are consistent with the *Strategic Regional Policy Plans*[6,7] of both regional planning councils, which identify I-75 as a regionally significant roadway.

West Central Florida (WCF) MPO Chairs Coordinating Committee (CCC) coordinates transportation planning across the region from Sarasota County to Citrus County and east to Polk County. The proposed improvements of I-75 are consistent with the WCF *2025 Long Range Transportation Plan (LRTP)*[8], including its policy Objectives 1.1 and 2.1 which state to "maintain and improve the regionally significant highway system" and to "improve access to regional activity centers", respectively. The WCF 2025 LRTP identifies a regional need for the improvement of I-75 and includes in its 2025 Regional Cost Affordable Plan the addition of two general purpose lanes from south of the project study area to the Hernando/Sumter County Line.

3.1.3.3 Local Government Plans

The *Year 2025 Long Range Transportation Plans (LRTPs)*[9,10] of the Pasco County and the Hernando County MPOs in Goal 1.3.0 promote "highway corridor capacity for the safe, effective, and efficient movement of people and goods". Also, Objective 2.0.2 in the Pasco LRTP and Objective 2.0.3 in the Hernando LRTP promote "economic development by ensuring that transportation systems will promote and enhance the efficient and safe movement of freight and services." Consistent with these goals and objectives, both plans identify the need for widening I-75 in the project study area, as follows:

- The 2025 Needs Plan element of the Pasco County LRTP identifies a need to provide eight lanes along I-75 from north of SR 54 to the Hernando County Line; instead, the 2025 Cost Affordable Plan element of the LRTP identifies the need to provide six lanes along I-75 within the same limits.
- The 2015 Interim Cost Affordable Plan element of the Hernando County LRTP identifies the need to provide six lanes along I-75 from the Pasco/Hernando County Line to SR 50; the 2025 Cost Affordable Plan element of the LRTP identifies the need to provide six lanes along I-75 from SR 50 to the Hernando/Sumter County Line. In addition, the 2025 Cost Affordable Plan element of the Hernando County LRTP identifies the need to widen SR 50 at the interchange with I-75, from Lockhart Road to Kettering Road, to provide six through lanes and frontage roads.
- The Pasco County LRTP places I-75 on its Goods Movement 2025 Cost Affordable Plan and the Hernando County LRTP identifies I-75 as a 2025 Major Truck Movement Route.

Therefore, the improvements that are being considered in this study are consistent with the 2025 LRTPs of both the Pasco and Hernando County MPOs.

The project is also consistent with the goals, policies, and objectives of the *Comprehensive Plans* of Pasco, Hernando, and Sumter counties[11,12,13]. The proposed improvements are listed in the Schedule of Capital Projects in the Pasco County Comprehensive Plan. On its 2025 Highway Network Map, Hernando County's Comprehensive Plan shows I-75 widened to six lanes and SR 50 widened from Lockhart Road (west of I-75) to Kettering Road (east of I-75) to provide six-lanes and frontage roads. Similarly, Sumter County's Comprehensive Plan shows I-75 to be widened to a six-lane freeway facility.

3.1.4 Social Demands and Economic Developments

Pasco, Hernando, and Sumter counties are currently experiencing fast growth which is expected to continue in the future. As **Table 3-1** indicates, according to the 1980 and 2000 Census data[14], the combined population of the three counties nearly doubled from

262,402 to 528,912 residents during the 20-year period. By 2030, their 2003 combined population of 579,000 residents is projected to increase by 59% to 922,000 residents. Sumter County is projected to experience especially rapid growth over this period. Its population is expected to nearly double to 124,600 residents as retirement communities north of the project study area are developed.

Table 3-1 – Population Growth in Pasco, Hernando, and Sumter Counties

County	Population 1980	Population 2000	Population Increase 1980-2000	Population 2003*	Population 2030	Population Increase 2003-2030
Pasco	193,661	344,765	78%	375,300	580,100	55%
Hernando	44,469	130,802	194%	140,700	217,300	54%
Sumter	24,272	53,345	120%	63,000	124,600	98%
Combined	**262,402**	**528,912**	**102%**	**579,000**	**922,000**	**59%**

* Source: Florida Bureau of Economic and Business Research medium projections; 2004

Except for ongoing residential development in the Ridge Manor area on SR 50 east of I-75 and commercial development around the SR 50 and SR 52 interchanges, the project study area is generally rural. However, residential development is beginning to spread northward from southern Pasco County. Several new residential developments have been recently approved near the project study area. There are also two developments of regional impact (DRIs) proposed near the I-75 and SR 50 interchange, which could add more than 6,000 new residential units to that area. This currently planned and the expected future residential development growth in the study area will inadvertently increase travel demand along the project corridor.

Future commercial development growth along SR 50 will also increase commercial traffic demand on I-75 and its interchange at SR 50. A distribution center of a major commercial enterprise on Kettering Road, southeast of the I-75 and SR 50 interchange, along with other commercial developments in the area generate increasingly large truck traffic volumes, leading the Hernando County MPO to identify this interchange as an "Area of Concern" in its LRTP.

I-75 also accommodates access to the 216-acre One Pasco Center business park at the I-75 and SR 52 interchange, which is another significant employment center in the project study area. Government offices, health care facilities, and other private employers in Brooksville and Dade City provide other employment centers near the study area. In addition, a significant and growing proportion of Pasco and Hernando County residents use I-75 to commute to jobs outside of their counties, particularly to jobs in Hillsborough County. In Pasco County, 45% of workers commuted to jobs outside of the county in 2000, up from 38% in 1990[15]; in Hernando County, these figures were 32% and 28%, respectively. Increased residential growth in the project area will lead to increasing numbers of commuters using I-75.

3.1.5 Modal Interrelationships

As noted previously, I-75 is designated as an SIS corridor in the FTP. The SIS aims to promote Florida's economic competitiveness by enhancing linkage of modal facilities - such as airports, seaports, and rail and bus stations. Although modal facilities of this kind do not exist within or in the vicinity of the study area, I-75 regionally is part of the network that connects such modal facilities in the Tampa Bay area including the Tampa International Airport, the Port of Tampa, and the Port of Manatee.

3.1.6 Evacuation Needs and Emergency Services

Within the study area limits, I-75 is designated as a "hurricane evacuation route" by Pasco, Hernando, and Sumter counties. I-75 also accommodates regional evacuation needs of other counties located south of the project. During past hurricane events that involved the south and southwestern regions of the state, long queues and delays were experienced along I-75 primarily due to the limited capacity of this facility. Widening of I-75 will greatly facilitate evacuation needs.

I-75 is also used by emergency response vehicles for incidents on I-75 as well as at points in the vicinity of the study area.

3.2 PROJECT CORRIDOR NEEDS

3.2.1 Capacity

Level of Service (LOS) is a concept that allows a qualitative and quantitative description of the performance of a particular highway segment. It is a function of the available capacity of the highway and the traffic demand. Service levels can range from "A" to "F"; LOS "A" is the best condition representing free flow and LOS "F" is the worst condition representing stop-and-go flow and long delays. Detailed descriptions of operating conditions for each LOS are provided in the Highway Capacity Manual 2000[18].

3.2.1.1 Roadway Network Level of Service Standards

As noted earlier in this report, I-75 is part of the FDOT FIHS/SIS. Both Pasco and Hernando counties have recently updated their designations of I-75 from "rural" to "transitioning." In Sumter County, I-75 is also designated as "transitioning." According to FIHS standards, this designation dictates that all I-75 components (mainline, ramps, merge/diverge areas) must provide adequate capacity to accommodate the transportation demand at a Level of Service (LOS) "C" or better.

The segment of SR 50 that extends between US 19 and I-75 is also classified as an FDOT FIHS/SIS facility. This segment is also considered as a "transitioning" facility, therefore, dictating that a LOS "C" or better is provided along it.

CR 41 is classified as a collector road with a standard for LOS "D."

3.2.1.2 Existing Deficiencies

All transportation facilities in the study area, including the I-75 mainline and interchanges, currently operate at LOS "C" or better except the diverge area exiting northbound I-75 at SR 50, which operates at LOS "D".

3.2.1.3 Future Deficiencies

If capacity improvements are not implemented along the mainline of I-75 and its interchanges at CR 41 and SR 50, traffic congestion and LOS "F" should be expected to predominate throughout the study area.

According to the results of the capacity analyses presented in the TTM prepared for this study, the following improvements will be necessary to maintain traffic operations at LOS "C" or better:

- Widen the mainline of I-75 to provide eight travel lanes (four travel lanes in each direction),
- Expand the existing interchanges at CR 41 and SR 50 by either lengthening and widening the existing ramps and/or replacing existing ramps of limited capacity with new ramps,
- Widen SR 50 to an eight-lane facility east of I-75 in the vicinity of the interchange (widening to six lanes in the vicinity of I-75 is already planned),
- Expand the intersections of the ramp termini at CR 41 and SR 50 to provide additional turn lanes and signalize those intersections (at CR 41) that are currently unsignalized.

3.2.2 Safety Statistics

The safety of the current traffic operations in the study area was evaluated by analyzing the available FDOT crash database for I-75 and SR 50 for the five-year period between 1999 and 2003. In addition, crash records were obtained for CR 41 for the same period from Pasco County's Sheriff's Office. Data collected from these sources included the numbers and types of crashes, crash locations, number of fatalities and injuries, and estimates of property damage and economic losses.

More detailed information on the safety statistics for the study area roadways is provided in **Section 4.1.9** of this document.

3.2.2.1 Safety Statistics for I-75

The crash records for I-75 indicate that over the five years studied, 219 crashes occurred in Pasco County (5.21 crashes per year per mile), 332 crashes occurred in Hernando County (5.83 crashes per year per mile), and 57 crashes occurred in Sumter County (11.4 crashes per year per mile). There were 214 injuries and 3 fatalities in Pasco County, 384 injuries and 12 fatalities in Hernando County, and 44 injuries and 1 fatality in Sumter

County. The average crash rate (crashes per million VMT) was slightly higher over the five-year period in Sumter County (0.56) than in Pasco (0.35) and Hernando (0.40) counties. These average crash rates are higher than the statewide average crash rate of 0.31 for rural interstates.

The most frequently occurring crash types along I-75 in the study area are the rear end, sideswipe, and overturned vehicles. These crash statistics reflect that as I-75 becomes more congested, speed differential between drivers and driver inattention will become the greatest contributor to crashes. Also, many crashes are caused by moving vehicles colliding with leading vehicles that abruptly decelerate during periods of traffic congestion. Capacity improvements along I-75 will likely help prevent at least some of these crashes.

Economic losses were determined for every study area segment that was analyzed for safety considerations. According to figures from the FDOT, Safety Office – Data Processing and Maintenance Manuals, June 2003, average economic losses are estimated to $2,000 for each "Property Damage Only" crash, $108,000 for each injury, and $2,600,000 for each fatality. Therefore, using the historical crash statistics from **Table 4-6** in **Section 4.1.9**, total economic losses due to crashes occurring from 1999 to 2003 on the study area sections of I-75 was calculated to be $31,092,000 in Pasco County; $65,726,000 in Hernando County; and $7,394,000 in Sumter County. The total estimated five-year economic loss for the entire length of I-75 in the study area was $104,212,000.

3.2.2.2 Safety Statistics for CR 41 and SR 50

Over the five years studied, 110 crashes occurred along SR 50 in the vicinity of the I-75 interchange in Hernando County (from 500 feet west of the interchange to 500 feet east of the interchange) and 5 crashes occurred along CR 41 in the vicinity of the I-75 interchange in Pasco County. There were 148 injuries and no fatalities along this section of SR 50 and 4 injuries and no fatalities along this section of CR 41. The average crash rate along SR 50 in the study area was 3.74 (statewide average is 0.642) and was 0.74 along CR 41 (statewide average is 0.242). Rear end crashes are by far the most frequent crash type along SR 50 near the I-75 interchange followed by angle and left turn crashes.

Angle crashes are the most frequent crash type along CR 41 in the study area. These types of crashes are common at rural intersections and closer inspection is required to determine exact causes. The economic losses due to crashes occurring from 1999 to 2003 at the SR 50 and CR 41 interchanges are estimated to be $16,052,000 and $438,000, respectively.

3.3 REFERENCES

1 *Florida Intrastate Highway System*; FDOT; March 2000.

2 *Florida's Strategic Intermodal System Plan*; FDOT; January 2005.

3 *Traffic Technical Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

4 *2020 Florida Transportation Plan*; FDOT; December 2000.

5 *Florida Intrastate Highway System 2025 Cost Feasible Plan*; FDOT; August 2003.

6 *Strategic Regional Policy Plan*; Withlacoochee Regional Planning Council, August 1997.

7 *Strategic Regional Policy Plan*; Tampa Bay Regional Planning Council, January 2005 (draft revision).

8 *West Central Florida 2025 Long Range Transportation Plan*; West Central Florida MPO Chairs Coordinating Committee; November 2004.

9 *2025 Long Range Transportation Plan Update*; Pasco County MPO; January 2005.

10 *2025 Long Range Transportation Plan Update*; Hernando County MPO; December 2004.

11 *Pasco County Comprehensive Plan*; Pasco County Growth Management Department; 2000, with revisions.

12 *Hernando County Comprehensive Plan*; Hernando County Board of County Commissioners; Adopted June 1989 and as amended.

13 *Sumter County Comprehensive Plan*; Sumter County Planning Department; adopted 1992, as amended.

14 *2000 and 1980 Census*; U.S. Bureau of Commerce.

[15] *Florida Statistical Abstract*; Bureau of Economic and Business Research; University of Florida; 2004.

[16] *Highway Capacity Manual*; Transportation Research Board; 2000.

SECTION 4.0
EXISTING CONDITIONS

4.1 EXISTING ROADWAY CHARACTERISTICS

4.1.1 Functional Classification

I-75 is classified as a freeway in the *Comprehensive Plans* of Pasco[1], Hernando[2], and Sumter[3] counties. According to the FDOT *Straight Line Diagrams*[4], I-75 (SR 93) is an interstate, rural principal arterial.

According to the *Pasco County Comprehensive Plan*, CR 41 (Blanton Road) is classified as a collector road. US 98/SR 50 (Cortez Boulevard), according to the *Straight Line Diagrams*, is classified as rural principal arterial. In the *Hernando County Comprehensive Plan*, SR 50 is classified as an arterial.

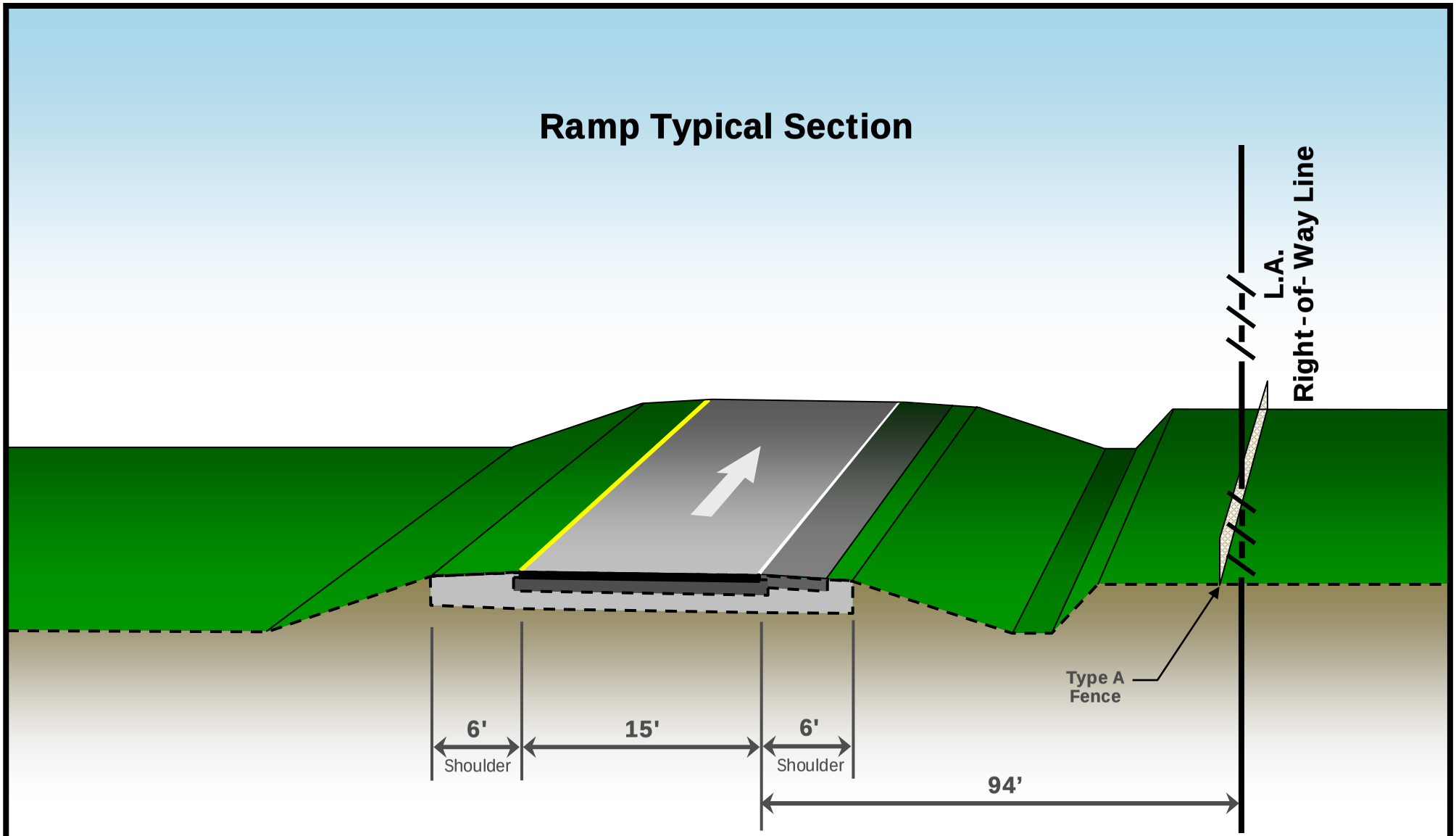
4.1.2 Typical Sections

4.1.2.1 Mainline I-75 (SR 93) Typical Sections

Within the study area limits, according to the as-built plans and field reviews, the existing typical section of I-75 (SR 93) features two 12-foot-wide travel lanes in each direction, a minimum 64-foot-wide depressed median, 12-foot-wide graded outside shoulders (of which 10 feet are paved), 8-foot-wide inside graded shoulders (of which 4 feet are paved), and intermittent open roadside ditches on both sides. The posted speed limit is 70 mph. These features are provided within a right of way that is predominantly 300 feet wide but at certain locations –where northbound and southbound I-75 follow independent alignments– widens up to a maximum width of 550 feet. **Section 4.1.4** provides a detailed description of the right of way widths along I-75. **Exhibit 2-2** in **Section 2.0** depicts the existing typical section of I-75 (SR 93).

4.1.2.2 Ramp Typical Sections

Exhibit 4-1 depicts the typical section of the ramps at the I-75 interchanges. As shown, the ramps typically provide a 15-foot-wide travel lane and 6-foot-wide inside and outside shoulders.



I-75 PD&E Study
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FAP No.: 0751-120I

Existing I-75 (SR 93) Interchange Ramp Typical Section

Exhibit 4-1

4.1.2.3 CR 41 (Blanton Road) Typical Section

As shown on **Exhibit 4-2**, CR 41 currently provides a two-lane, rural typical section within a minimum 100-foot-wide right of way. The travel lanes are 12 feet wide. Eight-foot-wide shoulders are present on both sides.

4.1.2.4 US 98/SR 50 (Cortez Road) Typical Section

As shown on **Exhibit 4-3**, US 98/SR 50 in the vicinity of I-75 currently provides a four-lane, median divided, rural typical section within a 200-foot-wide right of way. The median width is 40 feet. Inside paved shoulders (8-foot-wide) and outside shoulders (10-foot-wide with 4 feet paved) are also provided on both directions.

4.1.3 Pedestrian and Bicycle Facilities

There are neither existing nor planned –according to the Comprehensive Plans of Pasco, Hernando, and Sumter counties– pedestrian and/or bicycle facilities along I-75 (SR 93).

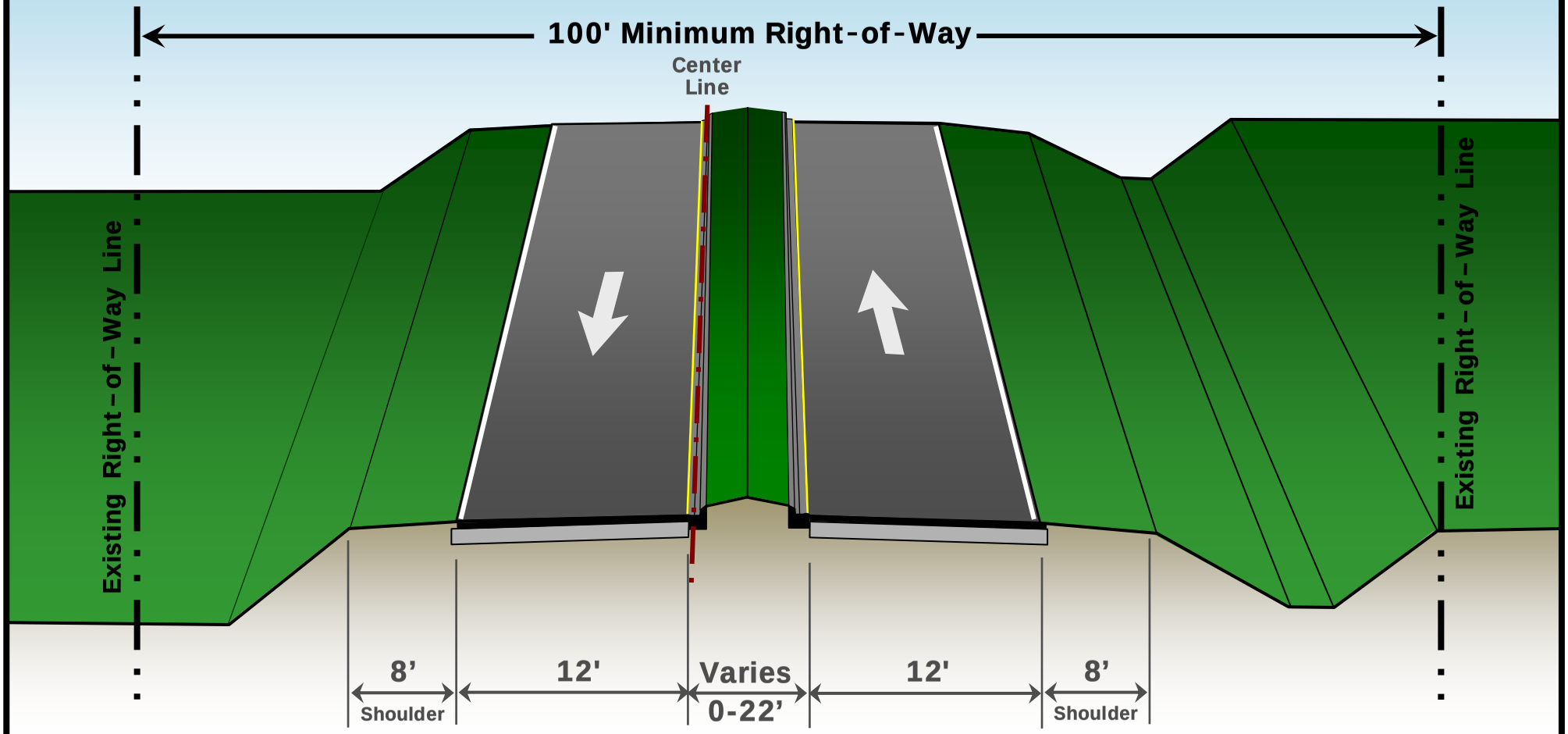
The study area includes the Withlacoochee State Trail, which is a shared use pedestrian, bicycle, and equestrian path and is managed by the Florida Department of Environmental Protection (FDEP). This trail generally runs in a north/south direction and passes under I-75 approximately 0.64 miles south of the Withlacoochee River Bridge, in Hernando County.

There are no other dedicated pedestrian or bicycle facilities in the study area. SR 50 currently provides 4-foot-wide paved shoulders on both sides, which can accommodate bicycle use. East of I-75, SR 50 is included in the Hernando County Comprehensive Plan[2] as a facility to be upgraded to provide sidewalk on one side.

4.1.4 Right of Way

Table 4-1 summarizes the existing right of way widths along I-75 (SR 93). As shown, the right of way is predominantly 300 feet wide with the exception of some segments where northbound and southbound I-75 follow independent alignments with a variable median width. At these segments, the right of way width varies up to a maximum of 550 feet.

Roadway Typical Section

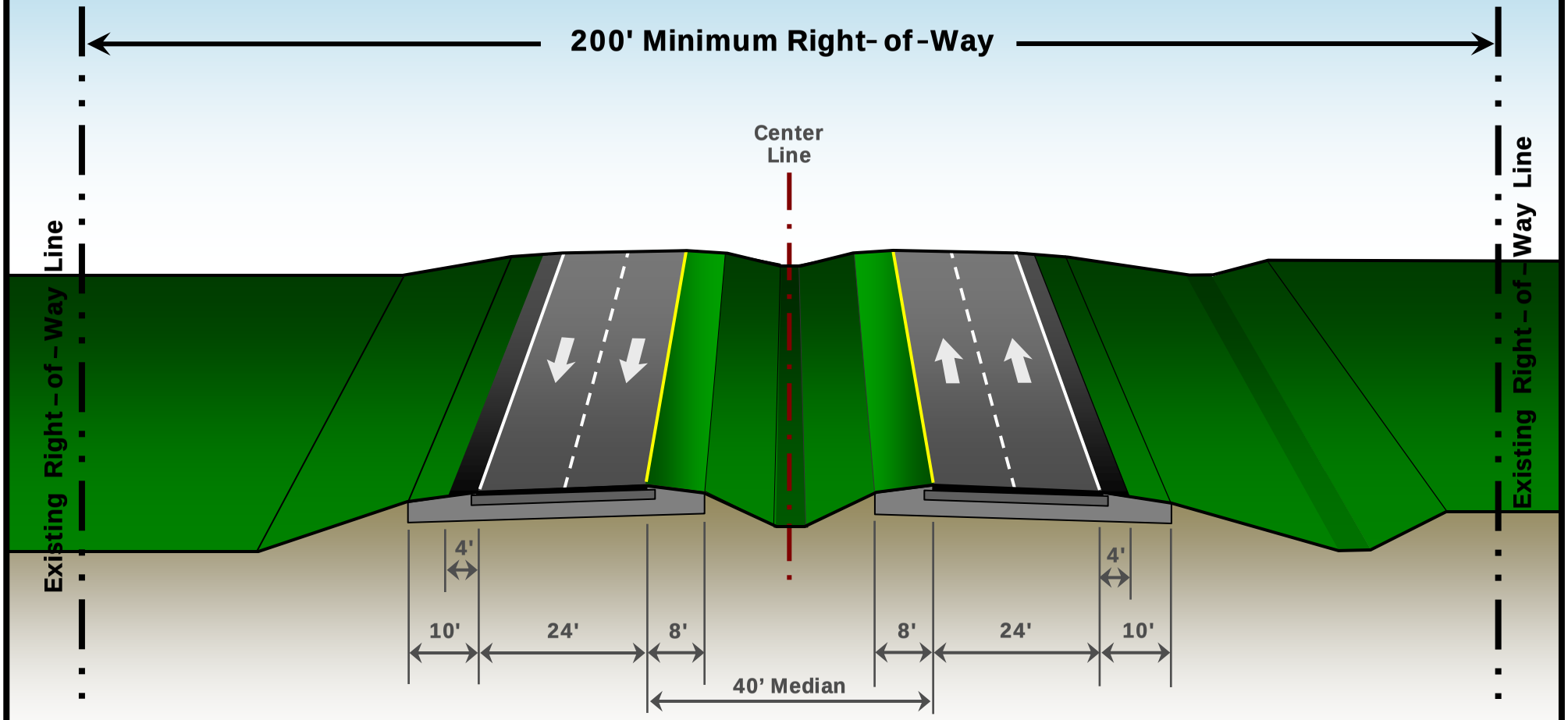


I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
Pasco, Hernando & Sumter Counties
WPI Seg. No.: 411014 1
FAP No.: 0751-120I

Existing CR 41 (Blanton Road) Typical Section

Exhibit 4-2

Roadway Typical Section



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
Pasco, Hernando & Sumter Counties
WPI Seg. No.: 411014 1
FAP No.: 0751-120I

Existing US 98/SR 50 (Cortez Road) Typical Section

Exhibit 4-3

Table 4-1 – Existing Right of Way along I-75

West Side of Survey Baseline			East Side of Survey Baseline		
Station* (from)	**Station*** (to)	**Width** (feet)	**Station*** (from)	**Station*** (to)	**Width** (feet)
1240+00.00	1510+94.87	150	1240+00.00	1466+70.59	150
1510+94.87	1539+00.00	185	1466+70.59	1502+77.89	Varies 150 – 225
1539+00.00	1586+00.00	150	1502+77.89	1523+27.54	150
1586+00.00	1658+54.37	Varies 150 – 225	1523+27.54	1544+88.77	Varies 150 – 185
1658+54.37	1681+00.00	150	1544+88.77	1587+00.00	150
1681+00.00	1687+00.00	160	1587+00.00	1590+50.00	160
1687+00.00	1701+00.00	180	1590+50.00	1606+77.60	235
1701+00.00	1710+00.00	Varies 170 – 174	1606+77.60	1619+00.00	150
1710+00.00	1720+78.00	180	1619+00.00	1627+00.00	195
1720+78.00	1833+20.37	Varies 155 – 190	1627+00.00	1645+00.00	Varies 160 – 165
1833+20.37	1842+45.70	Varies 181 – 185	1645+00.00	1659+00.00	Varies 180 – 190
1842+45.70	1929+22.29	150	1659+00.00	1675+21.03	150
1929+22.29	1935+00.00	175	1675+21.03	1733+00.00	Varies 150 – 225
1935+00.00	2030+00.00	150	1733+00.00	1743+27.00	Varies 225 – 235
2030+00.00	2055+00.00	Varies 150 – 250	1743+27.00	1748+00.00	200
2055+00.00	2190+49.40	250	1748+00.00	1762+74.77	188
2190+49.40	2307+00.00	150	1762+74.77	1806+00.00	Varies 175 – 350
2307+00.00	2316+51.15	350	1806+00.00	1857+30.82	Varies 150 – 175
2316+51.15	2371+66.31	150	1857+30.82	1929+06.30	150
			1929+06.30	1939+50.00	190
			1939+50.00	2032+00.00	150
			2032+00.00	2057+50.00	Varies 150 – 260
			2057+50.00	2242+70.00	150
			2242+70.00	2269+00.00	250
			2269+00.00	2270+35.00	290
			2270+35.00	2293+50.00	150
			2293+50.00	2303+00.00	350
			2303+00.00	2371+66.31	150

* Stationing based on as-built plans.

4.1.5 Horizontal Alignment

Tables 4-2A and **4-2B** summarize the existing horizontal alignments of northbound and southbound I-75, respectively. This information was extracted from the available as-built plans. All horizontal curves meet current design standards.

4.1.6 Vertical Alignment

The existing vertical alignment characteristics of I-75, obtained from the as-built plans, are summarized in **Table 4-3**. Along several segments, the northbound I-75 and southbound I-75 travel lanes follow independent profile grade lines.

As shown in **Table 4-3**, most vertical curves along I-75 feature geometric characteristics that do not meet current *Plans Preparation Manual (PPM)*[5] design standards and several curves do not also meet the *American Association of State Highway and Transportation Officials (AASHTO)*[6] design standards.

4.1.7 Existing Drainage Conditions

A *Location Hydraulics Report (LHR)*[7] has been prepared for this PD&E Study. This section presents a summary of the findings presented in the LHR.

FDOT drainage maps, United States Geological Survey (USGS) Quadrangle maps, Southwest Florida Water Management District (SWFWMD) topographic maps, and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) were used to identify flood-prone areas within the I-75 project corridor. Field inspections were conducted in July 2005 to identify obvious drainage problems. Additionally, persons knowledgeable about local drainage conditions, including FDOT and county maintenance personnel, were interviewed in September 2005 and February 2006. There were no flooding occurrences within the limits of this project. The existing cross drains along I-75 appear to be adequate in serving the current drainage needs of the project.

Table 4-4 provides a list of all drainage structures along I-75. **Section 4.3.3.2** and **Exhibit 4-8** present information regarding floodplain involvement within the limits of this project. There are no regulatory floodways within the limits of this project.

Table 4-2A – Existing Horizontal Alignment Characteristics; Northbound I-75

P.I. Station* (from)	P.I. Station* (to)	Bearing	Curve Characteristics			
			Deflection Angle	Length (feet)	Curvature	Superelevation (%) **
1244+10.92	1272+78.11	N 3° 54' 34" E	9° 00' 38" (RT)	1,802.11	0° 30' 00"	1.56
1272+78.11	1328+06.03	N 12° 55' 12" E	12° 15' 41" (LT)	2,452.28	0° 30' 00"	1.56
1328+06.03	1486+23.04	N 0° 39' 31" E	61° 37' 13" (RT)	3,521.15	1° 45' 00"	4.90
1486+23.04	1534+27.26	N 62° 16' 44" E	21° 36' 44" (LT)	1,440.82	1° 30' 00"	2.80
1534+27.26	1606+23.15	N 40° 39' 59" E	20° 27' 36" (RT)	2,045.99	1° 00' 00"	2.80
1606+23.15	1640+68.68	N 61° 07' 35" E	60° 29' 13" (LT)	3,024.34	2° 00' 00"	5.50
1640+68.68	1680+77.79	N 0° 38' 22" E	2° 13' 55" (RT)	1,115.93	0° 12' 00"	1.56
1680+77.79	1693+46.15	N 2° 52' 17" E	2° 13' 55" (LT)	1,115.93	0° 12' 00"	1.56
1693+46.15	1712+81.85	N 0° 38' 22" E	39° 49' 30" (RT)	1,991.25	2° 00' 00"	5.50
1712+81.85	1740+91.30	N 40° 27' 52" E	48° 00' 48" (LT)	2,527.01	1° 54' 00"	5.20
1740+91.30	1785+23.55	N 7° 32' 55" W	64° 19' 09" (RT)	4,019.94	1° 36' 00"	4.50
1785+23.55	1847+50.83	N 56° 46' 13" E	8° 02' 41" (LT)	1,608.94	0° 30' 00"	1.56
1847+50.83	1891+75.59	N 48° 43' 32" E	48° 38' 41" (LT)	3,242.99	1° 30' 00"	4.20
1891+75.59	1949+82.47	N 0° 04' 51" E	27° 34' 12" (RT)	2,757.00	1° 00' 00"	2.80
1949+82.47	2028+82.64	N 27° 39' 03" E	27° 27' 39" (LT)	2,746.08	1° 00' 00"	2.80
2028+82.64	2098+66.95	N 0° 11' 24" E	0° 05' 42" (LT)	1,141.60	0° 00' 30"	NC ***
2098+66.95	2124+94.26	N 0° 05' 41" E	0° 37' 32" (RT)	1,251.19	0° 03' 00"	NC
2124+94.26	2151+49.60	N 0° 43' 14" E	0° 56' 56" (LT)	1,138.57	0° 05' 00"	NC
2151+49.60	2189+72.80	N 0° 13' 42" W	49° 02' 05" (RT)	2,451.74	2° 00' 00"	5.50
2189+72.80	2247+80.30	N 48° 48' 23" E	9° 59' 27" (LT)	1,998.19	0° 30' 00"	1.60
2247+80.30	2318+17.09	N 38° 48' 56" E	16° 30' 38" (LT)	1,651.05	1° 00' 00"	2.80

* Stationing based on the baseline survey performed in 2006

** Superelevation reported is as-built

*** NC: Normal crown

Table 4-2B – Existing Horizontal Alignment Characteristics; Southbound I-75

P.I. Station* (from)	P.I. Station* (to)	Bearing	Curve Characteristics			
			Deflection Angle	Length (feet)	Curvature	Superelevation (%) **
1244+10.92	1272+78.11	N 3° 54' 34" E	9° 00' 38" (RT)	1,802.11	0° 30' 00"	1.56
1272+78.11	1328+06.03	N 12° 55' 12" E	12° 15' 41" (LT)	2,452.28	0° 30' 00"	1.56
1328+06.03	1486+42.17	N 0° 39' 31" E	61° 37' 13" (RT)	3,081.01	2° 00' 00"	5.50
1486+42.17	1534+21.15	N 62° 16' 44" E	21° 36' 44" (LT)	2,161.23	1° 00' 00"	2.80
1534+21.15	1607+46.97	N 40° 39' 59" E	19° 59' 54" (RT)	1,999.83	1° 00' 00"	2.80
1607+46.97	1631+89.78	N 60° 39' 53" E	33° 29' 55" (LT)	1,674.94	2° 00' 00"	5.50
1631+89.78	1649+02.91	N 27° 09' 58" E	26° 31' 36" (LT)	1,768.44	1° 30' 00"	4.20
1649+02.91	1713+65.08	N 0° 38' 22" E	39° 49' 30" (RT)	1,991.25	2° 00' 00"	5.50
1713+65.08	1741+21.35	N 40° 27' 52" E	48° 00' 48" (LT)	2,400.66	2° 00' 00"	5.50
1741+21.35	1785+87.81	N 7° 32' 55" W	64° 57' 51" (RT)	3,248.21	2° 00' 00"	5.50
1785+87.81	1849+82.77	N 57° 24' 55" E	8° 41' 23" (LT)	1,737.96	0° 30' 00"	NC ***
1849+82.77	1891+75.59	N 48° 43' 32" E	48° 38' 41" (LT)	3,242.99	1° 30' 00"	4.20
1891+75.59	1949+82.47	N 0° 04' 51" E	27° 34' 12" (RT)	2,757.00	1° 00' 00"	2.80
1949+82.47	2028+82.64	N 27° 39' 03" E	27° 27' 39" (LT)	2,746.08	1° 00' 00"	2.80
2028+82.64	2098+66.95	N 0° 11' 24" E	0° 05' 42" (LT)	1,141.60	0° 00' 30"	NC
2098+66.95	2124+94.26	N 0° 05' 41" E	0° 37' 32" (RT)	1,251.19	0° 03' 00"	NC
2124+94.26	2151+49.60	N 0° 43' 14" E	0° 56' 56" (LT)	1,138.57	0° 05' 00"	NC
2151+49.60	2189+72.80	N 0° 13' 42" W	49° 02' 05" (RT)	2,451.74	2° 00' 00"	5.50
2189+72.80	2247+80.30	N 48° 48' 23" E	9° 59' 27" (LT)	1,998.19	0° 30' 00"	1.60
2247+80.30	2318+17.09	N 38° 48' 56" E	16° 30' 38" (LT)	1,651.05	1° 00' 00"	2.80

* Stationing based on the baseline survey performed in 2006

** Superelevation reported is as-built

*** NC: Normal crown

Table 4-3 – Existing I-75 Vertical Alignment Characteristics*

PVI Station	Elevation	Curve Location	Curve Type	Grade In (%)	Grade Out (%)	Curve Length (feet)	"K" Value
1232+50.	128.80	NB & SB	Crest	1.0480%	-3.0000%	1,050	259 (1)
1242+00.	100.30	NB & SB	Sag	-3.0000%	-0.2000%	500 (1)	179 (1,2)
1251+00.	98.50	NB & SB	No Curve	-0.2000%	-0.0333%	0	0
1263+00.	98.10	NB & SB	No Curve	-0.0333%	0.0000%	0	0
1279+50.	98.10	NB & SB	Crest	0.0000%	-0.4000%	500 (1)	1,250
1298+50.	90.50	NB & SB	Sag	-0.4000%	0.4000%	600 (1)	750
1321+25.	99.60	NB & SB	Crest	0.4000%	0.0000%	500 (1)	1,250
1337+50.	99.60	NB	Sag	0.0000%	1.2250%	500 (1)	408
1338+00.	99.60	SB	Sag	0.0000%	1.1833%	500 (1)	423
1361+50.	132.00	NB	Crest	1.2250%	-0.7235%	800 (1)	411 (1)
1362+00.	128.00	SB	Crest	1.1833%	-0.7455%	800 (1)	415 (1)
1378+50.	116.70	NB	Sag	-0.7235%	0.6647%	500 (1)	360
1378+50.	115.79	SB	Sag	-0.7455%	0.6647%	500 (1)	355
1395+50.	128.00	NB	Crest	0.6647%	-1.5400%	700 (1)	318 (1)
1395+50.	127.00	SB	Crest	0.6647%	-1.5400%	700 (1)	318 (1)
1405+50.	112.60	NB	Sag	-1.5400%	-0.1000%	600 (1)	417
1405+50.	111.60	SB	Sag	-1.5400%	0.0000%	600 (1)	390
1415+50.	111.60	SB	No Curve	0.0000%	-0.1000%	0	0
1426+00.	110.55	NB & SB	Sag	-0.1000%	0.1220%	400 (1)	1,802
1451+00.	113.60	NB & SB	Sag	0.1220%	1.0000%	400 (1)	456
1472+00.	134.60	NB	Sag	1.0000%	2.9722%	400 (1)	203 (1)
1474+00.	136.60	SB	Sag	1.0000%	2.7210%	400 (1)	232
1490+00.	188.10	NB	Crest	2.9722%	0.0992%	800 (1)	278 (1)
1493+00.	188.30	SB	Crest	2.7210%	0.1000%	700 (1)	267 (1)
1510+00.	190.00	NB	Crest	0.0992%	-0.5875%	500 (1)	728
1510+00.	190.00	SB	Crest	0.1000%	-0.5288%	500 (1)	795
1526+00.	180.60	NB	Crest	-0.5875%	-1.7698%	500 (1)	423 (1)
1532+50.	178.10	SB	Crest	-0.5288%	-3.0000%	600 (1)	243 (1,2)
1539+00.	157.60	NB	Crest	-1.7698%	-2.8854%	500 (1)	448 (1)
1553+00.	116.78	NB	Sag	-2.8854%	0.0000%	570 (1)	198 (1)
1553+00.	116.79	SB	Sag	-3.0000%	0.0000%	570 (1)	190 (1)
1572+50.	116.60	NB & SB	Sag	0.0000%	3.0000%	400 (1)	133 (1,2)
1590+00.	169.10	NB & SB	Crest	3.0000%	-3.0000%	1,500	250 (1)
1604+75.	124.85	NB & SB	Sag	-3.0000%	3.0000%	1,000	167 (1,2)
1621+00.	173.60	NB	Crest	3.0000%	1.3000%	1,100	647 (1,2)
1624+00.	182.60	SB	Crest	3.0000%	1.1666%	600 (1)	327 (1)
1636+00.	198.00	NB	Crest	1.3000%	-0.5666%	500 (1)	268 (1)
1636+00.	191.10	SB	Crest	1.1666%	-0.6571%	600 (1)	329 (1)
1648+00.	191.60	NB	Crest	-0.5666%	-3.0000%	600 (1)	247 (1)
1650+00.	181.90	SB	Crest	-0.6571%	-3.0000%	600 (1)	256 (1)
1673+00.	115.40	NB & SB	Sag	-3.0000%	0.0000%	400 (1)	133 (1,2)
1681+50.	115.40	NB	Sag	0.0000%	2.2545%	400 (1)	177 (1,2)
1682+00.	115.40	SB	Sag	0.0000%	3.0000%	400 (1)	133
1693+00.	140.20	NB	Crest	2.2545%	-1.3500%	900 (1)	250 (1)

* Information taken from the as-built plans
(1) Geometric feature that does not meet the FDOT Plans Preparation Manual design criteria
(2) Geometric feature that does not meet the AASHTO design criteria

Table 4-3 – Existing I-75 Vertical Alignment Characteristics* (continued)

PVI Station	Elevation	Curve Location	Curve Type	Grade In (%)	Grade Out (%)	Curve Length (feet)	"K" Value
1693+00.	149.90	SB	Crest	3.0000%	-1.6524%	1,200	258 (1)
1705+00.	124.00	NB	Sag	-1.3500%	1.8889%	400 (1)	123 (1,2)
1703+50.	132.55	SB	Sag	-1.6524%	1.6316%	400 (1)	122 (1,2)
1723+00.	158.00	NB	Crest	1.8889%	0.5807%	500 (1)	382 (1)
1724+00.	166.00	SB	Crest	1.6316%	0.3136%	500 (1)	379 (1)
1738+00.	166.71	NB	Crest	0.5807%	-2.9960%	900 (1)	252 (1)
1738+00.	161.61	SB	Crest	0.3136%	-2.9960%	700 (1)	212 (1,2)
1754+50.	117.30	NB	Sag	-2.9960%	2.1280%	800	156 (1,2)
1755+00.	111.49	SB	Sag	-2.9960%	1.3887%	1,200	274
1773+25.	157.20	NB	Crest	2.1280%	-2.7824%	1,300	265 (1)
1776+25.	141.00	SB	Crest	1.3887%	-2.7569%	1,200	289 (1)
1788+00.	116.16	NB	Sag	-2.7824%	0.5313%	700 (1)	211
1792+50.	96.20	SB	Sag	-2.7569%	1.9598%	700 (1)	148 (1,2)
1801+25.	133.20	NB	Crest	0.5313%	-3.0000%	1,000	283 (1)
1804+75.	120.20	SB	Crest	1.9598%	-3.0000%	1,400	282 (1)
1816+75.	76.70	NB	Sag	-3.0000%	3.0000%	900	150 (1,2)
1819+75.	76.70	SB	Sag	-3.0000%	3.0000%	900	150 (1,2)
1843+75.	157.70	NB	Crest	3.0000%	-2.9998%	1,500	250 (1)
1846+25.	157.70	SB	Crest	3.0000%	-2.9987%	1,500	250 (1)
1862+50.	93.00	NB & SB	Sag	-2.9998%	0.2000%	500 (1)	156 (1,2)
1870+00.	94.50	NB & SB	Sag	0.2000%	3.0000%	450 (1)	161 (1,2)
1883+75.	135.75	NB & SB	Crest	3.0000%	-3.0000%	1,600	267 (1)
1902+00.	81.00	NB & SB	Sag	-3.0000%	3.0000%	900	150 (1,2)
1913+00.	114.00	NB & SB	Crest	3.0000%	-1.1225%	1,100	267 (1)
1928+50.	96.60	NB & SB	Crest	-1.1225%	-1.3600%	500 (1)	2,105
1941+00.	79.60	NB & SB	Sag	-1.3600%	2.9000%	700 (1)	164 (1,2)
1952+00.	111.50	NB & SB	Crest	2.9000%	-0.3000%	900 (1)	281 (1)
1966+00.	107.30	NB & SB	Crest	-0.3000%	-0.7333%	500 (1)	1,154
1978+00.	98.50	NB & SB	Sag	-0.7333%	0.0000%	400 (1)	545
1988+00.	98.50	NB & SB	Crest	0.0000%	-1.0000%	500 (1)	500 (1)
1998+00.	88.50	NB & SB	Sag	-1.0000%	-0.1200%	400 (1)	455
2008+00.	87.30	NB & SB	Sag	-0.1200%	0.1000%	400 (1)	1,818
2020+00.	88.50	NB & SB	Crest	0.1000%	-1.4696%	500 (1)	319 (1)
2031+50.	71.60	NB & SB	Sag	-1.4696%	2.0000%	600 (1)	173 (1,2)
2046+50.	101.60	NB & SB	Crest	2.0000%	-3.0000%	1,300 (1)	260 (1)
2056+00.	73.10	NB & SB	Sag	-3.0000%	0.1000%	600 (1)	194 (1)
2066+00.	74.10	NB & SB	Sag	0.1000%	1.1000%	400 (1)	400
2076+00.	85.10	NB & SB	Sag	1.1000%	2.9000%	400 (1)	222
2087+00.	117.00	NB & SB	Crest	2.9000%	-0.3462%	900 (1)	277 (1)
2113+00.	108.00	NB & SB	Crest	-0.3462%	-1.0000%	500 (1)	765
2130+00.	91.00	NB & SB	Sag	-1.0000%	-0.5000%	400 (1)	800
2153+00.	79.50	NB & SB	Sag	-0.5000%	-0.2000%	400 (1)	1,333
2168+00.	76.50	NB & SB	Sag	-0.2000%	0.3000%	500 (1)	1,000
2190+00.	83.10	NB & SB	Crest	0.3000%	-0.7000%	500 (1)	500 (1)

* Information taken from the as-built plans
(1) Geometric feature that does not meet the FDOT Plans Preparation Manual design criteria
(2) Geometric feature that does not meet the AASHTO design criteria

Table 4-3 – Existing I-75 Vertical Alignment Characteristics* (continued)

PVI Station	Elevation	Curve Location	Curve Type	Grade In (%)	Grade Out (%)	Curve Length (feet)	"K" Value
2203+00.	74.00	NB & SB	Sag	-0.7000%	0.5000%	400 (1)	333
2215+00.	80.00	NB & SB	Crest	0.5000%	-0.5454%	500 (1)	478 (1)
2229+00.	72.35	NB & SB	Sag	-0.5454%	3.0000%	600 (1)	169 (1,2)
2242+50.	112.85	NB & SB	Crest	3.0000%	-3.0000%	1,600	267 (1)
2258+75.	64.10	NB & SB	Sag	-3.0000%	0.2453%	500 (1)	154 (1,2)
2272+00.	67.35	NB & SB	Crest	0.2453%	-0.4500%	500 (1)	719
2285+00.	61.50	NB & SB	Sag	-0.4500%	0.0000%	400 (1)	889
2298+00.	61.50	NB & SB	Sag	0.0000%	-0.1109%	400 (1)	3,607
2318+53.	59.22	NB & SB	Sag	-0.1109%	3.0000%	450 (1)	145 (1,2)
2333+00.	102.63	NB & SB	Crest	3.0000%	-3.0000%	1,600	267 (1)
2348+00.	57.63	NB & SB	Sag	-3.0000%	0.0000%	450 (1)	150 (1,2)

* Information taken from the as-built plans
(1) Geometric feature that does not meet the FDOT Plans Preparation Manual design criteria
(2) Geometric feature that does not meet the AASHTO design criteria

Table 4-4 – Existing Cross Drain Data

Cross Drain No.	Approx. Station	Pipe Size and Material	Field Observations	Cross Drain No.	Approx. Station	Pipe Size and Material	Notes and Field Observations
1	1260+50	8’ x 3’ CBC	Downstream lateral ditch FDOT ROW (LT); DHW 93.5 (RT)	9	1496+00	36” RCP (LT, RT)	LT Pipe – Skew 30° LT
2	1292+70	(3)-11’ x 7’ CBC 25° Skew, RT	Downstream lateral ditch FDOT ROW (LT); DHW 86.5 (RT)	10	1518+00	36” RCP	SD system w/ 30” pipe upstream (LT) and downstream (RT) at a steeper slope
3	1331+00	10’ x 5’ CBC	Upstream lateral ditch FDOT ROW (RT); DHW 95.0 (RT)	11	1552+85	12’ x 12’ CBC (Moody Lake)	Could not field locate east end of culvert due to dense vegetation. NHW 109.2; Est. HW 112.0
4	1378+00	(3)-36” RCP	Downstream lateral ditch FDOT ROW (LT)	12	1603+00	3’ x 3’ CBC	Downstream ditch pavt. and (2)-36” pipes at service road (RT). Concrete ditch pavt. Downstream (RT) and median.
5	1405+00	36” RCP		13	1606+35	36” Pipe	Ditch Pavt. Upstream and Down-stream; LT pipe skewed; Ramp infield area (LT); Downstream 36” pipe at service road.
6	1424+10	(2)-12’ x 5’ CBC 19° Skew, LT	Upstream and downstream lateral ditch FDOT ROW (LT, RT); DHW 106.0 (RT)	14	1629+00	3’ x 3’ CBC	Downstream Ditch Pavt., 50” x 31” pipe at service road, and lateral ditch in FDOT ROW, (LT). Concrete ditch pavt. upstream (RT) and in median.
7	1444+68	(2)-6’ x 4’ CBC	DHW 108.0 (LT)	15	1644+00	36” Pipe	Downstream ditch pavt., 50” x 31” pipe at service road, lateral ditch in FDOT ROW, and 30” pipe to creek outfall (LT). Concrete ditch pavt. upstream (RT) and in median.
8	1483+50	36” RCP (LT) 24” RCP (RT)		16	1681+00	4’ x 4’ CBC	At Mud Lake (NHW 108.0, est. HW 110.8), downstream ditch pavt. (RT)

Notes:

CBC - Concrete Box Culvert
DHW - Design High Water
HW - High Water
LT - Left
NHW - Normal High Water
RCP - Reinforced Concrete Pipe
ROW - Right of Way
RT - Right
SD - Storm Drain

FDOT Plans:

State Job No. 14140-3402 (Pasco County)
State Job No. 08150-3402 (Hernando County)
State Job No. 14140-3403 & 08150-3401 (Pasco & Hernando County)
State Job No. 18130-3406 (Sumter County)

Table 4-4 – Existing Cross Drain Data (continued)

Cross Drain No.	Approx. Station	Pipe Size and Material	Field Observations	Cross Drain No.	Approx. Station	Pipe Size and Material	Notes and Field Observations
17	1703+23	36" Pipe	Upstream ditch pavt. (LT), median ditch pavt., and ditch pavt. Lateral in FDOT ROW (RT).	26	1864+00	48" RCP (LT) 42" RCP (RT)	Upstream dtch pavt. (RT), median ditch pavt.
18	1730+00	24" Pipe (LT) 30" Pipe (RT)	Upstream Ditch Pavt. (LT), median ditch pavt., and downstream ditch pavt. (RT). Half filled-in with sand on east side.	27	1899+50	4' x 3' CBC	Off-site DHW 77.0
19	1734+00	30" Pipe (LT, RT)	Upstream ditch pavt. (RT), median ditch pavt., and downstream ditch pavt. (LT).	N/A	1928+55	15' x 12' CBC	Cattle crossing (w/24" SD under CBC)
20	1747+80	42" RCP (LT, RT)	Upstream ditch pavt. (RT), median ditch pavt., and downstream ditch pavt. (LT).	28	1939+00	Double 42" RCP	Upstream ditch pavt. (RT), downstream ditch pavt. and lateral ditch in FDOT ROW (LT). Offsite DHW 66.0
21	1759+00	48" RCP (LT) 42" RCP (RT)	upstream ditch pavt. (RT), median ditch pavt., and downstream ditch pavt. (LT).	29	1984+00	Double 42" RCP	DHW 94.0
23	1783+36 (RT-- PGL) 1777+30 & 1787+94 (LT-- PGL)	3' x 3' CBC (LT, LT, RT)	STA 1777+30, skew 25° LT (Other CBC's skewed 30° RT). Median conc. ditch pavt. Bifurcated roadway profile. All spring fed tributaries	30	2000+00	30" RCP RT / 36" RCP LT.	
24	1791+48 (RT-- PGL) 1795+96 (LT-- PGL)	3' x 3' CBC (LT, RT)	Upstream/median/downstream conc. ditch pavt. Bifurcated roadway profile. All spring fed tributaries	31	2008+00	30" RCP	Upstream ditch pavt. (RT) Off-site DHW 82.0
25	1817+00	10' x 4' CBC (LT, RT)	Concrete ditch pavt. Upstream and median. Est. HW 76.5, LT	32	2015+00	24" RCP	Endwall damaged (RT), upstream ditch pavt. (LT)
N/A	1853+40	10' x 8' CBC	Cattle crossing	33	2031+00	30" RCP	Could not field locate endwall, LT Off-site DHW 65.0

Notes:

CBC - Concrete Box Culvert
DHW - Design High Water
HW - High Water
LT - Left
NHW - Normal High Water
PGL - Profile Grade Line
RCP - Reinforced Concrete Pipe
ROW - Right of Way
RT - Right
SD - Storm Drain

FDOT Plans:

State Job No. 14140-3402 (Pasco County)
State Job No. 08150-3402 (Hernando County)
State Job No. 14140-3403 & 08150-3401 (Pasco & Hernando County)
State Job No. 18130-3406 (Sumter County)

Table 4-4 – Existing Cross Drain Data (continued)

Cross Drain No.	Approx. Station	Pipe Size and Material	Field Observations	Cross Drain No.	Approx. Station	Pipe Size and Material	Notes and Field Observations
N/A	2058+75	18" RCP	SD system, slope drain (Not a cross drain)	41	2232+00	3' x 3' CBC	Curb Inlets (NB, SB) inflow from 15" slope drains above. Off-site DHW 62.0.
34	2064+00	36" RCP	Dbl. 24" pipe upstream at service road, LT. Cross drain pipe ½ filled w/ sand, RT. Off-site DHW 66.0.	N/A	2235+50	18" RCP	SD system, slope drain (Not a cross drain)
35	2075+00	24" RCP RT / 30" RCP LT	¾ filled-in with sand, LT. Fully filled-in with sand, RT. Off-site DHW 77.0	42	2241+50, RT to 2242+80, LT	24" RCP	Skewed cross drain along R.R.
36	2108+00	24" RCP LT. / 30" RCP RT.	½ filled-in with sand, LT ¼ filled-in with sand, RT. Downstream cross-drain at STA 2106+00, RT under trail road.	43	2261+00	36" RCP	Upstream 30" Pipe at service road, RT. Off-site DHW 58.5.
37	2130+00	24" RCP	1/8 filled w/sand, LT. Downstream 36" pipe at service road, LT.	44	2275+40 (Begin Bridge)	350' Bridge	Withlacoochee River (DHW 57.0, NHW 44.0)
38	2167+45	24" RCP LT. / 30" RCP RT.	½ filled-in with sand on east. Off-site DHW 72.0	N/A	2285+00	18" RCP	SD system, slope drain (Not a cross drain)
39	2179+00	36" RCP	Upstream concrete ditch pavt. and 36" pipe at service road, (LT).	45	2349+00	30" RCP	Off-site est. HW 57.7.
40	2203+00	24" RCP RT. / 30" RCP LT.	Downstream concrete ditch pavt. (LT). Off-site DHW 59.0	46	2363+00	24" RCP	Off-site est. HW 57.7.

Notes:

CBC - Concrete Box Culvert
DHW - Design High Water
HW - High Water
LT - Left
NHW - Normal High Water
RCP - Reinforced Concrete Pipe
ROW - Right of Way
RT - Right
SD - Storm Drain

FDOT Plans:

State Job No. 14140-3402 (Pasco County)
State Job No. 08150-3402 (Hernando County)
State Job No. 14140-3403 & 08150-3401 (Pasco & Hernando County)
State Job No. 18130-3406 (Sumter County)

4.1.8 Geotechnical Data

A geotechnical review was performed as part of this PD&E Study. The findings of this review were presented in the *Geotechnical Report*,[8] which has been prepared under separate cover. The purpose of this review was to obtain preliminary information concerning the general subsurface soil and groundwater conditions along the project alignment and also to characterize the general subsurface stratigraphy, assess the suitability of the project site for the proposed improvements, identify constraints or limitations that the subsurface conditions may impose on the planned construction, and provide preliminary geotechnical recommendations to guide the design and construction of the project. This review included performing a field reconnaissance and a research of existing data and reference materials such as aerial photographs, United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCA) (formerly known as Soil Conservation Service) soil survey maps, USGS topographic maps, existing plans, design engineering information for the past construction projects within the study area, and records of sinkhole activity.

A summary of the findings presented in the *Geotechnical Report* is provided in the following sections.

4.1.8.1 USGS Topographic Survey

The published USGS topographic survey maps titled “San Antonio, Florida”, “Spring Lake, Florida”, “Lacoochee, Florida” and “Saint Catherine, Florida”, were reviewed for ground surface features along the project alignment. Based on this review, the natural ground surface elevations are generally within the range of 55 to 200 feet based on the National Geodetic Vertical Datum (NGVD) of 1929.

4.1.8.2 Regional Geology

The uppermost layers consist of young undifferentiated sediments underlain by the Hawthorn Group of formations. The Hawthorn consists of fine to medium grained quartz sands, silt, clay and limestone in varying proportions and thicknesses. Beneath the Hawthorn lies the Ocala Limestone. The surface of the Ocala formation is locally very irregular. The upper part of the Ocala Limestone is a white, generally soft, somewhat

friable, porous coquina composed of large foraminifera, bryozoan fragments and whole to broken echinoid remains, all loosely bound by a matrix of micritic limestone. The lower part of the Ocala Limestone consists of cream to white, generally fine-grained, soft to semi-indurated, micritic limestone containing abundant miliolid remains and scattered large foraminiferas.

4.1.8.3 Soil Survey

To generally assess the near-surface conditions within the limits of the project, the Soil Survey maps for Pasco, Hernando, and Sumter counties were reviewed, provided by the NRCA of the USDA. These maps are presented on **Exhibit**s **4-4A** through **4-4D.** The soils data are summarized in **Table 4-5**.

In general, the surficial soils consist of poorly graded fine sands, silty sands and silty to clayey fine sands underlain by clayey fine sands and clays. Some clayey fine sands and clays are encountered at shallow depths of less than 30 inches below the ground surface. Organic soils (muck) may also be encountered in some areas. Seasonal high water levels along I-75 may range from 2.0 feet above the natural ground surface to greater than 6.0 feet below the natural ground surface. Surface and/or subsurface boulders may also be encountered in a few areas near the northern end of the project alignment.

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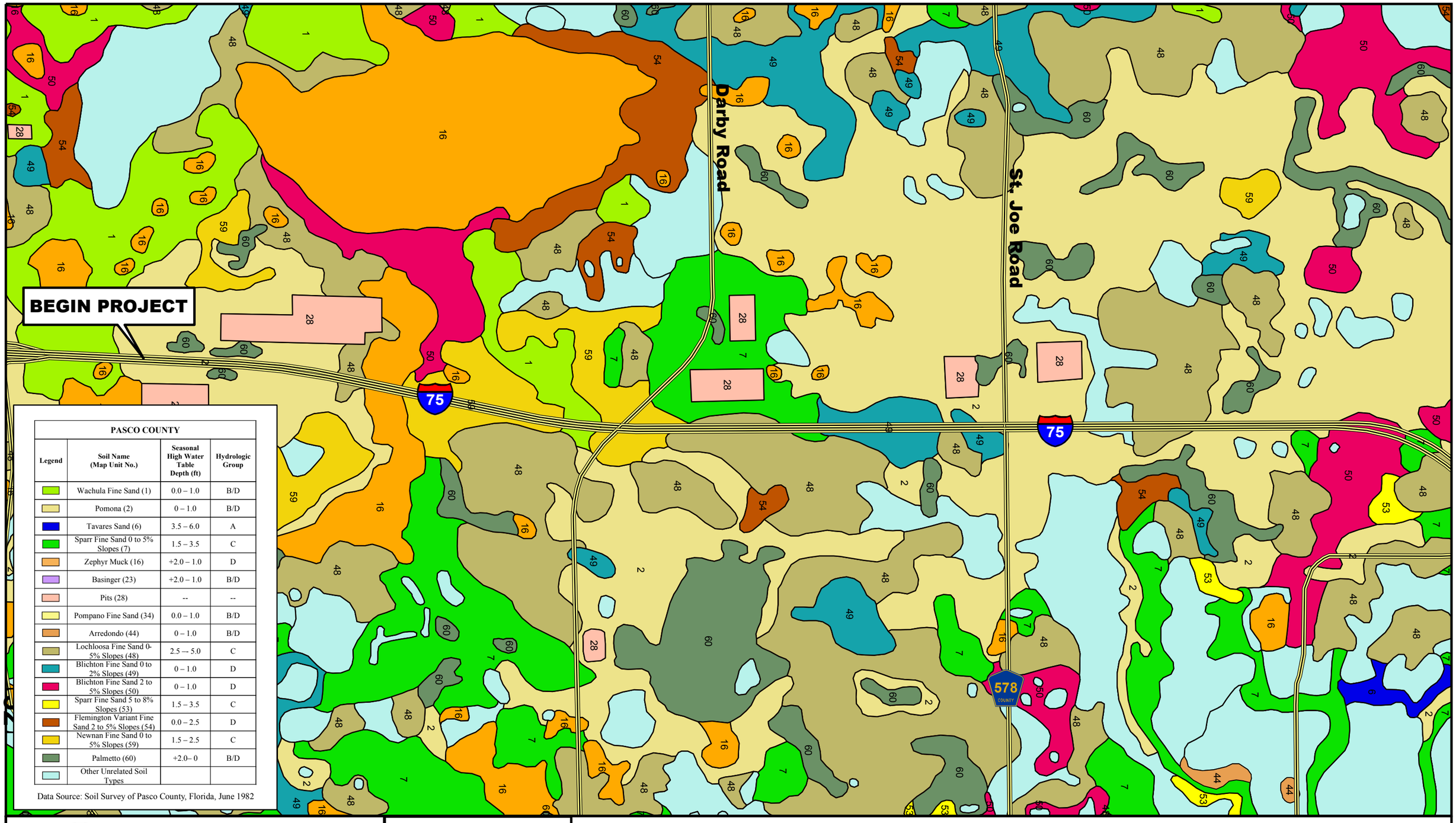


PASCO COUNTY			
Legend	Soil Name (Map Unit No.)	Seasonal High Water Table Depth (ft)	Hydrologic Group
	Wachula Fine Sand (1)	0.0 – 1.0	B/D
	Pomona (2)	0 – 1.0	B/D
	Tavares Sand (6)	3.5 – 6.0	A
	Sparr Fine Sand 0 to 5% Slopes (7)	1.5 – 3.5	C
	Zephyr Muck (16)	+2.0 – 1.0	D
	Basinger (23)	+2.0 – 1.0	B/D
	Pits (28)	--	--
	Pompano Fine Sand (34)	0.0 – 1.0	B/D
	Arredondo (44)	0 – 1.0	B/D
	Lochlooosa Fine Sand 0-5% Slopes (48)	2.5 -– 5.0	C
	Blichton Fine Sand 0 to 2% Slopes (49)	0 – 1.0	D
	Blichton Fine Sand 2 to 5% Slopes (50)	0 – 1.0	D
	Sparr Fine Sand 5 to 8% Slopes (53)	1.5 – 3.5	C
	Flemington Variant Fine Sand 2 to 5% Slopes (54)	0.0 – 2.5	D
	Newnan Fine Sand 0 to 5% Slopes (59)	1.5 – 2.5	C
	Palmetto (60)	+2.0– 0	B/D
	Other Unrelated Soil Types		

Data Source: Soil Survey of Pasco County, Florida, June 1982

I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
Pasco, Hernando & Sumter Counties
WPI Seg. No.: 4110141
FAP No.: 0751-120I

N

0 1,500 Feet

Soils Survey Map

Exhibit 4 - 4A

PASCO COUNTY			
Legend	Soil Name (Map Unit No.)	Seasonal High Water Table Depth (ft)	Hydrologic Group
	Wachula Fine Sand (1)	0.0 – 1.0	B/D
	Pomona (2)	0 – 1.0	B/D
	Tavares Sand (6)	3.5 – 6.0	A
	Sparr Fine Sand 0 to 5% Slopes (7)	1.5 – 3.5	C
	Zephyr Muck (16)	+2.0 – 1.0	D
	Basinger (23)	+2.0 – 1.0	B/D
	Pits (28)	--	--
	Pompano Fine Sand (34)	0.0 – 1.0	B/D
	Arredondo (44)	0 – 1.0	B/D
	Lochloosa Fine Sand 0-5% Slopes (48)	2.5 –- 5.0	C
	Blichton Fine Sand 0 to 2% Slopes (49)	0 – 1.0	D
	Blichton Fine Sand 2 to 5% Slopes (50)	0 – 1.0	D
	Sparr Fine Sand 5 to 8% Slopes (53)	1.5 – 3.5	C
	Flemington Variant Fine Sand 2 to 5% Slopes (54)	0.0 – 2.5	D
	Newnan Fine Sand 0 to 5% Slopes (59)	1.5 – 2.5	C
	Palmetto (60)	+2.0– 0	B/D
	Other Unrelated Soil Types		

Data Source: Soil Survey of Pasco County, Florida, June 1982

HERNANDO COUNTY			
Legend	Soil Name (Map Unit No.)	Seasonal High Water Table Depth (ft)	Hydrologic Group
	Arredondo Fine Sand 0 to 5% Slopes (6)	>6.0	A
	Arredondo Fine Sand 5 to 8% Slopes (7)	>6.0	A
	Basinger Fine Sand, Depressional (10)	+2.0 – 1.0	A/D
	Blichton Loamy Fine Sand 2 to 5% Slopes (12)	0.0 – 1.0	D
	Candler Fine Sand 0 to 5% Slopes (14)	>6.0	A
	Candler Fine Sand 5 to 8% Slopes (15)	>6.0	A
	Flemington Fine Sandy Loam 0 to 2% Slopes (20)	0.0 – 2.5	D
	Floridana-Basinger Association, Occasionally Flooded (24)	0.0 – 1.0	A/D
	Kanapaha Fine Sand (28)	+2.0 – 1.0	D
	Kendrick Fine Sand 0 to5% Slopes (29)	>6.0	A
	Lake Fine Sand, 0 to 5% Slopes (31)	>6.0	A
	Nobleton Fine Sand 0 to 5% Slopes (36)	1.5 -- 3.5	A
	Pits (41)	--	--
	Sparr Fine Sand 0 to 5% Slopes (47)	1.5 – 3.5	A
	Sparr Fine Sand 5 to 8% Slopes (48)	1.5 – 3.5	A
	Tavares Fine Sand 0 to 5% Slopes (49)	3.5 – 6.0	A
	Wachula Fine Sand 0 to 5% Slopes (52)	0 – 1.0	B/D
	Other Unrelated Soil Types		

Data Source: Soil Survey of Hernando County, Florida, July 1977

PASCO COUNTY

HERNANDO COUNTY

75

41

75

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

WPI Seg. No.: 4110141

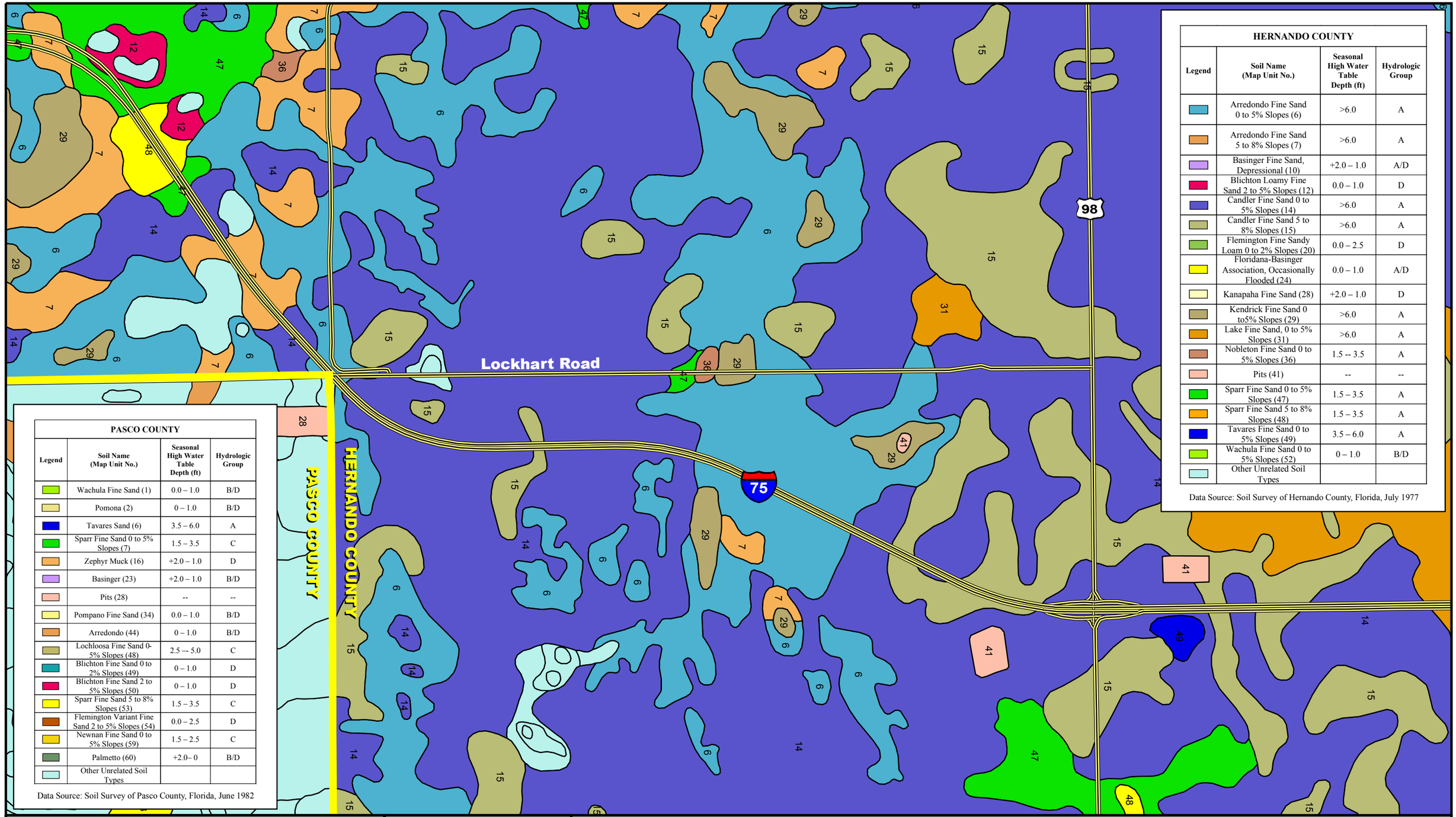
FAP No.: 0751-120I

N

0 1,500 Feet

Soils Survey Map

Exhibit 4 - 4B



HERNANDO COUNTY			
Legend	**Soil Name (Map Unit No.)**	**Seasonal High Water Table Depth (ft)**	**Hydrologic Group**
	Arredondo Fine Sand 0 to 5% Slopes (6)	>6.0	A
	Arredondo Fine Sand 5 to 8% Slopes (7)	>6.0	A
	Basinger Fine Sand, Depressional (10)	+2.0 – 1.0	A/D
	Blichton Loamy Fine Sand 2 to 5% Slopes (12)	0.0 – 1.0	D
	Candler Fine Sand 0 to 5% Slopes (14)	>6.0	A
	Candler Fine Sand 5 to 8% Slopes (15)	>6.0	A
	Flemington Fine Sandy Loam 0 to 2% Slopes (20)	0.0 – 2.5	D
	Floridana-Basinger Association, Occasionally Flooded (24)	0.0 – 1.0	A/D
	Kanapaha Fine Sand (28)	+2.0 – 1.0	D
	Kendrick Fine Sand 0 to5% Slopes (29)	>6.0	A
	Lake Fine Sand, 0 to 5% Slopes (31)	>6.0	A
	Nobleton Fine Sand 0 to 5% Slopes (36)	1.5 -- 3.5	A
	Pits (41)	--	--
	Sparr Fine Sand 0 to 5% Slopes (47)	1.5 – 3.5	A
	Sparr Fine Sand 5 to 8% Slopes (48)	1.5 – 3.5	A
	Tavares Fine Sand 0 to 5% Slopes (49)	3.5 – 6.0	A
	Wachula Fine Sand 0 to 5% Slopes (52)	0 – 1.0	B/D
	Other Unrelated Soil Types		

Data Source: Soil Survey of Hernando County, Florida, July 1977

PASCO COUNTY			
Legend	**Soil Name (Map Unit No.)**	**Seasonal High Water Table Depth (ft)**	**Hydrologic Group**
	Wachula Fine Sand (1)	0.0 – 1.0	B/D
	Pomona (2)	0 – 1.0	B/D
	Tavares Sand (6)	3.5 – 6.0	A
	Sparr Fine Sand 0 to 5% Slopes (7)	1.5 – 3.5	C
	Zephyr Muck (16)	+2.0 – 1.0	D
	Basinger (23)	+2.0 – 1.0	B/D
	Pits (28)	--	--
	Pompano Fine Sand (34)	0.0 – 1.0	B/D
	Arredondo (44)	0 – 1.0	B/D
	Lochloosa Fine Sand 0-5% Slopes (48)	2.5 --- 5.0	C
	Blichton Fine Sand 0 to 2% Slopes (49)	0 – 1.0	D
	Blichton Fine Sand 2 to 5% Slopes (50)	0 – 1.0	D
	Sparr Fine Sand 5 to 8% Slopes (53)	1.5 – 3.5	C
	Flemington Variant Fine Sand 2 to 5% Slopes (54)	0.0 – 2.5	D
	Newnan Fine Sand 0 to 5% Slopes (59)	1.5 – 2.5	C
	Palmetto (60)	+2.0– 0	B/D
	Other Unrelated Soil Types		

Data Source: Soil Survey of Pasco County, Florida, June 1982

I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

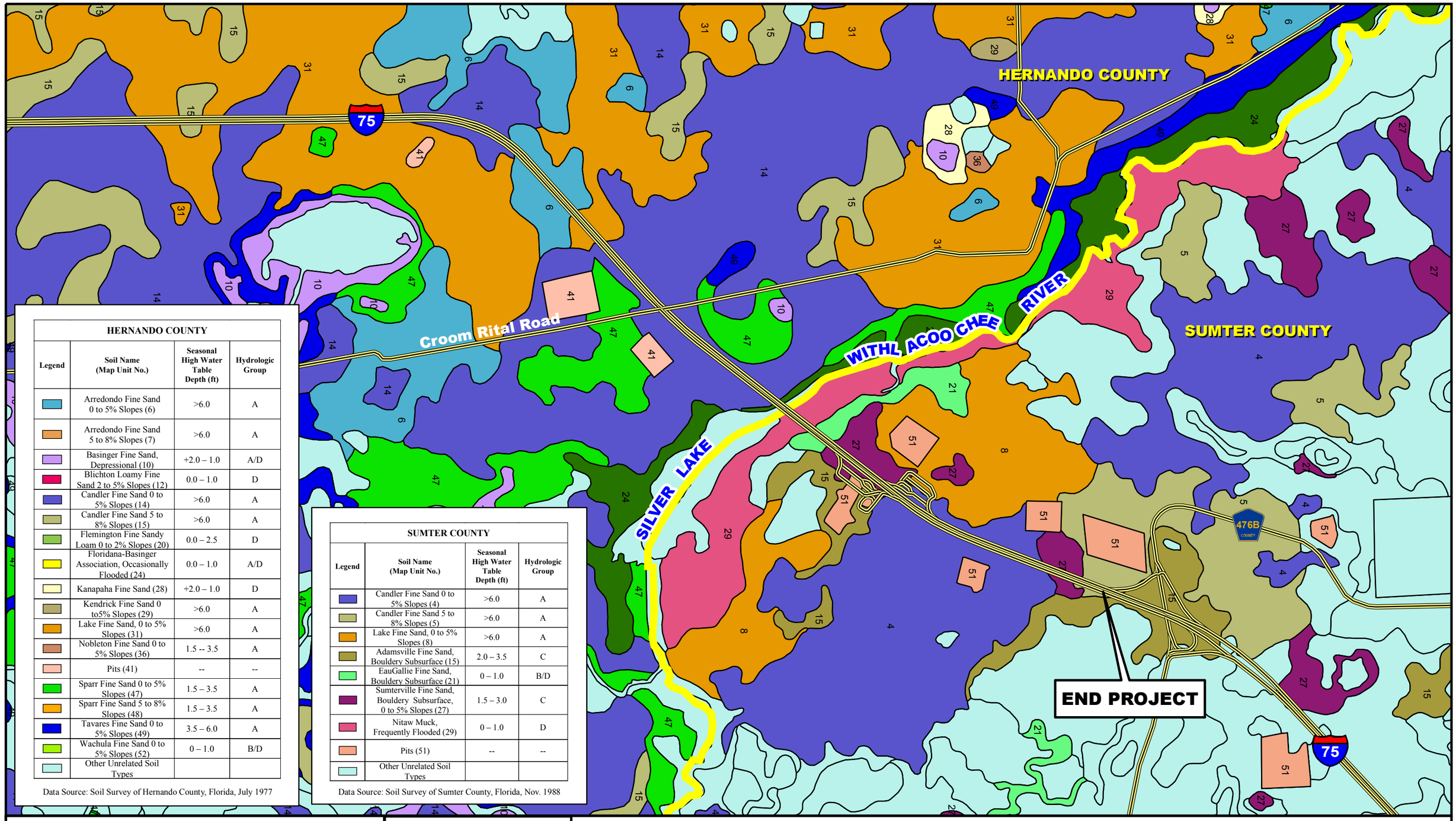
WPI Seg. No.: 4110141

FAP No.: 0751-120I

0 2,000 Feet

Soils Survey Map

Exhibit 4 - 4C



HERNANDO COUNTY			
Legend	**Soil Name (Map Unit No.)**	**Seasonal High Water Table Depth (ft)**	**Hydrologic Group**
	Arredondo Fine Sand 0 to 5% Slopes (6)	>6.0	A
	Arredondo Fine Sand 5 to 8% Slopes (7)	>6.0	A
	Basinger Fine Sand, Depressional (10)	+2.0 – 1.0	A/D
	Blichton Loamy Fine Sand 2 to 5% Slopes (12)	0.0 – 1.0	D
	Candler Fine Sand 0 to 5% Slopes (14)	>6.0	A
	Candler Fine Sand 5 to 8% Slopes (15)	>6.0	A
	Flemington Fine Sandy Loam 0 to 2% Slopes (20)	0.0 – 2.5	D
	Floridana-Basinger Association, Occasionally Flooded (24)	0.0 – 1.0	A/D
	Kanapaha Fine Sand (28)	+2.0 – 1.0	D
	Kendrick Fine Sand 0 to5% Slopes (29)	>6.0	A
	Lake Fine Sand, 0 to 5% Slopes (31)	>6.0	A
	Nobleton Fine Sand 0 to 5% Slopes (36)	1.5 -- 3.5	A
	Pits (41)	--	--
	Sparr Fine Sand 0 to 5% Slopes (47)	1.5 – 3.5	A
	Sparr Fine Sand 5 to 8% Slopes (48)	1.5 – 3.5	A
	Tavares Fine Sand 0 to 5% Slopes (49)	3.5 – 6.0	A
	Wachula Fine Sand 0 to 5% Slopes (52)	0 – 1.0	B/D
	Other Unrelated Soil Types		

Data Source: Soil Survey of Hernando County, Florida, July 1977

SUMTER COUNTY			
Legend	**Soil Name (Map Unit No.)**	**Seasonal High Water Table Depth (ft)**	**Hydrologic Group**
	Candler Fine Sand 0 to 5% Slopes (4)	>6.0	A
	Candler Fine Sand 5 to 8% Slopes (5)	>6.0	A
	Lake Fine Sand, 0 to 5% Slopes (8)	>6.0	A
	Adamsville Fine Sand, Bouldery Subsurface (15)	2.0 – 3.5	C
	EauGallie Fine Sand, Bouldery Subsurface (21)	0 – 1.0	B/D
	Sumterville Fine Sand, Bouldery Subsurface, 0 to 5% Slopes (27)	1.5 – 3.0	C
	Nitaw Muck, Frequently Flooded (29)	0 – 1.0	D
	Pits (51)	--	--
	Other Unrelated Soil Types		

Data Source: Soil Survey of Sumter County, Florida, Nov. 1988

I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

WPI Seg. No.: 4110141

FAP No.: 0751-120I

N

0 2,000 Feet

Soils Survey Map

Exhibit 4 - 4D

Table 4-5 – USDA SCS Soil Survey Information

USDA Soil Series	Seasonal High Groundwater Table		Soil Classification		
	Depth (feet)	Duration (months)	Depth (inches)	Unified	AASHTO
PASCO COUNTY					
Wauchula Fine Sand, 0 to 5% Slopes (1)*	0.0 – 1.0	Jun – Feb	0 – 8 8 – 19 19 – 26 26 – 34 34 – 80	SP-SM SP-SM, SM SP-SM, SM SP-SM, SM SM, SM-SC, SC	A-3, A-2-4 A-3, A-2-4 A-3, A-2-4 A-3, A-2-4 A-2-4, A-2-6, A-4, A-6
Pomona Fine Sand (2)	0.0 – 1.0	Jul – Sep	0 – 6 6 – 2 22 – 36 36 – 52 52 – 60	SP-SM SP, SP-SM, SM SP-SM, SM SP, SP-SM SC, SM-SC, SM	A-3, A-2-4 A-3, A-2-4 A-3, A-2-4 A-3, A-2-4 A-2-4, A-4, A-6
Tavares Sand, 0 to 5% Slopes (6)	3.5 – 6.0	Jun – Dec	0 – 86	SP, SP-SM	A-3
Sparr Fine Sand, 0 to 5% Slopes (7)	1.5 – 3.5	Jul – Oct	0 – 6 6 – 43 43 – 48 48 – 59 59 – 80	SP-SM SP-SM SM-SC, SC, SM SC, SM-SC SC, SM-SC, SM	A-3, A-2-4 A-3, A-2-4 A-2 A-2, A-4, A-6 A-2, A-4, A-6
Zephyr Muck (16)	+2.0 – 1.0	Jun – Feb	13 – 0 0 – 18 18 – 48 48 – 67	PT SP-SM, SM SM, SM-SC, SC SM, SM-SC, SC	A-8 A-3, A-2-4 A-2-4, A-2-6 A-2-4, A-4
Basinger Fine Sand, Depressional (23)	+2.0 – 1.0	Jun – Feb	0 – 10 10 – 30 30 – 80	SP SP, SP-SM SP, SP-SM	A-3 A-3, A-2-4 A-3, A-2-4
Pompano Fine Sand (34)	0.0 – 1.0	Jun – Nov	0 – 80	SP, SP-SM	A-3, A-2-4
Arredondo Fine Sand, 5 to 8% Slopes (44)	>6.0	-----	0 – 52 52 – 55 55 – 80	SP-SM, SM SM, SM-SC SC, SM-SC	A-2-4, A-3 A-2-4 A-2-4, A-2-6 A-4, A-6
Lochloosa Fine Sand, 0 to 5% Slopes (48)	2.5 – 5.0	Jul – Oct	0 – 36 36 – 42 42 – 63 63 – 72 72 – 80	SP-SM, SM SM, SM-SC SC, SM-SC SC SC, SM-SC	A-2-4, A-3 A-2-4 A-2, A-4, A-6 A-6, A-7 A-2, A-4, A-6
Blichton Fine Sand, 0 to 2% Slopes (49)	0.0 – 1.0	Jun – Sep	0 – 22 22 – 28 28 – 63 63 – 80	SP-SM, SM SM, SM-SC SC SM-SC, SM	A-2-4, A-3 A-2-4 A-6 A-2-4

* Reference number for the specific soil type on the soil survey maps (Exhibits 4-4A through 4-4D)

Table 4-5 – USDA SCS Soil Survey Information (continued)

USDA Soil Series	Seasonal High Groundwater Table		Soil Classification		
	Depth (feet)	**Duration** (months)	**Depth** (inches)	**Unified**	**AASHTO**
Blichton Fine Sand, 2 to 5% Slopes (50)*	0.0 – 1.0	Jun – Sep	0 – 38 38 – 44 44 – 50 50 – 62 62 – 80	SP-SM, SM SM, SM-SC SC SC SM-SC, SM	A-2-4, A-3 A-2-4 A-6 A-2, A-6, A-7 A-2-4
Sparr Fine Sand, 5 to 8% Slopes (53)	1.5 – 3.5	Jul – Oct	0 – 6 6 – 57 57 – 61 61 – 69 69 – 80	SP-SM SP-SM SM-SC, SC, SM SC, SM-SC SC, SM-SC, SM	A-3, A-2-4 A-3, A-2-4 A-2 A-2, A-4, A-6 A-2, A-4, A-6
Flemington Variant Fine Sand, 2 to 5% Slopes (54)	0.0 – 2.5	Jun – Sep	0 – 5 5 – 80	SP-SM, SM SC, CL, CH	A-3, A-2-4 A-7
Newnan Fine Sand, 0 to 5% Slopes (59)	1.5 – 2.5	Aug – Feb	0 – 22 22 – 33 33 – 44 44 – 80	SP, SP-SM SP-SM, SM SP, SP-SM, SM SM, SM-SC, SC	A-3, A-2-4 A-3, A-2-4 A-3, A-2-4 A-2-4, A-4, A-6
HERNANDO COUNTY					
Arredondo Fine Sand, 0 to 5% Slopes (6)	>6.0	-----	0 – 62 62 – 69 69 – 99	SP-SM, SM SM, SM-SC SC	A-2-4, A-3 A-2-4 A-2-6, A-6
Arredondo Fine Sand, 5 to 8% Slopes (7)	>6.0	-----	0 – 62 62 – 69 69 – 99	SP-SM, SM SM, SM-SC SC	A-2-4, A-3 A-2-4 A-2-6, A-6
Blichton Loamy Fine Sand, 2 to 5% Slopes (12)	0.0 – 1.0	Jun – Sep	0 – 28 28 – 34 34 – 63 63 – 75	SP-SM, SM SC SC SC, CL, CH	A-2-4, A-3 A-2-4, A-6 A-6 A-6, A-7
Candler Fine Sand, 0 to 5% Slopes (14)	>6.0	-----	0 – 48 48 – 80	SP, SP-SM SP-SM	A-3 A-3, A-2-4
Candler Fine Sand, 5 to 8% Slopes (15)	>6.0	-----	0 – 48 48 – 80	SP, SP-SM SP-SM	A-3 A-3, A-2-4
Flemington Fine Sandy Loam, 0 to 2% Slopes (20)	0.0 – 2.5	Jun – Sep	0 – 5 5 – 36 36 – 66 66 – 81	SM SC, CH, CL CH, MH, CL CH, MH	A-2-4 A-7 A-7 A-7
Floridana-Basinger Association, Occasionally Flooded (24)	0.0 – 1.0	**Floridana** Jun – Feb **Basinger** Jun – Nov	**Floridana** 0 – 16 16 – 27 27 – 80 **Basinger** 0 – 80	**Floridana** SP-SM, SM SP, SP-SM SM-SC, SC **Basinger** SP, SP-SM	**Floridana** A-3, A-2-4 A-3 A-2-4, A-2-6 **Basinger** A-3, A-2-4

* Reference number for the specific soil type on the soil survey maps (Exhibits 4-4A through 4-4D)

Table 4-5 – USDA SCS Soil Survey Information (continued)

USDA Soil Series	Seasonal High Groundwater Table		Soil Classification		
	Depth (feet)	Duration (months)	Depth (inches)	Unified	AASHTO
Kendrick Fine Sand, 0 to 5% Slopes (29)*	>6.0	-----	0 – 28 28 – 34 34 – 63 63 – 80	SP-SM SC, SM-SC SC SC, SM-SC	A-3, A-2-4 A-2-6, A-2-4 A-2-6, A-6 A-2-6, A-2-4
Lake Fine Sand, 0 to 5% Slopes (31)	>6.0	-----	0 – 82	SP-SM	A-3, A-2-4
Nobleton Fine Sand, 0 to 5% Slopes (36)	1.5 – 3.5	Jul – Oct	0 – 33 33 – 37 37 – 60 60 – 80 80 – 85	SP-SM, SM SC SC, CL, CH SC SM, SM-SC, SC	A-2-4 A-2-6, A-6 A-6, A-7 A-2-6, A-6 A-2-4, A-2-6, A-6
Sparr Fine Sand, 0 to 5% Slopes (47)	1.5 – 3.5	Jul – Oct	0 – 61 61 – 64 64 – 80	SP-SM SM-SC, SM SC, SM-SC	A-3, A-2-4 A-2-4 A-2-4, A-2-6, A-4, A-6
Sparr Fine Sand, 5 to 8% Slopes (48)	1.5 – 3.5	Jul – Oct	0 – 61 61 – 64 64 – 80	SP-SM SM-SC, SM SC, SM-SC	A-3, A-2-4 A-2-4 A-2-4, A-2-6, A-4, A-6
SUMTER COUNTY					
Candler Fine Sand, 0 to 5% Slopes (4)	>6.0	-----	0 – 8 8 – 50 50 – 80	SP, SP-SM SP, SP-SM SP-SM	A-3 A-3 A-3, A-2-4
Candler Fine Sand, 5 to 8% Slopes (5)	>6.0	-----	0 – 6 6 – 56 56 – 80	SP, SP-SM SP, SP-SM SP-SM	A-3 A-3 A-3, A-2-4
EauGallie Fine Sand, Bouldery Subsurface (21)	0.0 – 1.0	Jun – Oct	0 – 8 8 – 25 25 – 36 36 – 57 57 – 80	SP SP SP-SM, SM SP, SP-SM SM, SM-SC, SC	A-3 A-3 A-3, A-2-4 A-3, A-2-4 A-2-4, A-2-6
Sumterville Fine Sand, Bouldery Subsurface, 0 to 5% Slopes (27)	1.5 – 3.0	Jul – Oct	0–9 9–29 29–80	SP-SM, SM SP-SM, SM CL, CH	A-3, A-2-4 A-3, A-2-4 A-7
Nitaw Muck, Frequently Flooded (29)	0.0 – 1.0	Jun – Nov	0 – 5 5 – 12 12 – 65 65 – 80	PT SP-SM, SM CH, CL SP, SP-SM, SM SM-SC	A-8 A-3, A-2-4 A-7 A-3, A-2-4

* Reference number for the specific soil type on the soil survey maps (Exhibits 4-4A through 4-4D)

4.1.8.4 Areas with Problematic Soil and Groundwater Conditions

Based on the "Soil Survey of Pasco, Hernando and Sumter Counties, Florida, several areas were noted along the I-75 corridor with problematic soil and groundwater conditions, as follows:

- **Shallow Seasonal High Groundwater Levels** - Several soil map units with relatively shallow seasonal high groundwater levels ranging from 2.0 feet above the ground surface to a depth of 1.0 foot have been identified within the project limits. These soil map units are summarized as follows:
  - **Pasco County:**
    - Wauchula Fine Sand, 0 to 5% Slopes
    - Pomona Fine Sand
    - Zephyr Muck
    - Basinger Fine Sand, Depressional
    - Pompano Fine Sand
    - Blichton Fine Sand, 0 to 2% Slopes
    - Blichton Fine Sand, 2 to 5% Slopes
  - **Hernando County:**
    - Blichton Loamy Fine Sand, 2 to 5% Slopes
    - Floridana-Basinger Association, Occasionally Flooded
  - **Sumter County:**
    - EauGallie Fine Sand, Bouldery Subsurface
    - Nitaw Muck, Frequently Flooded
- **Organic Materials (Muck)** - Some organic soils (muck, A-8 classification) were noted in areas in the vicinity of Stanley Branch (approximately 1.5 miles north of SR 52) near the southern end of the project, and in the vicinity of the Withlacoochee River near the northern end of the project. According to roadway plans prepared for projects within the project vicinity, there are several areas along the I-75 corridor where organic soils (muck) exist. Locations of these areas and approximate depths of the organic soils are summarized as follows:
  - Station 1289+40 to Station 1296+20; approximate depths 0 to 1.5 feet
  - Station 1550+50 to Station 1554+50; approximate depths 0 to 1.5 feet
  - Station 1562+50 to Station 1575+80; approximate depths 0 to 2.5 feet
  - Station 1665+50 to Station 1675+00; approximate depths 0 to 0.5 feet

- Station 1675+00 to Station 1681+80; approximate depths 0 to 4.5 feet
- Station 1834+50 to Station 1835+50; approximate depths 0 to 1.8 feet

All or some of these organic soils may require removal and replacement depending on final roadway alignments and profiles. The soil map units encountered in the study area indicating organic soils are summarized as follows:

- **Pasco County:**
  - Zephyr Muck
- **Sumter County:**
  - Nitaw Muck, Frequently Flooded

- **Shallow Clayey Soils -** Relatively shallow clayey soils (A-2-6, A-6 and A-7) exist in several areas along the project alignment at depths of less than 30 inches below the ground surface. The soil map units encountered indicating shallow clayey soils within the project limits are summarized as follows:
  - **Pasco County:**
    - Zephyr Muck
    - Blichton Fine Sand, 0 to 2% Slopes
    - Flemington Variant Fine Sand, 2 to 5% Slopes
  - **Hernando County:**
    - Blichton Loamy Fine Sand, 2 to 5% Slopes
    - Flemington Fine Sandy Loam, 0 to 2% Slopes
    - Floridana-Basinger Association, Occasionally Flooded
    - Kendrick Fine Sand, 0 to 5% Slopes
  - **Sumter County:**
    - Sumterville Fine Sand, Bouldery Subsurface, 0 to 5% Slopes
    - Nitaw Muck, Frequently Flooded

- **Near-Surface Boulders -** Several areas near the northern end of the project where near-surface boulders were encountered. These boulders may affect costs for clearing and grubbing or any excavations that may be required. The soil map units encountered indicating near-surface boulders within the project limits are summarized as follows:
  - **Sumter County:**
    - EauGallie Fine Sand, Bouldery Subsurface
    - Sumterville Fine Sand, Bouldery Subsurface, 0 to 5% Slopes

4.8.1.5 Sinkhole/Ground Subsidence Evaluation

A preliminary sinkhole/ground subsidence evaluation was performed, consisting of field reconnaissance of the roadway alignment and a study of available published data. Sinkhole frequency data developed by Subsurface Evaluations, Inc. (SEI) was also reviewed to establish the potential for new sinkhole development along the roadway alignment. The roadway alignment is located within areas where the maximum reported new sinkhole frequency is between 0.00 and 0.06 new sinkholes per square mile per year. Accordingly, over a period of 100 years, on the order of 1 to 2 new sinkholes would be expected to form near the length of the 20.8-mile roadway alignment.

It should be recognized that additional data may be obtained from conducting geophysical and geotechnical studies along the proposed alignment to evaluate the potential impact of subsidence to the performance of the roadway. In order to obtain this data, it would be necessary to complete extensive ground penetrating radar (GPR) or other geophysical testing along with deep test borings. Even with this type of testing, it is difficult to accurately predict the time or extent of ground subsidence activities.

Based on past karst/sinkhole activity in the area, the potential exists for new sinkholes to develop along the roadway alignment that are not visually apparent at this time. Geophysical studies could be performed along the proposed roadway alignment to provide guidance with respect to sinkhole remediation, but in view of the length of the roadway alignment, this program of investigation is not generally considered practical during this phase of the project. The risk for sinkhole development along the alignment is generally considered low in Sumter County and moderate to high in Pasco County and the southern portion of Hernando County. A higher potential for sinkhole development is present adjacent to existing sinkholes.

4.1.9 Crash Data

The safety of the current traffic operations in the study area was evaluated by analyzing the available FDOT crash database for I-75 and SR 50 for the five-year period between 1999 and 2003. In addition, crash records were obtained for CR 41 for the same period from Pasco County's Sheriff's Office.

4.1.9.1 I-75 Safety Characteristics

The safety characteristics for I-75 are summarized below in **Table 4-6**. As shown in this table, over the five years studied, 219 crashes occurred in Pasco County (average of 5.21 per year per mile), 332 crashes occurred in Hernando County (5.83 per year per mile), and 57 crashes occurred in Sumter County (11.4 per year per mile). There were 214 injuries and 3 fatalities in Pasco, 384 injuries and 12 fatalities in Hernando, and 44 injuries and 1 fatality in Sumter County. The average crash rate (crashes per million VMT) was slightly higher over the five-year period in Sumter County (0.56) than in Pasco (0.35) and Hernando (0.40) counties. Overall, the average crash rates along I-75 are higher than the statewide average crash rate of 0.31 for rural interstates.

The most frequently occurring types of crashes along I-75 in the study area are rear end, sideswipe, and overturned. These crash statistics reflect that as I-75 becomes more congested, speed differential between drivers and driver inattention will become the greatest contributor to crashes. Also, many crashes are caused by moving vehicles colliding with slower moving vehicles during periods of higher volumes and density. Capacity improvements along I-75 will likely help prevent at least some of these crashes.

Economic losses were determined for every study area segment that was analyzed for safety considerations. According to figures from the FDOT, Safety Office – Data Processing and Maintenance Manuals, June 2003, average economic losses are estimated to $2,000 for each "Property Damage Only" crash, $108,000 for each injury, and $2,600,000 for each fatality. Therefore using the historical crash statistics from **Table 4-6**, total economic losses due to crashes occurring from 1999 to 2003 on the study area sections of I-75 was calculated to be $31,092,000 in Pasco County; $65,726,000 in Hernando County; and $7,394,000 in Sumter County. The total five-year economic loss due to crashes along the entire length of I-75 in the study area was estimated to be $104,212,000.

Table 4-6 – Crash Data Summary; I-75

		1999	2000	2001	2002	2003	Total	%	Average
Pasco County									
TYPE OF CRASH	Rear End	7	9	4	12	8	40	18.3%	8.0
	Head On	0	1	1	2	2	6	2.7%	1.2
	Angle	1	2	3	2	7	15	6.8%	3.0
	Left Turn	1	1	0	0	0	2	0.9%	0.4
	Right Turn	0	0	0	0	0	0	0.0%	0.0
	Sideswipe	6	3	6	4	5	24	11%	4.8
	Hit Guardrail	4	0	7	0	0	11	5%	2.2
	Overturned	12	9	10	10	4	45	20.5%	9.0
	Other	12	6	22	17	19	84	34.7%	15.2
Crash Totals		43	31	53	47	45	219		43.8
SEV.*	Fatalities	0	0	1	1	1	3		0.6
	Injuries	44	39	44	49	38	214		42.8
	Property Damage Only	17	9	26	17	21	90		18.0
AADT (vpd)		40,500	35,500	43,500	39,500	41,500	200,500		40,100
Crash Rate**		0.34	0.28	0.40	0.39	0.35			0.35
Hernando County									
TYPE OF CRASH	Rear End	20	10	11	14	6	61	18.4%	12.2
	Head On	0	0	0	1	0	1	0.3%	0.2
	Angle	4	7	2	1	5	19	5.7%	3.8
	Left Turn	0	0	0	0	0	0	0.0%	0.0
	Right Turn	0	0	0	0	0	0	0.0%	0.0
	Sideswipe	16	6	7	6	5	40	12.0%	8.0
	Hit Guardrail	8	4	4	5	11	32	9.6%	6.4
	Overturned	20	11	9	11	6	57	17.2%	11.4
	Other	30	13	22	29	28	122	36.7%	24.4
Crash Totals		98	51	55	67	61	332		66.4
SEV.*	Fatalities	1	0	2	5	4	12		2.4
	Injuries	113	70	63	65	73	384		76.8
	Property Damage Only	34	17	21	32	23	127		25.4
AADT (vpd)		40,500	35,500	43,500	39,500	41,500	200,500		40,100
Crash Rate**		0.58	0.34	0.30	0.40	0.35			0.40

* Severity of crash ** Crash rate in crashes per million vehicle-miles traveled

Table 4-6 – Crash Data Summary; I-75 (continued)

		1999	2000	2001	2002	2003	Total	%	Average
Sumter County									
TYPE OF CRASH	Rear End	2	1	1	4	2	10	17.5%	2.0
	Head On	0	0	0	0	0	0	0.0%	0.0
	Angle	0	1	0	0	0	1	1.8%	0.2
	Left Turn	0	0	0	0	0	0	0.0%	0.0
	Right Turn	0	0	0	0	0	0	0.0%	0.0
	Sideswipe	1	1	1	0	1	4	7.0%	0.8
	Hit Guardrail	0	1	0	1	1	3	5.3%	0.6
	Overturned	2	1	2	3	3	11	19.3%	2.2
	Other	4	3	7	4	10	28	49.1%	5.6
Crash Totals		9	8	11	12	17	57		11.4
SEV.*	Fatalities	0	0	0	0	1	1		0.2
	Injuries	11	7	4	11	11	44		8.8
	Property Damage Only	3	2	7	3	6	21		4.2
AADT (vpd)		35,500	29,500	37,000	38,500	42,000	182,500		36,500
Crash Rate**		0.46	0.50	0.54	0.57	0.74			0.56
Total I-75 in Study Area									
TYPE OF CRASH	Rear End	29	20	16	30	16	111	18.3%	22.2
	Head On	0	1	1	3	2	7	1.2%	1.4
	Angle	5	10	5	3	12	35	5.8%	7.0
	Left Turn	1	1	0	0	0	2	0.3%	0.4
	Right Turn	0	0	0	0	0	0	0.0%	0.0
	Sideswipe	23	10	14	10	11	68	11.2%	13.6
	Hit Guardrail	12	5	11	6	12	46	7.6%	9.2
	Overturned	34	21	21	24	13	113	18.6%	22.6
	Other	46	22	51	50	57	226	37.2%	45.2
Crash Totals		150	90	119	126	123	608		121.6
SEV.*	Fatalities	1	0	3	6	6	16		3.2
	Injuries	168	116	111	125	122	642		128.4
	Property Damage Only	54	28	54	52	50	238		47.6
AADT (vpd)		38,333	33,500	41,333	39,167	41,667	194,500		38,900
Crash Rate**		0.49	0.34	0.37	0.41	0.38			0.40

* Severity of crash ** Crash rate in crashes per million vehicle-miles traveled

4.1.9.2 CR 41 and SR 50 Safety Characteristics

Table 4-7 summarizes the safety characteristics for CR 41 and SR 50. Over the five years studied, 110 crashes occurred along SR 50 in the vicinity of the I-75 interchange in Hernando County (from 500 feet west of the interchange to 500 feet east of the interchange) and 5 crashes occurred along CR 41 in the vicinity of the I-75 interchange in Pasco County. There were 148 injuries along this section of SR 50 and 4 injuries along this section of CR 41. No fatalities were reported for either facility. The average crash rates were 3.74/MEV (Million Entering Vehicles) for SR 50 (statewide average is 0.642/MEV) and 0.74/MEV for CR 41 (statewide average is 0.242/MEV).

Rear-end crashes are by far the most frequent crash type along SR 50 near the I-75 interchange followed by angle and left turn crashes. Angle crashes are the most frequent crash type along CR 41 in the study area. These types of crashes are common at rural intersections and closer inspection is required to determine exact causes. The total economic losses due to crashes occurring from 1999 to 2003 at the SR 50 and CR 41 interchanges are estimated to be $16,052,000 and $438,000, respectively.

4.1.10 Intersections and Signalization

There are four intersections in the study area of this project involving the ramp termini of the two I-75 interchanges at CR 41 and SR 50. The two intersections of the northbound and southbound ramp termini at CR 41 are controlled by STOP-signs at the ramp approaches. The two intersections of the northbound and southbound ramp termini at SR 50 are fully signalized. The intersection lane geometry at all intersections is shown on **Exhibit 6-1**, in **Section 6.0**.

4.1.11 Lighting

There are limited areas along the I-75 corridor that are currently lighted. These areas include interchanges and rest areas. High-mast lighting is currently provided at the SR 50 interchange. There are ten (10) high-mast lights along mainline, five to the south of SR 50 and five to the north. There are also three (3) mast lights along SR 50, one to the west and two to the east of I-75 mainline. There is no other lighting along SR 50 within the functional area of the interchange.

Table 4-7 – Crash Data Summary; CR 41 and SR 50

		1999	2000	2001	2002	2003	Total	%	Average
SR 50 - Hernando County									
TYPE OF CRASH	Rear End	5	6	15	9	11	46	41.8%	9.2
	Head On	0	0	0	1	0	1	0.9%	0.2
	Angle	3	5	5	3	3	19	17.3%	3.8
	Left Turn	2	4	5	5	3	19	17.3%	3.8
	Right Turn	0	1	0	0	0	1	0.9%	0.2
	Sideswipe	1	0	1	2	1	5	4.5%	1.0
	Hit Guardrail	0	0	0	0	0	0	0.0%	0.0
	Overturned	0	0	0	0	0	0	0.0%	0.0
	Other	2	1	5	8	3	19	17.3%	3.8
Crash Totals		13	17	31	28	21	110		22.0
SEV.*	Fatalities	0	0	0	0	0	0		0.0
	Injuries	19	29	53	20	27	148		29.6
	Property Damage Only	5	3	5	14	7	34		6.8
AADT (vpd)		15,600	15,900	16,200	16,800	16,000	80,500		16,100
Crash Rate**		2.28	2.93	5.24	4.57	3.60			3.74
CR 41 - Pasco County									
TYPE OF CRASH	Rear End	0	0	1	0	0	1	20.0%	0.2
	Head On	0	0	0	0	1	1	20.0%	0.2
	Angle	0	0	0	1	1	2	40.0%	0.4
	Left Turn	0	0	0	0	0	0	0.0%	0.0
	Right Turn	0	0	0	0	0	0	0.0%	0.0
	Sideswipe	0	0	0	0	0	0	0.0%	0.0
	Hit Guardrail	0	0	0	0	0	0	0.0%	0.0
	Overturned	0	0	0	0	0	0	0.0%	0.0
	Other	0	0	1	0	0	0	20.0%	0.2
Crash Totals		0	0	2	1	2	5		1.0
SEV.*	Fatalities	0	0	0	0	0	0		0.0
	Injuries	0	0	0	0	4	4		0.8
	Property Damage Only	0	0	2	1	0	3		0.6
AADT (vpd)		3,600	3,650	3,700	3,750	3,800	18,500		3,700
Crash Rate**		0	0	1.48	0.73	1.44			0.74

* Severity of crash ** Crash rate in crashes per million entering vehicles (MEV)

At the rest areas located in Sumter County, conventional lighting is provided along the mainline auxiliary lanes. Light standards are spaced every 170 feet. The rest area parking lots and circulation roadways are also lighted with conventional lighting.

4.1.12 Utilities

Table 4-8 summarizes the characteristics of the existing utilities within the study area.

Table 4-8 – Existing Utilities within the Study Area

Type of Utility Service	Utility Owner	Type of Equipment	Location
Electric Power	Withlacoochee River Electric	Aerial Distribution Buried Distribution	Darby Road (Alt. CR 578) St. Joe Road (CR 578) Lake Iola Road (CR 577) Blanton Road (CR 41) Church Road Lockhart Road US 98/SR 50 Rest Area Croom Rital Road
Telephone	Bellsouth	Buried Cable Aerial Cable	Church Road US 98/SR 50 Croom Rital Road Lockhart Road
	Sprint Telephone	Aerial Cable Buried Cable	Darby Road (Alt. CR 578) St. Joe Road (CR 578) Lake Iola Road (CR 577)
Cable	Bright House Networks	Buried Cable	US 98/SR 50
Water/Sewer	Hernando County	Proposed Sanitary Proposed Reclaim Water Sanitary Force Main	Lockhart Road Lockhart Road US 98/SR 50

4.1.13 Pavement Conditions

The latest pavement condition survey, performed by the FDOT in 2006, reveals good pavement conditions along I-75 throughout the project limits. A scale of 1 to 10 is used to rate pavement conditions for cracking, rutting and rideability, with a rating of less than 6 being deficient.

4.2 EXISTING STRUCTURES

Data were collected on the characteristics of the existing structures along I-75 within the limits of this PD&E Study. These data were based on field reconnaissance and reviews of existing roadway plans and most recent available bridge inspection reports.

4.2.1 Existing Bridges

There are 16 bridges located along I-75 within the project limits. Ten of these structures carry I-75 over other roadways or other features, such as rivers and creeks, while the remaining six structures carry other roadways over I-75. **Table 4-9** provides data for these bridges including locations and years of construction. A brief description of each of these bridges is provided below.

- **I-75 over Stanley Branch** (Bridge No. 140058): This structure carries I-75 over Stanley Branch and consists of a three-barrel concrete culvert forming a total bridge length of 39.4 feet. Each barrel has a clear span of 11.0 feet and a clear height of 7.0 feet. The overall culvert length is 192.0 feet. The inspection report, dated January 15, 2003, indicates that this culvert has a sufficiency rating of 70.0 and an inventory rating of 95.90 tons.

- **Darby Road/CR 578A over I-75** (Bridge No. 140046): This four-span bridge carries Darby Road/CR-578A over I-75. It has a total length of 298.5 feet and a 28.0-foot clear roadway width. The vertical clearance is 15.78 feet. The substructure consists of Type III and Type IV AASHTO beams. The substructure consists of concrete end bents founded on 18 inch square concrete piles. The intermediate piers consist of three-column concrete piers supported on 14 inch square concrete piles. The inspection report, dated January 15, 2003, indicates that this structure has a sufficiency rating of 85.1 and an inventory rating of 47.95 tons.

- **St. Joseph Road (CR 578) over I-75** (Bridge No. 140940): This bridge carries CR-578 over I-75. The 215.0-foot long structure has four spans and a 28.0-foot clear roadway width. The vertical clearance is 16.08 feet. The superstructure consists of Type II and Type III AASHTO beams. The substructure consists of

Table 4-9 – General Bridge Structure Information

Bridge No.	Structure Location (I-75 milepost)	Year Built (Widened)	Total Length (feet)	Bridge Roadway Width (feet)	Vertical Clearance (feet)	Sufficiency Rating	Inventory Rating (ton)
Pasco County							
140058	I-75 over Stanley Branch (13.127)	1965 (1973)	39.4	N/A - Culvert	N/A - Culvert	70.0	95.90
140046	Darby Road (CR 578A) over I-75 (13.919)	1965	298.5	28.00	15.78 (1)	85.1	47.95
140940	St. Joseph Road (CR 578) over I-75 (15.275)	1965	215.0	28.00	16.08	89.2	38.91
140038	I-75 over Thomas Prairie Creek (15.617)	1965 (1973)	30.2	N/A - Culvert	N/A - Culvert	70.0	70.00
140042	Lake Iola Road (CR 577) over I-75 (17.225)	1965	305.1	28.00	15.74	89.9	45.97
140006	Blanton Road (CR 41) over I-75 (19.072)	1966	390.5	28.00	15.78	78.6	44.97
Hernando County							
080012	Church Road over I-75 (1.060)	1966	345.0	28.00	15.98	95.9	42.00
080920	Lockhart Road over I-75 (3.732)	1966	362.0	28.00	15.98	87.0	42.99
080021	SB I-75 over SR 50 (7.023)	1965 (2002)	174.0	41.72	14.79	96.0	51.92
080022	NB I-75 over SR 50 (7.023)	1965 (2002)	174.0	41.72	14.79	95.1	51.92
080023	SB I-75 over Croom Rital Road (10.741)	1964 (2002)	279.5	41.72	14.11	95.1	56.99
080024	NB I-75 over Croom Rital Road (10.741)	1964 (2002)	279.5	41.72	14.11	95.1	56.99
080025	SB I-75 over Withlacoochee River (11.381)	1965 (2002)	350.0	41.72	6.10 (Min.)	97.1	50.93
080026	NB I-75 over Withlacoochee River (11.381)	1965 (2002)	350.0	41.72	6.10 (Min.)	97.1	50.93
Sumter County							
180027	SB I-75 over Forestry Road (1.007)	1965 (1999)	190.0	54.79	23.98	93.2	40.12
180028	NB I-75 over Forestry Road (1.007)	1965 (1999)	190.0	54.79	23.98	93.2	40.12

(1) Shaded cells indicate structures with deficient vertical clearance. The minimum acceptable vertical clearance is 16.00 feet.

concrete end bents founded on 18 inch square concrete piles, whereas the intermediate supports consist of two-column concrete piers supported on 14 inch square concrete piles. The inspection report, dated January 14, 2003, indicates that this structure has a sufficiency rating of 89.2 and an inventory rating of 38.91 tons.

- **I-75 over Thomas Prairie Creek** (Bridge No. 140038): This two-barrel concrete culvert carries I-75 over Thomas Prairie Creek. There is a drainage structure located in the median. There are several pieces of broken concrete along the culvert's flow line. Extensive vegetation was also noticed. The inspection report, dated January 14, 2003, indicates that this structure has a sufficiency rating of 70.0 and an inventory rating of 70.0 tons.

- **Lake Iola Road (CR 577) over I-75** (Bridge No. 140042): This structure carries CR-577 over I-75. The four-span superstructure consists of AASHTO Type III beams and has a total length of 305.1 feet. There is a 28.0-foot clear roadway width. The vertical clearance is 15.74 feet. The substructure consists of concrete end bents founded on HP 12x53 steel piles, and two-column intermediate piers supported on 18 inch square concrete piles. The inspection report, dated January 14, 2003, indicates that this structure has a sufficiency rating of 89.9 and an inventory rating of 45.97 tons.

- **Blanton Road (CR 41) over I-75** (Bridge No. 140006): This 390.5-foot long bridge carries CR-41 over I-75. It has five spans and a 28.0-foot clear roadway width. The vertical clearance is 15.78 feet. The superstructure consists of AASHTO Type III and Type IV beams. The substructure consists of concrete end bents founded on HP 12x53 steel piles, and three-column intermediate concrete piers supported on 18 inch square concrete piles. The inspection report, dated January 9, 2003, indicates that this structure has a sufficiency rating of 78.6 and an inventory rating of 44.97 tons.

- **Church Road over I-75** (Bridge No. 080012): The existing bridge carries Church Road over I-75. The five-span superstructure consists of AASHTO Type II and Type III beams and has a total length of 345.0 feet. There is a 28.0- foot clear

roadway width. The vertical clearance is 15.98 feet. The substructure consists of concrete end bents founded on HP12x53 steel piles, and two-column intermediate concrete piers supported on 18 inch square concrete piles. The inspection report, dated January 9, 2003, indicates that this structure has a sufficiency rating of 95.9 and an inventory rating of 42.0 tons.

- **Lockhart Road over I-75** (Bridge No. 080920): This bridge carries Lockhart Road over I-75. It is 362.0 feet long and has four spans and a roadway clear width of 28.0 feet. The vertical clearance is 15.98 feet. The superstructure consists of AASHTO Type IV beams. The substructure consists of concrete end bents founded on HP 12x53 steel piles, and three-column intermediate concrete piers supported on 18-inch square concrete piles. The inspection report, dated January 7, 2003, indicates that this structure has a sufficiency rating of 87.0 and an inventory rating of 42.99 tons.

- **I-75 over SR 50** (Bridge No. 080021 SB, Bridge No. 080022 NB): The four-span structures carry I-75 over SR 50. The bridges are 174.0 feet long and the superstructures consist of AASHTO Type II beams. The clear roadway width is 41.72 feet. The vertical clearance is 14.79 feet. The substructures consist of concrete end bents founded on HP 12x53 steel piles and 18 inch square concrete piles, and two-column intermediate concrete piers supported on 18-inch square concrete piles and 48-inch diameter drilled shafts. The inspection report, dated January 8, 2003, indicates that the SB bridge (No. 080021) has a sufficiency rating of 96.0 and an inventory rating of 51.92 tons, while the NB bridge (No. 080022) has a sufficiency rating of 95.1 and an inventory rating of 51.92 tons.

- **I-75 over Croom Rital Road** (Bridge No. 080023 SB, Bridge No. 080024 NB): These structures carry I-75 over Croom Rital Road. The 279.5-foot long bridges have five spans and a roadway clear width of 41.72 feet. The vertical clearance is 14.11 feet. The superstructure consists of AASHTO Type III beams. The substructure consists of concrete end bents founded on HP 12x53 steel piles and 18-inch square concrete piles, and intermediate concrete piers supported on 18-inch square concrete piles. The inspection report, dated January 8, 2003, indicates

that both structures have a sufficiency rating of 95.1 and an inventory rating of 56.99 tons.

- **I-75 over Withlacoochee River** (Bridge No. 080025 SB, Bridge No. 080026 NB): These seven-span bridges carry I-75 over the Withlacoochee River. The structures are 350 feet long and have a clear roadway width of 41.72 feet. The superstructure consists of AASHTO Type II beams. The substructure consists of concrete end bents founded on HP 12x53 steel piles and 18-inch square concrete piles, and intermediate concrete piers supported on 18-inch square concrete piles. The inspection report, dated January 7, 2003, indicates that both structures have a sufficiency rating of 97.1 and an inventory rating of 50.93 tons.

  A completed US Coast Guard (USCG) Bridge Project Questionnaire was sent to the FHWA on August 14, 2006, requesting concurrence that a USCG permit is not required for the proposed widenings of the I-75 bridges at this location. In a letter dated August 29, 2006, the FHWA responded that a USCG permit is not required for widening these bridges.

- **I-75 over Forestry Road** (Bridge No. 180027 SB, Bridge No. 180028 NB): These four-span structures carry I-75 over Forestry Road. The 190.0 feet long superstructure consists of AASHTO beams and allows 54.79 feet horizontal clearance. The clear roadway width is 54.79 feet. The vertical clearance is 23.98 feet. The substructure consists of concrete end bents founded on HP 12x53 steel piles, and intermediate concrete piers supported on 18-inch square concrete piles. The inspection report, dated February 27, 2003, indicates that both structures have a sufficiency rating of 93.2 and an inventory rating of 40.12 tons.

Specific boring locations and boring logs for each bridge site, based on the available structures plans, are provided in Appendix B of the *Geotechnical Report*, prepared for this study.

4.2.2 Existing Box Culverts

There are 16 concrete box culverts within the project limits. These culverts are not classified as bridge structures. However, field investigation was conducted on all the culverts within the project limit. **Table 4-4**, presented earlier, provides information on these culverts.

4.3 ENVIRONMENTAL CHARACTERISTICS

4.3.1 Land Use Data

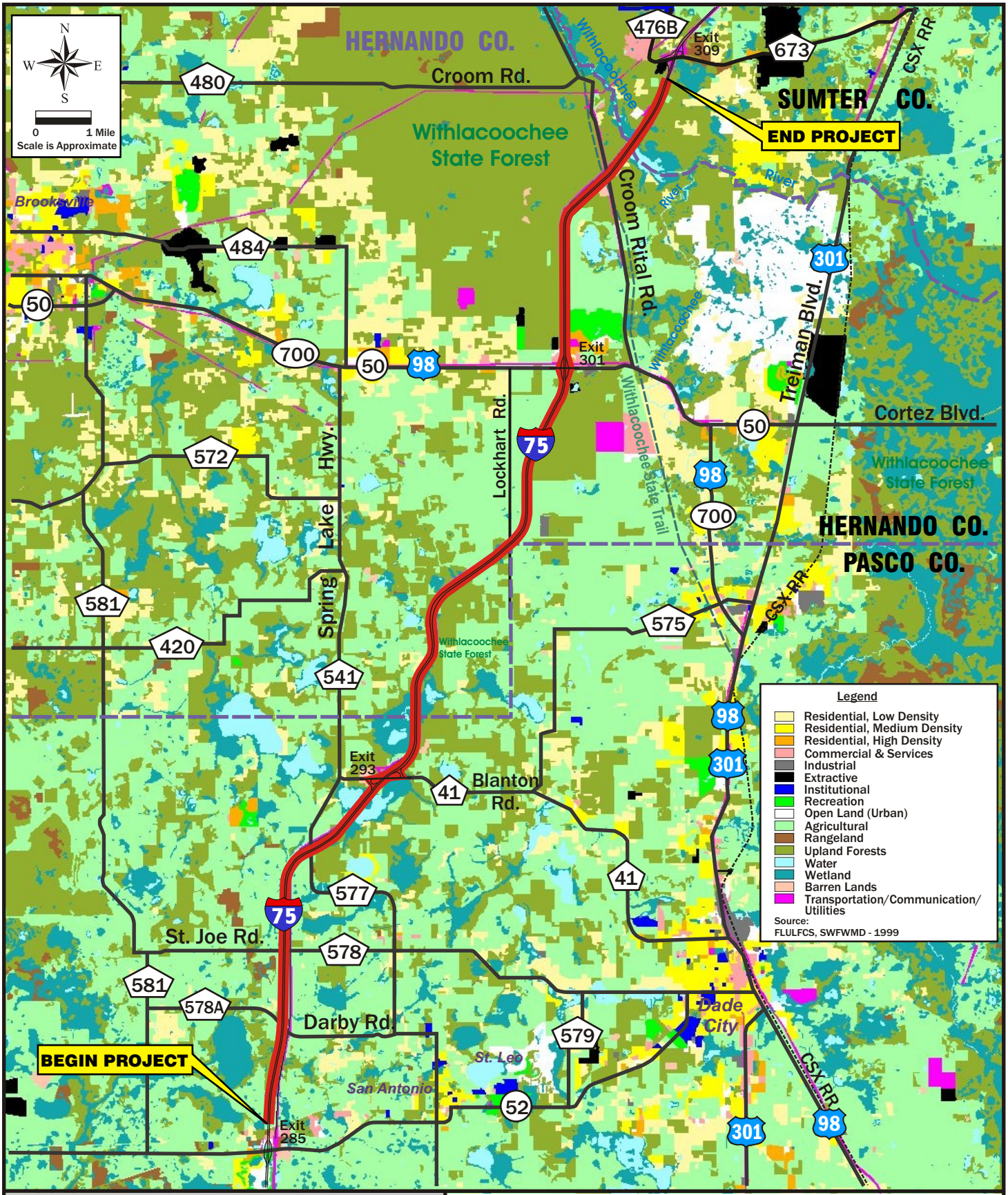
4.3.1.1 Existing Land Use

Existing land use in the vicinity of the project corridor is shown on **Exhibit 4-5**. Most of the study area consists of agricultural and rural residential land uses. The Croom Tract of the Withlacoochee State Forest (WSF), a publicly-owned conservation land, makes up a significant proportion of the study area north of SR 50.

Residential developments are concentrated along SR 50. These developments are generally of lower gross density (less than 6 dwelling units per acre). Ridge Manor West, consisting of 367 approved units, is a planned residential development located at the northeast quadrant of the SR 50 interchange. Ridge Manor, another large low-density residential development, is located farther to the east along SR 50.

There are two recreational vehicle (RV) parks near the project corridor. Tall Pines RV Park is located at the northeast quadrant of SR 50 and I-75, near Ridge Manor West. Travelers Rest Resort RV Park is located approximately one mile west of I-75 on Johnston Road in Pasco County.

Several commercial land uses also exist along SR 50 near the interchange at I-75 including retail shopping plazas, hotels, gas stations, restaurants, a bank, and other retail uses. Industrial uses near the project corridor include an electronics manufacturing facility along Power Line Road, just north of the Pasco/Hernando County Line and a distribution center of a major commercial enterprise approximately one mile east of I-75 on Kettering Road. The Cortez Crossings Industrial Park is located at the southwest quadrant of I-75 and SR 50. The majority of the parcels in this park are currently vacant.



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

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FAP No: 0751-120I

Existing Land Use

Exhibit 4-5

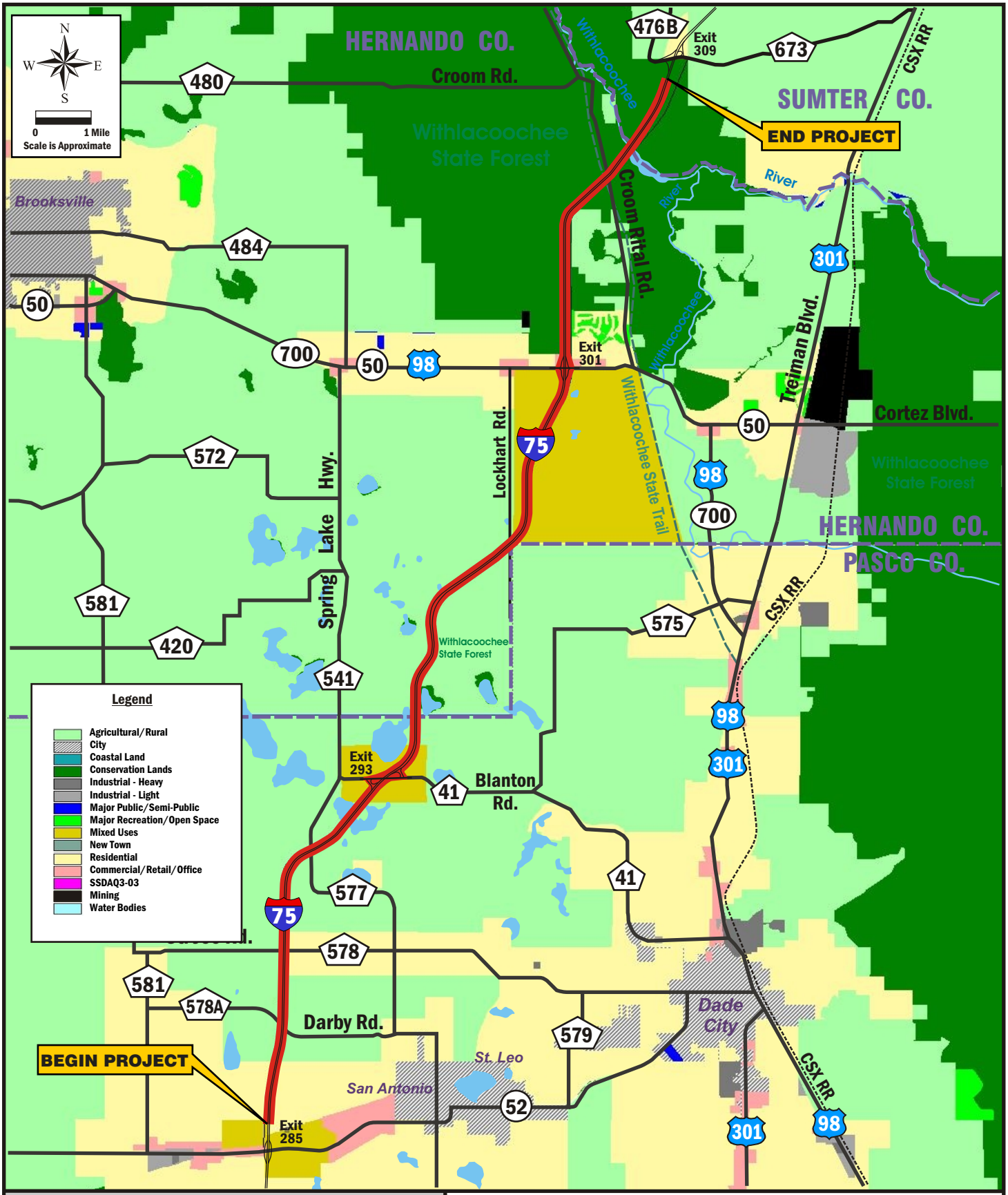
4.3.1.2 Future Land Use

Exhibit 4-6 illustrates future land use designations in and adjacent to the study area. The Pasco County 2015 Future Land Use Map designates much of the land within the project area for agricultural/rural land uses, with residential densities limited to two dwelling units per gross acre. Areas surrounding the SR 52 and CR 41 interchanges are designated for mixed use development, which permits high-density residential, retail, office, and light industrial land uses. The SR 52 interchange also includes an area designated for retail/office/residential future land use; approximately one mile west of the interchange is an area designated for light industrial land use. Low to medium density residential land uses allowing from one to six dwelling units per gross acre are designated for the areas north and south of the SR 52 interchange and for the area east of I-75 along CR 578.

The Hernando County Future Land Use Map shows two primary future land use designations near I-75: planned development south of SR 50 and conservation, corresponding to the Croom Tract of the WSF, north of SR 50. The planned development designation is intended to encourage a mix of land uses including industrial, commercial, residential, and public facility uses. Two developments of regional impact (DRIs) have been recently proposed for this area: 1) the Sunrise DRI is a mixed use development district planned to be located west of I-75 and south of SR 50, and 2) the Hickory Hills DRI is a residential low gross density development proposed west of I-75 and south of SR 50. Combined, these two DRIs propose to build over 6,000 residential dwelling units in addition to retail and office development. The area around the SR 50 interchange is designated for commercial land use, with residential uses extending east and west along SR 50.

The Sherman Hills Golf Club area north of SR 50 is designated for recreation. Rural use is designated for an area surrounded by the WSF on the east side of I-75 and for the area west of the immediate corridor area in the southern portion of the county.

The Sumter County Future Land Use Map designates most of the land within the project area for conservation, corresponding to the Croom Tract of the WSF. The CR 476B interchange area includes rural residential (one dwelling unit per acre) and agricultural



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Future Land Use

Exhibit 4-6

(one dwelling unit per ten acres) future land use designations. An area designated for public/institutional use, corresponding to jail facilities, is located northwest of this interchange.

4.3.2 Cultural Features and Community Services

4.3.2.1 Recreation and Conservation Lands

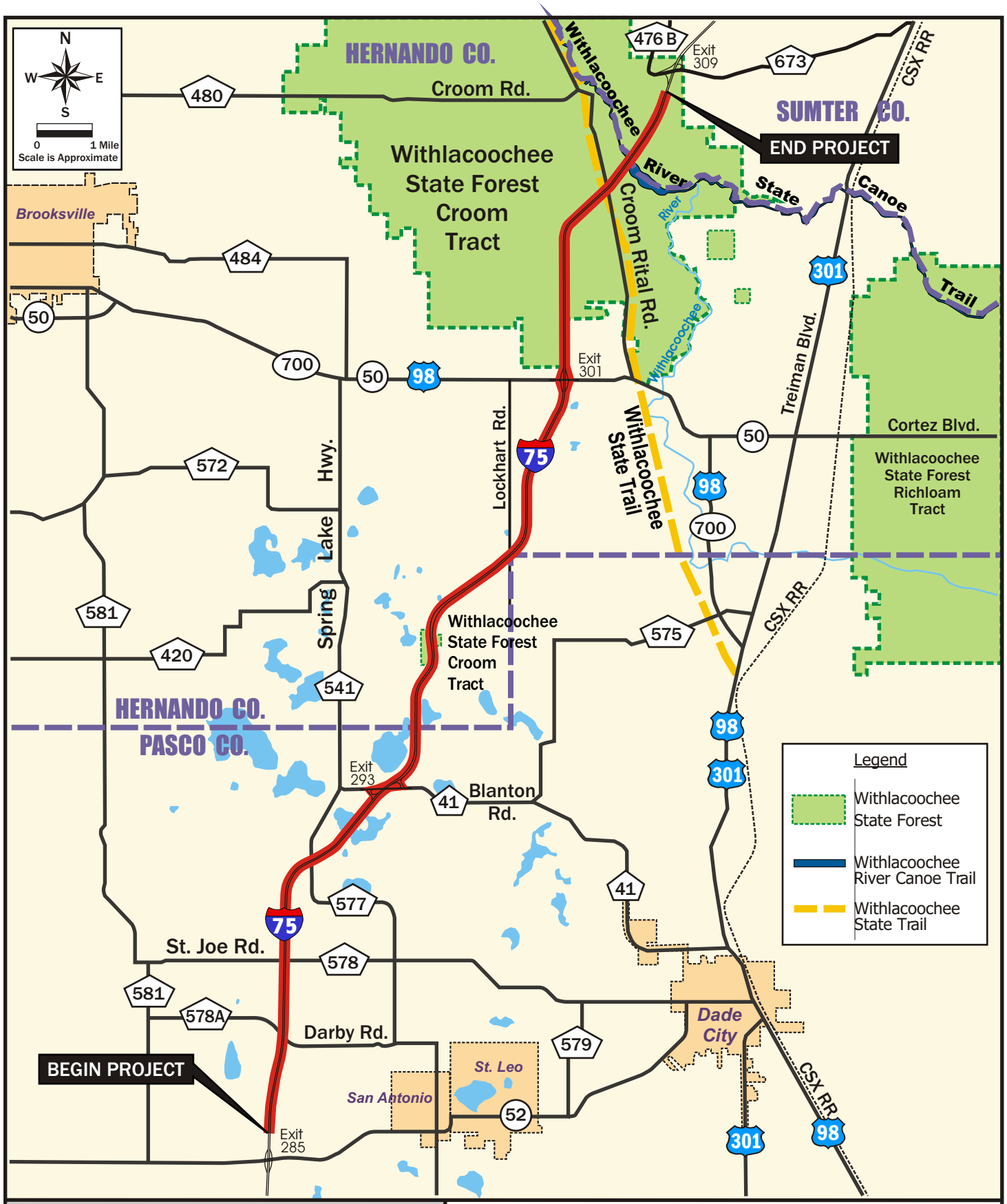
There are several public recreation and conservation resources within the study area; the locations of these resources are shown on **Exhibit 4-7**.

The **Croom Tract of the WSF** abuts both sides of I-75 north of SR 50 for a distance of approximately 6.0 miles. This resource is managed by the Florida Division of Forestry (DOF) and is designated in the *Withlacoochee State Forest Five- Year Management Plan*[9] for multiple uses, including recreation and wildlife refuge; therefore, the Croom Tract is a Section 4(f) resource. Recreational uses within the WSF include:

- the Silver Lake Recreational Complex, located east of I-75 and south of the Withlacoochee River, consists of three campgrounds, a day use area with a boat launch, and a hiking trailhead,
- the Croom Motorcycle Area, located west of I-75 and north of SR 50, several hiking trails, is designated for use by off-road vehicles, and
- a number of hiking and horse riding trails.

Also adjacent to I-75, there are two DOF-managed isolated parcels in southern Hernando County; these two parcels are managed as part of the Croom Tract and are also potential Section 4(f) resources.

The **Withlacoochee State Trail** is approximately 46.0 miles long and extends from near Dunnellon to US 301 north of Dade City. This paved, multi-use trail was established as a Rails-to-Trails project in 1992 and is the longest rail-trail in Florida. Within the study area, the trail runs through the Croom Tract of the WSF along the Withlacoochee River and crosses under I-75. The Withlacoochee State Trail in the project area is publicly-owned in fee simple by the State of Florida through its Board of Trustees of the Internal Improvement Trust Fund (TIITF). The FDEP, Division of Recreation and Parks, is the



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Public Recreation and Conservation Resources

Exhibit 4-7

lead agency responsible for managing the trail.

The **Withlacoochee River Canoe Trail** is officially designated as part of Florida's Statewide System of Greenways and Trails. The trail extends in a northwesterly direction along the Withlacoochee River for approximately 29.0 miles, from the Coulter Hammock Recreation Area west of Lacoochee to Dunnellon. The trail flows through multiple tracts of the WSF, including the Croom Tract. Two, seven-span, 350-foot-long bridges, carrying the northbound and southbound traffic flows of I-75, cross over the Withlacoochee River within the WSF.

The **Sherman Hills Golf Club**, located just east of I-75 and north of SR 50 in Ridge Manor West is a golf course open to the public.

4.3.2.2 Archaeological and Historic Sites

In accordance with the National Historic Preservation Act of 1966, as amended, and Chapters 253 and 267, Florida Statutes, a *Cultural Resource Assessment Survey (CRAS)*[10] was conducted to assess the potential for impacts to any archaeological and historical resources within the study area. The CRAS included background research and a field survey coordinated with the State Historic Preservation Officer (SHPO). The CRAS considered the proposed widening improvements as well as the alternative sites under consideration for stormwater management facilities.

- **Archaeological Sites:** Background research and a review of data at the Florida Master Site File (FMSF) and the National Register of Historic Places (NRHP) indicated that no archaeological sites have been previously recorded within the project area of potential effect (APE). However, 26 sites were recorded previously within one mile, of which three sites –sites 8HE493, 8HE509, and 8SM366– are located adjacent or proximate to the I-75 APE. Site 8HE509 was evaluated by the Florida State Historic Preservation Officer (SHPO) as ineligible for NRHP listing; Sites 8HE493 and 8SM366 have not been evaluated by the SHPO.

On the basis of prior archaeological surveys in the vicinity as well as regional site location predictive models, several segments of the project APE were considered to have a high to moderate potential for the location of prehistoric period archaeological sites, largely in view of their relative elevation, better drained soils, and proximity to a freshwater source. In addition, examination of historical documents, including nineteenth century federal surveyor's plats and field notes, indicated the potential for historic period archaeological sites in some areas. Prehistoric sites were expected to be lithic or artifact scatters; historic period sites were anticipated to be mid- to late-nineteenth century refuse deposits associated with former trails, or early residential settlement and agricultural activity. Historical research also suggested the possibility for homestead activity associated with the early community of Twin Lakes and/or the homestead of Nathaniel O'Neal. Historic period Seminole sites also were considered possible.

In a letter, dated April 3, 2006, the SHPO concurred that this project will have no effects on archaeological sites.

- **Historical/Architectural Sites:** Background research and a review of the data at the FMSF and the NRHP indicated that no previously recorded historic resources were located within or adjacent to the project area of potential effect (APE). The Wild Cow Prairie Cemetery (8SM34) is situated proximate to the I-75 right of way near the southeastern quadrant of the I-75 and CR 476B interchange; however, it is not believed to meet the criteria of eligibility for listing in the NRHP. As a result of field survey, five Frame Vernacular style historic residences, 8HE552-8HE556, constructed between ca. 1889 and ca. 1950, were identified and evaluated. Four of these resources –sites 8HE552, 8HE553, 8HE555, and 8HE556– are considered ineligible for listing in the NRHP, either individually or as part of a historic district.

  However, Site 8HE554, the St. Clair/O'Neal Homestead Residence, is considered potentially NRHP eligible under Criteria A and C. This ca. 1889 Frame Vernacular style house, constructed by Nathaniel O'Neal, appears to be the oldest

surviving residence associated with the pioneer community of Twin Lakes. In addition to its historical association with the development of this community, the structure is an early example of Florida vernacular architecture of which good examples are rare. The east boundary of this historic property lies approximately 350 feet from the I-75 right of way, well outside the proposed project right of way. No taking of land is anticipated in the vicinity of this historic property.

In a letter, dated April 3, 2006, the SHPO concurred that this project will have no effects on historic properties.

4.3.2.3 Community Facilities and Services

With the exception of the recreational facilities located within the WSF – Croom Tract, there are no other community services and facilities in the immediate vicinity of the project.

Several churches are located near the project corridor. Along Church Road in Hernando County, New Jerusalem Church of God and New Life in Christ Church are located just west of I-75 and Mt. Pleasant Missionary Baptist Church is located approximately 1.0 mile west of I-75. First Lutheran Church is located in the Ridge Manor West community, north of SR 50 just east of I-75.

Approximately 1.0 mile east of I-75 on SR 52 are the San Antonio Volunteer Fire Department and a post office. There is also a post office in Sunrise Plaza on SR 50, about 1.0 mile east of I-75. The East Hernando Branch Library is located in Ridge Manor West, just east of I-75. The Pasco County Juvenile Detention Center is located on SR 52 approximately 0.25 miles west of I-75. A Florida Detention Center and the Sumter County Correctional Institution Forest Camp are located approximately 0.5 miles west of I-75 near the northern terminus of the project.

The FDOT operates two rest areas located on each side of I-75 just north of the Hernando/Sumter County Line. Hernando County operates a welcome center in the Best Western motel at the northwest quadrant of I-75 and SR 50.

Oriole Cemetery is located approximately 750 feet west of I-75 in the Withlacoochee State Forest, approximately 2.0 miles north of SR 50.

There are no schools or medical facilities near the project corridor.

4.3.3 Natural and Biological Features

4.3.3.1 Wetlands

In accordance with Executive Order 11990, "Protection of Wetlands," dated May 23, 1977, a study was conducted to identify, delineate, analyze, and evaluate potential wetland impacts; to assess the function and value of the wetlands involved; and, to recommend mitigation measures associated with these impacts. The findings of this study were presented in the *Wetlands Evaluation and Biological Assessment Memorandum*[11], prepared for this PD&E Study under separate cover.

All existing wetlands within 300 feet of the right of way on both sides of I-75 were inventoried using the US Fish and Wildlife Service (USFWS) National Wetland Inventory Maps; the USGS Quadrangle Maps; the NRCS Soil Surveys for Pasco, Hernando and Sumter counties; the SWFWMD Land Use Maps; USFWS Classification of Wetlands and Deepwater Habitats of the United States; Geographic Information System (GIS) data bases; aerial photography; and ground-truthing.

All wetlands within the existing right of way are associated with the cross drains. Most wetlands have freshwater marsh characteristics and are dominated by water-primrose (*Ludwigia* sp.), cattail (*Typha* sp.), duck potato (*Sagittaria latifolia*), soft rush (*Juncus effuses*), panic grass (*Panicum* sp.), and American lotus (*Nelumbo lutea*). These wetlands are small and do not encompass a large portion of the project area. There are no large-scale swale or ditch systems running parallel to the roadway in this area.

4.3.3.2 Floodplains

FDOT drainage maps, USGS Quadrangle maps, SWFWMD topographic maps and FEMA FIRMs were used to identify flood-prone areas within the I-75 project corridor.

FEMA has designated 100-year base floodplain areas in eight locations along the I-75 project corridor; encroachment to the 100-year floodplain occurs only at three locations. The areas of encroachment to the 100-year floodplain are designated as Zone A. Zone A is defined as special flood hazard area inundated by 100-year flood with no base flood elevations determined. The remainder of the project is designated as Zone X. Zone X is described as areas determined to be outside the 500-year floodplain. There are no regulatory floodways within the I-75 project corridor. **Exhibit 4-8** depicts the floodplains in and adjacent to the study area.

4.3.3.3 Threatened and Endangered Species

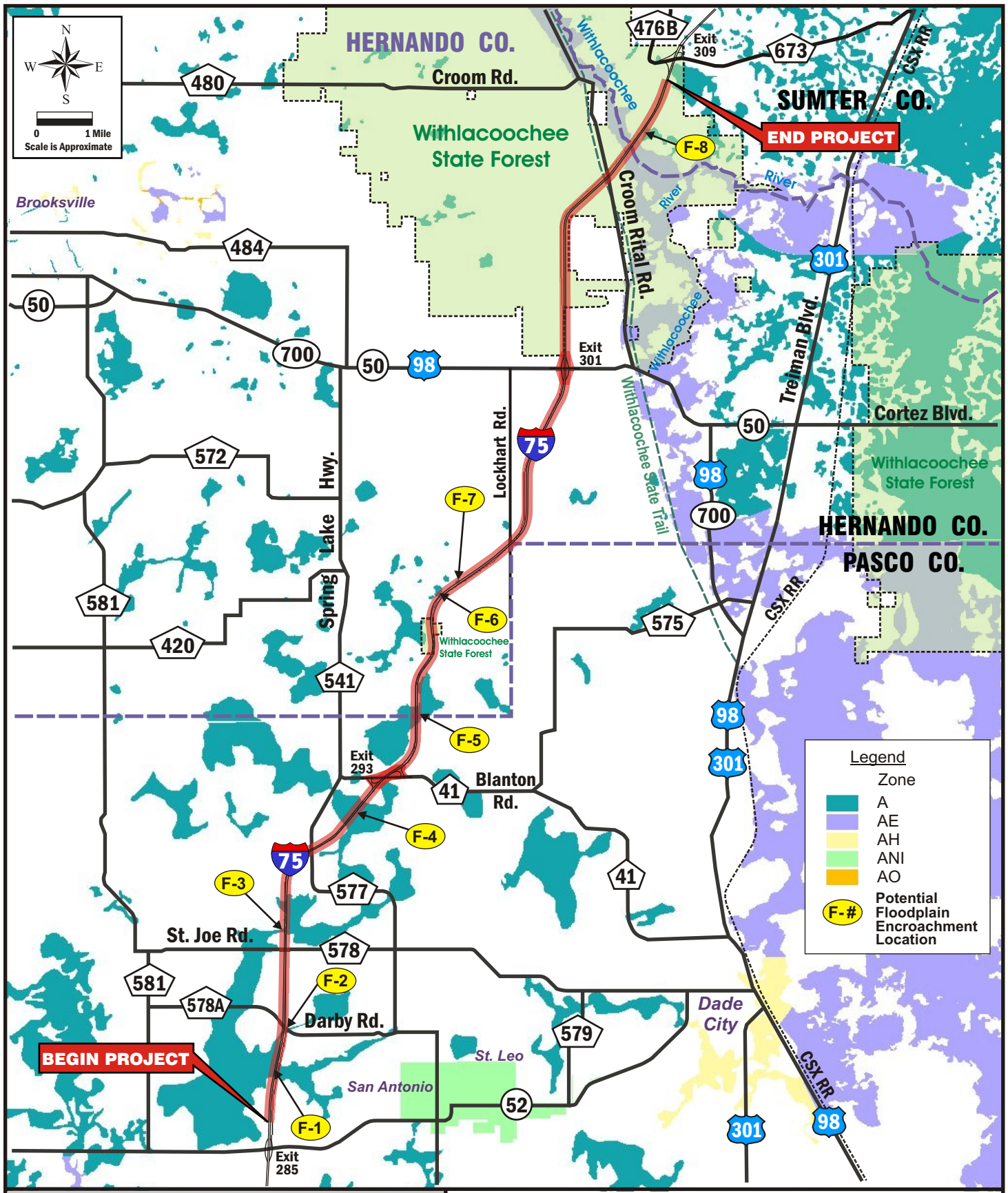
A *Wetlands Evaluation and Biological Assessment Memorandum*[11] was prepared for this project. This document summarizes the findings from the research of the available the data bases and field surveys. The data bases of the USFWS[12], the NRCS, the Florida Fish and Wildlife Conservation Commission (FFWCC)[13], and the Florida Natural Areas Inventory (FNAI) were consulted to establish a list of threatened and/or endangered species that potentially occur within the study area. The project area was surveyed during the Fall of 2005 and Spring of 2006. In addition, random surveys were performed along the corridor throughout the duration of the study to obtain data on resident and transient species.

The project occurs through predominantly rural lands and some forested uplands and wetlands. These areas, usually home to a variety of common wildlife, also present the potential for being inhabited or visited by rare and listed species.

The following are the federal and state listed species expected to be encountered in the project corridor:

Federal Listed Species:

- There is one active **bald eagle** nest (HN012) located approximately 1,000 feet east of the I-75 right of way in the vicinity of Oriole Lake in the northern portion of Hernando County. The proposed improvements are not expected to impact any existing foraging areas or any potential nesting trees in or adjacent to the corridor. Per recent guidelines from the USFWS, the nest is located greater than 660 feet



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FEMA 100-Year Floodplains Map

Exhibit 4-8

from the proposed action. Therefore, the proposed action will have no effect on this nest.

- There are nine historic **wood stork** rookeries within 20.0 miles of this project. One rookery is within 1.0 mile in Pasco County at the beginning of the project. Foraging habitat for this species is available depending on the existing water levels in ditches, swales, and other wetlands. Wetland mitigation will replace any lost wetlands and the creation of wet stormwater management facilities may increase the amount of foraging areas available to this species in the project area. Mitigation will occur within the core foraging area of the wood stork rookery adjacent to this project. This species could possible be affected as wetlands in the area will be affected.
- The **eastern indigo snake** may occur in wetland and upland habitats along the project corridor, although the prevalence of open rangeland and residential areas within the study corridor limits their utilization by this species with the exception of the WSF. To minimize effects to individual indigo snakes during construction, a special provision must be included in the contract to advise the contractor of the potential presence of this species and its protected status. If an indigo snake is sighted during construction, the contractor will be required to cease any operations(s) that might cause harm to the snake. If the snake does not move away from the construction area, the FWC will be contacted to capture and relocate it to other suitable habitat.

State Listed Species:

- **Gopher tortoises** are common in the upland areas of the region; however, loss of gopher tortoise habitat due to the project would be insignificant on a regional scale. Effects to the state-listed (SSC) gopher tortoise populations are unavoidable since the occurrence of these tortoises occurs in the current right of way. Coordination with the FWC will continue throughout the Final Design phase of the project. Relocations of any affected tortoises may be recommended. This relocation should take place immediately prior to the clearing of areas for roadway construction.

- During the field review, one **Florida sandhill crane** was observed foraging and nesting in the study area. Sheet 8 in **Appendix B** depicts the location where the Florida sandhill crane was observed.
- The (SSC**) Sherman's fox squirrel** likely utilizes portions of the study area, although none were observed during the field surveys. According to the data bases researched, there some habitats located within the WSF and other areas.

4.3.4 Potential Contamination Sites

A *Contamination Screening Evaluation Report (CSER)*[14] has been prepared for this PD&E Study. **Table 4-10** summarizes the characteristics of the sites identified through the contamination screening and **Exhibit 4-9** depicts their location. Eight sites were identified for involvement of some type of potential contamination. Five of the eight records were for tanker spill incidents that occurred within the I-75 right of way along the northern third of the project corridor. The remaining three records were for fuel retail stations along SR 50, two of which are closed and/or undergoing remediation.

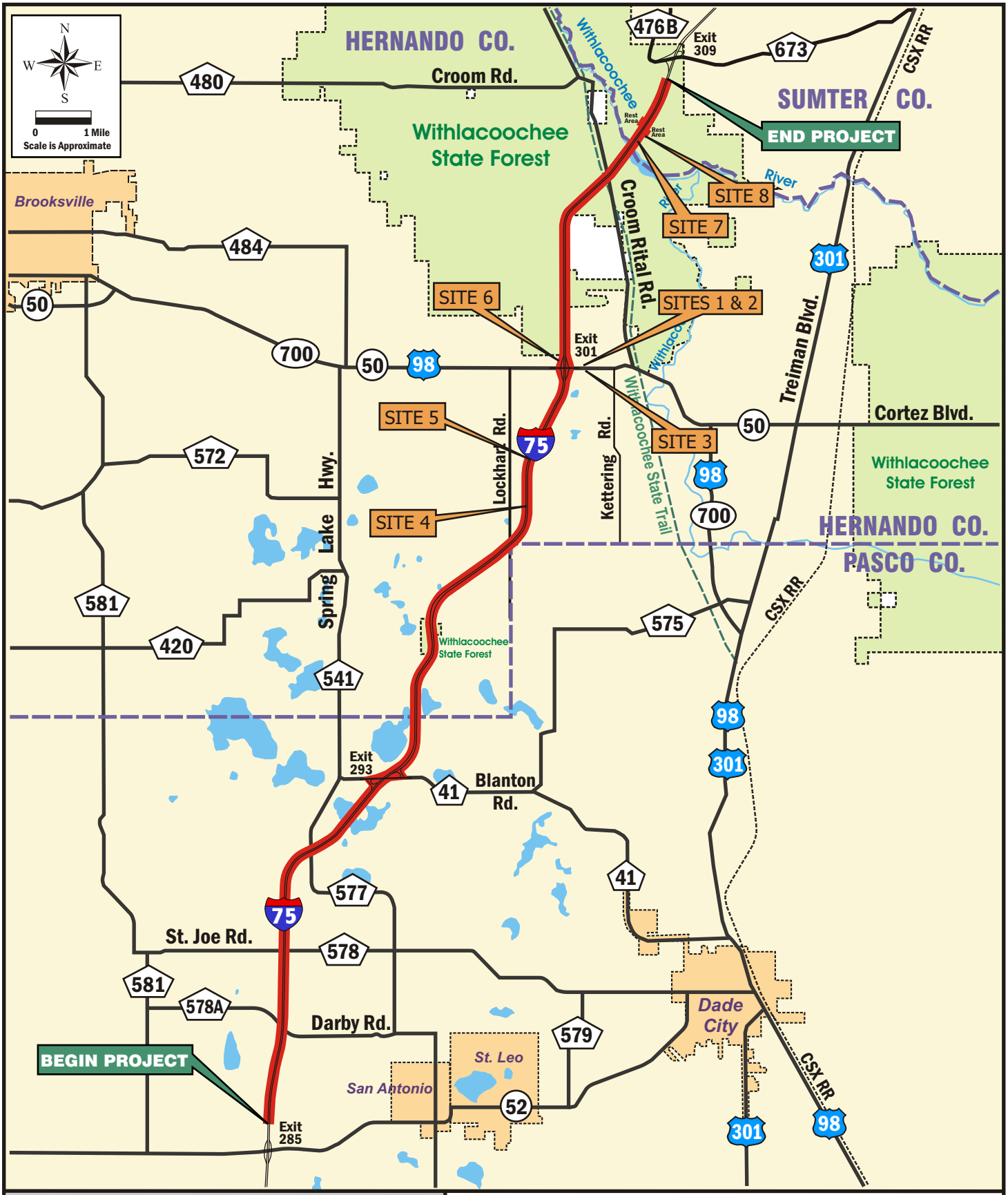
Six sites –three fuel/service stations and three accident sites– were assigned a **Medium** rating for potential contamination impacts to the project corridor.

The alternative sites considered in this study for stormwater management facilities (SMFs) were also screened for the potential of contamination. These sites are described and discussed in detail in the *Alternative Stormwater Management Facility Report*[15] which has been prepared as part of this PD&E Study. All sites were found to be free of any type of contamination.

Table 4-10 – Potential Hazardous Materials and Petroleum Contamination Sites

Site No.	Facility Name, Location, & ID Number	Haz./ Petr.	Data Base	Activity Of Concern	Tanks Y/N	Distance from Right of Way	Risk Rating
1	Brooksville FoodMart (Citgo) 30431 Cortez Blvd Brooksville 34602 278508762	Petroleum	LUST SPILLS	• unleaded gas spill • 3 USTs (1) • active monitor wells • small quantity generator • Active (changed name/owner from Wareco to Texaco & is now Citgo)	Y	250’	MEDIUM
	Wareco Station 573 30431 Cortez Blvd Brooksville 34602 FLR000016741	Hazardous	RCRAGN		Y		
2	Exxon #5285 30435 Cortez Blvd Brooksville 34602 278508731	Petroleum	LUST SPILLS UST	• Unknown spill • 6 UST removed • Remediation • Closed	N	500’	MEDIUM
3	Texaco 203-132 30436 Cortez Blvd Brooksville 34602 278508743	Petroleum	LUST UST	• Diesel spill • 10 UST removed • Ongoing cleanup • Possible tampering	N	Adjoins ROW (1)	MEDIUM
4	Strawberry Petroleum, Inc I-75 NB MP 299 (1) 279806526	Petroleum	SPILLS	• tanker overturned • 6,500G (1) gas spilled • 1,500G diesel spilled • Ongoing	N	within ROW	MEDIUM
5	Peninsular Oil Co I-75 MP 300 279801689	Petroleum	SPILLS ERNS	• Auto/tanker accident • 8,500G diesel spilled • Closed	N	within ROW	MEDIUM
6	Tanker Accident I-75 SR 50 overpass 7167	Petroleum	ERNS	• tanker accident • 500G diesel spilled • Closed	N	within ROW	LOW
7	Ryder Truck Spill I-75 NB MP 307 609801677	Petroleum	ERNS	• auto/truck accident • Over 50G diesel spill • Closed	N	within ROW	LOW
8	C&G Transport Co I-75 NB Rest Area at MP 307	Petroleum	SPILLS	• tanker accident • 300G diesel spilled • Ongoing	N	within ROW	MEDIUM

(1) UST: Underground storage tank
G: Gallons
ROW: Right of way
MP: Milepost



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

WPI Seg. No.: 411014 1

FAP No: 0751-120I

Potential Contamination Sites Map

Exhibit 4-9

4.3.5 Farmlands

Within the project limits, I-75 travels through mainly rural areas south of SR 50 and the WSF-Croom Tract north of SR 50. Based on field reconnaissance, some properties adjacent to I-75 south of SR 50 are currently being used for grazing of cattle and horses. There are no organized farming activities of any kind in the vicinity of the I-75 corridor.

This project is not expected to require additional right of way acquisition, other than for the placement of SMFs and the improvements of the two I-75 interchanges at CR 41 and SR 50. In addition, the proposed improvements will not result in any changes in travel patterns and property access.

In a letter, dated August 15, 2006, the Natural Resources Conservation Service of the US Department of Agriculture confirmed that this project will not affect any prime or unique farmland.

4.4 REFERENCES

1 *Pasco County Comprehensive Plan*; Pasco County Growth Management Department; 2000, with revisions.

2 *Hernando County Comprehensive Plan*; Hernando County Board of County Commissioners; Adopted June 1989 and as amended.

3 *Sumter County Comprehensive Plan*; Sumter County Planning Department; adopted 1992, as amended.

4 *Straight Line Diagrams*; FDOT; August 2002 (Pasco County), August 2001 (Hernando County), May 2004 (Sumter County).

5 *Plans Preparation Manual*; FDOT; Tallahassee, Florida; January 2000 and as amended.

6 *AASHTO – A Policy on Geometric Design of Highways and Streets*; American Association of State Highway and Transportation Officials; 2001.

7 *Location Hydraulics Report*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

8 *Geotechnical Report*; I-75 PD&E Study; Professional Service Industries, Inc.; June 2007.

[9] *Withlacoochee State Forest Five-Year Management Plan*; Florida Department of Agriculture and Consumer Services; 2003.

[10] *Cultural Resource Assessment Survey*; I-75 PD&E Study; Archaeological Consultants Inc.; June 2007.

[11] *Wetlands Evaluation and Biological Assessment Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

[12] *The USFWS Threatened and Endangered Species System (TESS)*; USFWS.

[13] *Florida's Endangered Species, Threatened Species, and Species of Special Concern*; FFWCC; June 2006.

[14] *Contamination Screening Evaluation Report*; I-75 PD&E Study; H.W. Lochner, Inc; June 2007.

[15] *Alternative Stormwater Management Facility Report*; I-75 PD&E Study; H.W. Lochner, Inc; June 2007.

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SECTION 5.0
DESIGN CONTROLS AND STANDARDS

In order for the proposed improvements of I-75, SR 50, and CR 41 to fulfill their objective of accommodating motorists, bicyclists, and pedestrians in a safe and efficient manner, they must adhere to specific design standards. Selection of the appropriate controls, criteria, and standards is influenced by a number of factors including traffic volume and composition, desired levels of service, functional classification, terrain features, roadside development and land use, and environmental considerations. The FDOT *Plans Preparation Manual (PPM)*[1] and American Association of State Highway and Transportation Officials' (AASHTO's) *A Policy on Geometric Design of Highways and Streets*[2] (also known as the "*Green Book*") were utilized as primary sources in developing the design controls and standards for the roadways in the study area. Other references, such as *Straight Line Diagrams (SLD),*[3] the *Traffic Technical Memorandum(TTM)*[4], and the *Comprehensive Plans* of Pasco and Hernando counties[5,6] were also considered.

5.1 DESIGN CONTROLS AND STANDARDS FOR I-75

Table 5-1 summarizes the design controls and standards to be used for the development of the conceptual design plans of the proposed improvements of I-75.

5.2 DESIGN CONTROLS AND STANDARDS FOR SR 50 AND CR 41

Table 5-2 summarizes the design controls and standards to be used for the development of the conceptual design plans of the proposed improvements along SR 50, CR 41 and I-75 crossovers of minor streets.

Table 5-1 – Design Controls and Standards for I-75

Design Element	I-75 Mainline	I-75 Ramps
Existing Functional Classification	Principal Arterial – Interstate Rural	N/A
Access Management Classification - Interchange Spacing	Access Class 1 – Area Type 3 3.0 miles	Access Class 1 – Area Type 3 N/A
Design Classification	Rural Freeway - Interstate	Ramp Interstate
Speed: - Posted - Design	 70 mph 70 mph	 N/A 30 mph (Loop), 45 mph (Diamond)
Design Vehicle	WB-62FL	WB-62FL
Horizontal Alignment - Max curvature - Max curvature with NC - Max superelevation - Slope ratios - Min curve length in full superelevation - Max deflection w/o curve - Length of curve	 3° 00' 00" 0° 15' 00" 0.10 ft/ft 1:250, 100' min. 200' 0° 45' 00" 2,100'(1,050'min)	 24° 45'00" (30 mph), 10° 15'00" (45 mph) 1° 30' 00" (30 mph), 0° 30' 00" (45 mph) 0.10 ft/ft 1:100 (30 mph), 1:200 (45 mph) 200' N/A 900' (450'min) 30 mph 1,350' (675' min) 40 mph
Vertical Alignment - Max Grade - Max change in grade w/o curve - Min stopping sight distance [1] - Min "K" for crest curve - Min "K" for sag curve - Min crest curve length - Min sag curve length	 3% 0.2% 820' 506 206 1,000' open highway 1,800' within interchanges 800'	 5-7% (25-30 mph), 3-5% (45-50 mph) 1.0% (30 mph), 0.7% (45 mph) 200' (30 mph), 360' (45 mph) 31 (30 mph), 98 (45 mph) 37 (30 mph), 79 (45 mph) 90' (30 mph), 135' (45 mph) 90' (30 mph), 135' (45 mph)
Cross Section Elements - Travel lane width - Auxiliary lane - Outside shoulder width (mainline) - Outside shoulder width (bridge) - Inside shoulder width (mainline) - Inside shoulder width (bridge) - Median width w/o barrier wall - Median width w/ barrier wall - Travel lane cross slope - Outside shoulder cross slope - Inside shoulder cross slope - Max rollover at ramp terminal - Max rollover between travel lanes	 12' 12' 12' (10' paved) 10' 12' (10' paved) 10' 64' 26' 2.0% (3.0% max) 6.0% 5.0% 5.0% 4.0%	 15' (single lane) [2] N/A 6' (4' paved) 6' 6' (2' paved) 6' N/A N/A 2.0% 6.0% 5.0% 5.0% N/A
Roadside Slopes - Front slopes - Back slopes - Transverse slopes	 1:6 for 0-5' height 1:6 to CZ then 1:4 for 5-10' height 1:6 to CZ then 1:3 for 10-20' height 1:2 with guardrail for height over 20' 1:4 desir. (1:3 min w/ 1:6 front slope) 1:10	 1:6 for 0-5' height 1:6 to CZ then 1:4 for 5-10' height 1:6 to CZ then 1:3 for 10-20' height 1:2 with guardrail for height over 20' 1:4 desir. (1:3 min w/ 1:6 front slope) 1:4
Border Width	94'	94'

[1] Lengths to be adjusted for grade (PPM, Table 2.7.1)
[2] See PPM Table 2.14.1 for ramps w/ curvature R < 500'

Table 5-1 – Design Controls and Standards for I-75 (continued)

Design Element	I-75 Mainline	I-75 Ramps
Clear Zone/Horizontal Clearance		
- Travel lane	36’	24’
- Auxiliary lane	24’	N/A
Vertical Clearance		
- Overhead signs [3]	17.5’	17.5’
- Dynamic message sign [3]	19.5’	19.5’
- Roadway over roadway	16.5’	16.5
Auxiliary Lanes		
- Deceleration length	500’ (loop), 390’ (diamond)	N/A
- Acceleration length	1,350’ (loop), 820’ (diamond)	N/A
Structural Capacity	HS-20	HS-20

[3] Clearance over the entire width of pavement and shoulder to the lowest sign component

Table 5-2 – Design Controls and Standards for SR 50, CR 41, and Crossovers

Design Element	SR 50	CR 41	Crossover Roads
Existing Functional Classification	Principal Arterial - Rural	Major Collector - Rural	Major Collector - Rural Minor Collector - Rural Local Rural
Access Management Classification	Access Class 5	N/A	N/A
- Median Treatment	Restrictive	N/A	N/A
- Min connection spacing	440’ / 245’ [1]	N/A	N/A
- Min median opening spacing	660’ (directional) 0.5 mi. / 0.25 mi. [1] (full)	N/A N/A	N/A N/A
- Min signal spacing	0.5 mi. / 0.25 mi. [1]	N/A	N/A
Design Classification	Rural Arterial	Rural Collector	Rural Collector
Speed:			
- Posted	50 mph	55 mph	Varies (40-55 mph)
- Design	60 mph	60 mph	60 mph
Design Vehicle	WB-62FL	WB-62FL	WB-15
Horizontal Alignment			
- Max curvature (e_{max} = 10.0%)	6° 30’ 00”	5° 15’ 00”	5° 15’ 00”
- Max curvature w/o crown	0° 30’ 00”	0° 15’ 00”	0° 15’ 00”
- Max superelevation (e_{max})	0.10 ft/ft	0.10 ft/ft	0.10 ft/ft
- Slope ratios	1:250, 100’ min.	1:250, 100’ min.	1:250, 100’ min.
- Min curve length in full superelevation	200’	200’	200’
- Max deflection w/o curve	0° 45’ 00”	0° 45’ 00”	0° 45’ 00”
- Length of curve	825’(400’min)	900’ (400’min)	900’ (400’min)
Vertical Alignment			
- Max Grade	4%	6%	6%
- Max change in grade w/o curve	0.4%	0.4%	0.4%
- Min stopping sight distance [2]	495’	570’	570’
- Min “K” for crest curve	185	245	245
- Min “K” for sag curve	115	136	136
- Min crest curve length	350’	400’	400’
- Min sag curve length	250’	300’	300’

[1] Speed greater than 45 mph / speed less than or equal to 45 mph
[2] Lengths to be adjusted for grade (PPM, Table 2.7.1)

Table 5-2 – Design Controls and Standards for SR 50, CR 41 and Crossovers (continued)

Design Element	SR 50	CR 41	Crossover Roads
Cross Section Elements			
- Travel lane width	12’	12’	12’
- Auxiliary lane	12’	12’	12’
- Outside shoulder width	12’ (5’ paved)	12’ (5’ paved)	10’
- Outside shoulder width (bridge)	N/A	10’	10’
- Inside shoulder width	8’	12’ (5’ paved)	10’ (undivided)
- Inside shoulder width (bridge)	N/A	6’	10’ (undivided)
- Median width w/o barrier wall	64’	40’	N/A
- Travel lane cross slope	2.0%	2.0%	2.0%
- Outside shoulder cross slope	6.0%	6.0%	6.0%
- Inside shoulder cross slope	5.0%	6.0%	6.0%
- Max rollover at ramp terminal	5.0%	5.0%	5.0%
- Max rollover between travel lanes	4.0%	4.0%	4.0%
Roadside Slopes			
- Front slopes	1:6 for 0-5’ height 1:6 to CZ then 1:4 for 5-10’ height 1:6 to CZ then 1:3 for 10-20’ height 1:2 with guardrail for height over 20’	1:6 for 0-5’ height 1:6 to CZ then 1:4 for 5-10’ height 1:6 to CZ then 1:3 for 10-20’ height 1:2 with guardrail for height over 20’	1:6 for 0-5’ height 1:6 to CZ then 1:4 for 5-10’ height 1:6 to CZ then 1:3 for 10-20’ height 1:2 with guardrail for height over 20’
- Back slopes	1:4 desir. (1:3 min w/ 1:6 front slope)	1:4 desir. (1:3 min w/ 1:6 front slope)	1:4 desir. (1:3 min w/ 1:6 front slope)
- Transverse slopes	1:10	1:4	1:4
Border Width	40’	40’	40’
Clear Zone/Horizontal Clearance			
- Travel lane	36’	36’	36’
- Auxiliary lane	24’	24’	24’
Vertical Clearance			
- Overhead signs & signals [(3)]	17.5’	17.5’	17.5’
- Roadway over roadway	16.5’	16.5	16.5’

[(3)] Clearance over the entire width of pavement and shoulder

5.3 GLOSSARY

A brief description of the terms used in **Tables 5-1** and **5-2** is provided below.

- **Functional Classification** groups the streets and highways according to the character of service they are intended to provide. This service can range from 100% mobility and limited land access (freeways) to limited mobility and 100% land access (local roads).
- **Access Management** controls and regulates the spacing and design of driveways, medians, median openings, traffic signals and intersections on arterial roads and the spacing of interchanges on freeways to ensure safe and efficient traffic flow on the road system.

All roadways understate jurisdiction are classified from Access Class 1, which poses the highest degree of access restriction and is reserved for limited access freeways, to Access Class 7 which poses the lowest degree of access restriction.

- **Design Classification** groups the roads and highways according to the adjacent land use (urban or rural) and service they are intended to provide (freeways, arterials, collectors, and local roads).
- **Design Speed** is the maximum safe speed that can be maintained over a specified section of a roadway when conditions are so favorable that the design features of this roadway govern. The design speed influences design elements such as horizontal and vertical alignment controls, superelevation, and typical section elements (clear zone, median width, etc.).
- **Posted Speed** is the maximum speed at which motorists can legally travel on a specific roadway, usually designated by posted signs. The posted speed can not exceed the design speed.
- **Design Vehicle** is the typical vehicle type whose weight, dimensions, and operating characteristics are used to establish the design controls for a specific roadway.
- **Horizontal Alignment** of a roadway is the combination of tangent segments and horizontal curves that define its placement within a specific geographic area.
- **Maximum Curvature** (D) is a limiting value of curvature (defined as the quantity D=5,729.6/R, where R is the curve radius) for a given design speed and is determined from the maximum rate of superelevation and the maximum allowable side friction factor.
- **Superelevation** is the roadway cross section design where, to counter the tendency of vehicles to slip as they are traveling through curves due to the centrifugal force, the outside edge of the pavement is raised while the inside edge is lowered.
- **Slope Ratio** is the rate of change of pavement cross slope to achieve superelevation within horizontal curves. It is expressed as a ratio of the relative change in elevation between the point of rotation and the outermost pavement edge.

- **Deflection**, for the Horizontal Alignment, is the difference of the bearings of two consecutive tangent segments of a roadway. For the Vertical Alignment, **Deflection** is the difference of the grades of two consecutive tangent segments.
- **Vertical Alignment** of a roadway is the combination of tangent segments and vertical curves that define its profile along the topography of the area through which it travels.
- **Grade**, expressed in percent, is the product of the fraction of the vertical rise (positive grade) or drop (negative grade) of the roadway over a certain horizontal distance.
- **Stopping Sight Distance** is the minimum roadway length that needs to be visible ahead to the driver so that a vehicle traveling at or near the design speed can safely stop before reaching a stationary object in its path.
- **"K" Value** is the quantity L/A, where L is the length of the vertical curve and A is the algebraic difference between the grades of the in-going and out-coming tangent segments.
- **Crest Curve** is the vertical curve where the difference between the grades of the in-going and out-coming tangent segments is equal or larger than zero.
- **Sag Curve** is the vertical curve where the difference between the grades of the in-going and out-coming tangent segments is negative.
- **Border** width is the distance from the outside edge of pavement on the interstate and the outside edge of shoulder on other roadways to the right of way line.
- **Clear Zone** is the unobstructed, relatively flat area that is provided beyond the edge of the traveled way (does not include shoulders and auxiliary lanes) for the safe recovery of errant vehicles.
- **Vertical Clearance** is the minimum distance from the surface of the pavement (including shoulders) to the lowest point of the structures (overhead signs, bridges, utilities, etc.) crossing over a roadway.

5.4 REFERENCES

1 *Plans Preparation Manual*; FDOT; Tallahassee, Florida; January 2006 and as amended.

2 *A Policy on Geometric Design of Highways and Streets*; American Association of State Highway and Transportation Officials; 2004.

3 *Straight Line Diagrams*; FDOT, District 7.

4 *Traffic Technical Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

5 *Pasco County Comprehensive Plan*; Pasco County Growth Management Department; 2000, with revisions.

6 *Hernando County Comprehensive Plan*; Hernando County Board of County Commissioners; Adopted June 1989 and as amended.

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SECTION 6.0
TRAFFIC

This section represents a summary of the findings presented in the *Traffic Technical Memorandum (TTM)*[1] which was prepared for this PD&E Study. This report presents information on the existing traffic conditions, the methodology for projecting design year 2030 volume demands for the study area roadway network, projections of design year 2030 volumes and analyses of the future design year No-Build and Build conditions. The Build conditions were developed to include the necessary capacity improvements to achieve, at minimum, the level of service standard dictated for each facility by either state or local government pertinent plans.

6.1 EXISTING TRAFFIC CONDITIONS

6.1.1 Roadway and Intersection Characteristics

6.1.1.1 I-75

The FDOT has designated I-75 as SR 93 –Section 14 140 000– in Pasco County, SR 93 – Section 08 150 000– in Hernando County, and SR 93 –Section 18 130 000– in Sumter County. I-75 is part of the of the Florida *Strategic Intermodal System (SIS)*[2], which is the FDOT's network of significant transportation facilities providing statewide movement of people and goods and providing linkages to major intermodal facilities, such as seaports, airports, and rail and transit terminals. The SIS's minimum standards for level of service (LOS) and design are derived from the *Florida Intrastate Highway System's (FIHS)*[3] parameters. Since the study area is in a transitioning (from rural to urban) area type, the LOS standard for I-75 in the study area is LOS "C."

Within the study limits, I-75 is a four-lane, divided, limited access, interstate highway in a primarily rural setting. The roadway has 12-foot lanes, 10-foot outside paved shoulders, 4-foot inside paved shoulders, an open-drainage section and generally a standard 64-foot wide median. The speed limit is posted at 70 miles per hour. Rest areas are located on both sides of I-75 in Sumter County. The exit and entry points along I-75 at the northbound rest area are located approximately 1,700 feet and 3,200 feet north of

the Withlacoochee River Bridge, respectively. The exit and entry points along I-75 at the southbound rest area are located approximately 3,700 feet and 2,500 feet north of the Withlacoochee River Bridge, respectively.

6.1.1.2 US 98/SR 50 (Cortez Boulevard) and Intersections at I-75 Interchange

SR 50 is a four-lane divided arterial that connects I-75 to Brooksville and Ridge Manor. The right of way width of SR 50 in the vicinity of I-75 is, in general, 200 feet wide. The posted speed limit is 55 mph.

SR 50 is connected with I-75 via a diamond interchange. Both intersections of the northbound and southbound ramp termini at SR 50 are fully signalized. The lane geometry at these intersections is shown on **Exhibit 6-1**.

6.1.1.3 CR 41 (Blanton Road) and Intersections at I-75 Interchange

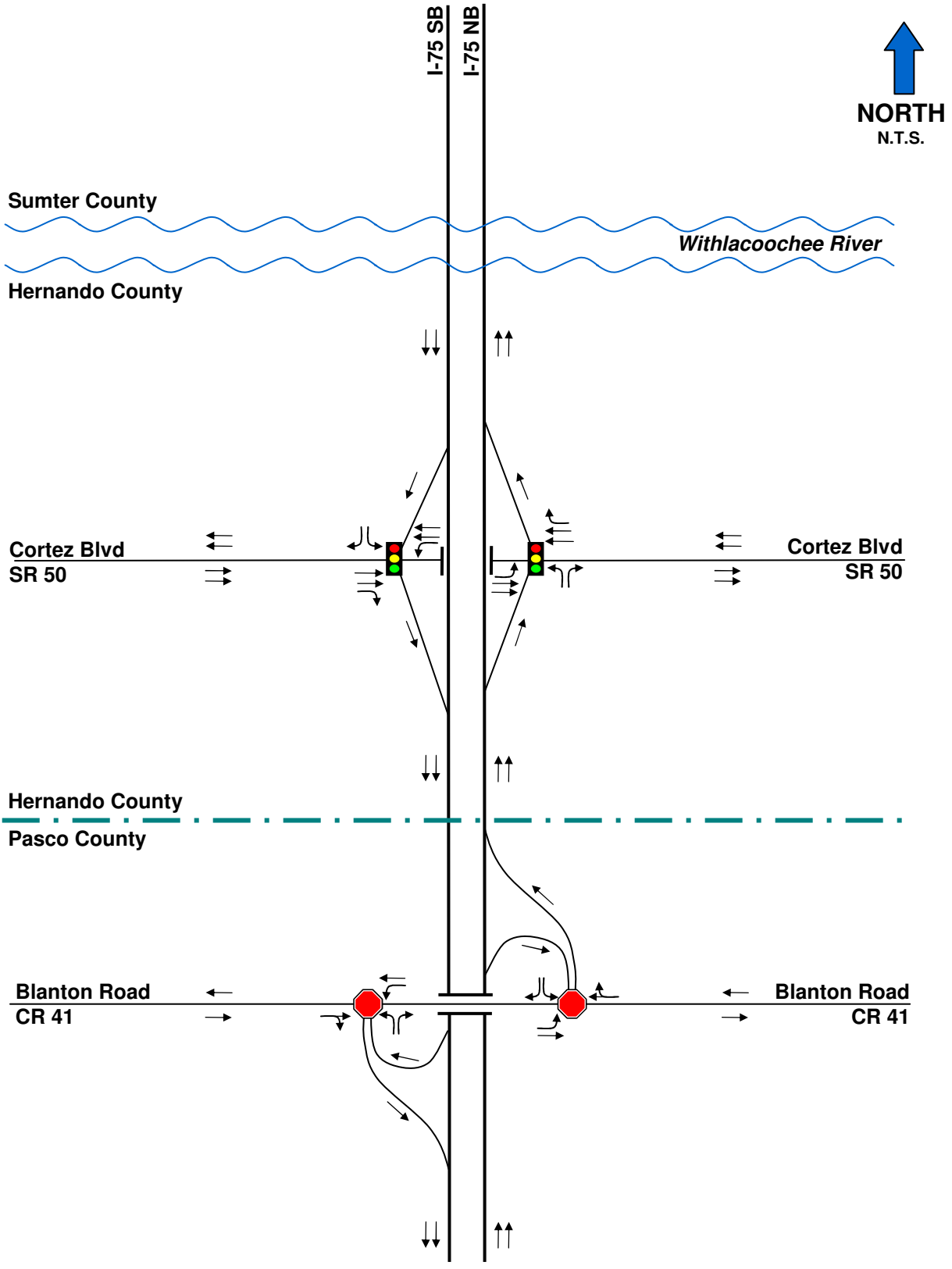
CR 41 is a two-lane undivided arterial road that connects I-75 to Dade City and Spring Hill. The right of way width of CR 41 in the vicinity of I-75 is 100 feet wide. The posted speed limit is 55 mph.

CR 41 is connected with I-75 via a partial cloverleaf interchange with loops at the southwest and northeast quadrants. The lengths of the loops are short causing operational and safety deficiencies. Both intersections of the northbound and southbound ramp termini at CR 41 are controlled with STOP signs placed at the ramp approaches. The lane geometry at these intersections is shown on **Exhibit 6-1**.

6.1.2 Existing Traffic Volumes

6.1.2.1 Existing Traffic Counts

Traffic counts were conducted at several locations, generally from Monday afternoon to Friday morning during the week of March 14, 2005. These counts included both 72-hour machine counts and 6-hour (6:00 to 9:00 A.M. and 4:00 to 7:00 P.M.) manual turning movement counts. Machine counts included the count of trucks and intersection turning movement counts included the count of pedestrians and bicycles. **Exhibit 6-2** depicts the locations of the counts. A list of the counts by type and location is provided below:



I-75 PD&E Study

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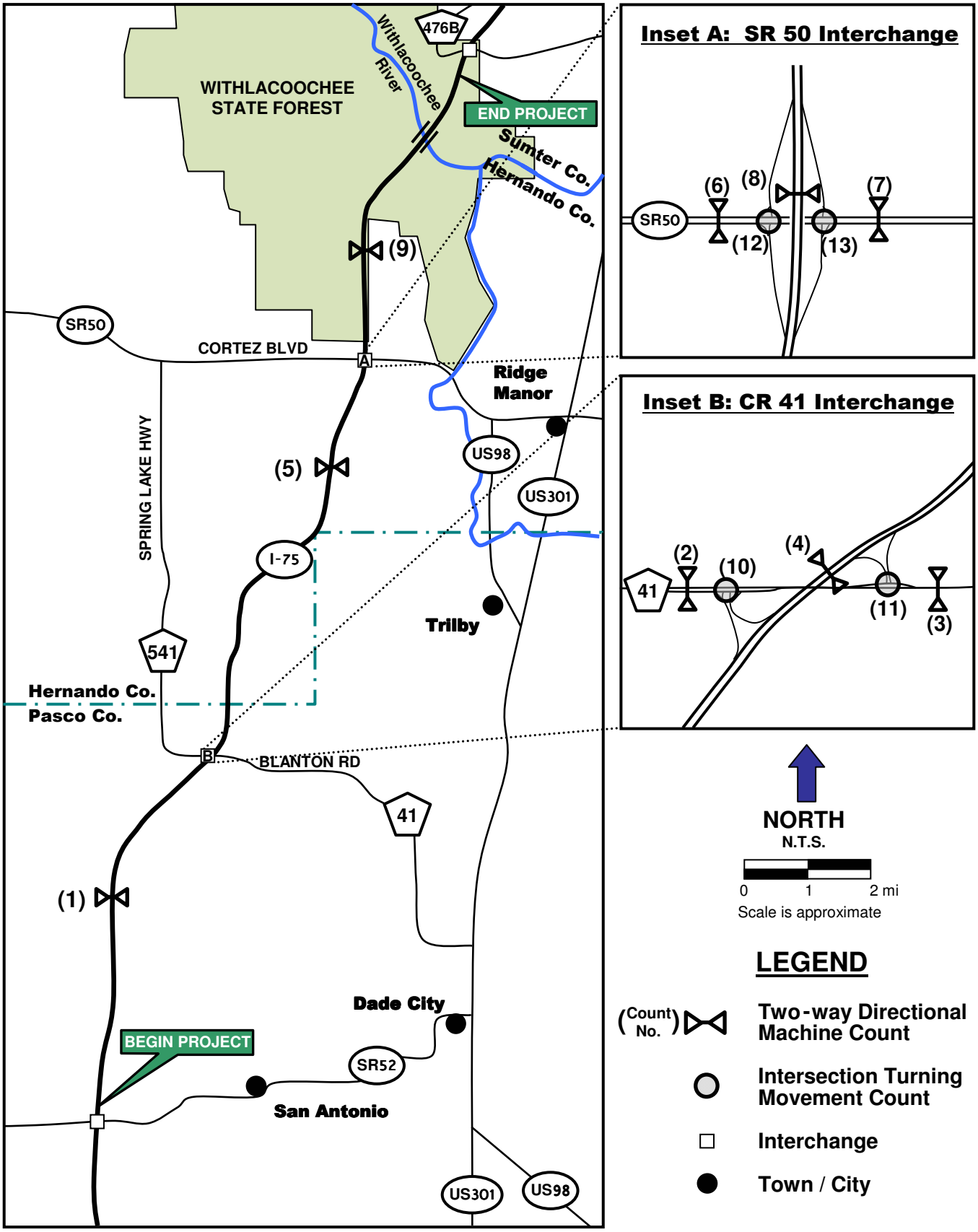
Existing (Year 2005) Travel Lane Configuration

Exhibit 6-1



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From N. of SR 52 to S. of CR 476B

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Traffic Count Locations

Exhibit 6-2

- **Three-day (72-hour) mainline / side street machine volume counts:**
  1. I-75 between the SR 52 and CR 41 interchanges
  2. I-75 between southbound off-ramp and northbound off-ramp at CR 41 Interchange
  3. I-75 between CR 41 and SR 50
  4. I-75 between southbound off-ramp and northbound off-ramp at SR 50 Interchange
  5. I-75 between SR 50 and the Withlacoochee River Bridge
  6. CR 41 west of the I-75 Interchange
  7. CR 41 east of the I-75 Interchange
  8. SR 50 west of the I-75 Interchange and east of LaRose Road
  9. SR 50 east of the I-75 Interchange and west of Windermere Road

- **Intersection turning movement counts:**
  10. CR 41 at the I-75 southbound on-ramp and off-ramp termini
  11. CR 41 at the I-75 northbound on-ramp and off-ramp termini
  12. SR 50 at the I-75 southbound on-ramp and off-ramp termini
  13. SR 50 at the I-75 northbound on-ramp and off-ramp termini

6.1.2.2 Existing "K_{30}", "D_{30}", and "T_{24}" Factors

The "K_{30}" factor represents the percentage of the AADT volume that occurs during the 30^{th} highest traffic hour of the year. The directional distribution or "D_{30}" factor represents the directional split of the 30^{th} highest traffic hour of the year. The "T_{24}" factor represents the percentage of heavy trucks present in the AADT volume. **Table 6-1** summarizes the "K_{30}", "D_{30}", and "T_{24}" factors observed in the study area based on past counts.

Based on review of these data, the FDOT District 7 Planning staff suggested that the following "K_{30}", "D_{30}", "DHT_{30}", and "T_{24}" factors be used for I-75 in the study area:

- A "K_{30}" factor of 9.40%,
- A "D_{30}" factor of 56.35%,

- A "DHT_{30}" factor of 13.50%,
- A "T_{24}" factor of 27.00%.

Table 6-1 – Traffic Characteristics for the Study Area

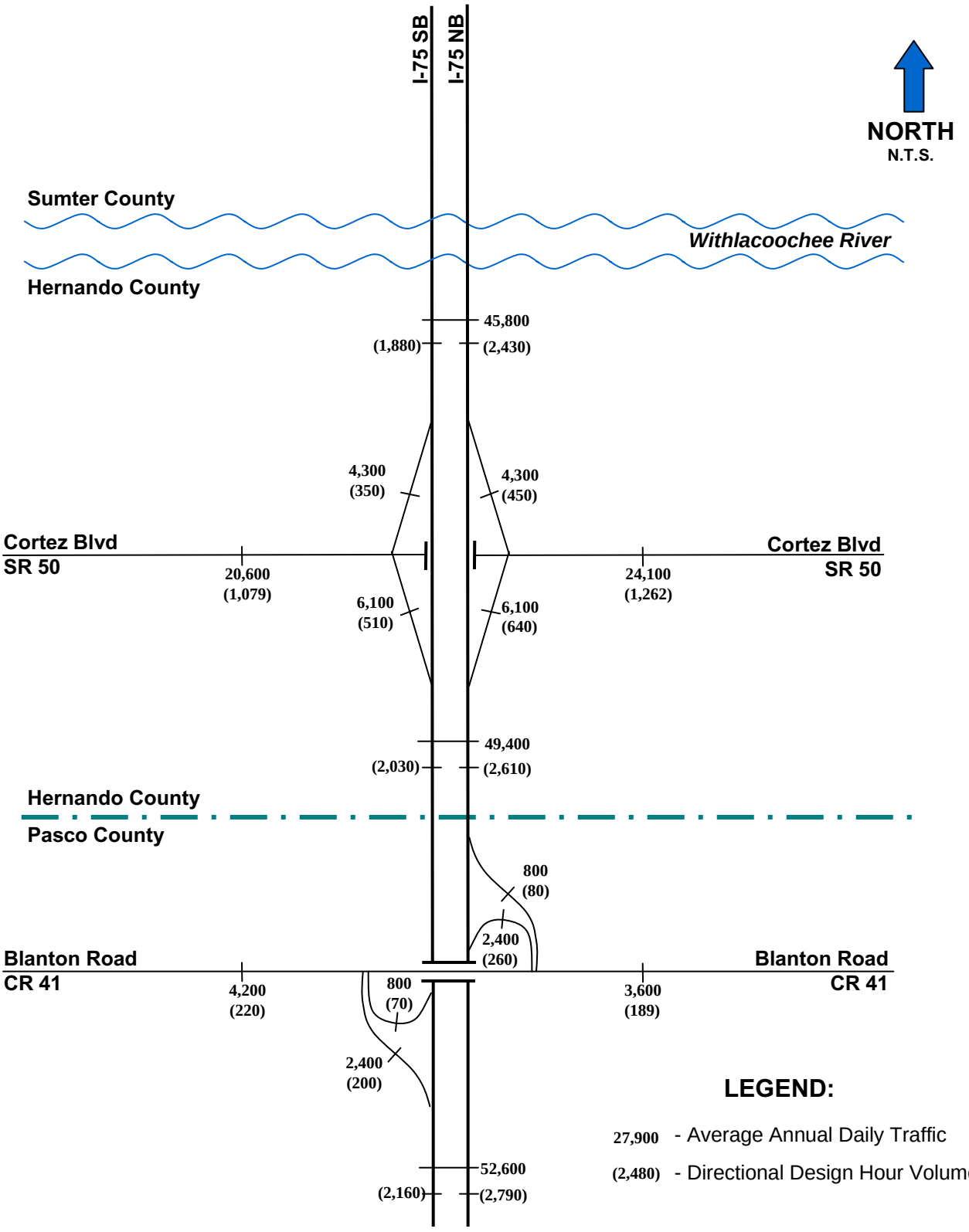
Count Station	Location	Year	FTI CD AADT	K_{30} (%)	D_{30} (%)	T_{24} (%)
0093	I-75 north of SR 52	2001	43,500	8.94	55.00	27.69
		2002	39,500	8.99	56.15	25.36
		2003	41,500	8.76	53.67	25.36
0094	I-75 north of CR 41	2001	35,500	8.94	55.00	22.03
		2002	33,500	8.99	56.15	33.01
		2003	35,500	8.76	53.67	33.01
0037	I-75 north of SR 50	2001	37,000	9.52	57.42	32.20
		2002	38,500	8.99	56.15	26.95
		2003	42,000	8.76	53.67	26.95
0046	SR 50 west of I-75	2001	16,200	9.62	56.39	19.94
		2002	18,800	9.58	56.69	15.49
		2003	18,000	9.59	56.45	15.49
0018	SR 50 east of I-75	2001	16,200	9.62	56.39	21.29
		2002	18,100	9.58	56.69	18.96
		2003	15,600	9.59	56.45	18.96

Source: Florida Traffic Information CD; 2001, 2002, and 2003 Versions

6.1.2.3 Existing AADT Volumes and DDHV

The existing year (2005) Annual Average Daily Traffic (AADT) Volumes were estimated from the raw traffic count data by applying the appropriate axle and seasonal factors, AF and SF, respectively. Directional Design Hourly Volumes (DDHV) were developed, in turn, by applying the appropriate "K" and "D" factors to the AADT volumes.

Exhibit 6-3 presents the existing (2005) DDHV and AADT volumes. As shown, existing AADT volumes along I-75 are 52,600 vehicles per day (vpd) south of CR 41 and gradually drop to approximately 45,800 vpd north of SR 50. CR 41 currently carries



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Existing (Year 2005) Peak Hour DDHV and AADT Volumes

Exhibit 6-3

from 3,600 to 4,200 vpd east and west of I-75, respectively. SR 50 accommodates from 20,600 to 24,100 vpd west and east of I-75, respectively.

Based on a review of the collected traffic counts, traffic patterns on I-75 in the study area are representative of rural conditions that do not follow typical commuter travel patterns. In the northbound direction, the peak hour, peak direction for traffic is generally between 10:00 A.M. and 1:00 P.M. in the northbound direction. A second peak hour occurs in the northbound direction around 3:30 to 4:30 P.M., which is generally 10% less than the prior peak hour volume. Southbound traffic is less than northbound traffic and its peak hour lies somewhere between 8:30 and 11:30 A.M. Since traffic was collected in March 2005, these traffic numbers may be skewed, as this is a heavy period for seasonal residents to drive north to their summer residences.

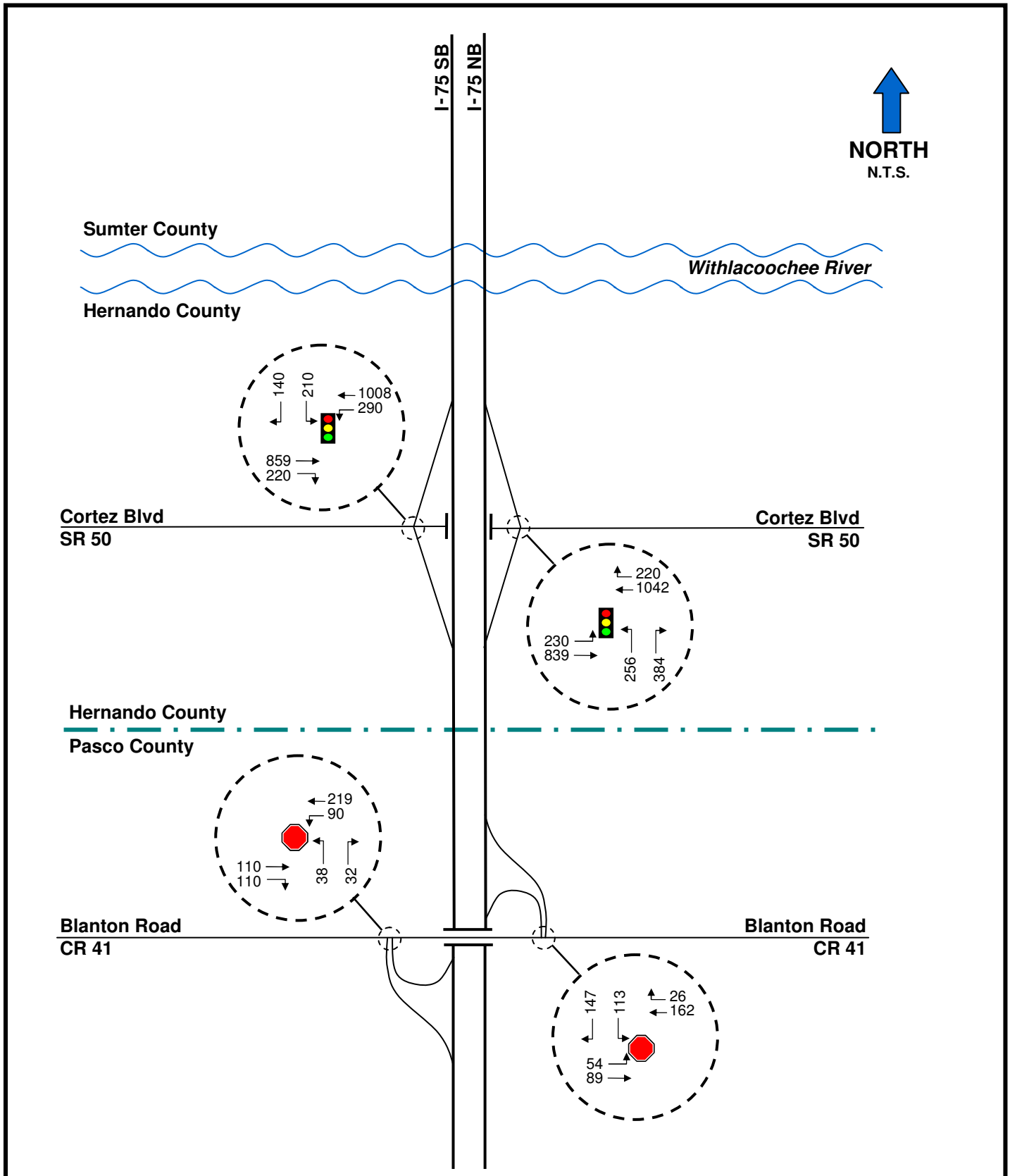
Peak hour traffic on CR 41 and SR 50 follow more typical commuting times with the morning peak direction occurring towards the I-75 from 6:30 to 7:30 A.M. and the afternoon peak direction occurring away from the I-75 from 3:30 to 4:30 P.M.

6.1.2.4 Existing (2005) Intersection Design Hour Turning Volumes

Design hour turning movement volumes were determined at the study area intersections by applying the TURNS-5 software, which uses the DDHV and the turning patterns observed at each intersection through the turning volume counts, and subsequent rebalancing of the volumes. **Exhibit 6-4** presents the design hour, year 2005 turning volumes at the intersections of the I-75 ramp termini at CR 41 and SR 50.

6.1.3 Existing (2005) Levels of Service

The methodology of the *Highway Capacity Manual (HCM)*[4] was used to evaluate the existing level of service of key components of the roadway network in the study area such as the I-75 mainline, merge/diverge areas along I-75 at the interchanges, and intersections at the ramp termini. The lane geometry presented on **Exhibit 6-1** and the volumes presented on **Exhibits 6-3** and **6-4** were applied. **Exhibit 6-5** presents the existing levels of service in the study area.



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando, and Sumter Counties

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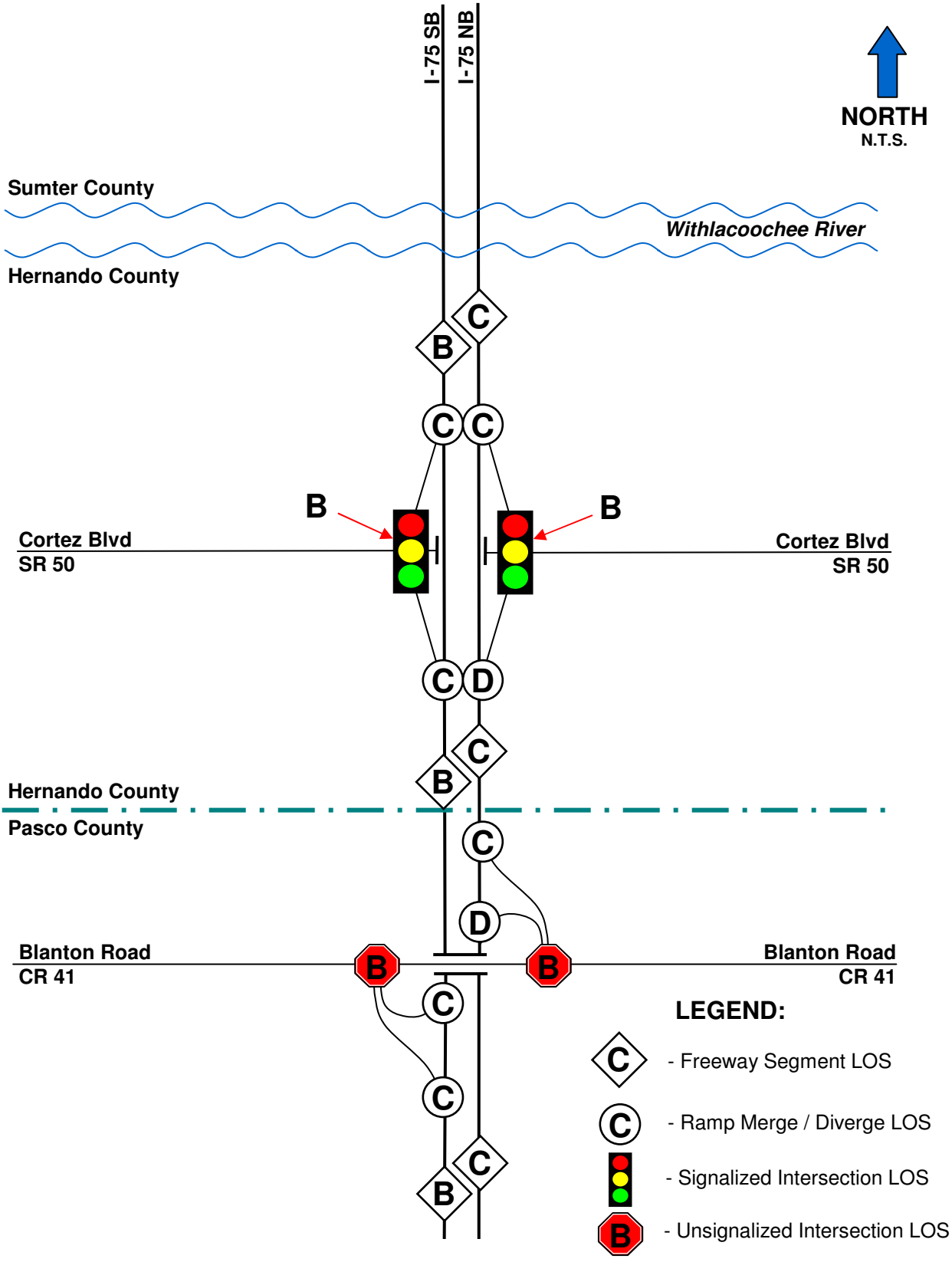
FAP No.: 0751-120I

Existing (Year 2005) Intersection Design Hour Turning Volumes

Exhibit 6-4



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando, and Sumter Counties

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Existing (Year 2005) Levels of Service

Exhibit 6-5

The level of service analysis indicates that the I-75 mainline currently operates at LOS "C" in the northbound direction and LOS "B" in the southbound direction. The merge and diverge sections of I-75 associated with the two interchanges within the study area currently operate at a LOS ranging from LOS "C" to LOS "D". Since each interchange is spaced over five miles apart, there are no weaving sections within the study area.

Both unsignalized intersections at the CR 41 interchange currently operate at LOS "B". The signalized intersections at the SR 50 interchange currently operate at LOS "B".

6.2 MULTIMODAL TRANSPORTATION SYSTEM CONSIDERATIONS

Currently, there are no public transit or other multimodal facilities provided along or in the vicinity (park and ride facilities) of I-75. The ultimate plan for I-75 –which is to become a 10-lane corridor with express, regular, and HOV travel lanes within the existing 300-foot-wide right of way does not include public transit facilities. Also, neither the *Year 2025 Long Range Transportation Plans (LRTPs)*[5,6] of Pasco and Hernando counties' Metropolitan Planning Organizations (MPOs) nor the *Comprehensive Plans*[7,8,9] of Pasco, Hernando, and Sumter counties identify the I-75 corridor as a public transit facility.

According to the Pasco County MPOs *Year 2025 LRTP* and the Pasco County *Comprehensive Plan*, there are no existing nor proposed multimodal facilities along the roadways crossing I-75 within the study area. In Hernando County, SR 50 is identified as a bicycle route by means of its paved shoulder. Also, the 2025 Transit Needs Plan shows SR 50 to be the proposed route for Bus Route 90 connecting the City of Brooksville with the Ridge Manor area. SR 50 is also identified as a major truck movement route and its interchange with I-75 is shown a truck traffic "hot spot". The Sumter County *Comprehensive Plan* does not identify any multimodal facilities for the roadway network adjacent to I-75.

6.3 FUTURE TRAFFIC CONDITIONS

6.3.1 Opening, Interim, and Design Year Daily Traffic Volumes

The FDOT District 7 Planning staff utilized the Tampa Bay Regional Planning Model, Version 5.1 to project design year (2030) average daily traffic volumes. This model was updated to include new developments that are already approved, such as the Sunrise DRI, in the vicinity of the I-75/SR 50 interchange. The opening year (2010) and interim year (2020) average daily traffic volumes were calculated by interpolating between the existing (2005) and the design year (2030) average daily volumes, assuming a straight line traffic growth rate for this period. The "K_{30}" and "D_{30}" factors, previously discussed in **Section 6.1.2.2**, were applied to each set of daily volumes to estimate the directional design hour volumes (DDHV). **Exhibits 6-6, 6-7**, and **6-8** present the projected opening year (2010), interim year (2020), and design year (2030) AADT and DHV, respectively.

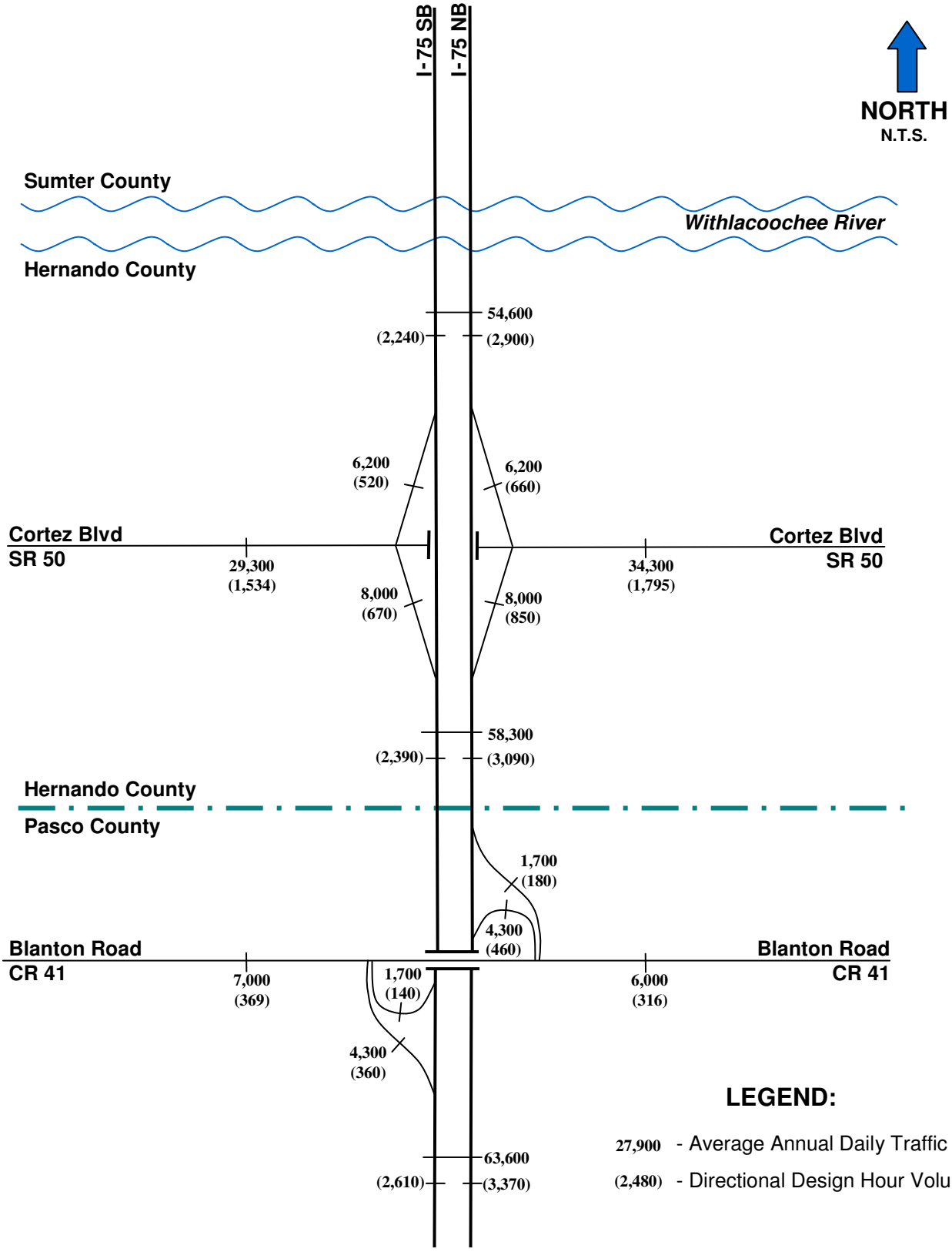
As shown in **Exhibit 6-8**, during an average day of the design year, I-75 would be expected to carry from 90,000 vpd north of SR 50 to 107,000 vpd south of CR 41; these volumes are higher by 96.51% and 117.41% compared to the respective 2005 volumes, highlighting the extensive growth that is expected to occur in the region served by this project.

CR 41 is projected to carry from 15,800 to 18,400 vpd, east and west of I-75, respectively, by 2030. These volumes are higher by approximately 339% and 338% compared to the respective existing volumes.

SR 50 is expected to accommodate from 64,000 to 75,000 vpd, west and east of I-75, respectively. These volumes are both approximately 211% larger than the existing volumes.

6.3.2 Design Year (2030) Design Hour Intersection Volumes

The design hour volumes for the design year at the intersections of the study area were developed by utilizing the TURNS-5 software on the projected design year (2030) DDHV, shown on **Exhibit 6-8**, and subsequent rebalancing of the volumes. The design year (2030) design hour turning volumes are depicted on **Exhibit 6-9**.



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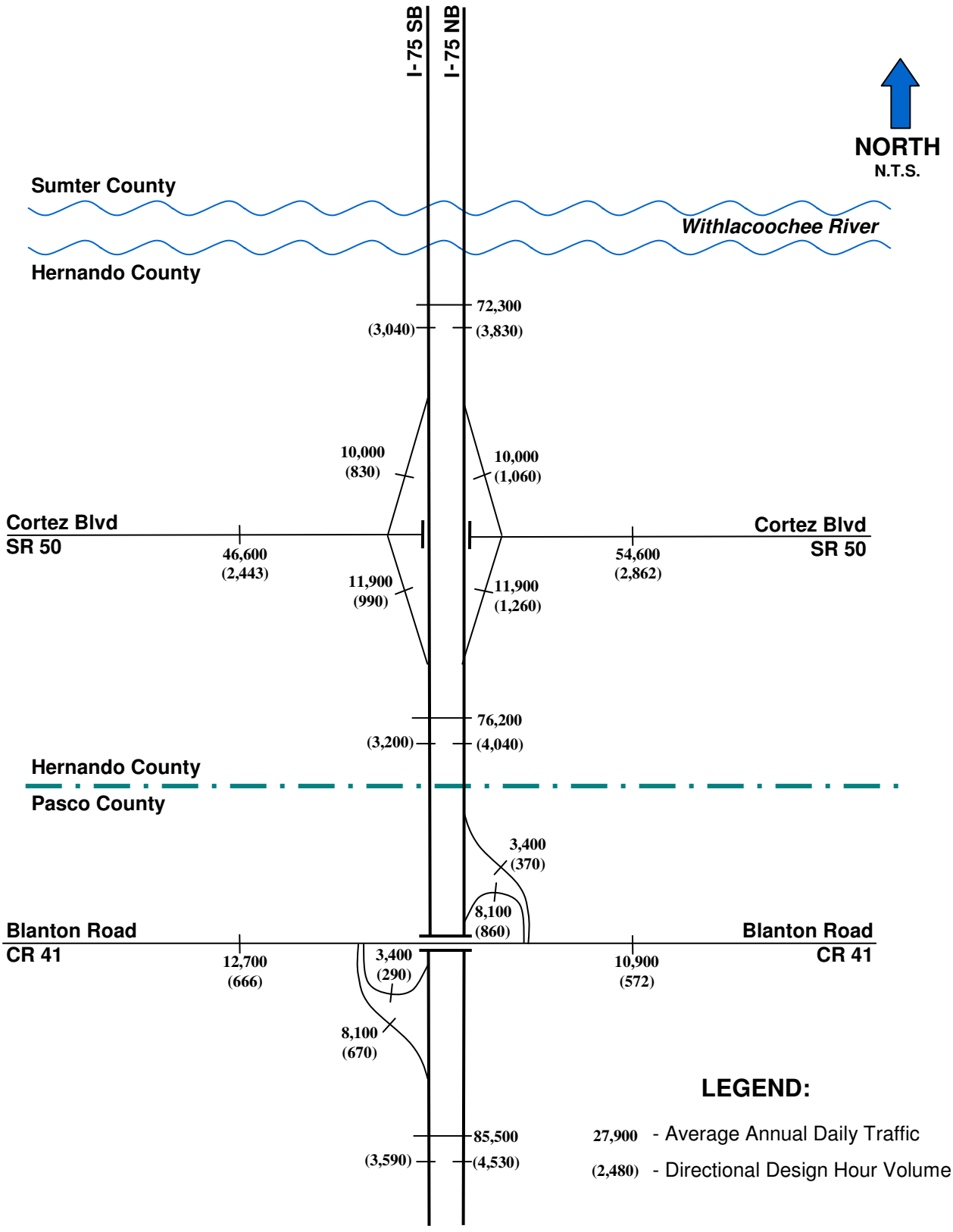
Opening Year (2010) DDHV and AADT Volumes

Exhibit 6-6



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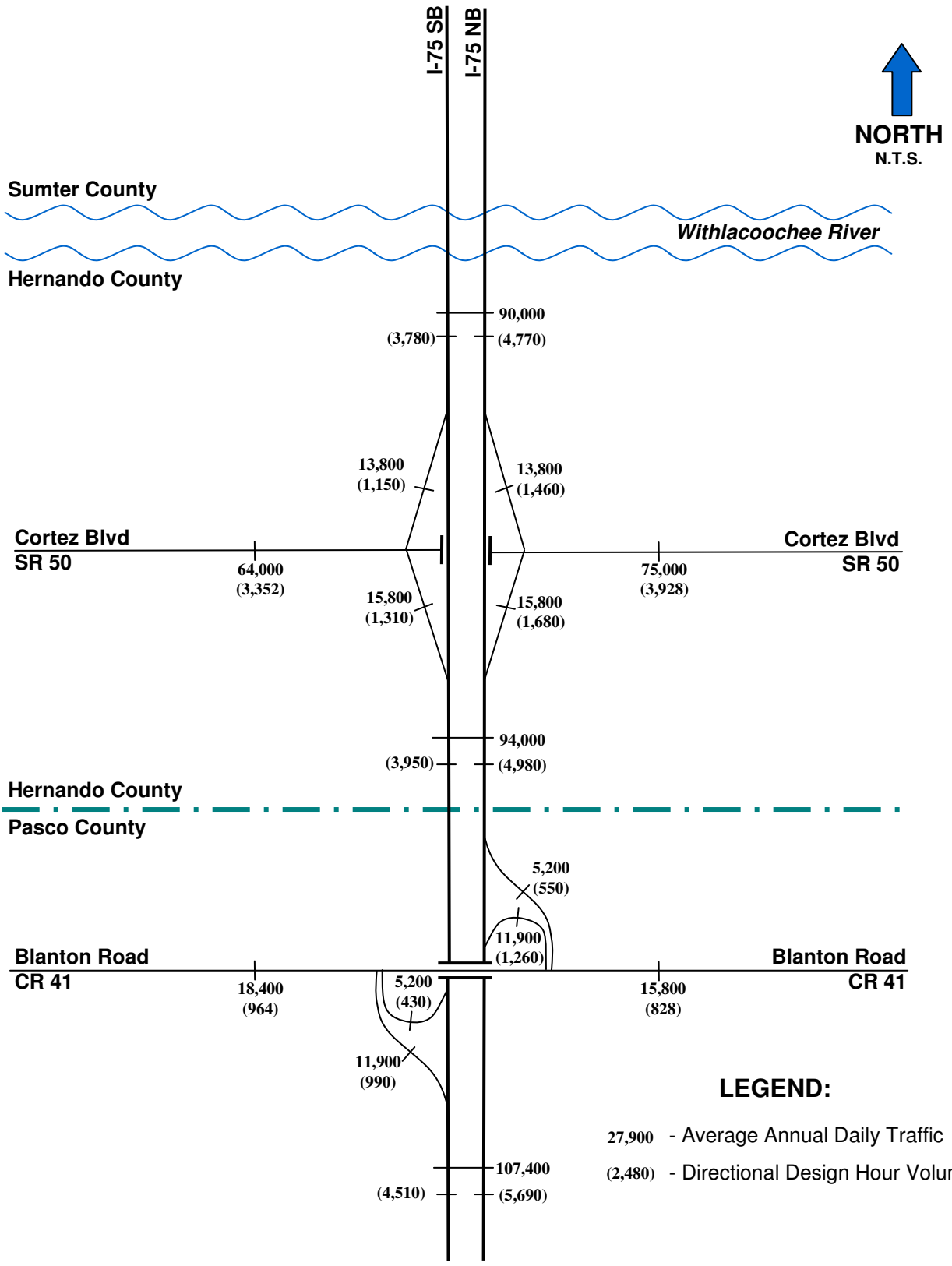
Interim Year (2020) DDHV and AADT Volumes

Exhibit 6-7



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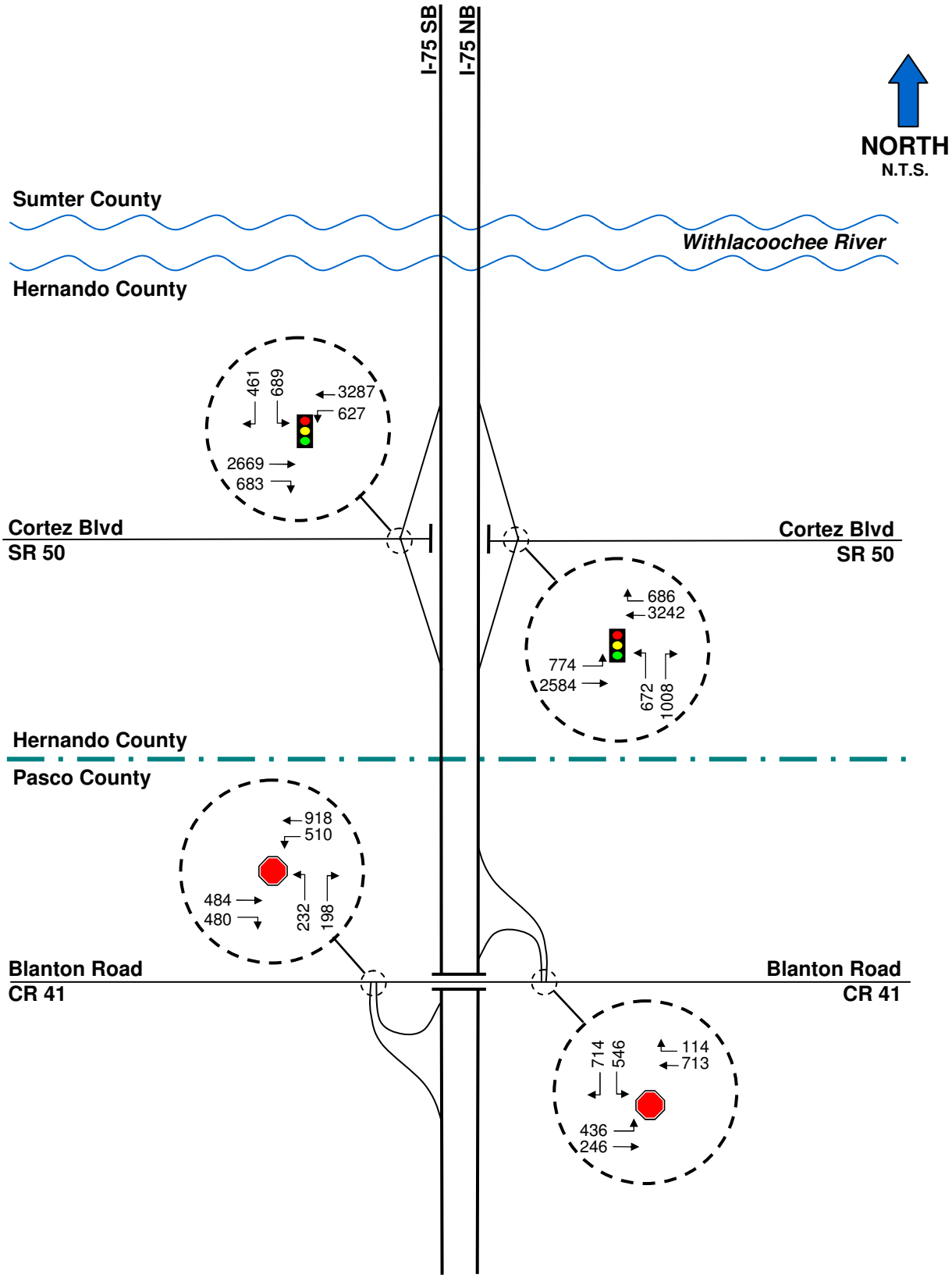
Design Year (2030) DDHV and AADT Volumes

Exhibit 6-8



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Design Year (2030) Design Hour Intersection Turning Volumes

Exhibit 6-9

6.3.3 Design Year (2030) No-Build Levels of Service

The performance of the various components of the roadway network in the study area was evaluated for the design hour of the design year 2030 traffic volume demand, assuming that no capacity improvements will be implemented (No-Build condition) on any of them.

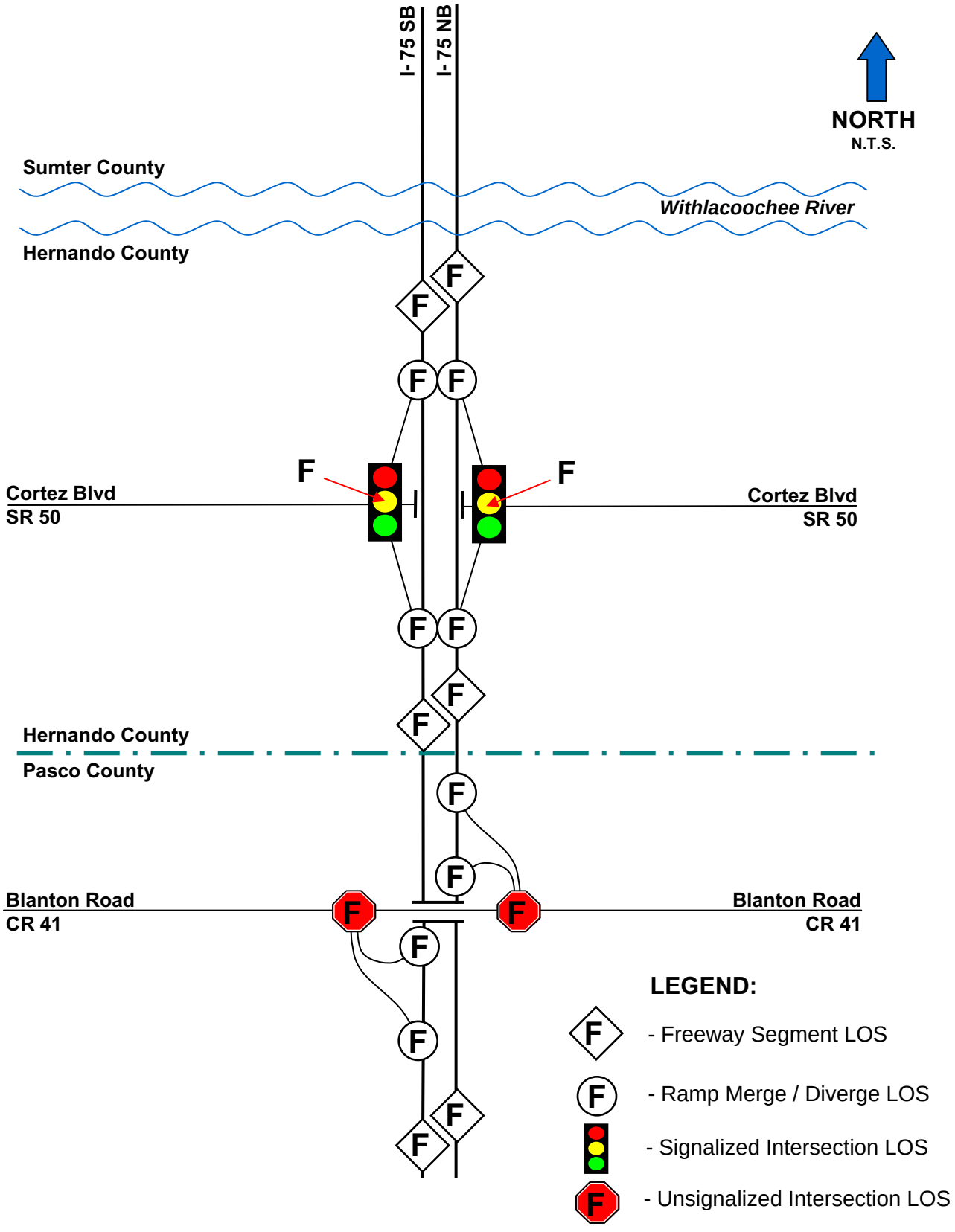
Exhibit 6-10 depicts the results of this evaluation. As shown, without lane additions along I-75, all three I-75 mainline segments studied would be expected to operate at a LOS "F." All ramp merge and diverge sections in the vicinity of the existing interchanges, at CR 41 and SR 50, would also be expected to operate at a LOS "F." The unsignalized intersections of the ramp termini at the CR 41 interchange and the signalized intersections of the ramp termini at the SR 50 interchange would be expected to operate at LOS "F." These levels of service are well below the LOS "C" standard for I-75, LOS "C" standard for SR 50, and LOS "D" standard for CR 41.

6.3.4 Design Year (2030) Build Levels of Service

Several improvement scenarios were considered for the I-75 mainline, interchanges, and intersections at the ramp termini to render, at minimum, the level of service standards specified for each facility.

6.3.4.1 I-75 Mainline

Two widening alternatives were evaluated for I-75: a) widening to six lanes (three lanes in each direction), and b) widening to eight lanes (four lanes in each direction). **Exhibit 6-11** summarizes the results of the capacity analyses of the two alternatives. Although, compared to the No-Build alternative, the widening to six lanes alternative will greatly improve traffic conditions along I-75, all northbound freeway segments will continue to provide substandard levels of service. With the widening to eight lanes alternative, however, all freeway segments should be expected to operate at the LOS "C" standard or better.



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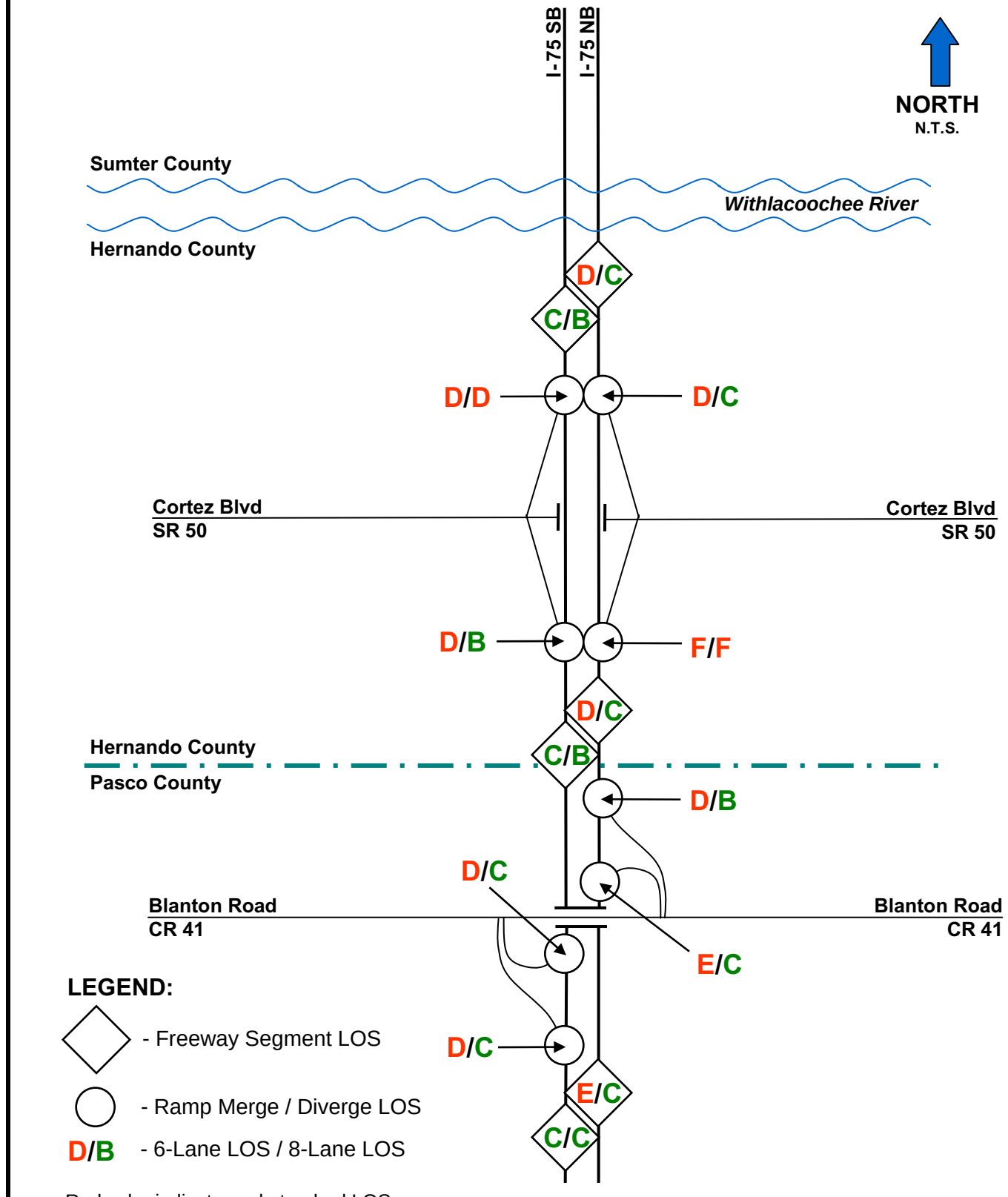
Design Year (2030) No-Build Condition Levels of Service

Exhibit 6-10



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Design Year (2030) Build Condition Levels of Service for I-75

Exhibit 6-11

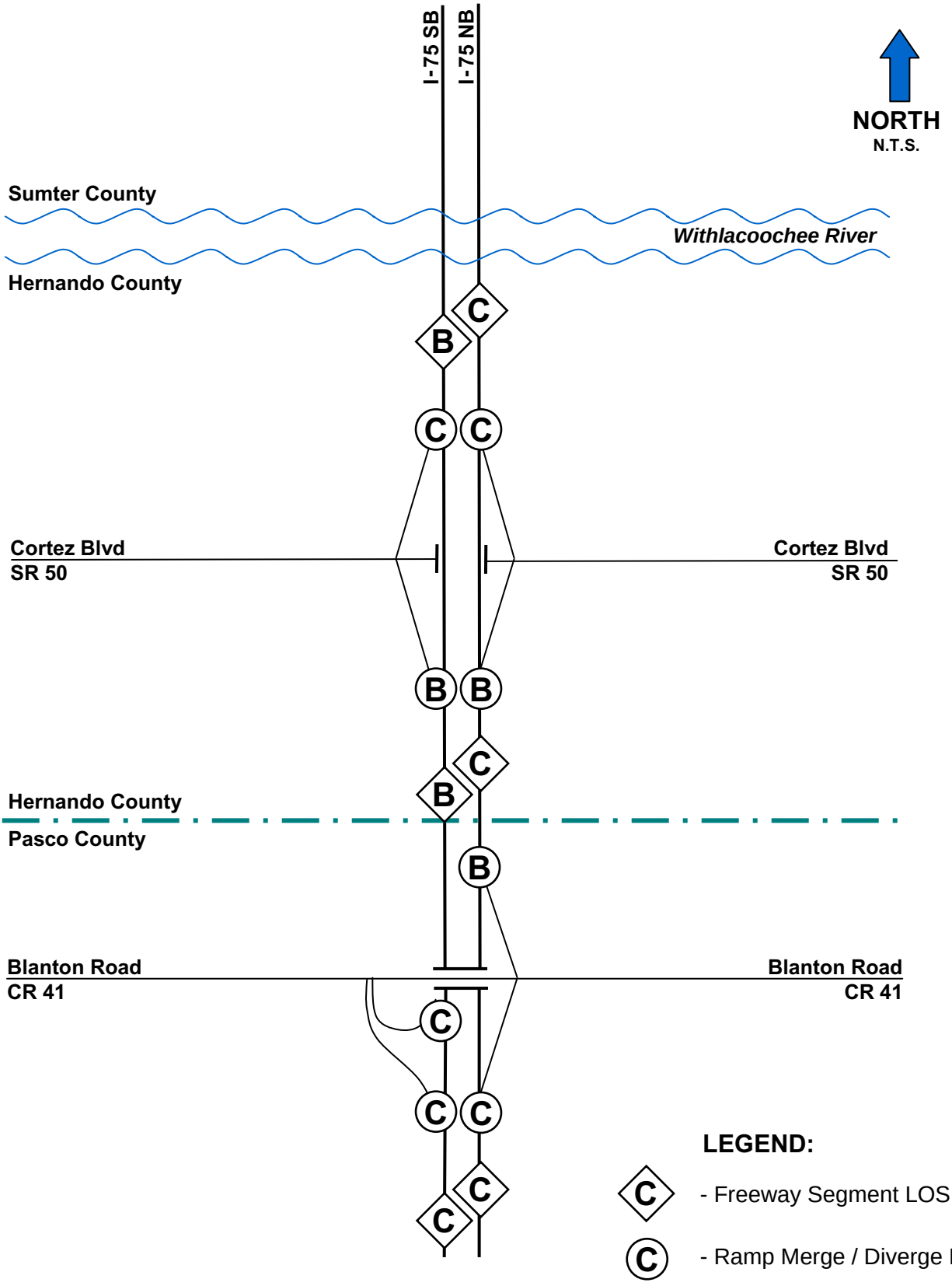
As shown on **Exhibit 6-11**, even with the eight-lane widening alternative some diverge sections along I-75 – the I-75 NB exit to SR 50, and the I-75 SB exit to SR 50 – should be expected to operate at a LOS below the standard "C." In addition, the northbound off-ramp loop, located in the northeast quadrant of the CR 41 interchange, is not long enough to meet future traffic demands. This ramp is only approximately 620 feet long from the gore point to the stop bar at the ramp terminal; this length will be further reduced due to the proposed widening of the I-75 mainline. Future design hour volumes will likely require storage for over 400 feet. For this reason, the northbound off-ramp must either be reconstructed to provide more queue storage or be replaced by a northbound off-ramp located in the southeast quadrant of the interchange, thus resulting in a partial diamond interchange at CR 41. The southbound off-ramp at CR 41 is longer (approximately 780 feet long) and the projected design hour volume substantially less; therefore it is considered to be long enough to meet design year traffic demands.

Various alternatives, including implementation of auxiliary lanes, extending deceleration/ acceleration lanes, and widening the ramps, were considered to improve these conditions to the LOS "C" standard. The list below shows the minimum improvements required to bring operations at these diverge sections to the LOS standard of "C" or better.

- I-75 northbound exit to SR 50 – Widen the off-ramp to two lanes. Add a minimum 500-foot-long right-side auxiliary lane along I-75 that will drop into the off-ramp while the right-most I-75 mainline lane will be a decision lane for staying on northbound I-75 or exiting to the off-ramp.
- I-75 southbound exit to SR 50 – Add a minimum 500-foot-long deceleration lane in advance of the gore area.

As discussed next, in **Section 6.3.4.2**, additional improvements were considered for the I-75 / SR 50 interchange in order to provide acceptable levels of service at the intersections of the ramp termini at SR 50.

Exhibit 6-12 displays the levels of service achieved with these improvements.



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Design Year (2030) Build Condition Levels of Service for I-75 with Interchange Improvements

Exhibit 6-12

6.3.4.2 Intersections at the Ramp Termini

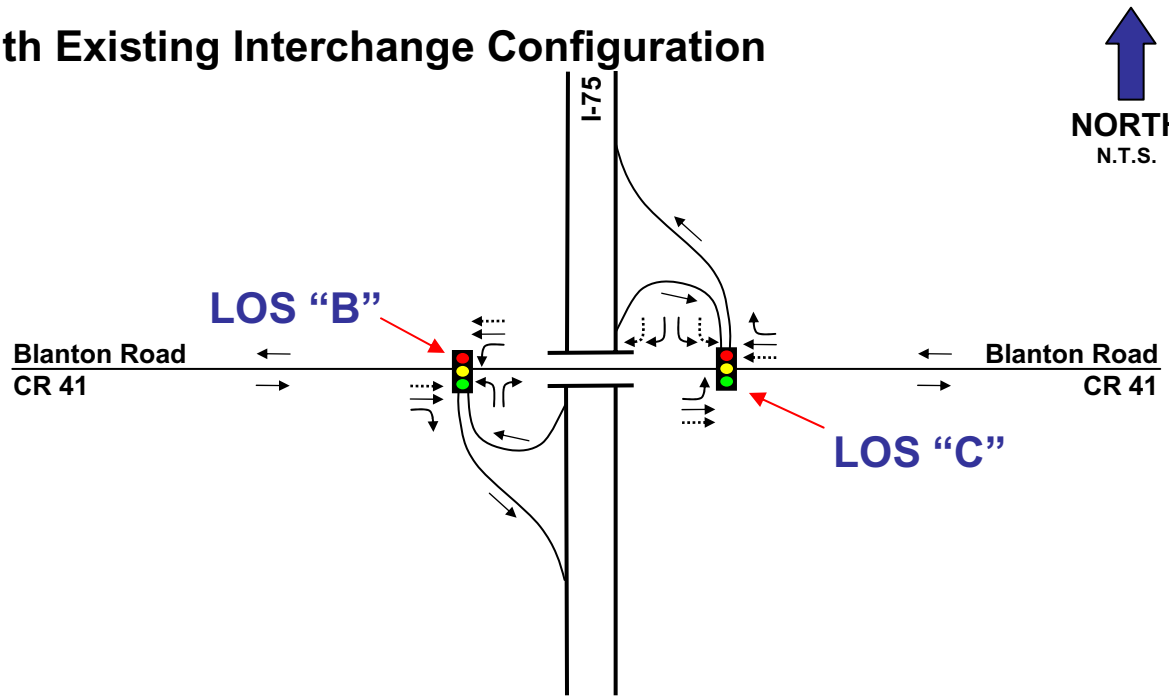
Since queuing at the intersections of the ramp termini can affect the I-75 mainline operations, maintaining satisfactory levels of service at these locations is highly important. To improve the substandard No-Build level of service conditions at the ramp termini at CR 41 and SR 50, a number of improvement alternatives were evaluated.

For the intersections of the ramp termini at CR 41, signalization was considered as a solution to improve the levels of service. **Exhibit 6-13** displays the lane geometry assumed for these intersections and the resulting levels of service. As shown on **Exhibit 6-13**, with signalization, the design hour levels of service are expected to improve to LOS "C" at the northbound ramp termini and LOS "B" at the southbound ramp termini. As noted in the previous section, another alternative is to replace the northbound loop off-ramp in the northeast quadrant with a "slip" or diamond-type ramp in the southeast quadrant. The design hour operations at the ramp termini under this concept were also analyzed, assuming signalized conditions. **Exhibit 6-13** displays the lane geometry assumed at the intersections, under this concept, and the resulting levels of service (LOS "B" and "D").

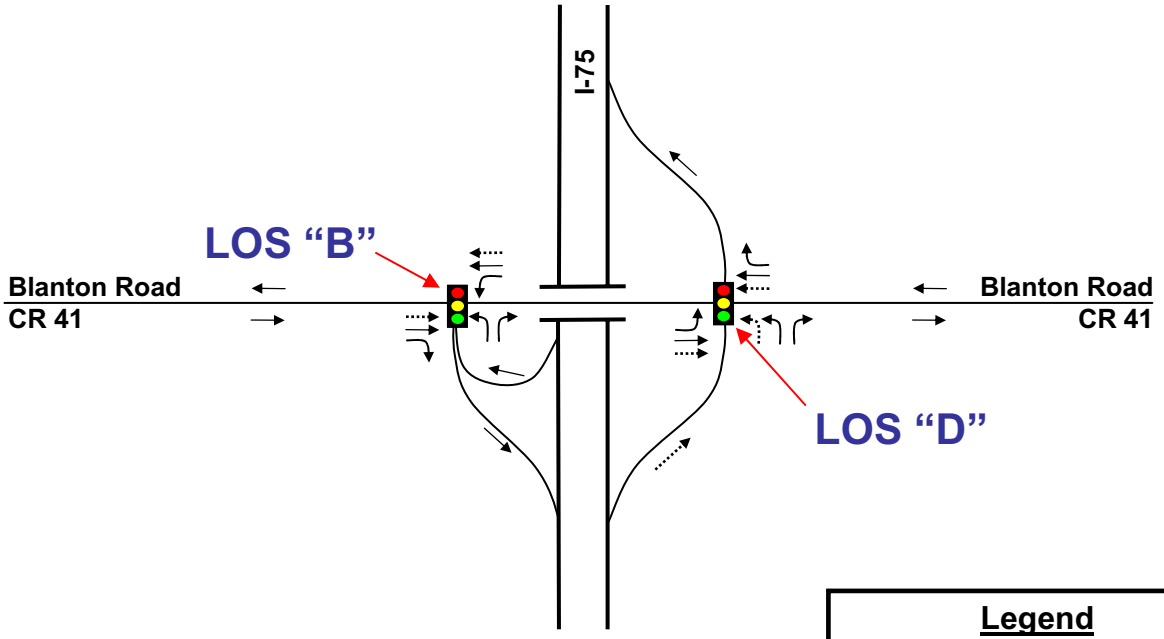
Exhibits 6-14 and **6-15** display the interchange configurations and lane geometry concepts considered for the I-75 / SR 50 interchange to address design year (2030) level of service deficiencies at the intersections of the ramp termini at SR 50. These concepts included addition and/or extension of auxiliary lanes; conversion of the present diamond interchange to a single point urban interchange; addition of a loop ramp to serve the westbound SR 50 to southbound I-75 traffic; the addition of a flyover (direct ramp) to serve the westbound SR 50 to southbound I-75 traffic; and the addition of a flyover (direct ramp) to serve the northbound I-75 to westbound SR 50 traffic.

Exhibits 6-14 and **6-15** also provide the resulting levels of service for each of these alternatives. As shown, the "addition and extension of auxiliary lanes" and the "single point urban interchange" alternatives will not provide acceptable levels of service in the design year.

With Existing Interchange Configuration



With Interchange Configuration Improvements



Legend

- New Travel/Auxiliary Lane

I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

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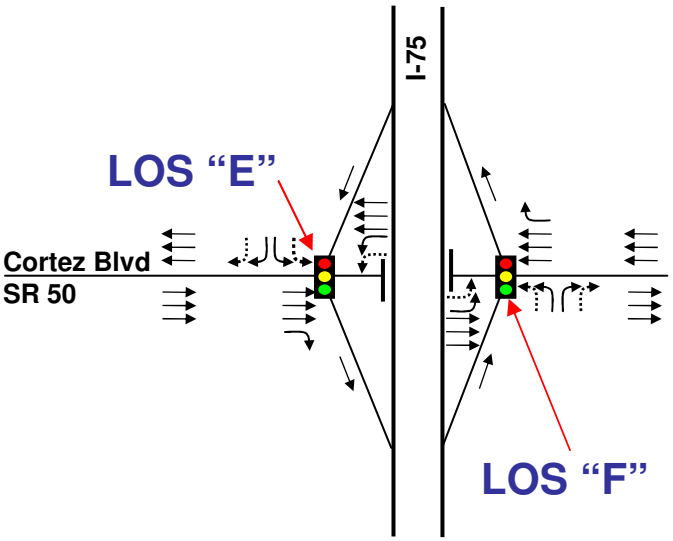
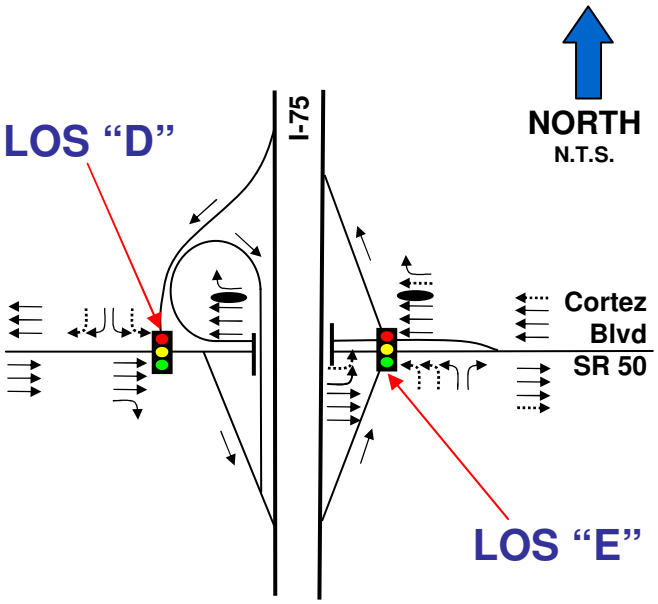
Design Year (2030) Build Condition Levels of Service for the Ramp Termini at the CR 41 Interchange

Exhibit 6-13

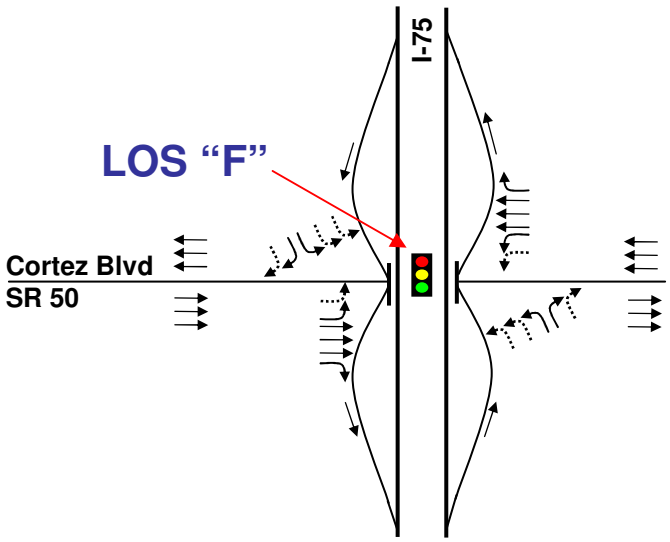


With Auxiliary Lane Improvements



With WB SR 50 to SB I-75 Loop Ramp

Single Point Urban Interchange



Legend

- Traffic Separator / Divider
- New Travel/Auxiliary Lane

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From N. of SR 52 to S. of CR 476B

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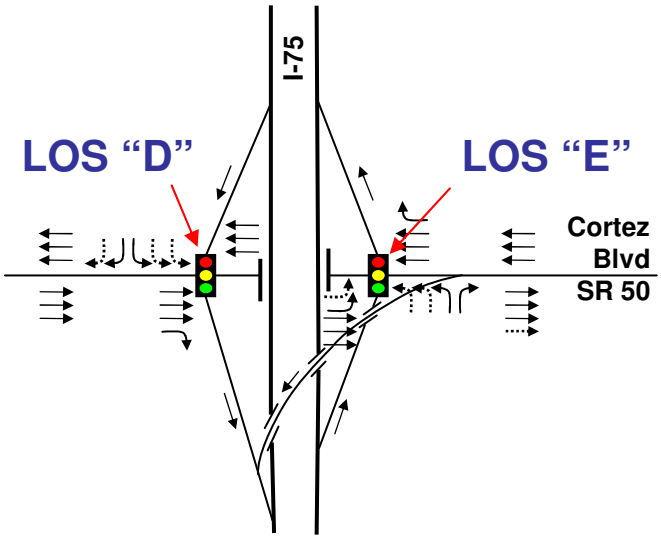
Design Year (2030) Build Condition Levels of Service for the Ramp Termini at the SR 50 Interchange

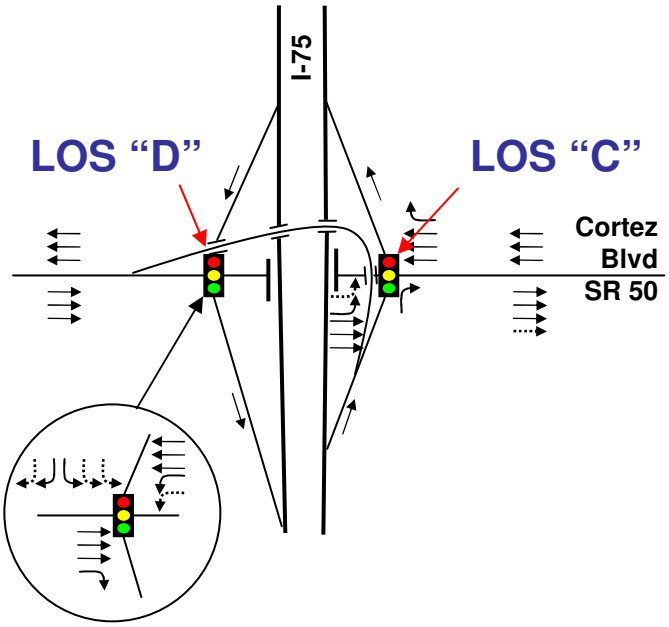
Exhibit 6-14

NORTH
N.T.S.

With WB SR 50 to SB I-75 Flyover



With NB I-75 to WB SR 50 Flyover



Legend

- New Travel/Auxiliary Lane

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Design Year (2030) Build Condition Levels of Service for the Ramp Termini at the SR 50 Interchange

Exhibit 6-15

The "loop ramp" alternative, coupled with the improvements listed below, is expected to result in LOS "D" and "E," respectively, at the southbound and northbound ramp terminals:

- Addition of a westbound to southbound loop ramp located in the northwest quadrant of the intersection,
- Addition of a right-most channelized westbound lane that begins at some point east of the northbound ramp intersection and that feeds the loop ramp. This lane will allow westbound traffic to proceed and not conflict with northbound to westbound traffic turning left from the I-75 off-ramp,
- Addition of an eastbound left-turn lane for the northbound ramp terminal, resulting in dual eastbound left-turn lanes,
- Addition of southbound left- and right-turn lanes at the southbound ramp terminal, resulting in dual southbound right- and left-turn lanes
- The addition of two northbound left turn lanes, resulting in three northbound left turn lanes, and
- Widening SR 50 east of I-75 to some point east of the interchange to allow the northbound right turning movement to be a free flowing movement. This preferred treatment assumes the relocation of the signal at Bronson Boulevard. If this signal cannot be relocated, the ramp terminal should be modified to a dual right-turn operation under signal control; however, this introduces ramp storage issues which would not exist under the preferred treatment.

The westbound to southbound flyover alternative, which consists of the improvements listed below, is expected to result in LOS "D" and "E," respectively, at the southbound and northbound ramp terminals:

- Addition of a westbound to southbound flyover that begins in the northwest quadrant of the interchange,
- Addition of an eastbound left-turn lane at the eastern intersection, resulting in dual eastbound left-turn lanes,

- Addition of a southbound right-turn lane, resulting in two southbound right-turn lanes,
- Addition of two left-turn lanes for both the northbound and southbound left-turn movements, resulting in three left-turn lanes, and
- Widening SR 50 east of I-75 to some point east of the interchange to allow the northbound right turning movement to be a free flowing movement.

The northbound to westbound flyover alternative, which consists of the following improvements, is expected to result in LOS "D" and "C," respectively, at the southbound and northbound ramp terminals:

- Addition of a northbound to westbound flyover that begins in the southeast quadrant of the interchange, originating from the northbound off ramp,
- Addition of an eastbound left turn lane at the eastern intersection, resulting in dual eastbound left turn lanes,
- Addition of a southbound right turn lane, resulting in two southbound right turn lanes,
- Addition of two left turn lanes for southbound left turn movements, resulting in three left turn lanes, and
- Widening SR 50 east of I-75 to some point east of the interchange to allow the northbound right turning movement to be a free flowing movement.

To accommodate the design year traffic at the SR 50 ramp termini at the standard LOS "C" would require providing a fully directional interchange. This type of improvement is not considered prudent due to its associated costs and socioeconomic effects on the adjacent area and the fact that the remainder of the SR 50 corridor in the vicinity of the interchange will still operate at a LOS "D" or worse. Instead, it is recommended that the appropriate improvements be implemented and a waiver of the LOS standard for the ramp termini be granted, recognizing the urban conditions that will predominate in the future in this area due to the planned development growth.

6.4 QUEUE LENGTHS

The required storage lengths for the auxiliary / turn lanes at the intersections of the ramp termini, at CR 41 and SR 50, were estimated using the red-time formula, found in the FDOT *Plans Preparation Manual (PPM).*[10] Since queuing in the through lanes can sometimes block access to right- and left-turn lanes, turn lane queuing requirements were also reviewed against anticipated queues in the through lanes. **Table 6-2** summarizes the storage lengths for the "slip" northbound off-ramp alternative at CR 41 and the northbound to westbound "flyover" alternative at SR 50. The table indicates design queues will exceed the existing storage lengths for several movements. For this reason, improvements to these lanes will be required when these intersections are designed.

Table 6-2 – Design Year (2030) Design Hour Storage Lengths

Intersection	Control	Turn Lane	Existing Storage (ft)	95th % Queue Length (ft)
SR 50 @ I-75 NB Ramps	Signal	Northbound Right	500	840
		Eastbound Left	300	645
		Eastbound Through	300	1,436
		Westbound Through	--	1,802
		Westbound Right	--	1,144
SR 50 @ I-75 SB Ramps	Signal	Southbound Left	400	383
		Southbound Right	400	385
		Eastbound Through	--	1,483
		Eastbound Right	--	1,139
		Westbound Left	300	520
		Westbound Through	300	1,453
CR 41 @ I-75 NB Ramps	Signal	Northbound Left	--	595
		Northbound Right	--	910
		Eastbound Left	250	727
		Eastbound Through	1,900	405
		Westbound Through	--	595
		Westbound Right	200	190
CR 41 @ I-75 SB Ramps	Signal	Northbound Left	575	387
		Northbound Right	575	330
		Eastbound Through	--	404
		Eastbound Right	375	800
		Westbound Left	250	850
		Westbound Through	1,900	765

6.5 REFERENCES

1 *Traffic Technical Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

2 *Florida's Strategic Intermodal System Plan*; FDOT; January 2005.

3 *Florida Intrastate Highway System*; FDOT; March 2000.

4 *Highway Capacity Manual*; Transportation Research Board; 2000

5 *2025 Long Range Transportation Plan Update*; Pasco County MPO; January 2005.

6 *2025 Long Range Transportation Plan Update*; Hernando County MPO; December 2004.

7 *Pasco County Comprehensive Plan*; Pasco County Growth Management Department; 2000, with revisions.

8 *Hernando County Comprehensive Plan*; Hernando County Board of County Commissioners; Adopted June 1989 and as amended.

9 *Sumter County Comprehensive Plan*; Sumter County Planning Department; adopted 1992, as amended.

10 *Plans Preparation Manual*; FDOT; Tallahassee, Florida; January 2006 and as amended.

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SECTION 7.0
CORRIDOR ANALYSIS

In addition to the widening of I-75, several other options were considered to alleviate traffic congestion along the I-75 corridor. This section summarizes the evaluation process of these alternatives. The main objective of this evaluation was to select the best suited corridor where cost effective and technically and environmentally feasible alignment alternatives can be developed while meeting the needs and maximizing the benefits of the community. When this evaluation includes an existing facility, as is the case for this project, this effort is primarily done to assess whether or not the improvement of the existing corridor is the most suitable alternative.

To identify suitable alternative corridors to I-75 and compare them to the alternative of improving I-75, it is important to first understand what types of travel are currently accommodated by this facility. As noted earlier in this report, the segment of I-75 being studied in this project serves four different types of travel, as follows:

1. I-75 is being used for commuting from the ever-expanding residential communities of Pasco, Hernando, and Sumter counties to the various employment centers of the Tampa Bay area. I-75 also connects these communities with other modes of transportation located in the Tampa Bay area such as the Tampa International Airport and the Port of Tampa.
2. I-75 is used for interregional, intrastate, north/south travel along the west coast of Florida, as it connects numerous major cities and municipalities along its path.
3. I-75 is one of the two (I-95 is the other one) limited access, north/south interstate highways that are used for intraregional travel to and from Florida.
4. A limited number of motorists use I-75 while performing short, local trips to access businesses and residences in the adjacent area. This type of use of I-75, however, represents a very small fraction of its overall traffic demand.

For a corridor to qualify as an alternative to improving I-75, it must be able to attract from I-75 significant portions of the first three types of users.

7.1 EVALUATION OF ALTERNATIVE CORRIDORS

In addition to the No-Build alternative, which remained a viable alternative under consideration throughout this PD&E Study, the following alternatives were considered: a) improve the existing I-75 corridor, b) develop a new parallel corridor east or west of I-75, and c) improve one or more existing parallel facilities.

The advantages and disadvantages of these alternatives are presented below.

7.1.1 The No-Build Alternative

Under the No-Build Alternative, no action will be taken with respect to widening I-75 within the limits of this study. The advantages of the No-Build alternative include:

- No right of way acquisition,
- No relocations,
- No construction costs,
- No inconveniences to the motoring public due to construction,
- No inconveniences to the owners of properties adjacent to the existing interchanges due to construction, and
- No degradation or disruption of natural and other environmental resources.

The disadvantages of the No-Build alternative include:

- The LOS "C" standard for I-75 will not be met and therefore, this facility will not be consistent with the SIS specifications. I-75 will become increasingly congested resulting in increased road user costs and air pollution.
- This alternative is inconsistent with the *2025 Long Range Transportation Plans (LRTPs)*[1,2] of the Pasco and Hernando counties' Metropolitan Planning Organizations (MPOs) and the *Comprehensive Plans*[3,4,5] of Pasco, Hernando, and Sumter counties. All of these documents call for widening improvements of I-75 within the project limits.

7.1.2 Improvement of the Existing I-75 Corridor

Widening of I-75 will accommodate the expected traffic volume growth along this corridor while avoiding any changes in travel patterns. I-75 will continue to serve the

same types of users, as presently served, with enhanced efficiency and safety (compared to the No-Build alternative).

As noted in **Section 3.0** of this report, the widening of I-75 is consistent with the 2025 LRTPs of the MPOs of Pasco and Hernando counties as well as the Comprehensive Plans of Pasco, Hernando, and Sumter Counties. The widening of I-75 is also consistent with the FDOT Florida Intrastate Highway System[6] (FIHS) and the Strategic Intermodal System[7] (SIS). The proposed improvements are also consistent with the Strategic Regional Policy Plans of the Tampa Bay Regional Planning Council[8] (TBRPC) and the Withlacoochee Regional Planning Council[9] (WRPC); both regional planning councils identify I-75 as a regionally significant roadway. The West Central Florida (WCF) MPO Chairs Coordinating Committee (CCC) 2025 Long Range Transportation Plan[10] (LRTP) also identifies a regional need for the improvement of I-75 and includes in its 2025 Regional Cost Affordable Plan the addition of two general purpose lanes from south of the project study area to the Hernando/Sumter County Line.

7.1.3 Development/Widening of Other Corridors

Potential alternative corridors to improving the I-75 corridor could be: a) the development of a new parallel corridor east or west of I-75 and b) the improvement of one or more existing parallel facilities.

The alternative to develop a new north/south limited access highway that parallels I-75 either east or west of I-75 was abandoned early on in this study due to the magnitude of the natural environment, economic, social, cultural, and physical effects such an alternative poses. Such a corridor is not identified in any MPOs' LRTP nor is discussed in any comprehensive plan of any county.

There are two other FIHS facilities several miles west of I-75 that partially accommodate regional north/south travel and, therefore, were considered as alternative routes for improvement: Suncoast Parkway (SR 589) and US 19. Suncoast Parkway (SR 589) –a four-lane, limited access, toll facility– runs in a generally north/south direction approximately 15 miles west of I-75 and connects the Veterans Expressway in

Hillsborough County with US 98 in Hernando County. US 19, located approximately 20 miles west of I-75, is a controlled access, multi-lane facility with numerous signalized intersections and driveway connections along its path. US 19 provides access to high-intensity commercial and office space land uses and is highly congested in Pinellas and Pasco counties and moderately congested in Hernando and Citrus counties. Neither of these facilities connects with I-75 and, therefore, they do not provide system continuity.

In addition, two other north/south regional routes were considered: US 41/SR 45 approximately 10 miles west of I-75 and US 301/SR 35 approximately 5 miles east of I-75. Both of these facilities are in their most part two-lane routes with limited capacity. Improvement of these routes to assume portions of the future traffic demands of I-75 would involve extensive right of way acquisitions and environmental and socioeconomic effects. For this reasons, the alternative to widen another existing facility instead of I-75 was also eliminated from further consideration.

7.2 EVALUATION MATRIX

Table 7-1 summarizes the advantages and disadvantages of each of the corridors evaluated during the corridor selection stage of this study.

Table 7-1 – Corridor Evaluation Matrix

Factors Considered	No-Build	Improve I-75	Improve Existing Parallel Routes	Develop New Parallel Corridor
Consistency with LRTPs and Comprehensive Plans	No	Yes	No	No
Satisfies Need	No	Yes	No	Yes
Environmental Effects	None	Minor	Major	Major

7.3 SELECTION OF VIABLE CORRIDOR ALTERNATIVES

Improving the existing I-75 corridor is the only alternative that will satisfy the goal of Pasco, Hernando, and Sumter counties as well as the project objective of providing safe and efficient traffic operations along I-75. Developing alternative corridors would either be ineffective to meet this goal or would result in major environmental, cultural, social,

and economic effects as well as costs. No prudent and feasible alternative to improving the I-75 corridor exists.

7.4 REFERENCES

1 *2025 Long Range Transportation Plan Update*; Pasco County MPO; January 2005.

2 *2025 Long Range Transportation Plan Update*; Hernando County MPO; December 2004.

3 *Pasco County Comprehensive Plan*; Pasco County Growth Management Department; 2000, with revisions.

4 *Hernando County Comprehensive Plan*; Hernando County Board of County Commissioners; Adopted June 1989 and as amended.

5 *Sumter County Comprehensive Plan*; Sumter County Planning Department; adopted 1992, as amended.

6 *Florida Intrastate Highway System*; FDOT; March 2000.

7 *Florida's Strategic Intermodal System Plan*; FDOT; January 2005

8 *Strategic Regional Policy Plan*; Tampa Bay Regional Planning Council, January 2005 (draft revision).

9 *Strategic Regional Policy Plan*; Withlacoochee Regional Planning Council, August 1997.

10 *West Central Florida 2025 Long Range Transportation Plan*; West Central Florida MPO Chairs Coordinating Committee; November 2004.

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SECTION 8.0
ALTERNATIVES ANALYSIS

As previously shown in **Sections 6.0** and **7.0**, the only viable alternative to remedy the anticipated design year 2030 level of service deficiencies along I-75 and the connecting roadways is to widen I-75 to an eight-lane interstate highway and expand the interchanges with SR 50 and CR 41 to provide additional storage and operational capacity. The No-Build alternative, even though it did not resolve any of the anticipated operational deficiencies and was in conflict with local government plans for I-75, remained an alternative under consideration until the conclusion of this PD&E Study.

The following sections present the alternative concepts developed for the widening of I-75 and the expansion of the interchanges at SR 50 and CR 41.

8.1 TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Transportation System Management (TSM) measures –such as minor intersection improvements, increased turn-lane storage, implementation of Intelligent Transportation Systems (ITS), improvement of existing lane configuration marking and signalization sequencing, and application of other modal alternatives (transit, park-and-ride lots, etc.)– were also considered as a means for improving operations at the I-75 interchanges at CR 41 and SR 50 and thus avoiding costly widenings and extensive effects. Some of these types of improvements, although they may help slightly improve operations they will be inadequate to handle the projected traffic demands. Therefore, TSM measures were rejected as a viable alternative for this project.

8.2 ALTERNATIVES DEVELOPMENT

To effectively develop and evaluate improvement alternatives for the I-75 corridor, the following four-step process was applied:

- In **Step One**, the project was divided into distinct segments.
- In **Step Two**, alternative typical sections were developed that optimally utilize the existing I-75 right of way while they implement the needed widening to eight

lanes.

- In **Step Three**, alignments were developed for the entire project length by identifying the groups of possible related I-75 mainline and bridge typical sections within each segment and stringing the various combinations together.
- Finally, **in Step Four**, several alternative concepts were developed and evaluated for improving the I-75 interchanges at CR 41 and SR 50 and providing the standard LOS "C" operations. As noted in **Section 6.3.4.2**, analyses have shown that there are no cost-feasible solutions to provide LOS "C" operations at the SR 50 interchange. For this interchange, the concepts developed will be expected to accommodate the design year traffic demand at LOS "D."

8.2.1 Project Segments

In an attempt to minimize the effects of the improvements of I-75, options for aligning the proposed typical sections were analyzed within distinct segments along the project corridor. The segments of I-75 were defined based on surrounding characteristics such as land use and environmental constraints, and with the objective to facilitate the development and evaluation of the improvement alternatives. The project was divided into the following three segments:

- Segment 1: from north of SR 52 to the Pasco/ Hernando County Line; 7.8 miles
- Segment 2: from the Pasco/Hernando County Line to SR 50; 7.0 miles
- Segment 3: from SR 50 to just south of CR 476B; 6.0 miles.

8.2.2 Alternative Typical Sections

In accordance with the design controls and standards presented in **Section 5.0**, typical section alternatives were developed for I-75, CR 41, and SR 50.

8.2.2.1 Alternative Typical Sections for I-75

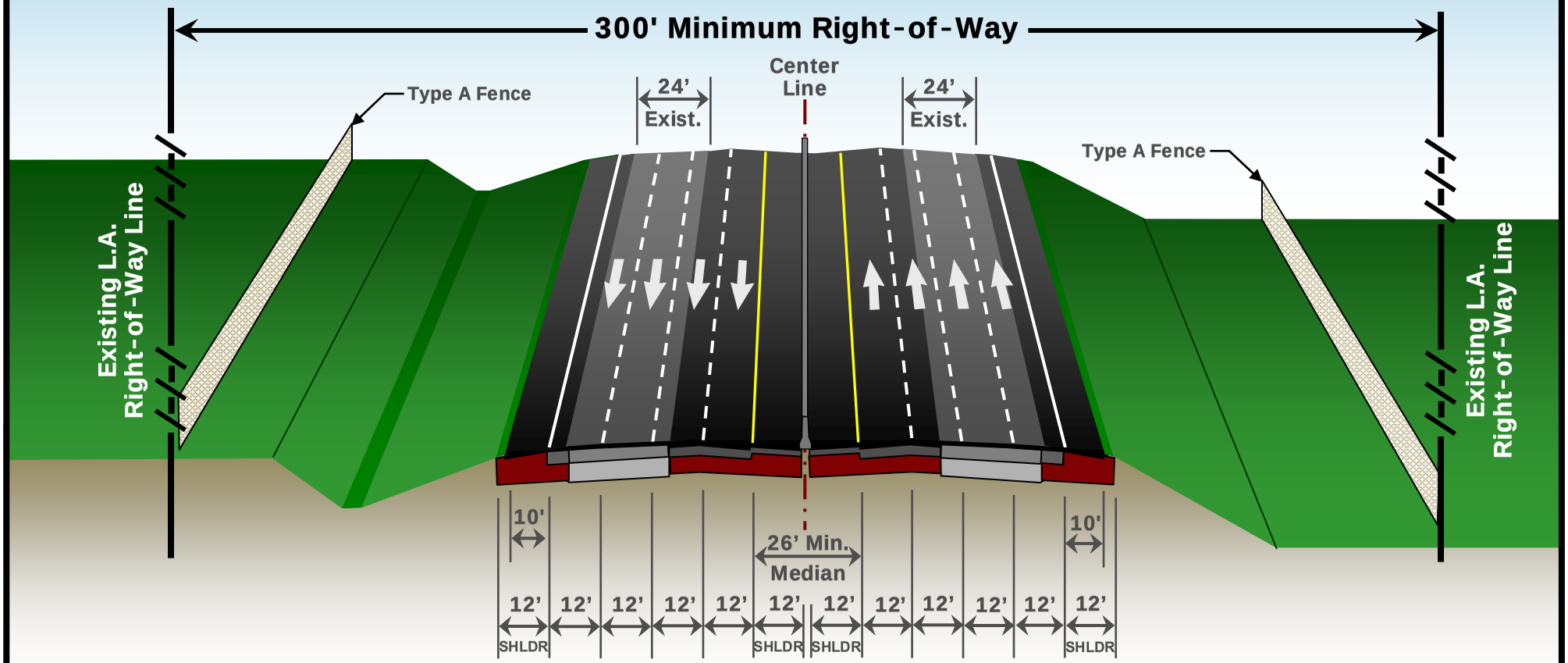
The widening of I-75 to provide eight through lanes –four lanes in each direction– can be accommodated within its existing 300-foot-wide right of way. Depending on where the additional through lanes will be placed in relation to the existing lanes, three typical section alternatives were developed, applicable for all three segments, as follows:

- **The "Inside" Widening Alternative**: As shown on **Exhibit 8-1**, the "Inside" Widening Alternative proposes construction of the additional four lanes into the existing median. The existing 64.0-foot-wide median is not wide enough to accommodate the two additional lanes and standard shoulder widths. An additional narrow 5.0-foot widening would also be necessary on the outside of the existing lanes. The resulting median width would be 26.0 feet wide, 38.0 feet less that the standard minimum median width for this type of facility. Therefore, concrete median barrier would need to be placed along the center of the roadway and a design variation will be required. The border width would also be reduced from 94.0 feet to 89.0 feet which would require an additional design variation. **Exhibit 8-2** depicts the typical section for widening the existing bridge structures under this alternative.

- **The "Inside & Outside" Widening Alternative**: As shown on **Exhibit 8-3**, the "Inside & Outside" Widening Alternative proposes, for each direction, the construction of one additional lane within the median and one additional lane to the outside where the existing outside shoulder is presently located. Since the remaining median after the construction of the four new lanes would be 40.0 feet wide, 24.0 feet less than the standard minimum median width for this type of facility, guardrail would need to be placed along the median and a design variation would be required. The border width would also be reduced from 94.0 feet to 82.0 feet which would require an additional design variation. **Exhibit 8-4** depicts the typical section for widening the existing bridge structures under this alternative.

- **The "Outside" Widening Alternative**: As shown on **Exhibit 8-5**, the "Outside" Widening Alternative proposes, for each direction, the placement of two additional lanes along the outside of the two existing lanes. The existing lanes would need to be overbuilt with additional asphalt to slope the inside lane into the median to alleviate having four travel lanes sloped in one direction. The remaining border after the construction of the two new lanes would be 70.0 feet wide, 24.0 feet less that the standard minimum border width for this type of

Roadway Typical Section



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

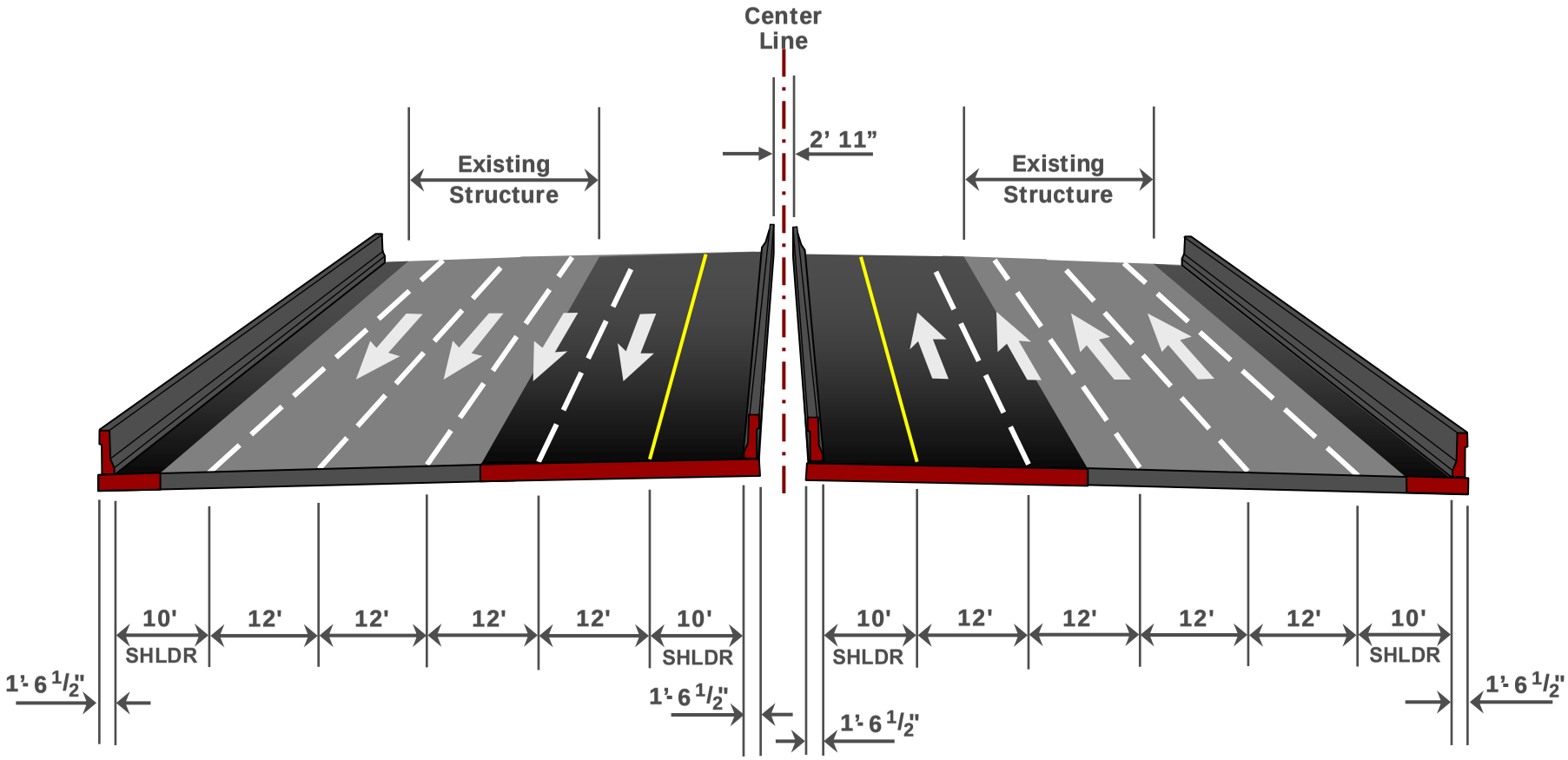
Pasco, Hernando & Sumter Counties

WPI Seg. No.: 411014 1

FAP No.: 0751- 120I

I-75 Mainline Typical Section
"Inside" Widening Alternative

Exhibit 8-1



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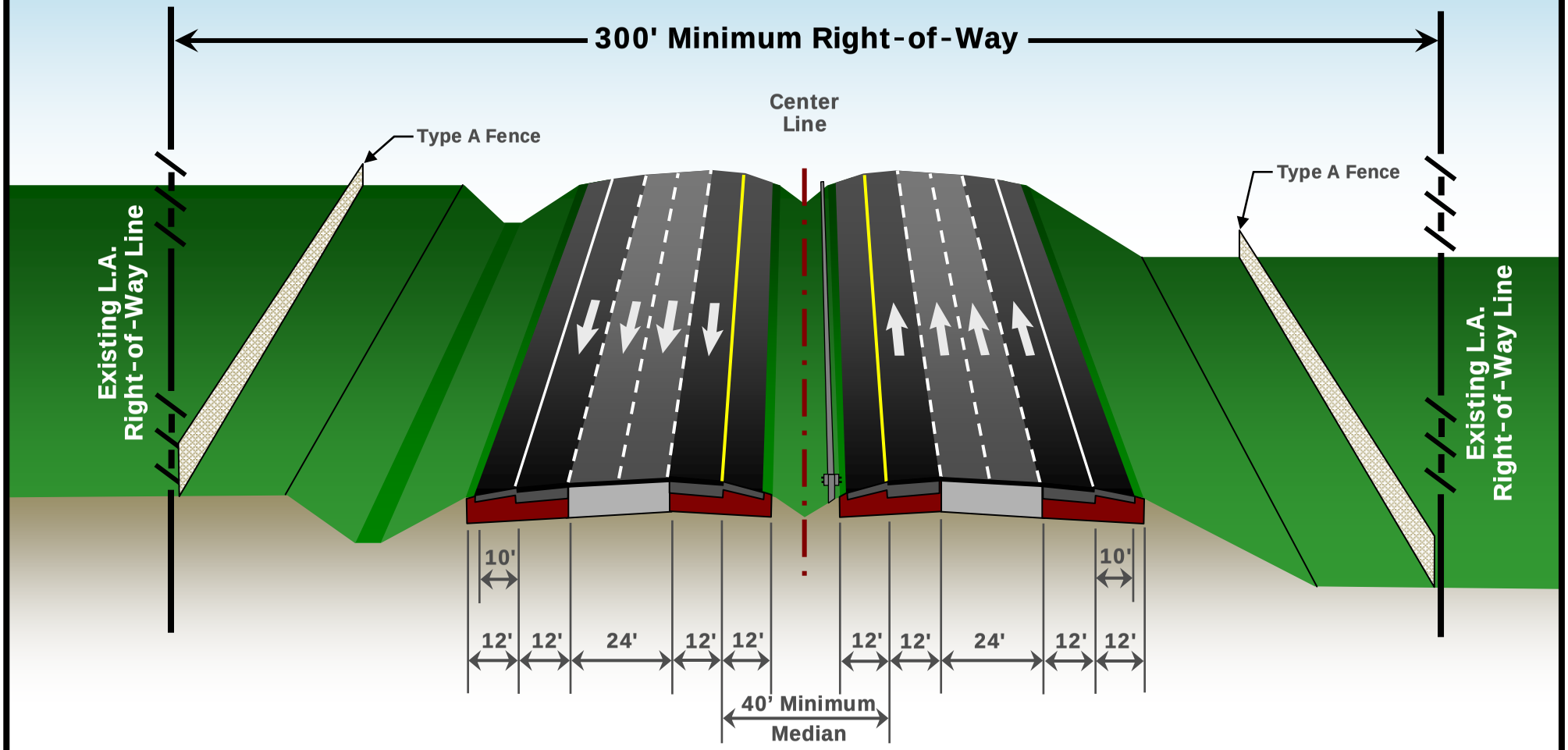
I-75 Bridge Typical Section
"Inside" Widening Alternative

Exhibit 8 -2

Roadway Typical Section



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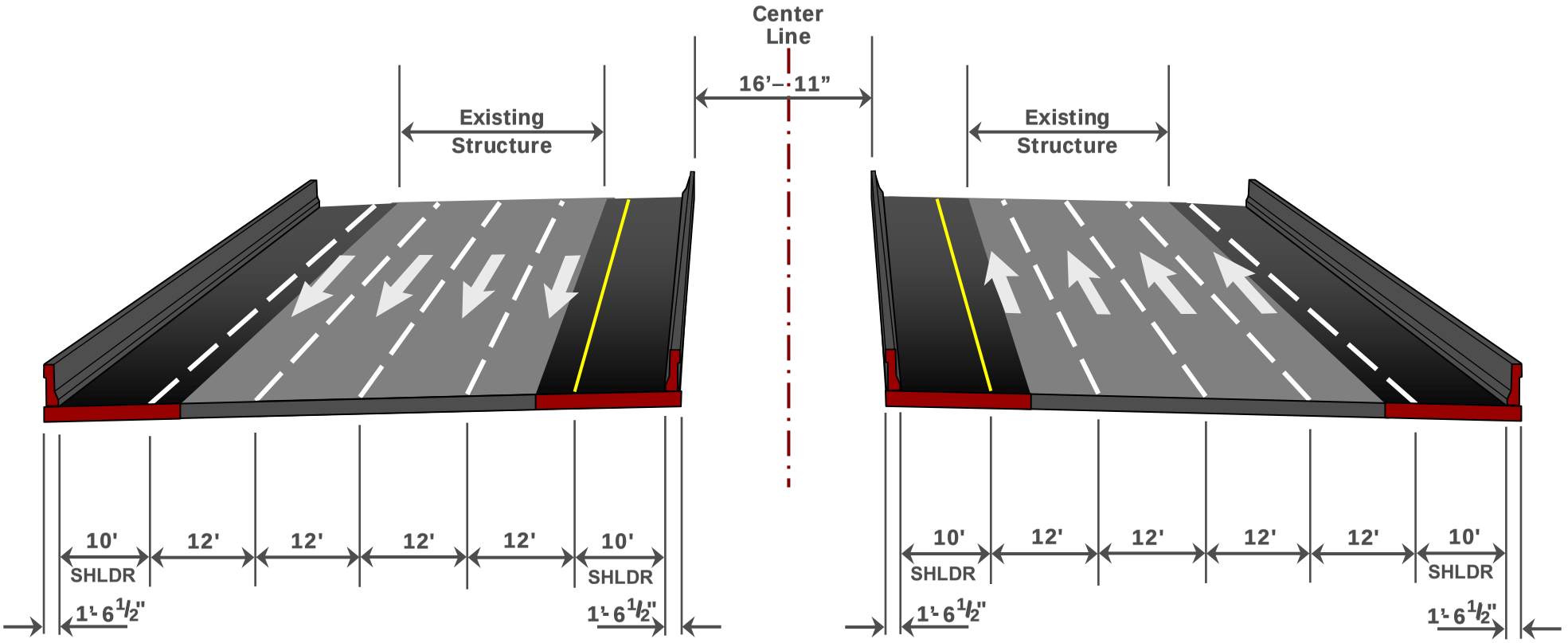
I-75 Mainline Proposed Typical Section
"Inside & Outside" Widening Alternative

Exhibit 8-3



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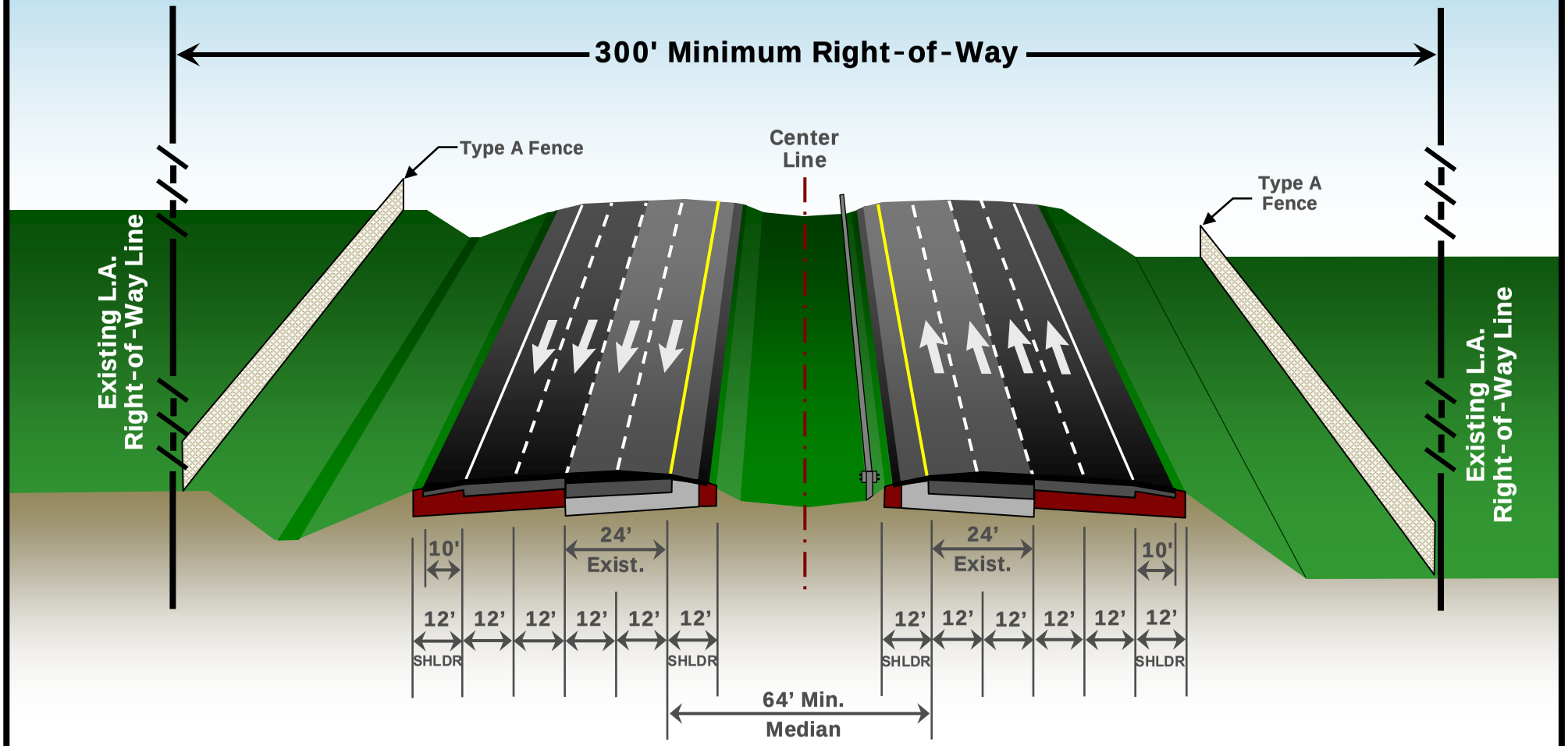
I-75 Bridge Typical Section
"Inside & Outside" Widening Alternative

Exhibit 8-4

Roadway Typical Section



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I-75 Mainline Typical Section
"Outside" Widening Alternative

Exhibit 8-5

facility. Therefore, a design variation and/or acquisition of additional right of way would be required. **Exhibit 8-6** depicts the typical section for widening the existing bridge structures under this alternative.

Appendix A provides typical sections for the interim widening, if necessary, of I-75 to six-lanes.

8.2.2.2 CR 41 through the I-75 Interchange Area

Exhibit 8-7 depicts the typical section proposed for CR 41 in the vicinity of the I-75 interchange area. This typical section was developed based on the projected design year 2030 traffic demand for CR 41 and the design controls and standards presented in **Table 5-2**.

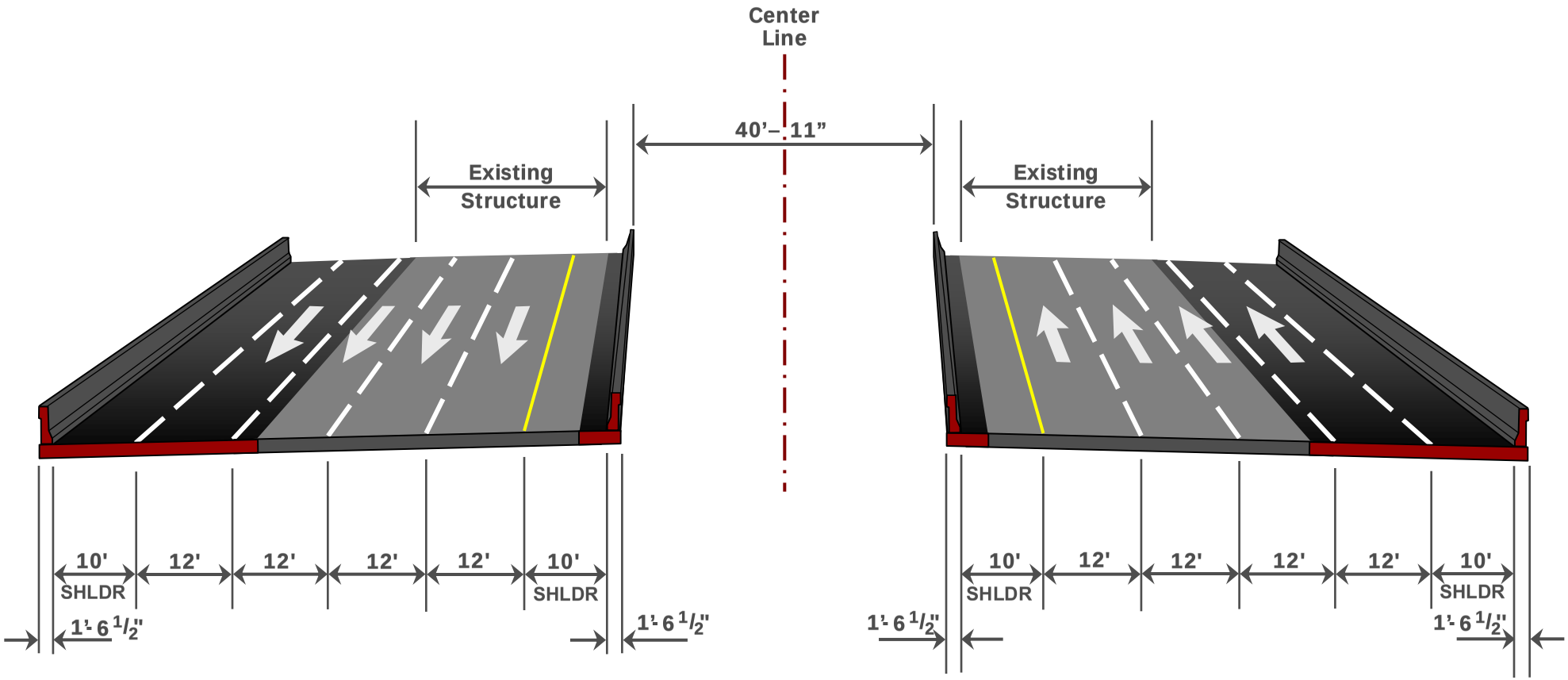
8.2.2.3 SR 50 through the I-75 Interchange Area

Exhibit 8-8 depicts the typical section proposed for SR 50 in the vicinity of the I-75 interchange area. This typical section was developed based on the projected design year 2030 traffic demand for SR 50 and the design controls and standards presented in **Table 5-2**.

8.2.3 Alignment Alternatives

Alignment alternatives were developed for the entire length of the project by applying for each of the three segments of I-75 the typical sections presented in **Section 8.2.2.1** and stringing the segments together. The following alignment alternatives were generated:

- **Alternative A**: the "**Inside**" widening typical section was applied throughout the entire length of the project.
- **Alternative B**: the "**Inside & Outside**" widening typical section was applied throughout the entire length of the project.
- **Alternative C**: the "**Outside**" widening typical section was applied throughout the entire length of the project.
- **Alternative D**: consists of combinations of the widening typical sections from segment to segment.



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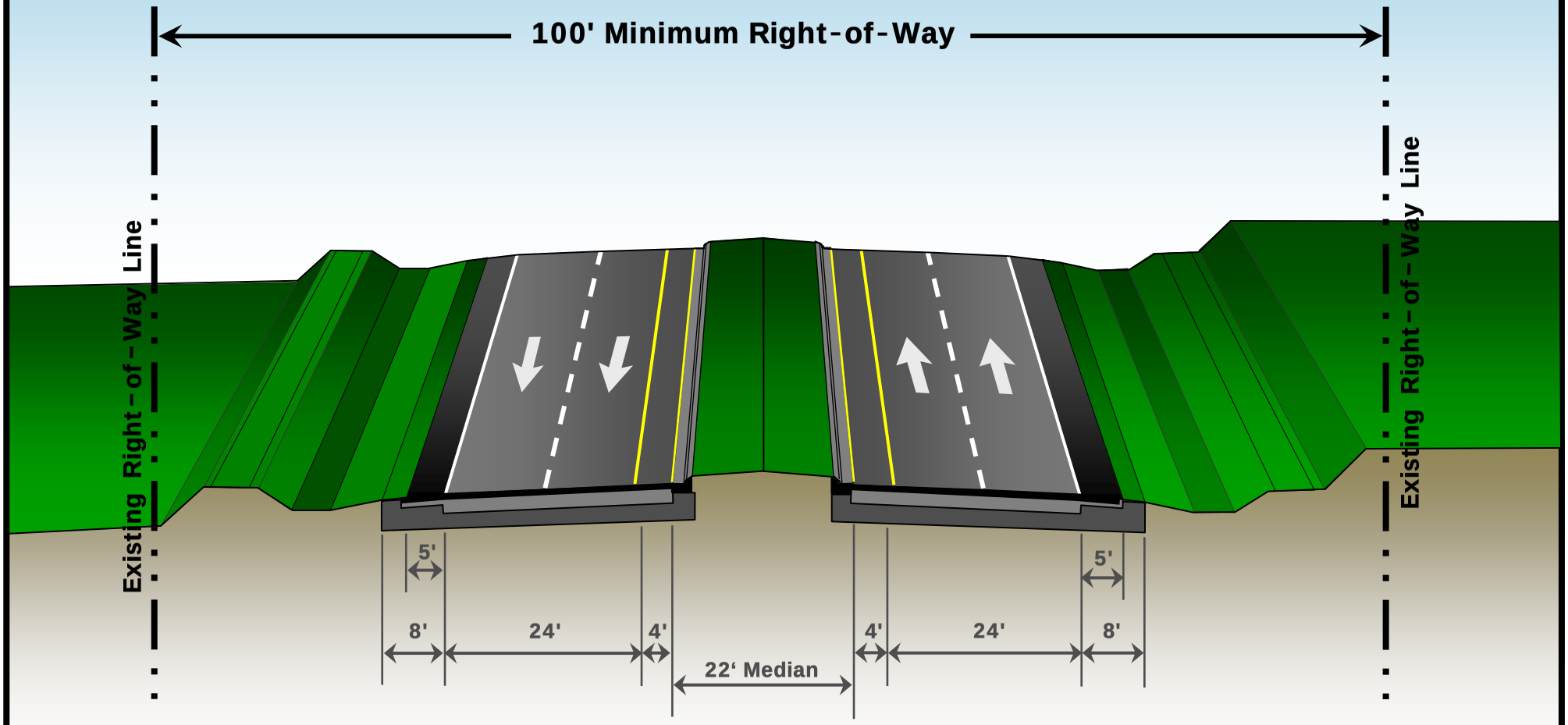
I-75 Bridge Typical Section
"Outside" Widening Alternative

Exhibit 8-6

Roadway Typical Section



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
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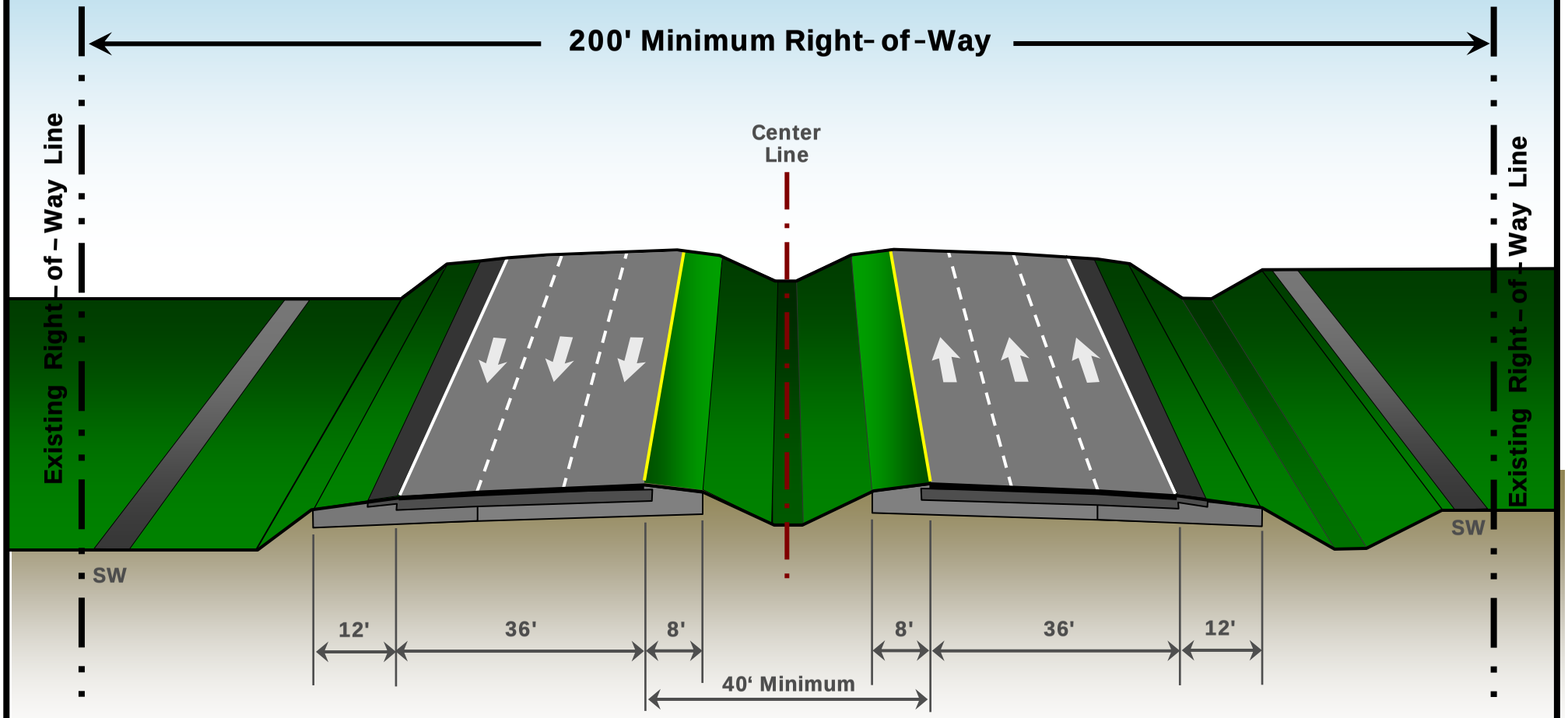
Proposed CR 41 (Blanton Road) Typical Section

Exhibit 8-7

Roadway Typical Section



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
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Proposed US 98/SR 50 (Cortez Road) Typical Section

Exhibit 8-8

All of these alternatives will apply typical sections that can be accommodated within the existing right of way of I-75. Therefore, the socio-economic, cultural, and environmental effects of these alternatives will be similar and either none or too small to be the deciding factors for selecting a preferred alternative. Also, since all of the alternatives involve construction of the same impervious area, the additional right of way needed to be acquired to place SMFs, and the resulting effects, will be the same for each alternative. Therefore, evaluation of these alternatives to select the most suitable alternative for construction was based on a qualitative analysis rather than the typical quantitative comparison of effects.

After review of these alternatives and consideration of several factors, it was decided that **Alternative B** presents the best choice for widening I-75 to eight lanes. The advantages of **Alternative B** compared to the other alternatives are as follows:

- **Alternative B,** compared to **Alternatives A** and **C**, presents the "middle" solution with regards to maintaining acceptable median and border widths. **Alternative A** results in a very narrow median (26 feet), whereas **Alternative C** results in a narrow border (at a minimum 70 feet). **Alternative B** provides a 40-foot-wide median and –at a minimum– a 82-foot-wide border.
- **Alternative B**, compared to **Alternative D**, results in a uniform, consistent typical section and alignment throughout the project length.
- Under **Alternative B**, the six-lane interim scenario allows for retaining the existing overpass bridges without requiring replacement.
- **Alternative B**, compared to **Alternatives A** and **C**, can be constructed at a lower cost per linear mile.
- **Alternative A** is prohibitive of accommodating any future transit/multimodal service within the median. **Alternative B** allows some options for transit/multimodal use. **Alternative C** is the best alternative with regards to transit accommodation as it preserves the existing median width (64.0 feet).

Appendix B provides the concept plans for **Alternative B**.

8.2.4 Interchange Design Conceptual Alternatives

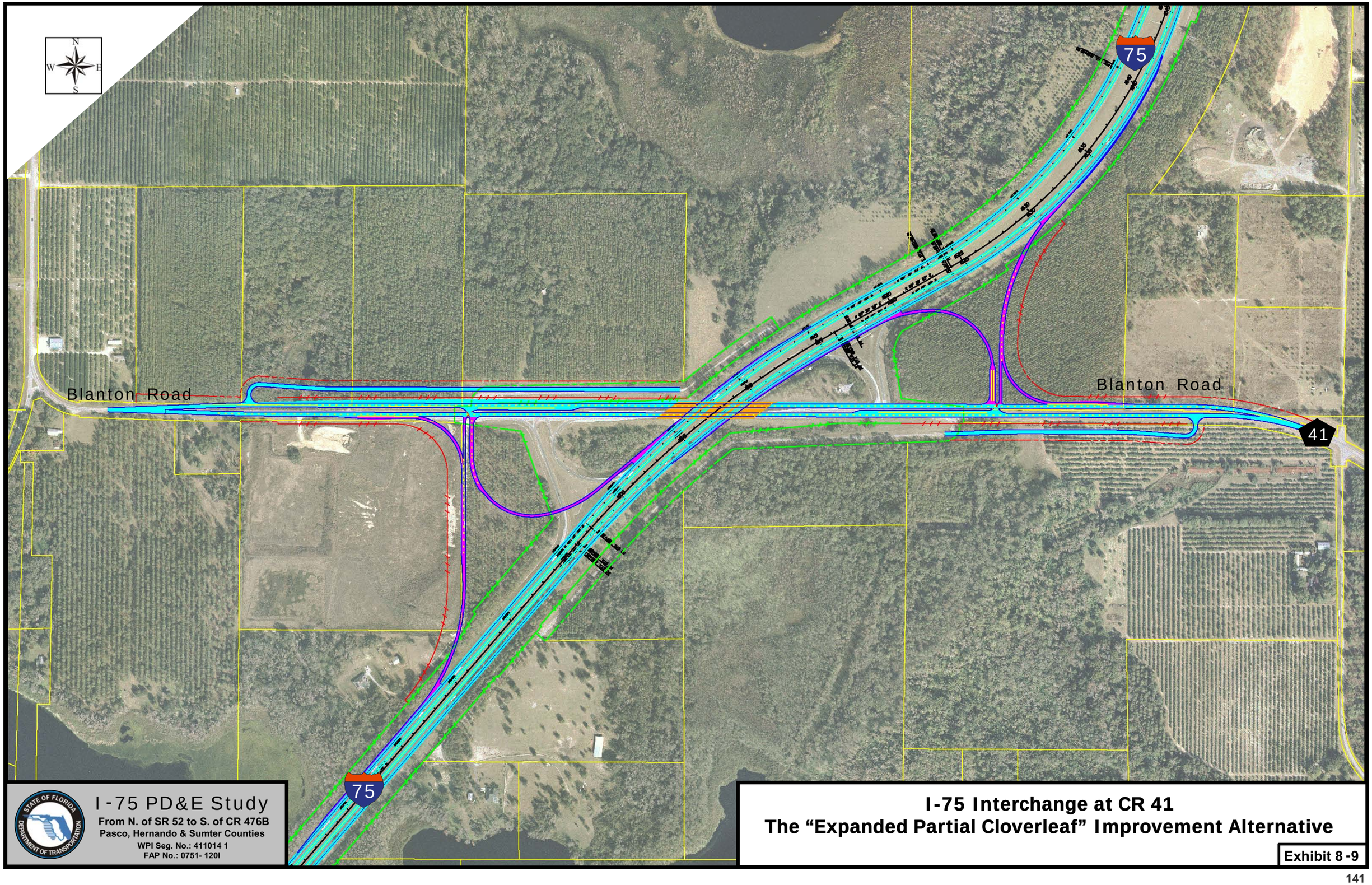
As previously noted in **Section 6.0**, the No-Build analysis of both I-75 interchanges at CR 41 and SR 50 has shown that, without major improvements, they should be expected to fail by the design year 2030. This section describes the design concept alternatives studied for each interchange to resolve their expected operational deficiencies as well as the factors considered to select the most suitable solution.

8.2.4.1 I-75 Interchange at CR 41 (Blanton Road)

Two alternative design concepts were considered for improving the interchange at CR 41. Under both alternatives, both intersections of the ramp termini at CR 41 will need to be signalized. The limited access right of way limits will also be required to be extended a further distance away from the interstate than the current limits. The local access roads located in the northwestern and southeastern quadrants will need to be extended beyond the new limited access right of way lines. The two concepts considered are as follows:

- **The "Expanded Partial Cloverleaf" Improvement Alternative**: As shown on **Exhibit 8-9**, this alternative –to provide additional storage capacity for the exit ramps and to allow for higher ramp operating speeds– assumes maintaining the existing interchange configuration at CR 41 but lengthening all ramps by moving the intersections of the ramp termini at CR 41 further apart as well as moving the gore areas along I-75 further downstream.
- **The "NB Diamond and SB Partial Cloverleaf" Improvement Alternative**: As shown on **Exhibit 8-10**, this alternative assumes that the existing loop ramps in the northeastern quadrant will be replaced with diamond-type "slip" ramps similar to those currently provided for the northbound on- and off-ramps at SR 50. Also, this alternative includes lengthening the existing southbound on- and off-ramps in a similar fashion as proposed in the previous concept.

Table 8-1 presents the factors considered for evaluating these alternatives and selecting the most suitable solution. Based on review of the operational characteristics of the two alternatives and their associated costs, the "NB Diamond and SB Partial Cloverleaf" improvement alternative was selected as the most suitable solution for this interchange.



I-75 PD&E Study

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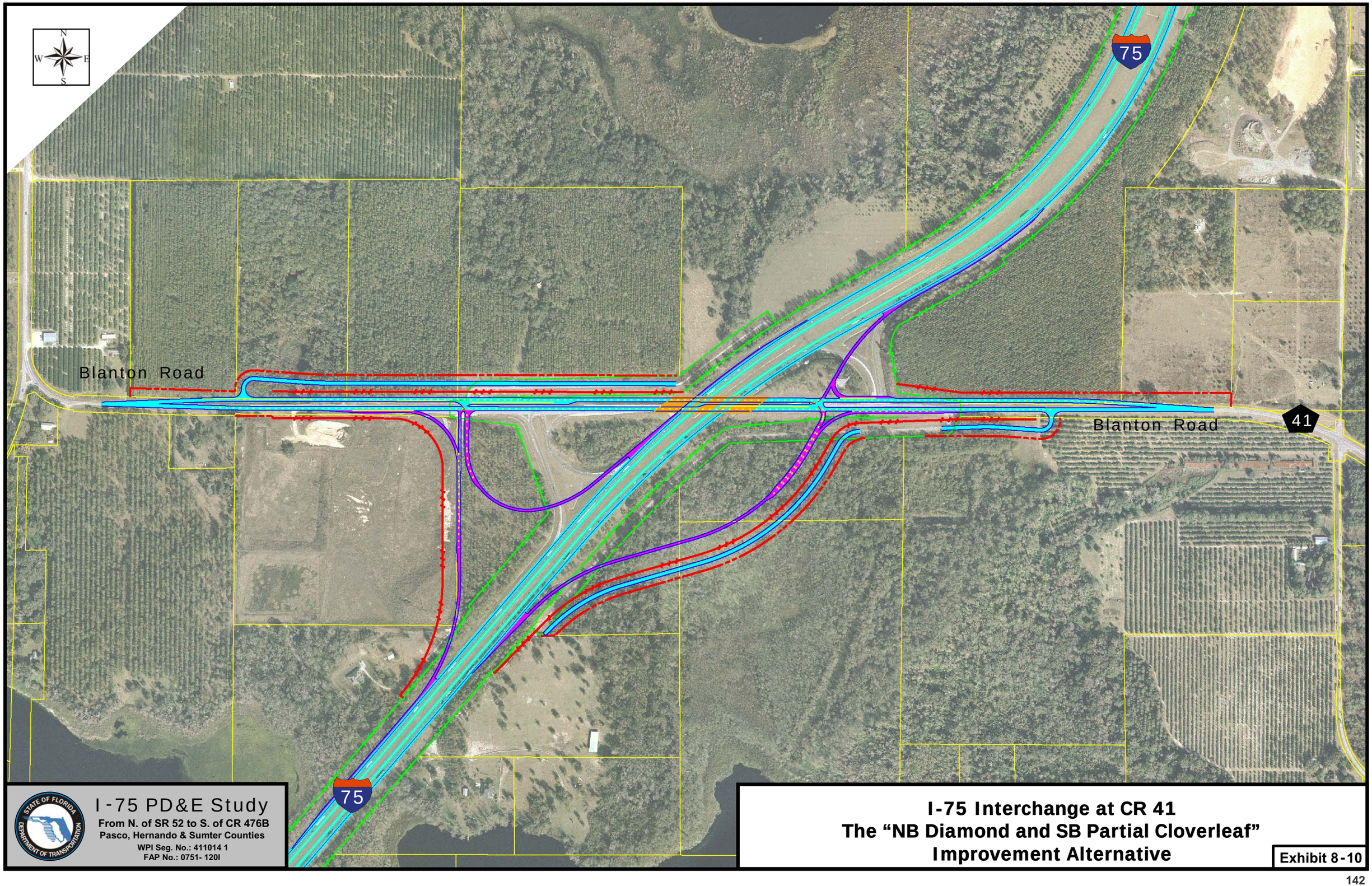
I-75 Interchange at CR 41

The "Expanded Partial Cloverleaf" Improvement Alternative

Exhibit 8 -9



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I-75 Interchange at CR 41
The "NB Diamond and SB Partial Cloverleaf"
Improvement Alternative

Exhibit 8-10

Table 8-1 – CR 41 Interchange; Alternative Improvement Concepts Evaluation

Evaluation Factors	Interchange Improvement Alternative	
	Expanded Partial Cloverleaf	NB Diamond & SB Partial Cloverleaf
Right of Way Involvement		
- Number of parcels affected*	10	11
- Area of ROW to be acquired* (acres)	35.16	40.93
Potential Business Relocations		
- Number of businesses to be relocated	0	0
Potential Residential Relocations		
- Number of residences to be relocated	1	1
Natural Environment Effects		
- Total area of wetland involvement (acres)	0.57	7.82
- Total area of floodplain encroachment (acres)	2.53	12.00
- Total area of floodway encroachment (acres)	0.00	0.00
Potential Hazardous Material and/or Petroleum Contaminated Sites Involvement		
- Number of petroleum contaminated sites (in or near ROW)	0	0
Estimated Costs (present value in million $)		
- ROW acquisition cost	28.85	24.33
- Engineering cost**	5.43	5.38
- Construction cost	36.22	35.90
- Construction engineering and inspection cost**	5.43	5.38
Total Cost	**75.93**	**70.99**

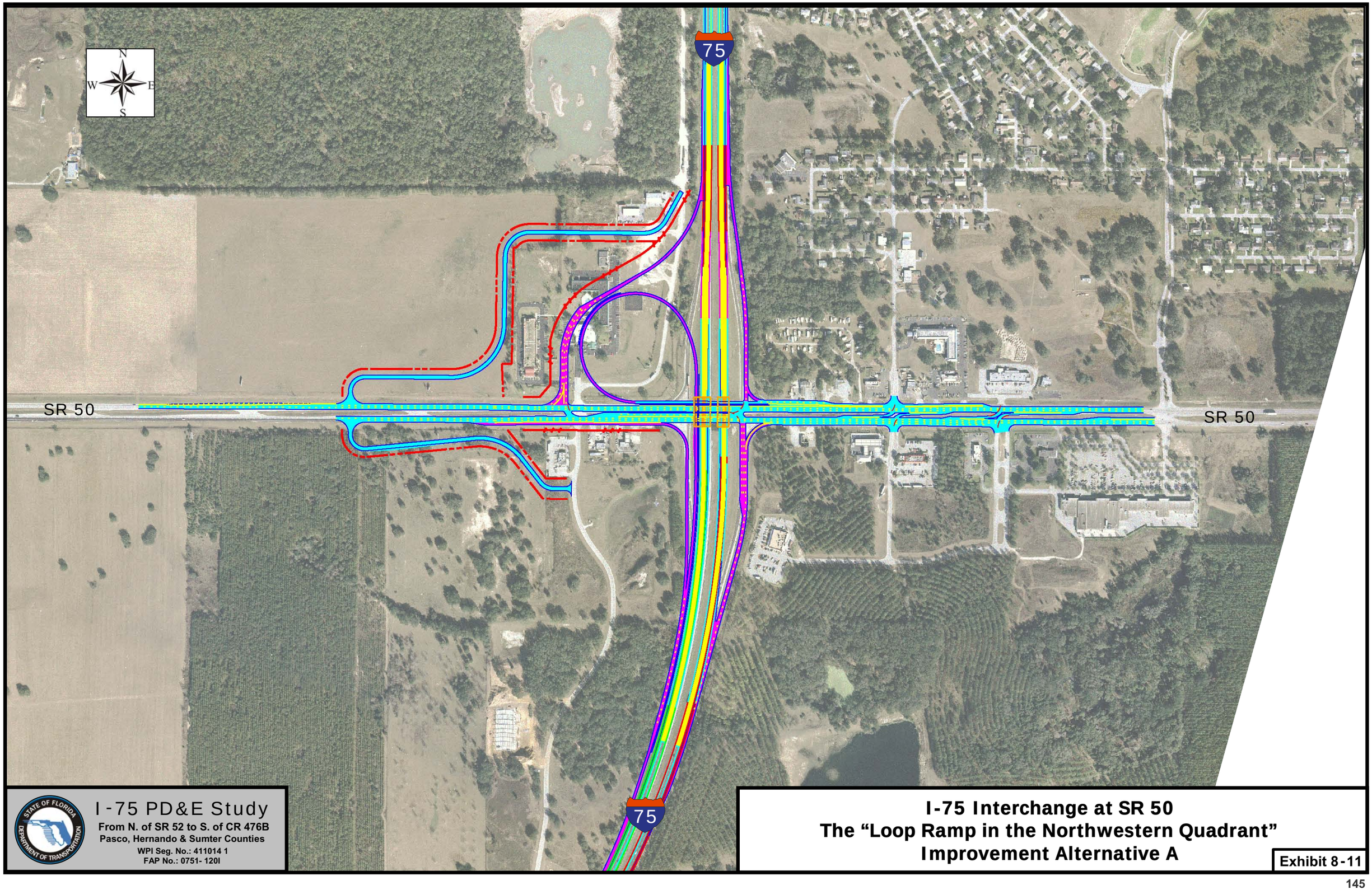
* Includes ROW acquisition needs for SMFs
** Assumed 15% of construction cost

8.2.4.2 I-75 Interchange at US 98/SR 50 (Cortez Boulevard)

Four alternative design concepts were considered for improving traffic operations at the I-75 interchange at SR 50. A brief description of these concepts follows below:

- **Alternative A – Provide a Loop Ramp in the Northwestern Quadrant**: As shown on **Exhibit 8-11**, this alternative proposes the construction of a new loop ramp in the northwestern quadrant of the interchange. This ramp will accommodate the motorists who are traveling westbound on SR 50 and are destined to southbound I-75. With this improvement, these motorists will perform a free flow right turn onto the new ramp instead of waiting for the green time to perform a left turn, as currently is occurring. Construction of the new loop ramp will require realignment of the southbound off-ramp. Several businesses currently situated in this quadrant will have to be relocated. The limited access right of way lines along the south side of SR 50 opposite the proposed loop ramp are required to be extended further westward. These extended limited access right of way lines will remove access to SR 50 for several businesses located adjacent to the interchange on the south side of SR 50. The local access roads located in the northwestern and southwestern quadrants will need to be extended beyond the new limited access right of way lines.

- **Alternative B – Provide a "Flyover" Ramp Originating from the SR 50 Right Side**: As shown on **Exhibit 8-12**, this alternative provides a direct "flyover" ramp for the motorists traveling westbound on SR 50 and are destined to southbound I-75. However, this alternative allows for a conventional right-side ramp entrance from SR 50. This alternative directly impacts multiple businesses along the north side of SR 50 that will need to be relocated. In addition, Windmere Boulevard will have to be realigned to form a new intersection with SR 50 further to the east.



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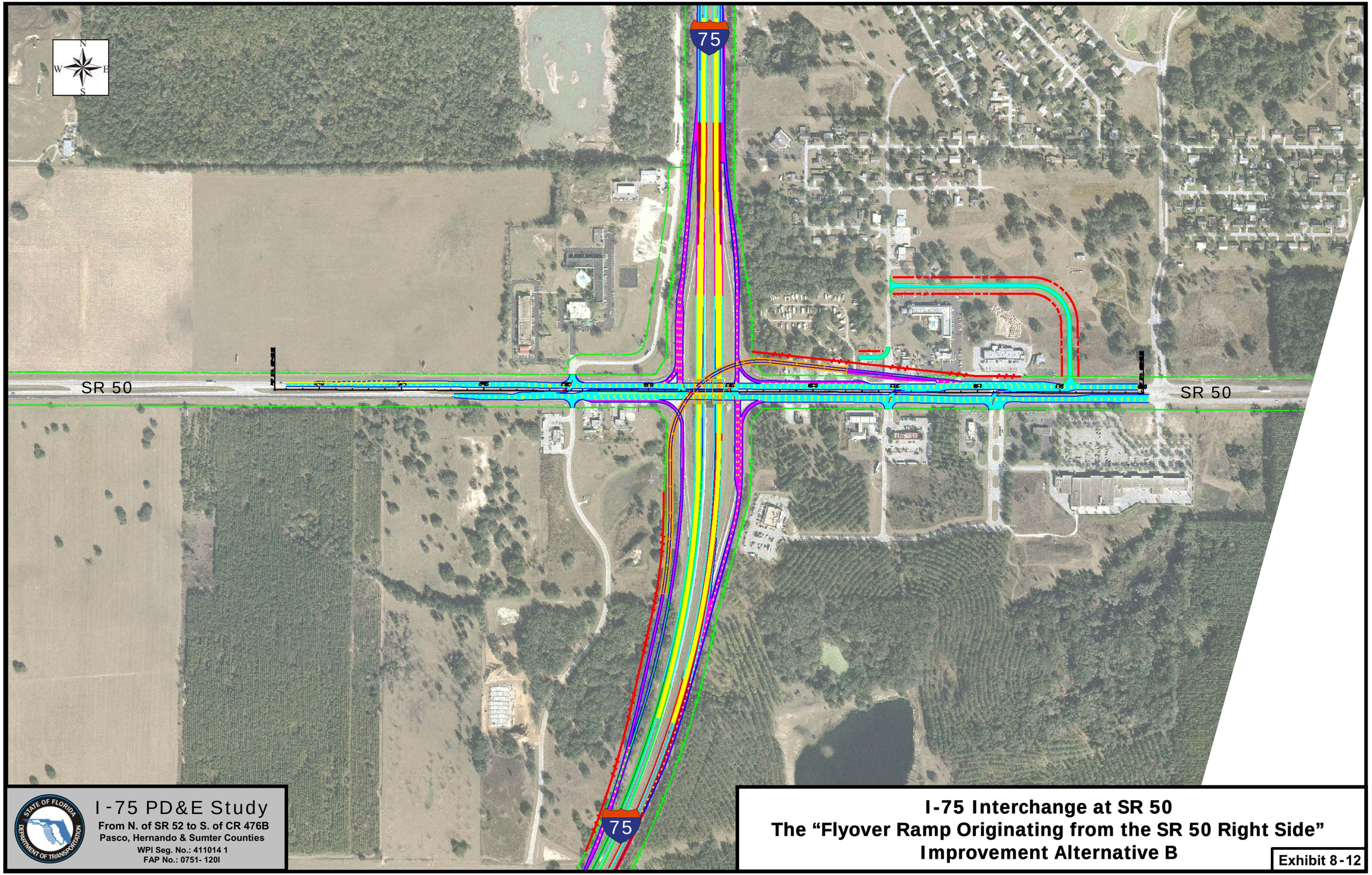
I-75 Interchange at SR 50
The "Loop Ramp in the Northwestern Quadrant"
Improvement Alternative A

Exhibit 8-11



I-75 PD&E Study
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I-75 Interchange at SR 50
The "Flyover Ramp Originating from the SR 50 Right Side"
Improvement Alternative B

Exhibit 8-12

- **Alternative C – Provide a "Flyover" Ramp Originating from the SR 50 Median**: As shown on **Exhibit 8-13**, this alternative is similar with the previous alternative in that it will also accommodate the motorists who are traveling westbound on SR 50 and are destined to southbound I-75 by providing a direct "flyover" ramp, thus removing this traffic entirely from traveling through the signalized intersections at the ramp termini. Instead of providing a conventional right-side entrance for this ramp from SR 50, the ramp entrance is placed in the median to minimize access and relocation impacts on adjacent properties along SR 50.

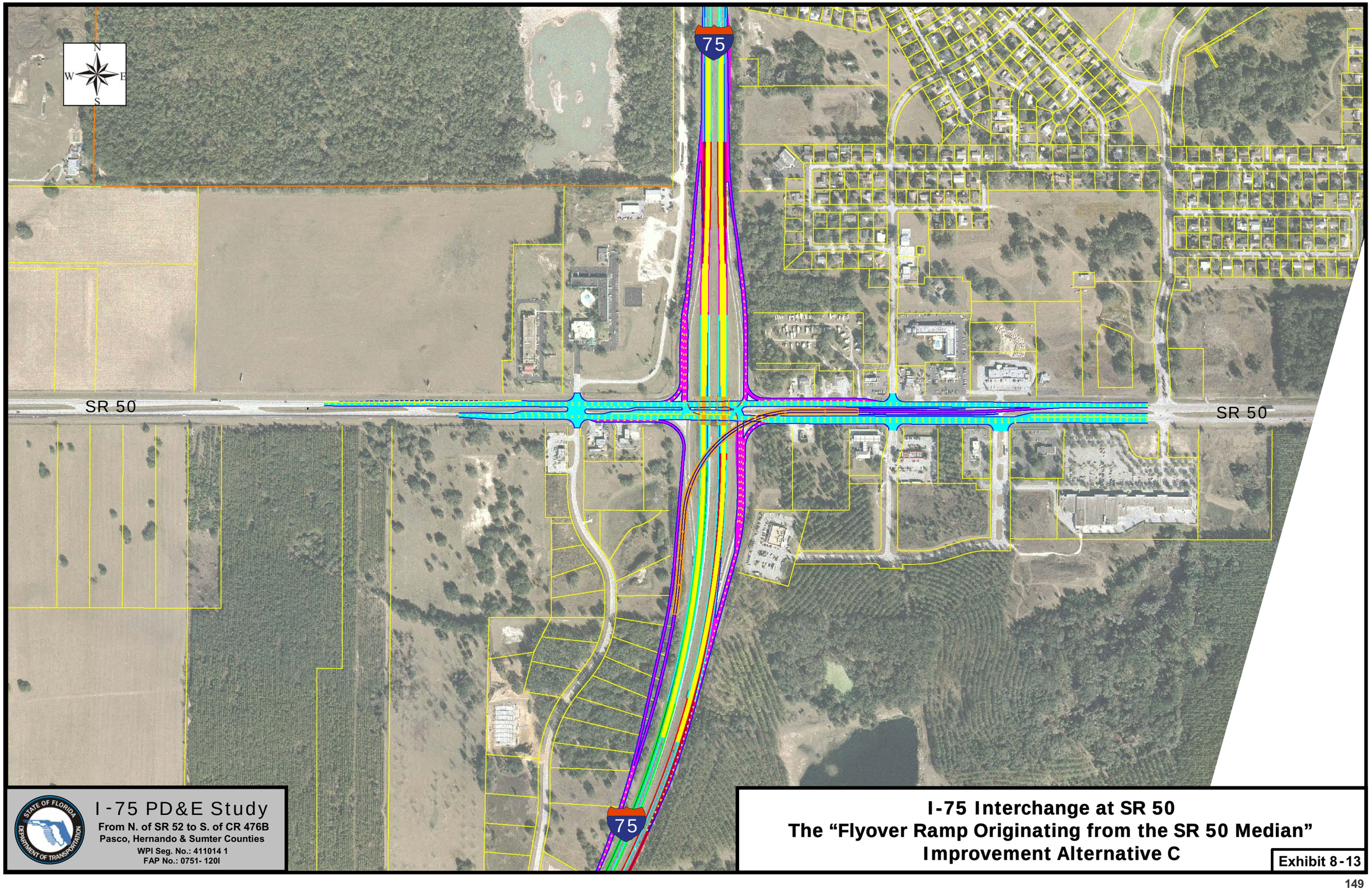
- **Alternative D – Provide a "Flyover" Ramp Carrying the Northbound I-75 to Westbound SR 50 Exiting Traffic**: As shown on **Exhibit 8-14**, this alternative will accommodate the motorists who are traveling northbound on I-75 and are destined to westbound SR 50 by providing a direct "flyover" ramp, thus removing this traffic entirely from traveling through the signalized intersections at the ramp termini. This movement is part of the SIS system. To avoid access impacts on several businesses located along the north side of SR 50, the "touchdown" point of the ramp is proposed within the SR 50 median.

Table 8-2 presents the factors considered for evaluating these alternatives and selecting the most suitable solution. Based on review of the operational characteristics of the four alternatives and associated effects and costs, Alternatives A and B were eliminated from further consideration due to their excessive impacts on adjacent business, relocations, cost, and operational disadvantages. Alternatives C and D were carried forward and presented for comments at the Public Hearing. Based on the comments received at the Public Hearing and based on the fact that Alternative D provides direct linkage between two SIS facilities, I-75 and SR 50 west of I-75 (SR 50 east of I-75 is not designated as an SIS corridor), Alternative D was considered as the best solution for this interchange.

Table 8-2 – SR 50 Interchange; Alternative Improvement Concepts Evaluation

Evaluation Factors	Interchange Improvement Alternative			
	Alternative A Loop Ramp in the NW Quadrant	**Alternative B Flyover Ramp from the SR 50 Right Side**	**Alternative C Flyover Ramp from the SR 50 Median**	**Alternative D Flyover Ramp from NB I-75 to WB SR 50**
Right of Way Involvement				
- Number of parcels affected*	7	12	4	2
- Area of ROW to be acquired* (acres)	21.86	7.22	3.51	5.40
Potential Business Relocations				
- Number of businesses to be relocated	2	5	0	0
Potential Residential Relocations				
- Number of residences to be relocated	0	0	0	0
Natural Environment Effects				
- Total area of wetland involvement (acres)	0.00	0.00	0.00	0.00
- Total area of floodplain encroachment (acres)	0.00	0.00	0.00	0.00
- Total area of floodway encroachment (acres)	0.00	0.00	0.00	0.00
Potential Hazardous Material and/or Petroleum Contaminated Sites Involvement				
- Number of petroleum contaminated sites (in or near ROW)	1	3	3	0
Estimated Costs (present value in million $)				
- ROW acquisition cost	68.81	35.53	11.58	14.08
- Engineering cost**	4.12	7.09	6.74	6.80
- Construction cost	27.44	47.25	44.94	45.33
- Construction engineering and inspection cost**	4.12	7.09	6.74	6.80
Total Cost	**104.49**	**96.96**	**70.00**	**73.01**

* Includes ROW acquisition needs for SMFs
** Assumed 15% of construction cost



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
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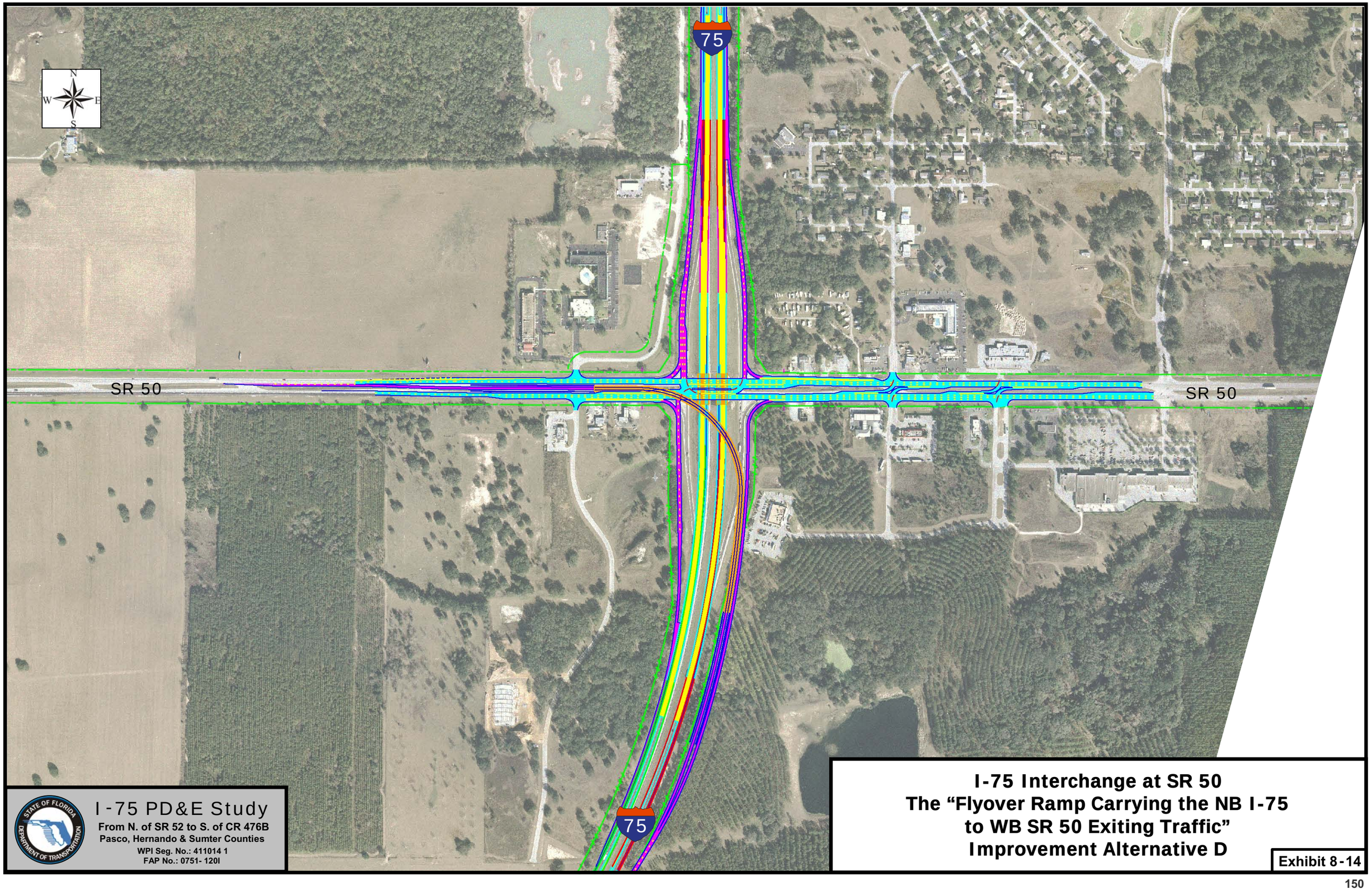
I-75 Interchange at SR 50
The "Flyover Ramp Originating from the SR 50 Median"
Improvement Alternative C

Exhibit 8-13



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
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FAP No.: 0751- 120I

I-75 Interchange at SR 50
The "Flyover Ramp Carrying the NB I-75 to WB SR 50 Exiting Traffic"
Improvement Alternative D

Exhibit 8-14

SECTION 9.0
PRELIMINARY DESIGN ANALYSIS

As shown in the previous sections, this PD&E Study considered several engineering and environmental factors in developing and evaluating suitable improvement alternatives for I-75, within the limits of this project. This section presents the key elements of the "preferred" improvement alternative which will be carried forward into the Final Design phase.

9.1 THE "PREFERRED" ALTERNATIVE

The "preferred" alternative selected for this project was based on the traffic analyses presented in **Section 6.0**, the evaluations of alternatives discussed in **Section 8.0**, and input collected from the various project stakeholders through the Public Involvement Program efforts. To make best use of the FDOT and the FHWA funds in implementing these improvements while ensuring that efficient and safe traffic operations are provided along the project at all times, it is recommended that the "preferred" alternative is constructed in two phases. A brief description of the improvements included in the "preferred" alternative and their construction phasing follows below. Additional detailed information regarding the proposed improvements is provided in subsequent sections.

9.1.1 Phase 1 Improvements

In Phase 1, the mainline of I-75 will be widened to provide six lanes by constructing a 12-foot-wide travel lane in each direction of I-75 within the median, along the existing inside lane. The widening of I-75 will be accommodated within the existing right of way. **Appendix A** provides the proposed typical sections for this phase. This phase will also include the replacement of the existing I-75 bridges over SR 50 to accommodate the need for additional lanes along SR 50. The proposed replacement bridges over SR 50 and the I-75 profile approaching the bridges will be at a higher elevation to meet current design standards. These elevation changes will require the ramps to be re-constructed and lengthened in order to "tie in" to the new roadway in a safe and efficient manner. With the exception of widening the existing structures at Croom Rital Road and the

Withlacoochee River, it is not anticipated that other bridges in the study section will be affected during this phase of construction.

Phase 1 will also include right of way acquisition for the sites and construction of the stormwater management facilities, as required, to accommodate the "ultimate" improvements of I-75.

It is estimated, based on the current traffic growth trends, that these improvements will be sufficient to accommodate the traffic demands along I-75 until the year 2021.

9.1.2 Phase 2 Improvements

In Phase 2, the mainline of I-75 will be widened to provide eight lanes by constructing an additional travel lane in each direction of I-75 along the existing outside lane. **Section 9.3** provides more detail about the proposed typical sections. To accommodate this widening and provide adequate horizontal clearances, all minor roadway overpass bridges with the exception of Church Road will need to be replaced. The widening of I-75 will occur within the existing right of way.

Phase 2 also includes the construction of the improvements at the interchanges of I-75 at CR 41 and SR 50 as described below.

- CR 41 Interchange: The existing northbound ramps in the northeastern quadrant will be replaced with a "diamond-type" interchange ramp arrangement similar to the existing SR 50 ramps. The new northbound diamond off-ramp will provide for additional deceleration and queuing of vehicles at the ramp terminal. Additional right of way will be required in the southeastern quadrant for construction of the new off-ramp.

  The southbound ramps in the southwestern quadrant will be reconstructed with a partial clover configuration that will meet current design standards and provide sufficient queuing for vehicles at the ramp terminal with CR 41. Additional right of way will also be required in the southwestern quadrant to accommodate the expanded footprint of the new ramp design.

CR 41 will need to be widened to provide a four-lane rural typical section from east of the northbound ramps to west of the southbound ramps.

The improvements will also include the relocation of the existing access roads in the northwestern and southeastern quadrants of the improved interchange. The access road intersections will be relocated further from I-75 along CR 41 to allow for expansion of limited access right of way limits to meet current standards.

- SR 50 Interchange: A direct "flyover" ramp will be constructed to accommodate the motorists who are traveling northbound on I-75 and are destined to westbound SR 50, thus removing this traffic entirely from traveling through the signalized intersections of the termini of I-75 northbound and southbound off-ramps at SR 50. To avoid access and relocation impacts to several businesses along SR 50, the "touchdown" point of the ramp is proposed within the SR 50 median. The northbound exit ramp terminal will be constructed approximately 3,900 feet south of SR 50 to allow for sufficient distance for deceleration and decision time for the movement to either the westbound flyover ramp or the eastbound at-grade ramp. Additional right of way will be required along the east side of I-75 to accommodate this new northbound ramp design.

Appendix B provides the conceptual plans for the proposed improvements along I-75.

9.1.3 Project Construction Segments

Based on review of the land uses in the study corridor as well as the length and the geographic features of the project, the project has been divided into the following construction segments:

- Segment 1: from north of SR 52 to the Pasco/ Hernando County Line; 7.8 miles
- Segment 2: from the Pasco/Hernando County Line to SR 50; 7.0 miles
- Segment 3: from SR 50 to just south of CR 476B; 6.0 miles.

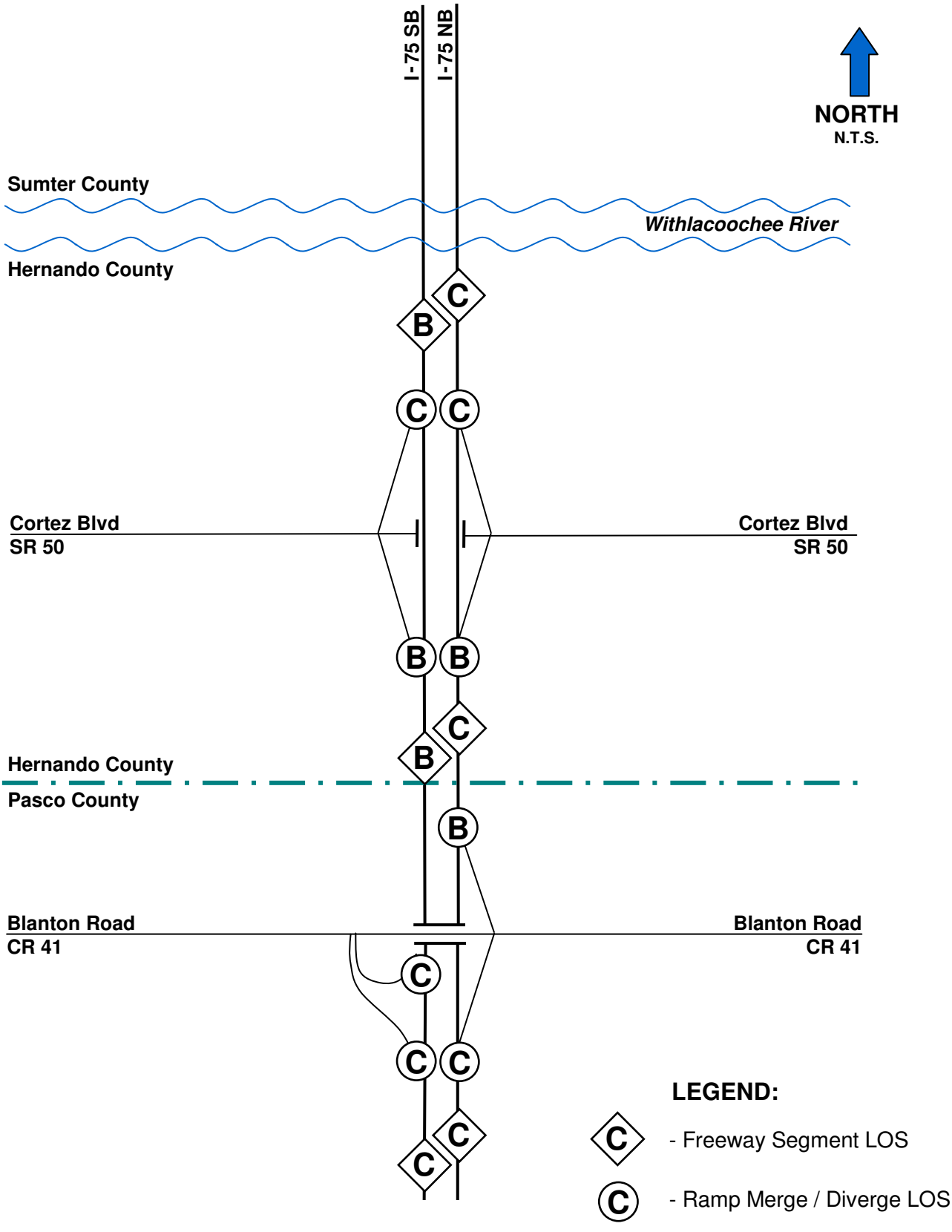
9.2 DESIGN TRAFFIC VOLUMES AND LEVELS OF SERVICE

A *Traffic Technical Memorandum (TTM)*[1] has been prepared for this study under separate cover. **Exhibits 6-6** through **6-8** in **Section 6.0** of this report present the projected opening (2010), interim (2020), and design year (2030) AADT and DDHV for the mainline of I-75 as well as for CR 41 and SR 50. **Exhibit 6-9** in **Section 6.0** presents the projected design hour volumes at key intersections along the project.

As shown on **Exhibit 6-8**, during the design year, I-75 south of CR 41 is expected to accommodate an AADT volume of 107,000 vpd; this volume is expected to gradually decrease to 90,000 vpd north of SR 50. During the same year, CR 41 is expected to carry from 15,800 to 18,400 vpd and SR 50 is expected to carry from 64,000 to 75,000 vpd.

Exhibit 9-1 depicts the expected design hour levels of service along the mainline of I-75. As shown, LOS "C" or better should be expected as a result of the widening of I-75 to eight lanes and the improvements at merge/diverge areas of I-75 at the CR 41 and SR 50 interchanges.

As discussed in **Section 6.0**, to accommodate the design hour traffic demands at the ramp termini of the CR 41 and SR 50 interchanges at acceptable levels of service, improvements will be required at both interchanges. **Section 8.2.4** presented the evaluation of two options to improve the interchange at CR 41 and four options to improve the interchange at SR 50. After consideration of several factors, summarized in **Tables 8-1** and **8-2**, the improvement concepts described in **Section 9.1** were selected as the preferred options for the two interchanges. **Exhibit 9-2** depicts the design hour levels of service at the intersections of the ramp termini, for the preferred interchange configurations and lane geometry.



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando, and Sumter Counties

WPI Seg. No.: 411014 1

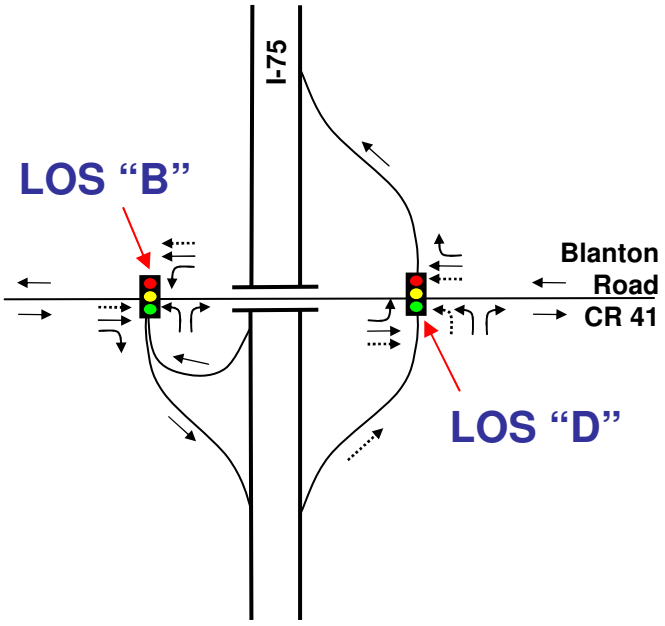
FAP No.: 0751-120I

Design Year (2030) Build Condition Levels of Service for I-75 with Interchange Improvements

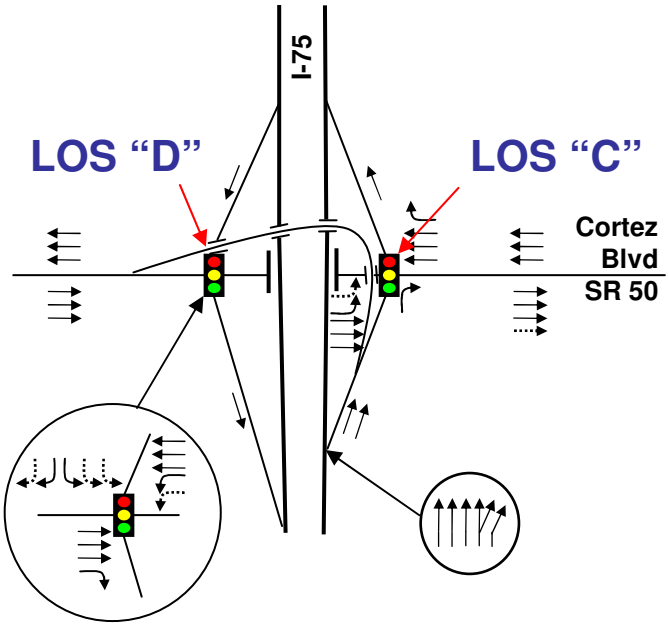
Exhibit 9-1

NORTH
N.T.S.

CR 41 Partial Diamond



With NB I-75 to WB SR 50 Flyover



Legend

- New Travel/Auxiliary Lane

I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando, and Sumter Counties

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Design Year (2030) Build Condition Levels of Service for the Ramp Termini

Exhibit 9-2

9.3 TYPICAL SECTIONS

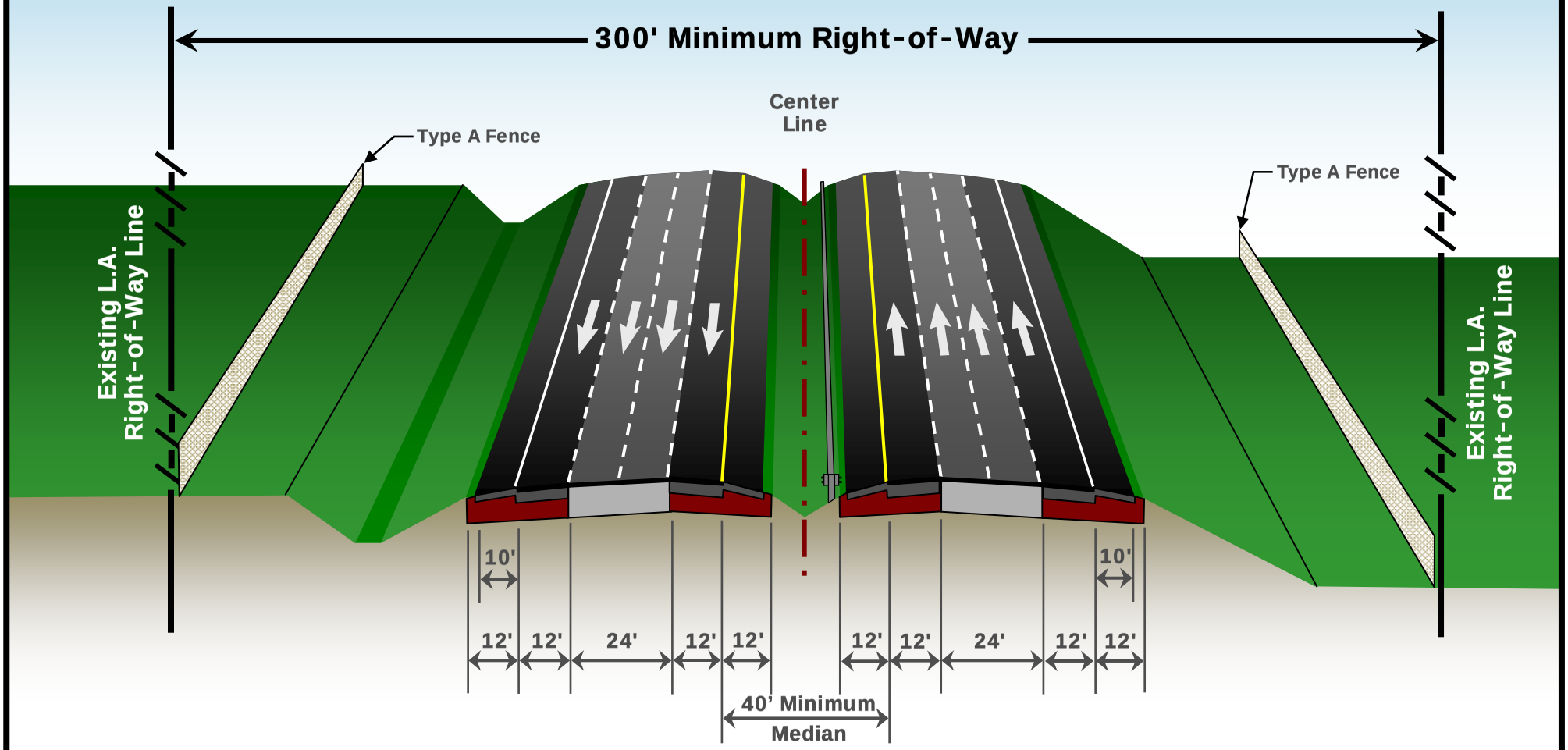
Exhibits 9-3 and **9-4** depict the proposed eight-lane typical sections for widening the mainline and bridges, respectively, along I-75 throughout the length of this project. As shown, the proposed typical section includes the construction of one additional lane within the median and one additional lane to the outside where the existing outside shoulder is presently located. As noted in **Section 9.1**, this widening will be accomplished in two phases, starting with Phase 1 when the two inside lanes will be constructed. **Appendix A** provides the interim six-lane typical sections. Since the remaining median after the construction of the inside lanes will be for most of the project 40.0 feet wide, 24.0 feet less than the standard minimum median width for this type of facility, guardrail would need to be placed along the median and a design variation will be required. With the construction of the two outside lanes in Phase 2, the border width will also be reduced from 94.0 feet to 82.0 feet which will require an additional design variation.

Exhibits 9-5 and **9-6** illustrate the proposed four-lane roadway and bridge typical sections for CR 41 in the vicinity of I-75. This improvement of CR 41 will be coordinated with Pasco County during the Final Design phase of the I-75 project that requires this improvement. **Exhibit 9-7** depicts the proposed typical section for SR 50 in the vicinity of I-75.

9.4 INTERSECTION CONCEPTS AND SIGNAL ANALYSIS

Exhibit 9-2, presented earlier, depicts the expected levels of service at the ramp termini of the I-75 interchanges at CR 41 and SR 50 and the recommended lane geometry at these locations. **Appendix B** provides conceptual plans for the proposed interchange improvements including the at-grade intersections of the ramp termini. It should be noted that, whereas the intersections of the SR 50 ramp termini are currently signalized, the intersections of the CR 41 ramp termini are currently unsignalized. According to the capacity analyses of the design hour traffic volumes, signalization will be required at the CR 41 ramp termini to meet level of service standards (LOS “D” or better). This requirement should be verified during the Final Design phase with additional signal warrant analysis.

Roadway Typical Section



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

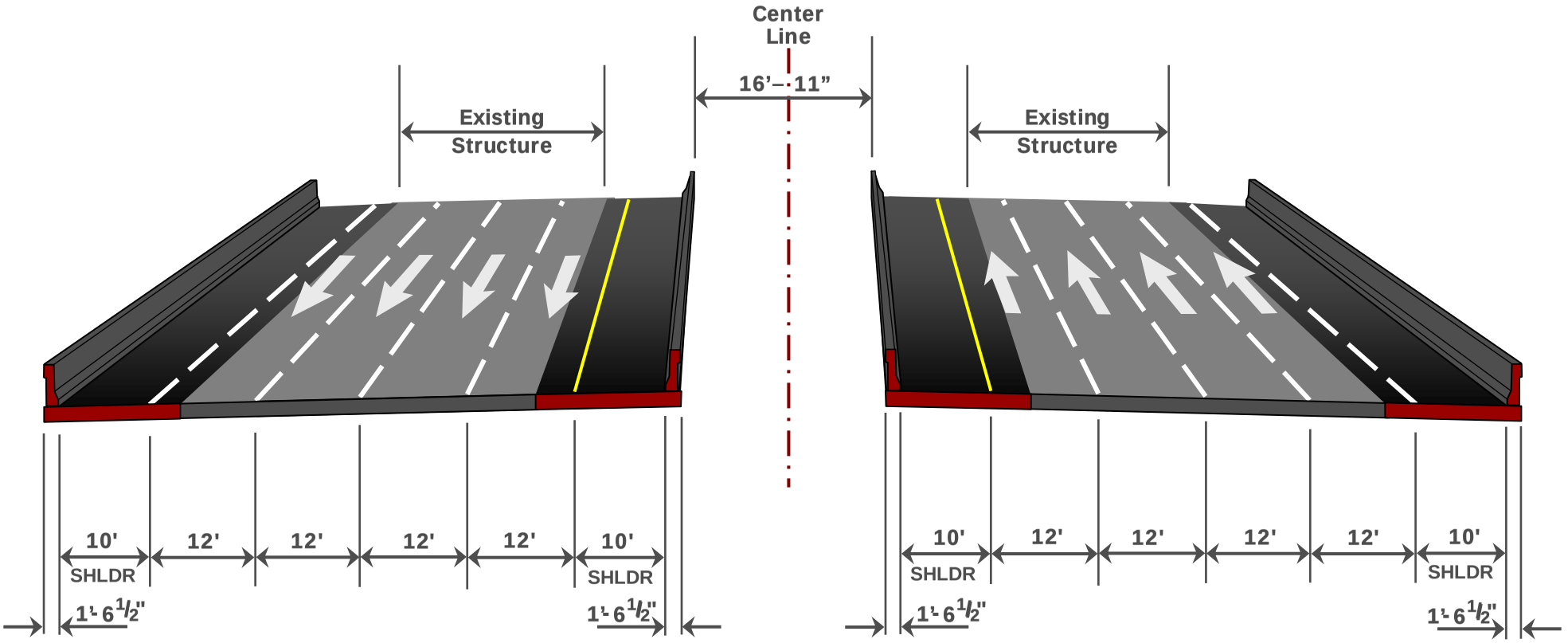
Pasco, Hernando & Sumter Counties

WPI Seg. No.: 411014 1

FAP No.: 0751- 120I

Proposed Eight -Lane Typical Section for the Mainline of I -75

Exhibit 9- 3



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B
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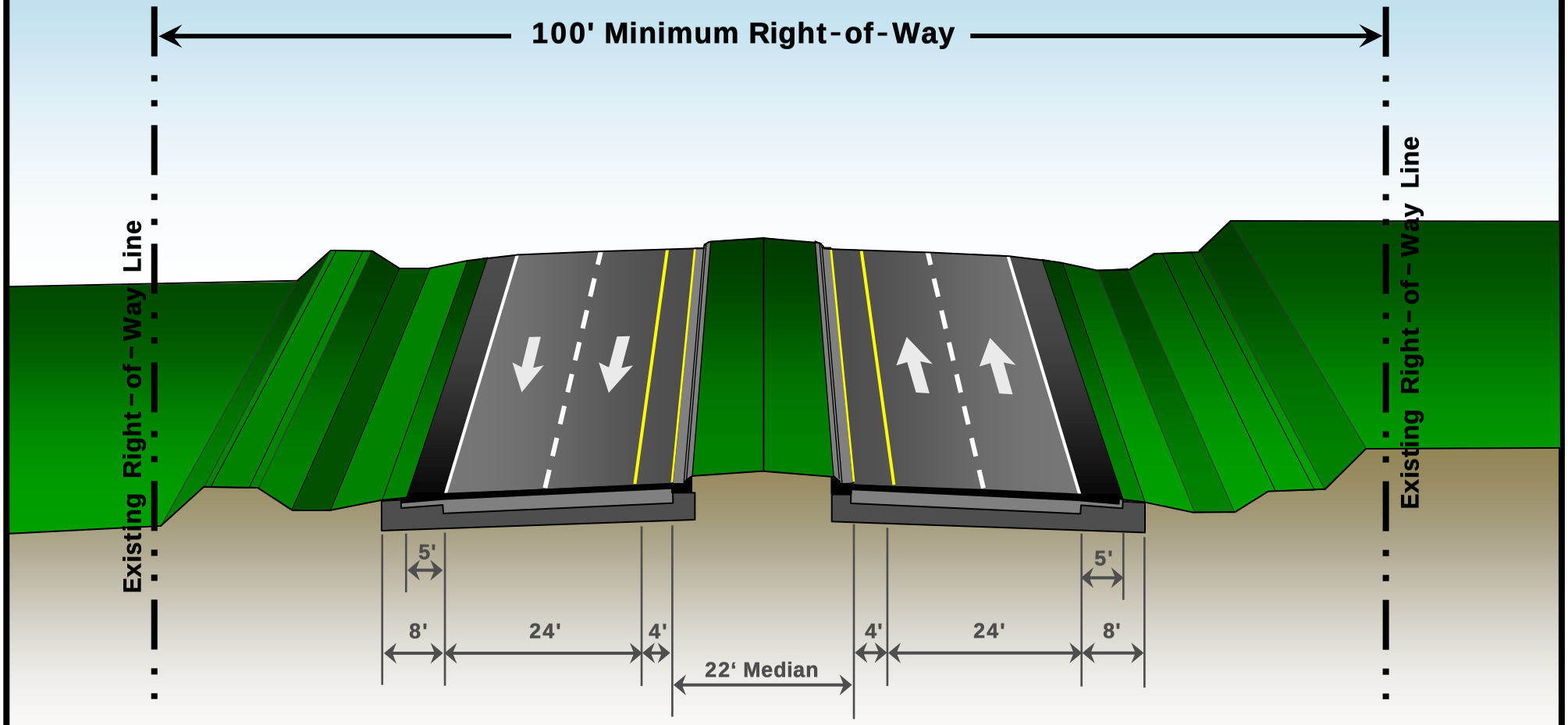
Proposed Eight - Lane Typical Section for the Bridges along I-75

Exhibit 9-4

Roadway Typical Section



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
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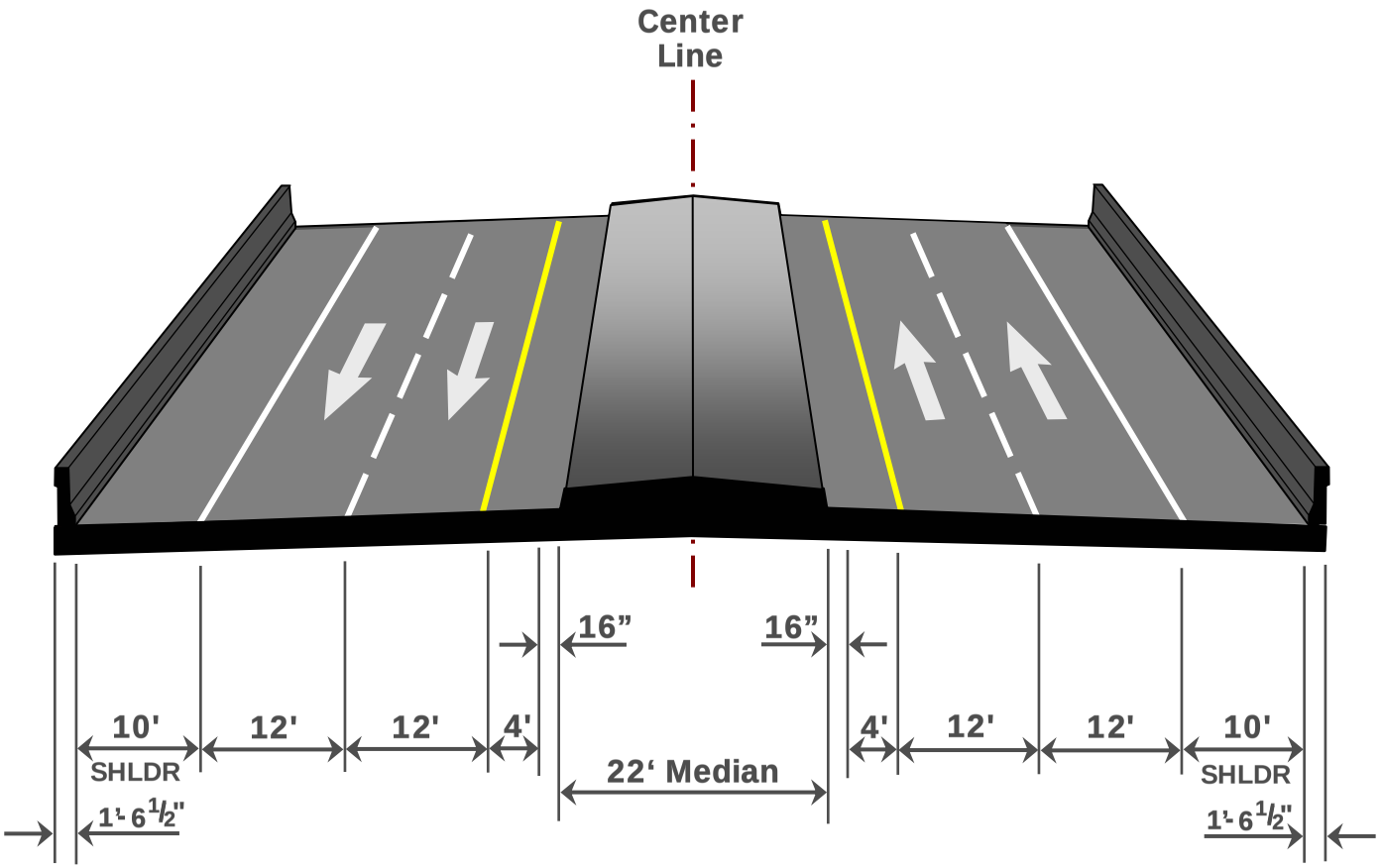
Proposed Four - Lane Roadway Typical Section for CR 41 (Blanton Road) near I - 75

Exhibit 9-5



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B
Pasco, Hernando & Sumter Counties
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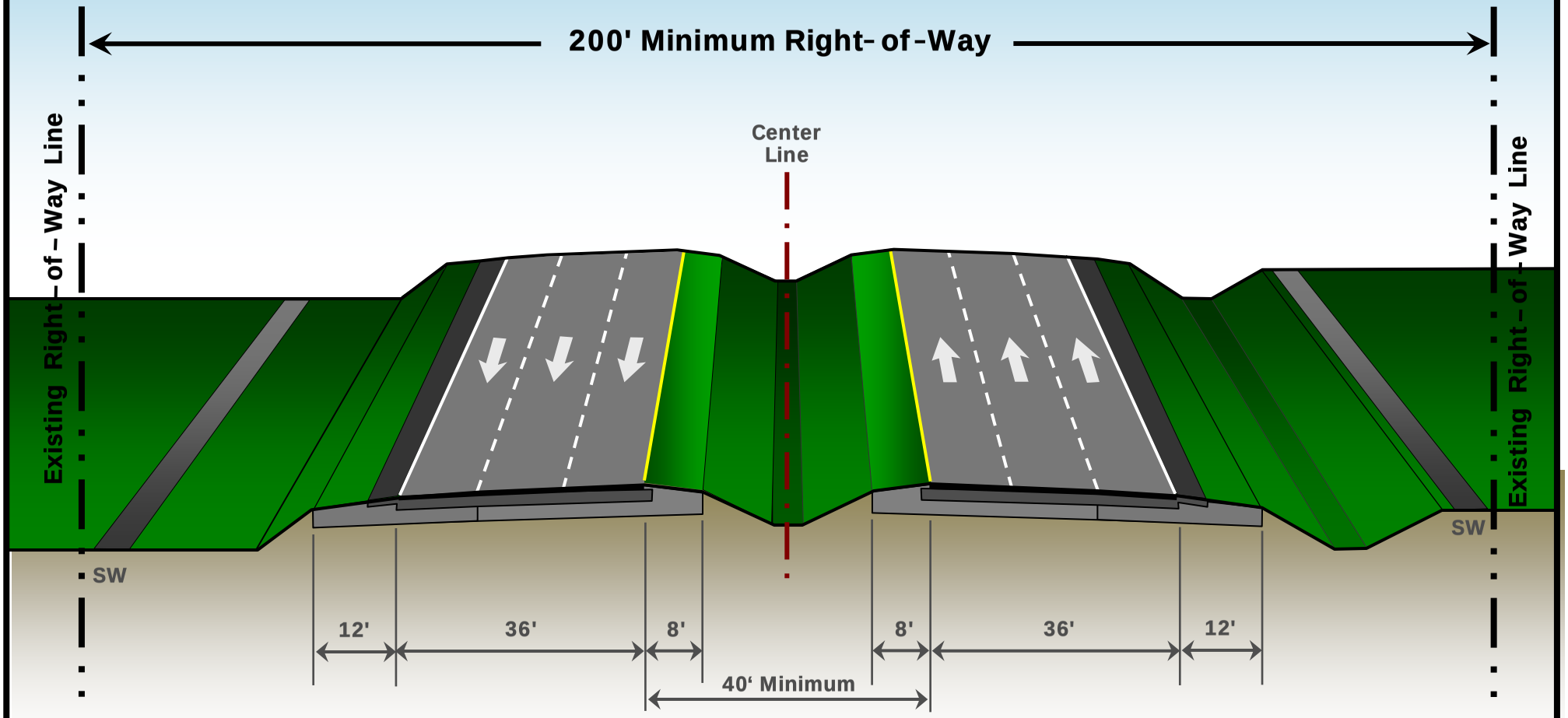
Proposed Four-Lane Bridge Typical Section for CR 41 over I-75

Exhibit 9-6

Roadway Typical Section



I-75 PD&E Study
From N. of SR 52 to S. of CR 476B
Pasco, Hernando & Sumter Counties
WPI Seg. No.: 411014 1
FAP No.: 0751-120I

Proposed Six-Lane Typical Section for US 98/SR 50 (Cortez Road) near I-75

Exhibit 9-7

9.5 ALIGNMENT AND RIGHT OF WAY NEEDS

Appendices B and **C** provide aerial photos illustrating the "preferred" design alternative for the I-75 mainline and interchanges, respectively. The widening improvements of the I-75 mainline will follow the existing alignment.

The widening improvements of the I-75 mainline will be accommodated within the existing right of way. Additional right of way will be required to implement the necessary interchange improvements at CR 41 and SR 50 and to accommodate the stormwater management facilities for the project. **Table 9-1** summarizes the additional right of way that will need to be acquired for the improvements of I-75.

Table 9-1 – Additional Right of Way Needed for the I-75 Improvements

Segment	ROW Needed for	ROW Area (acres)
Segment 1: From north of SR 52 to the Pasco/Hernando County Line	SMF (1)	63.0
	Interchange Improvement (2)	40.9
	Total for Segment 1	**103.9**
Segment 2: From the Pasco/Hernando County Line to SR 50	SMF	62.8
	Interchange Improvement (3)	5.4
	Total for Segment 2	**68.2**
Segment 3: From SR 50 to south of CR 476B	SMF	65.3 (4)
	Total for Segment 3	**65.3**
Total Additional ROW Area Needed for the Project		**237.4**

(1) Includes right of way for floodplain compensation
(2) Includes the additional right of way needs for the interchange improvements at CR 41
(3) Includes the additional right of way needs for the interchange improvements at SR 50
(4) 144.2 acres, if the Perpetual Transportation/Drainage/Maintenance easements within the WSF are included

9.6 RELOCATIONS

Construction of the "preferred" alternative is expected to cause the potential relocation of only one of a residence which is located in the southwestern quadrant of the I-75 / CR 41 interchange. The location of this residence is shown on **Sheet No. 19** in **Appendix B**. For this potential relocation, and any other potential relocations that may result from this project, the FDOT will carry out a right of way acquisition and relocation program in

accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

At least one relocation specialist is assigned to each highway project to carry out the relocation assistance and payments program. A relocation specialist will contact each person to be relocated to determine individual needs and desires, and to provide information, answer questions, and give help in finding replacement property. Relocation services and payments are provided without regard to race, color, religion, sex, or national origin.

9.7 RIGHT OF WAY COSTS

Table 9-2 summarizes the right of way costs for the "preferred" alternative. As shown, the estimated total cost of the additional right of way needed for the I-75 improvements is $73.78 million (present value).

Table 9-2 – Costs of Additional Right of Way Needed for the I-75 Improvements

Segment	ROW Needed for	Cost of ROW (million $ present value)
Segment 1: From north of SR 52 to the Pasco/Hernando County Line	SMF [1]	13.04
	Interchange Improvement [2]	24.33
	Total for Segment 1	**37.37**
Segment 2: From the Pasco/Hernando County Line to SR 50	SMF	9.49
	Interchange Improvement [3]	14.08
	Total for Segment 2	**23.57**
Segment 3: From SR 50 to south of CR 476B	SMF	12.84
	Total for Segment 3	**12.84**
Total Cost of Additional ROW Needed for the Project		**73.78**

(1) Includes right of way costs for floodplain compensation
(2) Includes the additional right of way needs for the interchange improvements at CR 41
(3) Includes the additional right of way needs for the interchange improvements at SR 50

9.8 CONSTRUCTION COSTS

Table 9-3 summarizes the estimated construction costs (present value) for the "preferred" alternative. These costs were calculated by applying the FDOT's Long Range Estimate (LRE) method. As shown, the total estimated construction cost of the improvements is approximately $388.11 million (present value). The construction engineering and inspection (CEI) cost was estimated, as 15.0% of the construction cost, at $58.16 million (present value).

9.9 PRELIMINARY ENGINEERING COSTS

Table 9-3 also summarizes the estimated costs for final design. These costs were also estimated as 15.0% of the construction cost. Therefore, the final design of the project is estimated to cost approximately $58.16 million (present value).

Table 9-3 – Construction and Engineering Costs of the I-75 Improvements

Type of Cost (1)	Cost per Segment			Total Cost
	Segment 1 (2)	Segment 2 (3)	Segment 3	
Construction Cost	$147.96	$168.12	$72.03	$388.11
Design Costs (4)	$22.14	$25.22	$10.80	$58.16
Construction Engineering & Inspection (4)	$22.14	$25.22	$10.80	$58.16
Total Construction and Engineering Costs	**$192.24**	**$218.56**	**$93.63**	**$504.43**

(1) Million dollars in present value
(2) Includes the costs for the interchange improvements at CR 41
(3) Includes the costs for the interchange improvements at SR 50
(4) Assumed 15% of the construction cost

9.10 PRODUCTION SCHEDULE

Table 9-4 presents the current FDOT Five Year Work Program (Fiscal Years 2007 through 2011) schedule in relation to the I-75 improvements within the project limits. It should be noted that in the current FDOT Five Year Work Program only the Preliminary Engineering and Right of Way Acquisition of Phase 1 of the I-75 improvements have been funded.

Table 9-4 – FDOT Five Year Work Program for I-75 (Fiscal Years 2007 – 2011)

Segment	Project Development Phase	Begin Year
Segment 1: From north of SR 52 to the Pasco/Hernando County Line	Preliminary Engineering	2007
	Right of Way Acquisition	2010
	Construction	Not currently funded
Segment 2: From the Pasco/Hernando County Line to SR 50	Preliminary Engineering	2007
	Right of Way Acquisition	2011
	Construction	Not currently funded
Segment 3: From SR 50 to south of CR 476B	Preliminary Engineering	2008
	Right of Way Acquisition	2011
	Construction	Not currently funded

9.11 RECYCLING OF SALVAGEABLE MATERIAL

During construction of the project, recycling of re-usable materials will occur to the greatest extent possible. Where possible, the existing pavement will be recycled and used in the new pavement. This will help to reduce both, the volume of materials that need to be hauled and disposed off away from the project and the cost of purchasing materials suitable for pavement construction. Other materials –such as signs, guardrail, and drainage concrete pipes– will be salvaged and re-used for regular maintenance operations if they are found to be in good condition.

9.12 USER BENEFITS

The segment of I-75 being evaluated is this PD&E Study is a vital component of the FIHS/SIS. It contributes greatly to the economies of the counties it traverses, provides linkage to a number of modal facilities and employment centers, and accommodates regional movement of people and goods.

Construction of the proposed improvements associated with the “preferred” alternative will result in several user benefits including savings in travel time, reduced vehicle operating costs, increased roadway safety, and decreased evacuation times. Access to schools and other community facilities as well as the numerous commercial

establishments and residences will be enhanced, which will contribute to the economic growth of the area adjacent to the project.

9.13 PEDESTRIAN AND BICYCLE FACILITIES

There are no pedestrian and/or bicycle facilities along I-75 in the study area. The "preferred" alternative does not include any new pedestrian / bicycle facilities other than providing shoulders along the segments of CR 41 and SR 50 that are proposed to be enhanced in the vicinity of I-75.

9.14 SAFETY

The proposed improvements –especially the improvements associated with the interchanges at CR 41 and SR 50– will upgrade this segment of I-75 to a safer and more efficient transportation facility. The increased mainline roadway capacity, the enhanced storage capacity at the off-ramps, and the lengthened deceleration/acceleration lanes at the exit/entry points along I-75 should result in the reduction of the number of crashes along I-75. In addition, the application of access management measures along CR 41 and SR 50 in the vicinity of I-75 will enhance the safety of the overall traffic operations in the study area.

9.15 ECONOMIC AND COMMUNITY DEVELOPMENT

As previously noted in **Sections 3.1.3** and **3.1.4**, several state, regional, and local government plans identify the significance of maintaining efficient and safe traffic operations along I-75 in promoting the economic growth and the development of the communities throughout Florida. The proposed improvements of I-75 within the study area were developed in consistency with these plans and are expected to accommodate, to the maximum extent feasible, the projected design year 2030 traffic demands at acceptable levels of service.

9.16 ENVIRONMENTAL EFFECTS

9.16.1 Effects on the Socio-cultural Environment

The proposed improvements should be expected to have only minimal effects on the socio-cultural environment of the study area.

9.16.1.1 Land Use

As previously noted in **Sections 4.3.1.1** and **4.3.1.2**, land uses in the vicinity of the project corridor will be mostly rural. Several low-gross-density residential developments either exist (Ridge Manor West, Ridge Manor) or are proposed (Sunrise, Hickory Hills) in the vicinity of SR 50, east and west of I-75. In addition, commercial and industrial land uses exist and are planned along SR 50 east of I-75. The Croom Tract of the WSF), a publicly-owned conservation land, makes up a significant proportion of the study area north of SR 50.

The proposed project improvements are consistent with the future land use plans of Pasco, Hernando, and Sumter counties. The areas abutted by the project should be expected to grow consistently with the currently established trends. Secondary development or land use changes in these areas are unlikely to occur as a result of the proposed improvements.

9.16.1.2 Community Facilities

I-75, as an interstate limited access facility, does not provide direct access to any community services and/or facilities. However, as previously noted in **Section 4.3.2.3**, I-75 accommodates regional access to several community services and facilities located near the project corridor. The proposed improvements will enhance access to these facilities.

9.16.1.3 Cultural Features

Section 4.3.2.2 of this document presents a summary of the findings of the *Cultural Resource Assessment Survey (CRAS)*[2] which was conducted for this PD&E Study to assess the potential project effects on any archaeological and historical resources within the study area. The CRAS considered the proposed widening for I-75, the recommended

interchange improvements, as well as the alternative sites under consideration for stormwater management facilities.

In a letter, dated April 3, 2006, the SHPO concurred that this project will have no effects archaeological and historical resources within the study area.

9.16.1.4 Recreation and Conservation Lands

As noted in **Section 4.3.2.1,** four public recreation and conservation resources exist within or in the vicinity of the study area, as follows:.

- The **Croom Tract of the WSF** which abuts both sides of I-75 north of SR 50 for a distance of 6.0 miles,
- The **Withlacoochee River Canoe Trail**, which extends approximately 29.0 miles along the Withlacoochee River and flows through the Croom Tract of the WSF,
- The **Withlacoochee State Trail**, a paved multi-use trail that runs through the Croom Tract of the WSF along the Withlacoochee River and crosses under I-75, and,
- The **Sherman Hills Golf Club**, a golf course open to the public located just east of I-75 and north of SR 50 in Ridge Manor West.

Of these resources, the proposed widening improvements for I-75 would affect only the Croom Tract of the WSF. Even though the widening of I-75 through the WSF – Croom Tract can be achieved within the existing right of way, this resource will continue to receive stormwater runoff from the widened highway as it currently does. Since this resource abuts both sides of I-75 for approximately 6.0 miles, there is no prudent and feasible avoidance alternative to accommodate the stormwater runoff from I-75 but to direct it in the WSF property.

A *Programmatic Section 4(f) Evaluation*[3] was prepared as part of this PD&E Study to evaluate alternatives in accommodating the stormwater runoff from I-75 in the WSF – Croom Tract area as well as to assess the effects of the most suitable alternative. To minimize adverse effects on the WSF, the solution to allow stormwater runoff to flow to the natural depressions within the WSF in a pattern equivalent to the existing drainage

patterns is proposed. This solution, developed in coordination with the DOF and the SWFWMD, involves no construction activities for SMFs within the WSF (except for one location within Basin 19) and, therefore, no construction disturbance to the existing WSF ecosystem. Accordingly, the DOF, in a letter dated December 18, 2006, has concurred that this solution would be the most favorable.

The natural depression areas and natural conveyance areas within the WSF will be acquired by the FDOT through the execution of a perpetual transportation /drainage/maintenance easement from the Division of State Lands (DSL) (the present "fee owner" of the WSF lands). These perpetual easement agreements will be executed by the FDOT with the DSL during the project's future Right of Way Acquisition phase. It has not been determined at this time what the purchase value of the easement will be since this appraisal process will be handled during the agreement negotiation process between the FDOT and the DSL. The easement agreements will have exhibits which will indicate the surveyed boundary of the areas to be acquired by the FDOT for stormwater management and conveyance purposes. These areas will also be reflected in the SWFWMD permitting process so the easement agreements will match the areas outlined in the permits. These agreements will be executed once the depressional and conveyance areas are more accurately determined using detailed stormwater management models and then field surveyed (during design). Once the modeling and survey process is completed, the areas within the WSF will be acquired during the Right of Way Acquisition phase.

9.16.1.5 Community Cohesion

The proposed improvements were developed to comply with Executive Order 12898, Environmental Justice, issued on February 11, 1994. This project involves the widening of an existing interstate with limited right of way acquisition for the expansion of two interchanges and the placement of the necessary SMFs. This project is not expected to cause the splitting or isolation of any neighborhoods or to harm in any way elderly, physically challenged, non-driving, transit dependent, and minority individuals. Therefore, the proposed project improvements will have no effect on the cohesiveness of the community.

9.16.2 Effects on the Natural Environment

9.16.2.1 Effects on Wetlands

In accordance with Executive Order 11990, "Protection of Wetlands," dated May 23, 1977, a study was conducted to identify, characterize, and evaluate wetland systems that traverse or parallel I-75 in the study area of this project. The findings of this study were presented in the *Wetlands Evaluation and Biological Assessment Memorandum*,[4] prepared for this PD&E Study under separate cover. This section provides a brief discussion on the main findings.

Some of the upland and wetland habitats outside the current right of way of I-75 will be affected due to the expansion of the interchanges (at CR 41 and SR 50) and the construction of the stormwater management facilities or –for the WSF – Croom Tract– the storage of stormwater in natural depression areas. A total of 30 aquatic features (does not include swales) have been identified in the study area that present the potential to be impacted by the proposed improvements. All wetlands affected by the proposed improvements were grouped and classified according to the USFWS's Classification of Wetlands and Deepwater Habitats of the United States and the Florida Land Use/Cover and Forms Classification System.

It is estimated that a total of 35.24 acres of wetlands will be affected by the proposed improvements. These effects will need to be coordinated with the responsible state and federal regulatory agencies through the issuance of the appropriate permits. An Environmental Resource Permit will be required from the SWFWMD and a Section 404 Dredge and Fill Permit will be required from the U.S. Army Corps of Engineers prior to construction.

There are several options available for the FDOT to compensate for the anticipated wetland effects:

- The FDOT may participate in a public or private mitigation bank, provided that wetland credits are available for use on this project during the permitting and Final Design phase.

- The FDOT may choose to create, restore, enhance, or preserve wetlands in the project's watershed. Depending on the type or combination of types employed, the offsetting ratios will vary considerably.
- The FDOT may utilize Chapter 373.4137 of the Florida Statutes. This legislation allows the Department to offset wetland effects with a monetary payment through the Department of Environmental Protection to the Southwest Florida Water Management District. The Water Management District will then provide a regional wetland mitigation plan on an annual basis to be approved by the Florida State Legislature, which will include mitigation for specific FDOT project effects.

Evaluations and decisions on the most suitable mitigation options will be performed during the Final Design phase through the permitting negotiations.

9.16.2.2 Effects on Threatened and Endangered Species

The potential effects of the proposed project improvements on the state and federally listed species and habitats were studied and presented in the *Wetlands Evaluation and Biological Assessment Memorandum*,[4] prepared for this PD&E Study under separate cover. **Section 4.3.3.3** of this report presents a list of the federally and state protected species occurring or presenting the potential to occur in the vicinity of this project.

According to the findings presented in the *Wetlands Evaluation and Biological Assessment Memorandum*, the proposed project improvements will not likely have an adverse affect or jeopardize the existence of any federally- and/or state-listed threatened or endangered species known or expected to occur in the study area. Furthermore, the proposed project is not located in an area designated as critical habitat by the U.S. Department of the Interior.

The *Wetlands Evaluation and Biological Assessment Memorandum* has been reviewed by the US Fish and Wildlife Service (USFWS) which has concurred on December 7, 2006 that the planned action is not likely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

9.16.2.3 Effects on Water Quality

A *Water Quality Impact Evaluation (WQIE)* has been prepared as part of this PD&E Study. No adverse effects to water quality are anticipated to result from the proposed improvements of I-75. The effects of the proposed improvements on the surface water will essentially be limited to the effects due to erosion during construction. These impacts are considered temporary and will be minimized by strict adherence to Section 104 of the FDOT *Standard Specifications for Road and Bridge Construction*.[5] The design of the proposed stormwater management facilities will be based, at a minimum, on the water quality criteria as specified by the SWFWMD in Florida Statutes 373 and Rules 40E-1, 40E-4, 40E-40 Florida Administrative Code. Therefore, no further mitigation for water quality impacts will be needed.

9.16.2.4 Effects on Outstanding Florida Waters

The project crosses the Withlacoochee River which is designated as an Outstanding Florida Water (OFW) under Section 62-302.700(9), F.A.C. This designation indicates that a higher than usual emphasis will be placed on the treatment standards of stormwater runoff from the bridge and the out-falling stormwater management facilities, in accordance with the requirements set forth by the FDEP and the SWFWMD. No direct stormwater discharge to the Withlacoochee River should be expected either from the proposed project improvements or the stormwater management facilities. The stormwater runoff from the project in the vicinity of the Withlacoochee River will be directed to the natural depression areas within the WSF-Croom Tract which abuts both sides of the river. Should this condition changes during the Final Design phase and stormwater discharge is considered to the Withlacoochee River from stormwater management facilities, they should be designed as wet detention systems providing treatment for 1.5 inches of stormwater runoff in facilities discharging directly to the Withlacoochee River and treatment of 1.0 inch of stormwater runoff for facilities not discharging directly to an OFW system. Since the project will be constructed within the existing right of way, no adverse effects are expected on the Withlacoochee River. Construction activities at the bridge will be designed to minimize disturbance of the river.

9.16.2.5 Effects on Floodplains

As noted in **Section 4.3.3.2** of this report, the Federal Emergency Management Agency (FEMA) has designated 100-year base floodplain areas in eight locations along the I-75 project corridor; encroachment to the 100-year floodplain occurs only at three locations. The areas of encroachment to the 100-year floodplain are designated as Zone A. Zone A is defined as special flood hazard area inundated by 100-year flood with no base flood elevations determined. The remainder of the project is designated as Zone X. Zone X is described as areas determined to be outside the 500-year floodplain. There are no regulatory floodways within the I-75 project corridor.

In accordance with Executive Order 11988, "Floodplain Management," USDOT Order 5650.2, "Floodplain Management and Protection," and Chapter 23, Code of Federal Regulations, Part 650A, impacts to floodplains from the construction of the proposed improvements for I-75 were considered. The effects of the proposed improvements on the floodplains were presented in the *Location Hydraulics Report (LHR)*[6] and the *Alternative Stormwater Management Facility Report*.[7] It is anticipated that the proposed improvements may affect approximately 2.35 acres of floodplains. The SWFWMD Environmental Resource Permit (ERP) Information Manual (Section 4.4, 3/11/2004 edition) states that no net encroachment into the floodplain, up to that encompassed by the 100-year event, which will adversely affect either conveyance, storage, water quality, or adjacent lands, will be allowed. Compensating storage will be required for any fill encroachment in these floodplains. Compliance with the "Historic Basin Storage" (Section 4.7, ERP) and "Offsite Lands" (Section 4.8, ERP) criteria will also be necessary. Mitigation for encroachment into the 100-year floodplain will be compensated through the construction of floodplain compensation areas. These areas will be addressed in the Final Design phase of this project.

With regards to the base floodplain construction activities, this project can be categorized as Category 4: "Projects on Existing Alignment Involving Replacement of Existing Drainage Structures with no Record of Drainage Problems" (see *PD&E Manual*,[8] Part 2, Chapter 24, Appendix A). The proposed drainage structures will perform hydraulically in a manner equal to or greater than the existing structures, and backwater surface

elevations are not expected to increase. As a result, there will be no significant adverse effects on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

9.16.3 Physical Effects

9.16.3.1 Effects on Contaminated Sites

As noted in **Section 4.3.4** of this report, a *Contamination Screening Evaluation Report (CSER)*[9] has been prepared for this PD&E Study. Eight sites were identified for involvement of some type of potential contamination. Five of the eight records were identified for tanker spill incidents that occurred within the I-75 right of way in the northern third of the project corridor. The remaining three records were identified for fuel retail stations along SR 50; two of these sites are closed and/or undergoing remediation. Six sites –the three fuel/service stations and three accident sites– were assigned a Medium rating for potential contamination.

Other than the sites of the tanker spill incidents in the I-75 right of way, the proposed improvements will not involve any petroleum and/or hazardous materials sites.

9.16.3.2 Noise Effects

In accordance with 23 CFR 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise," an assessment of traffic noise was conducted for this project and a *Noise Study Report*[10] has been prepared for this PD&E Study.

Sixty-four noise sensitive sites (representing 2 churches, 1 library, 40 single-family residences, 10 mobile homes, 2 hotels, a golf course, and 10 campsites) were evaluated. Thirty-eight sites (22 single-family homes, 8 mobile homes, 2 golf greens, and 6 campsites) are predicted to experience noise levels that will approach, meet, or exceed the NAC. Noise abatement measures such as traffic management, alternative roadway alignment, and noise barriers were considered for the affected noise sensitive sites. None of these measures were found to be feasible and cost reasonable.

To reduce the potential for additional noise sensitive sites to be located within an area with incompatible traffic noise, noise level contours were developed for the future improved roadway. The results of the analysis indicate that the level of 66 dBA (approaching the FHWA's NAC) contour would extend approximately 350 feet from the outside edge of the closest travel lane of the eight-lane roadway.

9.16.3.3 Air Quality Effects

In accordance with the Clean Air Act Amendments of 1990 and Part 2, Chapter 16 of the FDOT's *PD&E Manual*, an air quality analysis was conducted to assess the effects of the proposed project on air quality and summarized in the *Air Quality Memorandum*.[11] This project is in an area currently designated as "attainment" for air pollutants such as: ozone, nitrogen dioxide, particulate matter (2.5 microns and 10 microns in size), sulfur dioxide, carbon monoxide, and lead.

The project alternatives were subjected to a carbon monoxide (CO) screening model that makes various conservative worst-case assumptions related to site conditions, meteorology and traffic. The FDOT's screening model, *CO Florida 2004* (released September 7, 2004), which uses the latest approved software (Mobile 6 and CAL3QHC) by the United States Environmental Protection Agency (USEPA), was applied to produce estimates of one-hour and eight-hour CO concentrations at SR 50 near I-75 which is considered the intersection with the highest total volume. The opening year (2010) and the design year (2030) were evaluated. Based on the results from the screening model, the highest project-related CO one- and eight-hour levels are not predicted to meet or exceed the one- or eight-hour National Ambient Air Quality Standards (NAAQS) for the pollutant with either the No-Build or Build alternatives. As such, the project "passed" the screening model.

The project is located in an area that has been designated as "attainment" for the 8-hour National Ambient Air Quality Standard for ozone under the criteria provided in the Clean Air Act and therefore, transportation conformity does not apply.

9.17 UTILITY EFFECTS

Table 4-8 of **Section 4.1.12** summarizes the existing utilities within the study area. Depending on the location, depth, and height of these utilities, implementation of the proposed improvements may require the adjustment and/or relocation of some of them. Further coordination will be conducted with the utility companies during the Final Design phase to assess the need for these adjustments and/or relocations as well as the associated costs.

9.18 TRAFFIC CONTROL PLAN

Maintenance of traffic and the sequence of construction will be planned so as to minimize traffic delays and maintain safety to the maximum extent feasible. During the Final Design phase, a Traffic Control Plan will be developed and approved for use, in accordance with the FDOT's *Standard Specifications for Road and Bridge Construction*.

I-75 is a vital corridor for intrastate and interstate transportation of people and goods as well as for providing local access to numerous businesses and residences through the two interchanges at CR 41 and SR 50. The existing four lanes of travel along I-75 should remain functional throughout the duration of the construction activities to the maximum extend possible. Should lane closures be required, these should be scheduled to occur during the off-peak hours. In addition, access to all businesses, residences, and public services along CR 41 and SR 50 will be maintained to the extent practical through controlled construction scheduling.

The following conceptual construction sequence will help maintain traffic operations along I-75:

- Relocate existing utilities within the right of way.
- Construct stormwater ponds.
- Construct temporary pavement as necessary to maintain the existing two lanes of traffic in each direction.
- Construct the widening of either the northbound or southbound lanes including shoulders, while maintaining the traffic on a combination of the existing and temporary pavement.

9.19 RESULTS OF THE PUBLIC INVOLVEMENT PROGRAM

A *Public Involvement Plan (PIP)*[12] was approved for the study in May 2005. The PIP identified the interested parties for this project and documented the techniques to be used to inform them and solicit their comments. Interested parties included local residents and business owners, public officials, and agency representatives. The techniques documented in the PIP for engaging the interested parties included the distribution of an "Advance Notification Package" and an officials "Kick-off Letter" upon commencement of the study, news releases to the local media and mailing of four newsletters at key milestone points of the study, posting of project related information on the FDOT web site, and a Public Hearing. The results of these activities were documented in the *Comments and Coordination Report*[13] which was prepared for this study under separate cover. A brief summary of these activities is provided below.

9.19.1 Advance Notification

An Advance Notification (AN) Package was prepared for the study in accordance with Part 1, Chapter 2 of the FDOT PD&E Manual and was transmitted on March 21, 2005 to the Florida State Clearinghouse for distribution to a number of agencies. Agencies who responded to the AN included the FDEP, the Tampa Bay Regional Planning Council (TBRPC), U. S. Coast Guard, Muscogee (Creek) Nation of Oklahoma, Southwest Florida Water Management District (SWFWMD), Florida Fish and Wildlife Conservation Commission and the Withlacoochee Regional Planning Council (WRPC).

The FDEP concluded that this project is consistent with the Florida Coastal Management Plan on the condition that the issues identified by the DEP, TBRPC, and DACS in their response letters are addressed prior to project implementation.

These agencies' comments generally indicated no anticipated negative effects or consistency with applicable policies or requirements. Others requested that standard protective measures be taken to protect the environment or that further coordination take place with the agencies during the project's Final Design phase. More detail on these agency responses can be found in the Study's *Comments and Coordination Report*.

9.19.2 Public Hearing

The Public Hearing for the planned project was held on December 13, 2006, at the Ridge Manor West Community Center, 6376 Windmere Road, in Brooksville. The purpose of the Public Hearing was to provide the public with specific information regarding the "preferred" alternative and to allow the opportunity for area residents and property and business owners to express their views on the project, its potential effects, and other related matters. A newsletter announcing the meeting and describing the project was prepared and distributed 13 days prior to the Public Hearing to elected officials, agencies, and property owners within 300 feet of the centerline of the "preferred" alternative through the length of the project.

Informational handouts were provided to the meeting attendees. The handouts included a description of the "preferred" alternative, the status of the project in the FDOT Five-Year Work Program, the evaluation matrix, and the comment form. Copies of the Public Hearing notification materials, sign-in sheets, handout materials, and meeting displays are provided in the *Public Hearing Scrapbook*.[14]

The Public Hearing consisted of two periods: an "informal" period and a "formal" period. During the "informal" period, which lasted from 4:30 to 6:00 PM, the public had the opportunity to review project related information –such as conceptual plans of the "preferred" alternative, typical sections, the evaluation matrix, and study documents– and to have their questions answered on a one-on-one basis by the available FDOT representatives. Throughout the "informal" period, a project informational video was playing continuously.

At approximately 6:00 PM, Mr. Robert M. Clifford, AICP, FDOT District Modal Planning and Development Manager, opened the "formal" period of the Public Hearing, which lasted until 6:40 PM. He provided an overview of the project and the next steps to be followed through its completion. Subsequently, he opened the floor for several citizens who gave formal statements to be recorded by the court reporter. Following the "formal" period, FDOT representatives were available to informally address additional questions from the meeting attendees. The Public Hearing concluded at approximately

7:00 PM. The public comment period for the Public Hearing remained open until December 23, 2006. A transcript was prepared to officially document all proceedings and citizen comments. A copy of the Public Hearing transcript is provided in the appendices of the *Comments and Coordination Report*.

Excluding the FDOT representatives, 60 individuals signed the attendance register. Six (6) written comment forms were received at the Public Hearing and five (5) official statements were recorded by the court reporter. Eleven (11) comment forms, letters, and e-mail messages were received in relation to this project during the comment period after the Public Hearing. Specific questions and comments raised at the Public Hearing during the "informal" period of the Public Hearing were addressed in the *Comments and Coordination Report*. The formal statements (given at the Public Hearing) and comments (delivered to the FDOT through the comment forms, letters, and e-mail messages) that required a response were responded to by mailing letters to the interested individuals and were also addressed in the *Comments and Coordination Report*.

Most statements and comments, provided at the Public Hearing and through the comment forms, expressed the local residents' favor of improvement Alternative D over Alternative C for the I-75 interchange at SR 50 and their concern on the recommended removal of the existing traffic signal at the Windmere Road intersection of SR 50, just east of I-75.

9.20 VALUE ENGINEERING

Value Engineering (VE) review has not been performed for this project during this PD&E Study. The VE review for this project will be performed during the Final Design phase.

9.21 DRAINAGE

Section 4.1.7 of this report summarizes the current drainage conditions in the study area. According to research of available records, there were no incidents of flooding along I-75 within the limits of this project.

As part of this PD&E Study, alternatives were evaluated and recommendations were made on the most suitable solutions to accommodate the stormwater runoff from the project. These analyses and recommendations are presented in the *Alternative Stormwater Management Facility Report*,[7] which was prepared for this PD&E Study under separate cover.

To accommodate the stormwater runoff from the proposed improvements, similar to the current conditions, an open drainage system will be provided consisting of roadside ditches/swales that will connect to stormwater management facilities (SMFs). As noted in **Section 9.16.1.4**, for the segment of the project traversing the WSF – Croom Tract, instead of providing SMFs it was recommended to maintain the existing drainage patterns so that the stormwater runoff from the project will continue to flow to the natural depressions within the forest. This solution, developed in coordination with the SWFWMD and the DOF, involves no construction activities for SMFs within the WSF and, therefore, no construction disturbance to the existing WSF ecosystem. The conceptual plans provided in **Appendix B** depict the potential locations of the SMFs and the expected affected areas in the vicinity of the depression areas of the WSF due to the additional stormwater runoff from the project. It should be noted that the locations of the SMFs and affected areas in the WSF could change and their sizes will likely be reduced during the Final Design phase of this project because more accurate data will be available for drainage design (topographic contours, soil borings, etc.).

The recommendations for the SMFs were based on the SWFWMD criterion that the post-development peak discharge for the 25-year/24-hour rainfall event will exceed the pre-development peak discharge. In addition, the recommendations comply with the FDOT regulation 18.46 to meet critical duration requirements. The locations of the SMFs were selected to minimize effects on wetlands and listed species and to avoid sites of known involvement of historical/archaeological resources or contamination.

9.22 STRUCTURES

Table 9-5 summarizes the recommended improvements for the bridge structures along I-75 and for the roadways crossing I-75.

Table 9-5 – Recommended Bridge Structure Improvements and Design Criteria

Bridge No.	Structure Location (I-75 milepost)	Horizontal Curve (yes/no)	Number of Travel Lanes on Structure	Recommended Improvement	Structure		Required Clearance	
					Length (feet)	width (feet)	Horizontal (feet)	Vertical (feet)
Pasco County								
140058	I-75 over Stanley Branch (13.127)	No	8	Lengthen Culvert	N/A - Culvert	N/A - Culvert	36.0' to headwall	N/A - Culvert
140046	Darby Road (CR 578A) over I-75 (13.919)	No	2	Replace	432.0	57'-1"	86.0 (1)	16.5
140940	St. Joseph Road (CR 578) over I-75 (15.275)	No	2	Replace	308.0	57'-1"	86.0 (1)	16.5
140038	I-75 over Thomas Prairie Creek (15.617)	No	8	Lengthen Culvert	N/A - Culvert	N/A - Culvert	36.0' to headwall	N/A - Culvert
140042	Lake Iola Road (CR 577) over I-75 (17.225)	No	2	Replace	349.0	57'-1"	86.0 (1)	16.5
140006	Blanton Road (CR 41) over I-75 (19.072)	No	4	Replace	573'-6"	101'-1"	86.0 (1)	16.5
Hernando County								
080012	Church Road over I-75 (1.060)	No	2	To Remain	345.0	N/A	86.0 (1)	16.5
080920	Lockhart Road over I-75 (3.732)	No	2	Replace	412.0	57'-1"	86.0 (1)	16.5
080021	SB I-75 over SR 50 (7.023)	No	4	Replace	160.0	71'-1"	16.0	16.5
080022	NB I-75 over SR 50 (7.023)	No	4	Replace	160.0	71'-1"	16.0	16.5
080023	SB I-75 over Croom Rital Road (10.741)	Yes, D = 0° 30'	4	Widen	279'-6"	71'-1"	(2)	TBD
080026	NB I-75 over Withlacoochee River (11.381)	No	4	Widen	350.0	71'-1"	(2)	6.1' above Design High

(1) Span to accommodate the "ultimate" 10-lane section
(2) Existing clearances to be retained

Table 9-5 – Recommended Bridge Structure Improvements and Design Criteria (continued)

Bridge No.	Structure Location (I-75 milepost)	Horizontal Curve (yes/no)	Number of Travel Lanes on Structure	Recommended Improvement	Structure		Required Clearance	
					Length (feet)	width (feet)	Horizontal (feet)	Vertical (feet)
Sumter County								
180027	SB I-75 over Forestry Road (1.007)	No	4	Widen	190.0	71'-1"	(2)	16.5
180028	NB I-75 over Forestry Road (1.007)	No	4	Widen	190.0	71'-1"	(2)	16.5
TBD	New Structure for NB I-75 to WB SR 50 "Flyover"	Yes D = 9° 15' max.	1	New	2,000.0	38'-1"	16.0	16.5

(2) Existing clearances to be retained

9.23 ACCESS MANAGEMENT

I-75 is a limited access, Access Class 1 facility in an Area Type 3. As such, access management is regulated through the interchange spacing standards. As shown in **Table 5-1**, the interchange spacing criteria for I-75 within the project limits is 3.0 miles. This spacing is currently met between the existing interchanges at SR 52 (south of the project limits), CR 41, SR 50, and CR 476B (north of the project limits). The proposed improvements do not include new interchanges. Therefore, the access management criteria for interchange spacing will be met in the future.

SR 50 is an Access Class 5 facility. **Table 5-2** in **Section 5** provides the access management criteria for an Access Class 5 facility. Review of the current conditions along SR 50 reveals that the spacings of the existing median openings, driveway connections, and traffic signals do not meet the standards for this type of facility. The proposed improvements along SR 50 –shown with the conceptual improvement plans in **Appendix B**– will improve the spacings of the median openings and traffic signals. As part of the access management improvements along SR 50, it was recommended to remove the existing temporary traffic signal from the Windmere Road intersection, just east of SR 50 and replace it with a new signal at a location further east along SR 50. The new location of the traffic signal will be based on consideration of several factors such as the access management criteria, the location of the access connection to the Sunrise DRI, and provision of functional circulation for the Ridge Manor West and the Sherman Hills communities.

9.24 AESTHETICS AND LANDSCAPING

The placement and maintenance of any landscaping features along I-75, CR 41, and SR 50 in relation to the proposed improvements of this project shall comply with the clear zone requirements and sight distance standards for intersections. No special provisions or commitments were made regarding aesthetic features and landscaping as part of the proposed improvements.

9.25 OTHER COMMITMENTS AND RECOMMENDATIONS

As discussed in **Sections 4.3.2.1** and **9.16.1.4**, for approximately 6.0 miles north of SR 50, I-75 travels through the WSF-Croom Tract property which is a Section 4(f) resource. Although the widening improvements for I-75 will be accomplished within its existing right of way without affecting the WSF property or any of its recreational facilities, there is no prudent and feasible avoidance alternative to accommodate the stormwater runoff from the project but to store it within the WSF property. To minimize effects, use of the natural depressions within the WSF is planned instead of constructing stormwater management facilities. In a letter dated December 18, 2006, the Florida Division of Forestry (DOF) –the lead agency responsible for managing the WSF-Croom Tract– concurred with this solution for the project segments where there are no feasible sites to provide stormwater management facilities outside the WSF.

The natural depression areas and natural conveyance areas within the WSF will be acquired by the FDOT through the execution of a perpetual transportation /drainage/maintenance easement from the Division of State Lands (DSL) (the present "fee owner" of the WSF lands). These perpetual easement agreements will be executed by the FDOT with the DSL during the project's future right of way acquisition phase. It has not been determined at this time what the purchase value of the easement will be since this appraisal process will be handled during the agreement negotiation process between the FDOT and the DSL. The easement agreements will have Exhibits which will indicate the surveyed boundary of the areas to be acquired by the FDOT for stormwater management and conveyance purposes. These areas will also be reflected in the SWFWMD permitting process so the easement agreements will match the areas outlined in the permits. These agreements will be executed once the depressional and conveyance areas are more accurately determined using detailed stormwater management models and then field surveyed (during design). Once the modeling and survey process is completed, the areas within the WSF will be acquired during the right of way acquisition phase.

9.26 REFERENCES

1 *Traffic Technical Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

2 *Cultural Resource Assessment Survey*; I-75 PD&E Study; Archaeological Consultants Inc.; June 2007.

3 *Programmatic Section 4(f) Evaluation*; I-75 PD&E Study; H.W. Lochner, Inc.; March 2007.

4 *Wetlands Evaluation and Biological Assessment Memorandum*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

5 *Standard Specifications for Road and Bridge Construction*; FDOT; 2000.

6 *Location Hydraulics Report*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

7 *Alternative Stormwater Management Facility Report*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

8 *Project Development and Environment Manual*; FDOT; current edition.

9 *Contamination Screening Evaluation Report*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

10 *Noise Study Report*; I-75 PD&E Study; FDOT; June 2007.

11 *Air Quality Memorandum*; I-75 PD&E Study; FDOT; June 2007.

12 *Public Involvement Plan*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

13 *Comments and Coordination Report*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

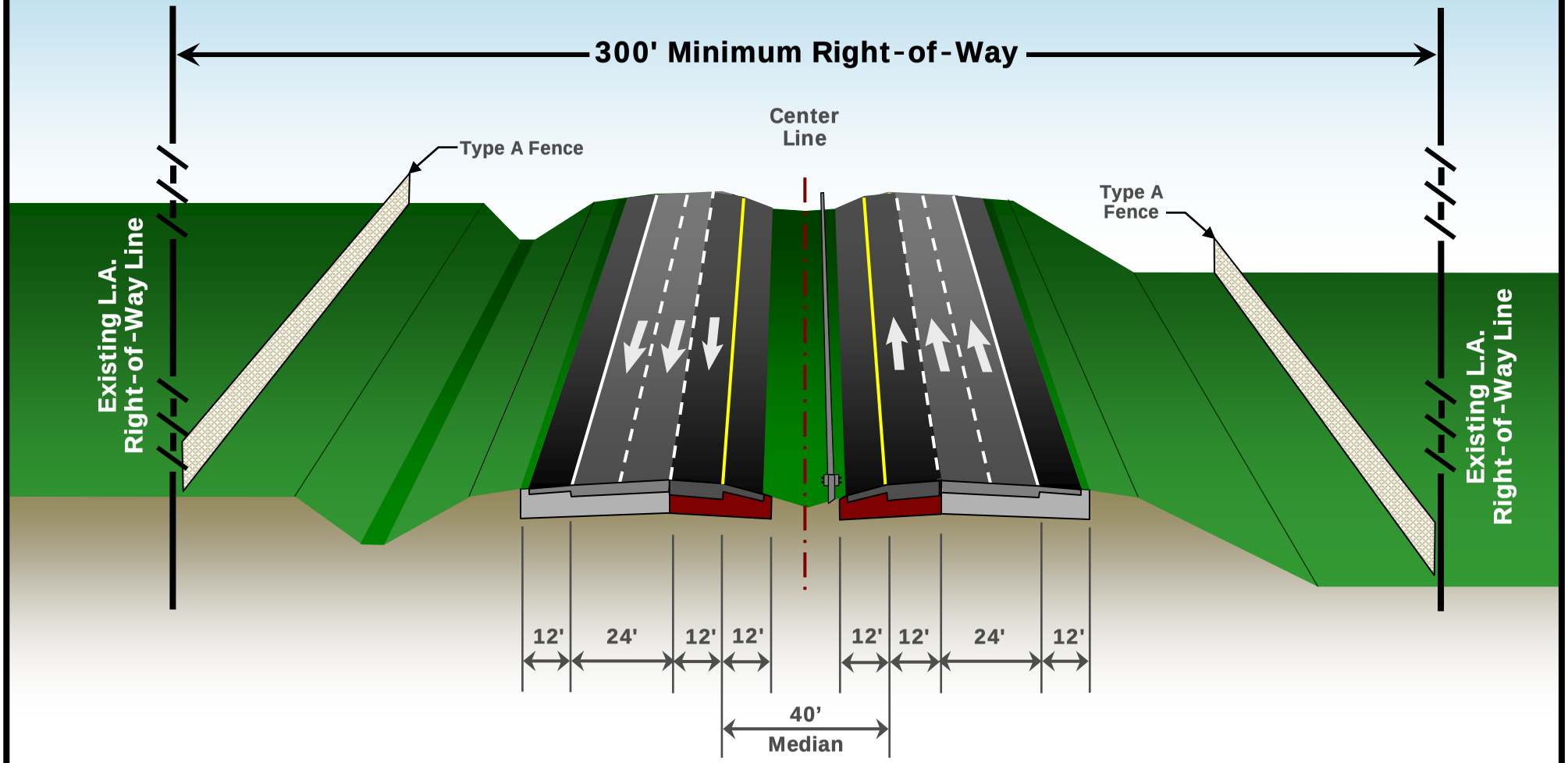
14 *Public Hearing Scrapbook*; I-75 PD&E Study; H.W. Lochner, Inc.; June 2007.

APPENDICES

APPENDIX A

Interim Six-Lane Typical Section for I-75

Roadway Typical Section



I-75 PD&E Study

From N. of SR 52 to S. of CR 476B

Pasco, Hernando & Sumter Counties

WPI Seg. No.: 411014 1

FAP No.: 0751- 120I

Interim Six-Lane Typical Section for I -75

APPENDIX B

"Preferred" Alternative Conceptual Plans for Improving I-75

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONCEPT PLANS

FINANCIAL PROJECT ID 411014-1-32-01

PASCO, HERNANDO & SUMTER COUNTY

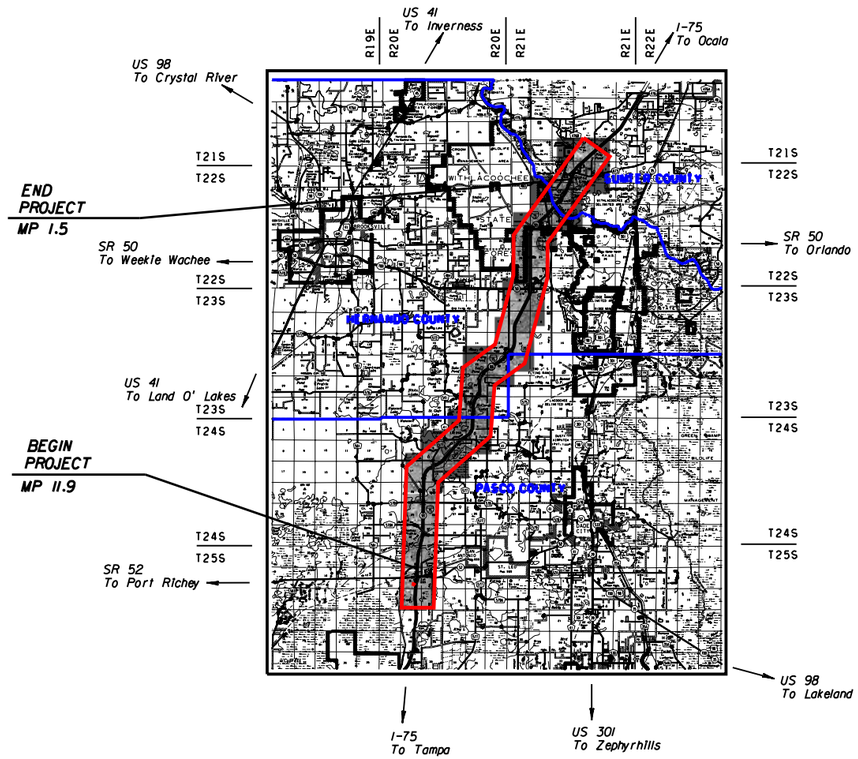
INTERSTATE 75 PD&E STUDY

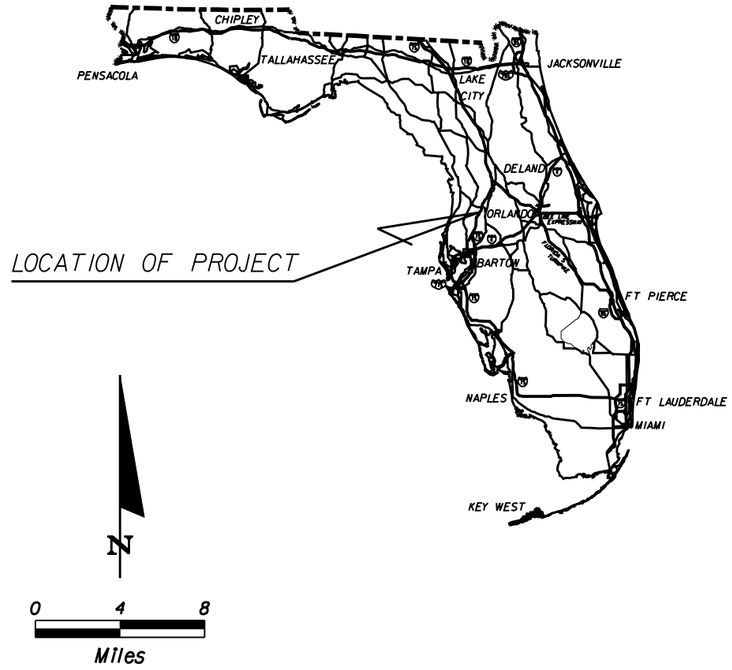
FROM NORTH OF SR 52 IN PASCO COUNTY

TO SOUTH OF CR 476B IN SUMTER COUNTY

INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2 - 4	TYPICAL SECTIONS
5 - 6	SHEET LAYOUT
7 - 51	PLAN SHEETS





PLANS PREPARED BY:
H.W. LOCHNER, INC.
13577 FEATHER SOUND DRIVE
SUITE 600
CLEARWATER, FLORIDA 33762
(727) 572-7111
Consultant Contract No. C7149
Vendor No. VF 323388110O1
FBPR CERTIFICATE OF AUTHORIZATION #894

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

LENGTH OF PROJECT: 21.5 MILES

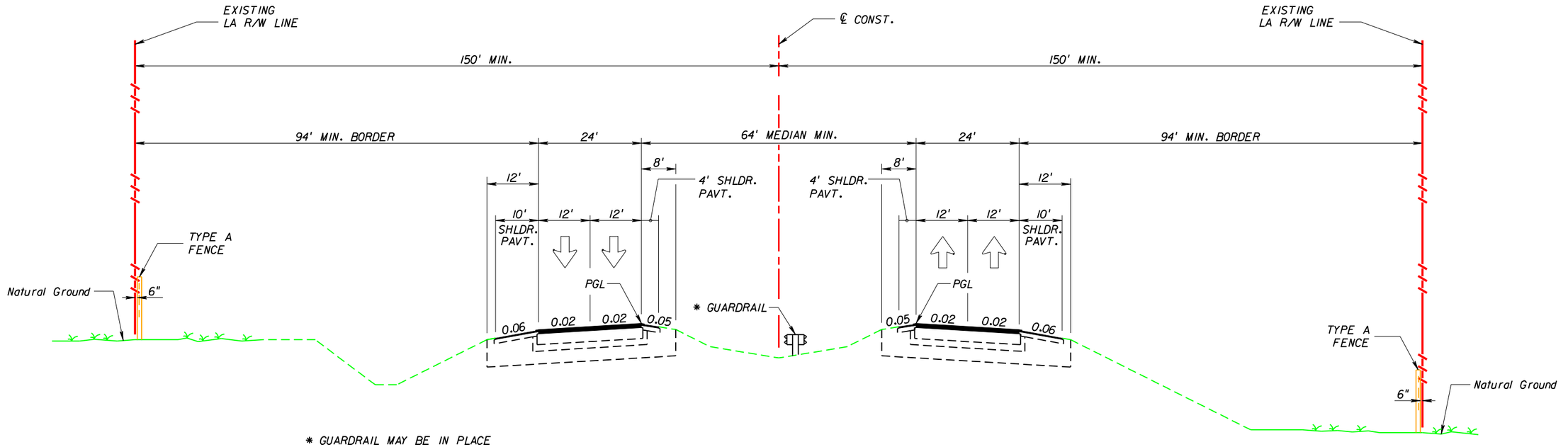
CONCEPT PLANS
ENGINEER OF RECORD: JOHN J. KENTY, P.E.

P.E. NO.: 55442

FISCAL YEAR	SHEET NO.
09	1

FDOT PROJECT MANAGER: MANUEL SANTOS, EI

$DATE$ $TIME$ $FILE$



* GUARDRAIL MAY BE IN PLACE
AT TIME OF CONSTRUCTION

EXISTING TYPICAL SECTION

I-75 PD&E STUDY
FROM N. OF SR 52 TO S. OF CR 476B
PASCO, HERNANDO, AND SUMTER COUNTIES

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

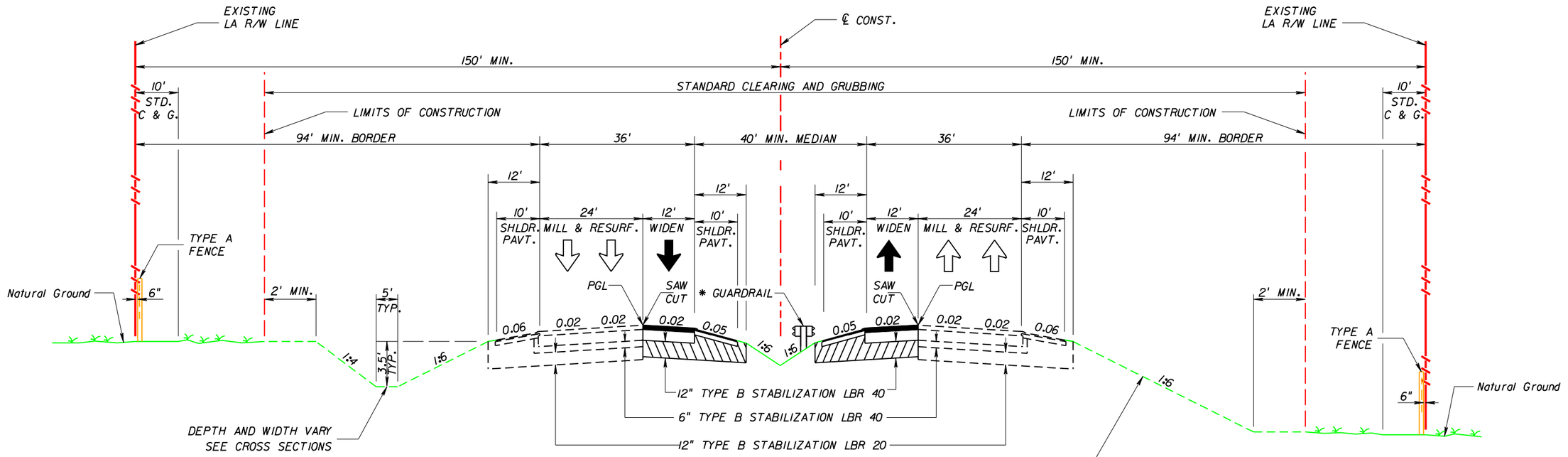
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

TYPICAL SECTIONS

SHEET NO. 2

USER: jdahlvik $DATE$ $TIME$ $FILE$



* GUARDRAIL MAY BE IN PLACE AT TIME OF CONSTRUCTION (WOULD NEED TO BE RE-SET)

"INTERIM" 6-LANE WIDENING ALTERNATIVE

I-75 PD&E STUDY
FROM N. OF SR 52 TO S. OF CR 476B
PASCO, HERNANDO, AND SUMTER COUNTIES

1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'
1:2 (WITH GUARDRAIL) FOR FILLS OVER 20'

NOTE:
HEIGHT OF FILL IS THE VERTICAL DISTANCE FROM THE EDGE OF THE OUTSIDE TRAVEL LANE TO TOE OF FRONT SLOPE.

LOCHNER
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CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

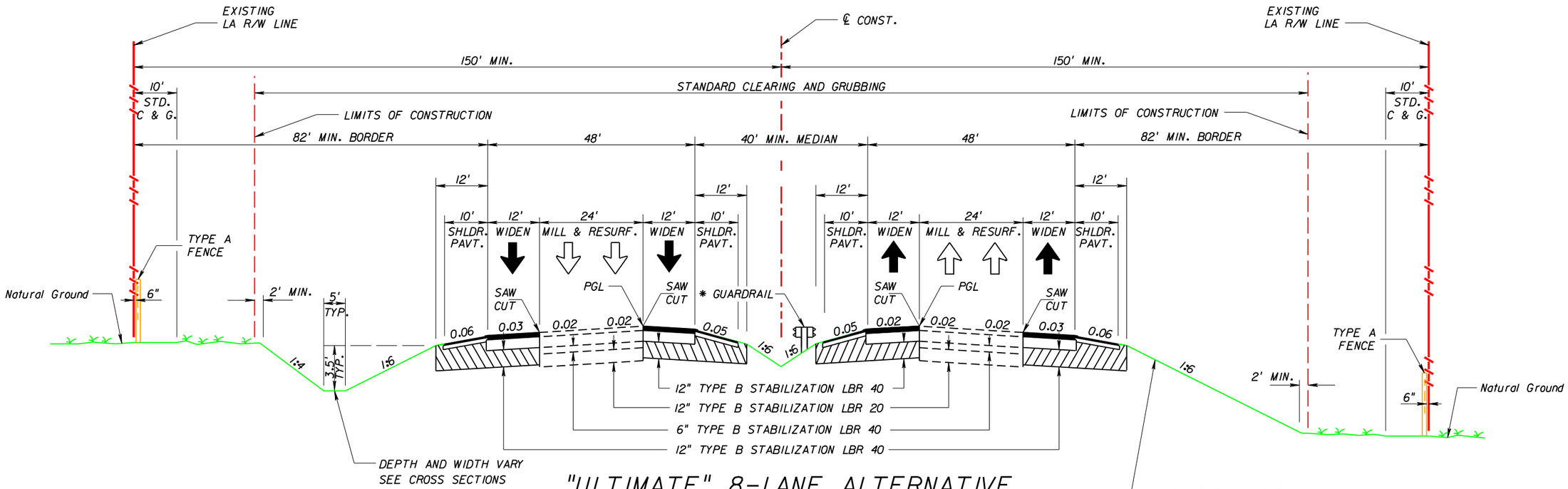
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

TYPICAL SECTIONS

SHEET NO. 3

USER: jdahlvik $DATE$ $TIME$ $FILE$



* GUARDRAIL MAY BE IN PLACE AT TIME OF CONSTRUCTION (WOULD NEED TO BE RE-SET)

"ULTIMATE" 8-LANE ALTERNATIVE INSIDE & OUTSIDE WIDENING

I-75 PD&E STUDY

FROM N. OF SR 52 TO S. OF CR 476B

PASCO, HERNANDO, AND SUMTER COUNTIES

1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'
1:2 (WITH GUARDRAIL) FOR FILLS OVER 20'
NOTE:
HEIGHT OF FILL IS THE VERTICAL DISTANCE FROM THE EDGE OF THE OUTSIDE TRAVEL LANE TO TOE OF FRONT SLOPE.

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

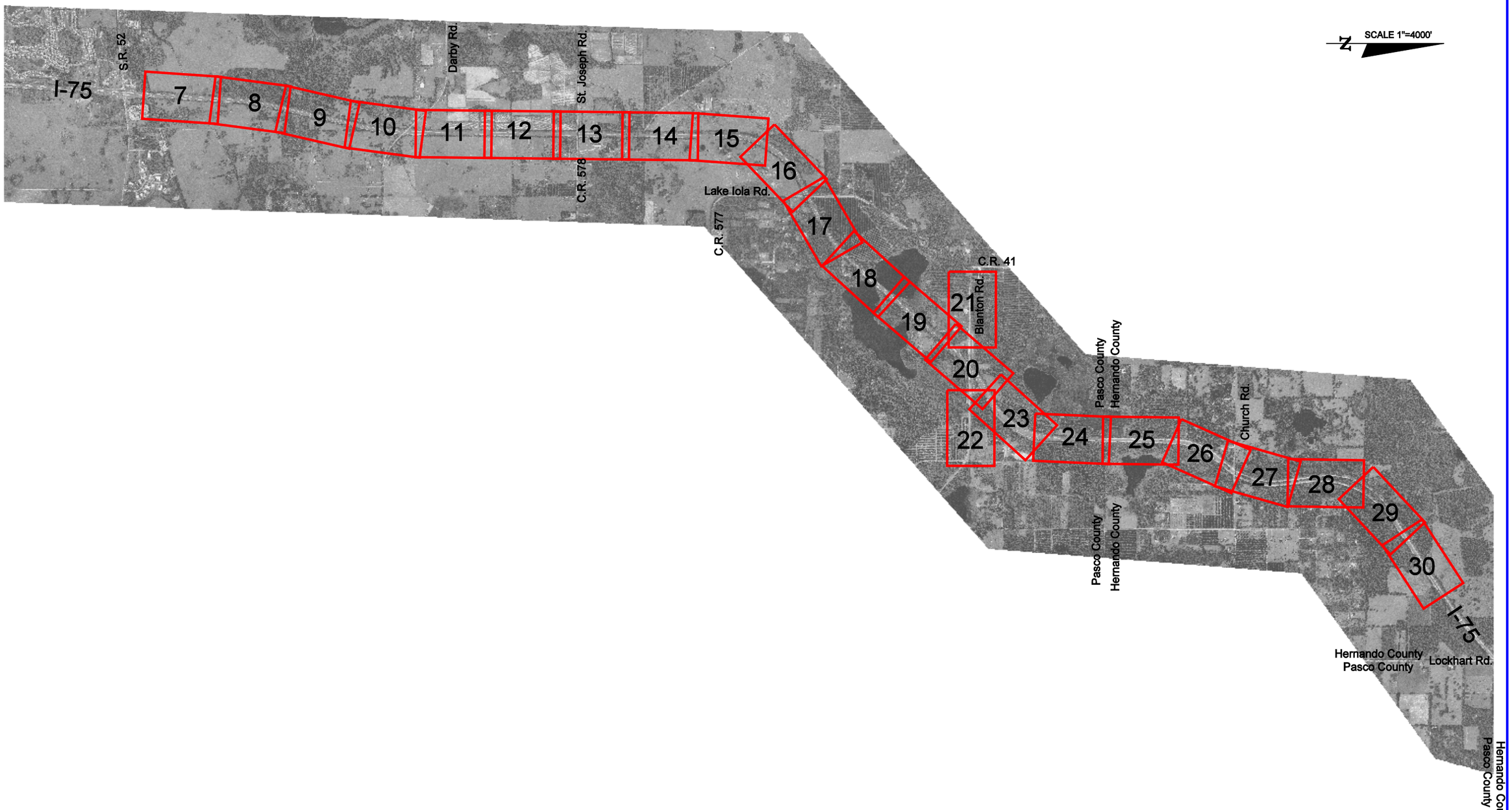
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

TYPICAL SECTIONS

SHEET NO. 4

USER: jdahlvik $DATE$ $TIME$ $FILE$



REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

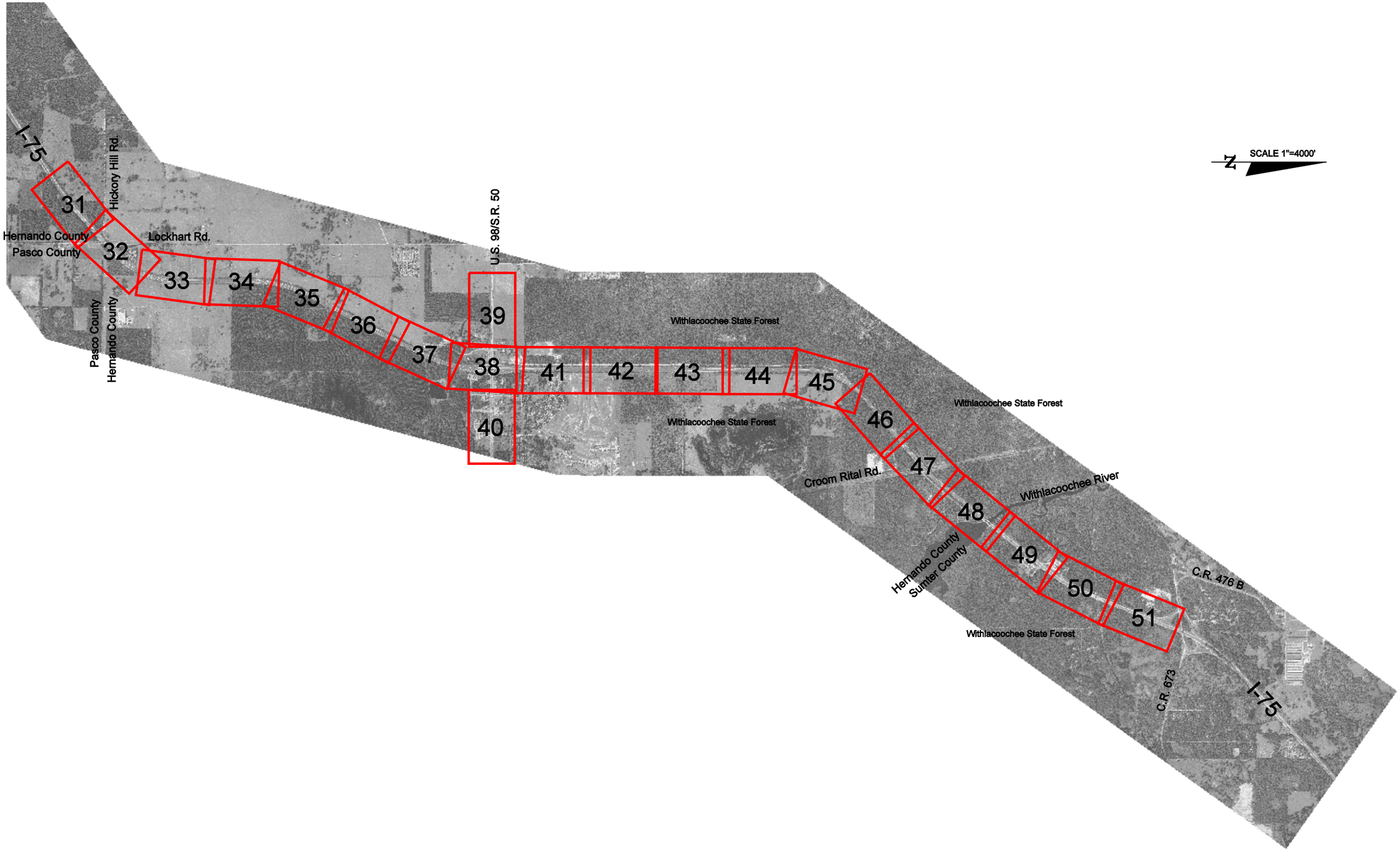
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

$USER$ $DATE$ $TIME$ $FILE$

SHEET LAYOUT

SHEET NO. 5



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

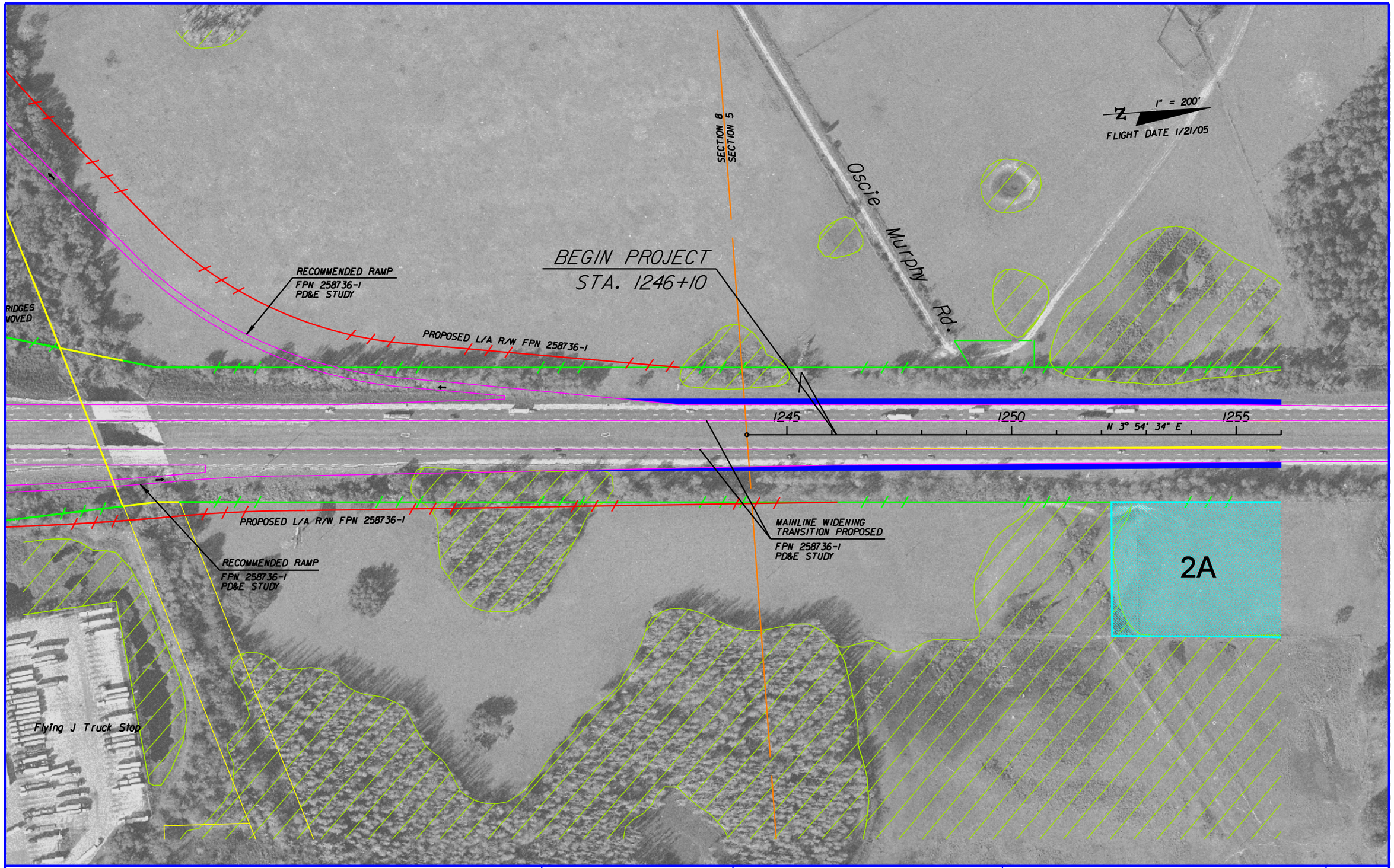
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

$USER$ $DATE$ $TIME$ $FILE$

SHEET LAYOUT

SHEET NO. 6



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

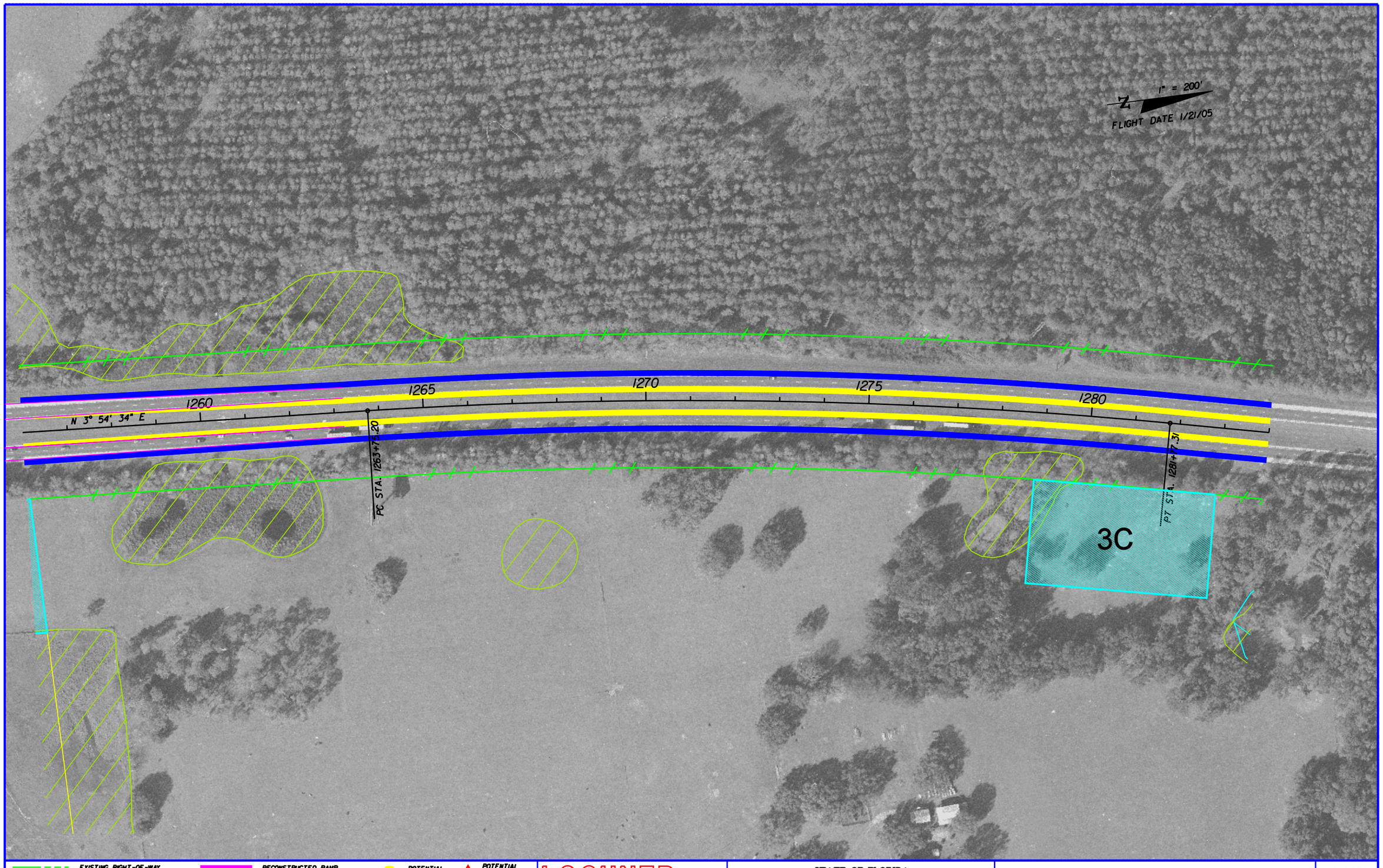
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 7

#USER#
December 29, 2006 (05:44:45 PM) H:\PROJECTS\1946 I-75\04 ENGINEERING\411014132\01 ROADWAY\PLANROD1.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 8

USER: khoefle December 29, 2006 10:25:12 EST H:\PD&E\DT\948_I-75\04 ENGINEERING\411014320\ROADWAY\PLANROO2.DGN

1" = 200'

FLIGHT DATE 1/21/05

PFO

1285 1290 1295 N 12° 55' 12" E 1300 1305 1310

PFO PFO

4B

SECTION 32
SECTION 5
SECTION 4
SECTION 33

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 9

Bee Tree Branch

1" = 200'

FLIGHT DATE 1/21/05

Darby Rd. (Alt CR 578)

PC STA. 1315+75.19

1315 1320 1325 1330 1335

SECTION 32
SECTION 33

END CONST.
DARBY ROAD

5C

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

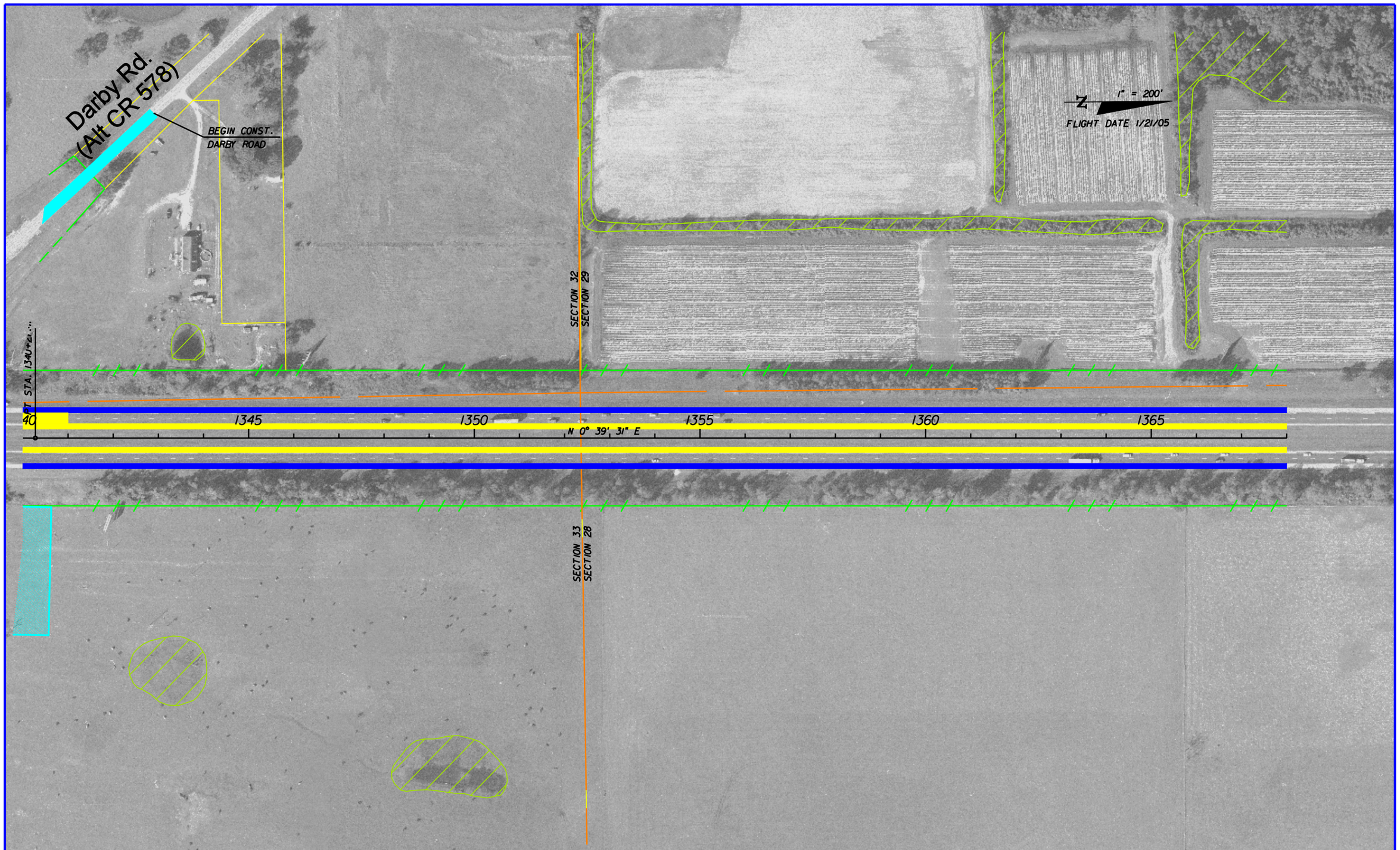
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 10

USER: khoelle
December 29, 2006 (02:52:27 EST) H:\PD&E\DT\948_1-75\04 ENGINEERING\411014132O\ROADWAY\PLANR004.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

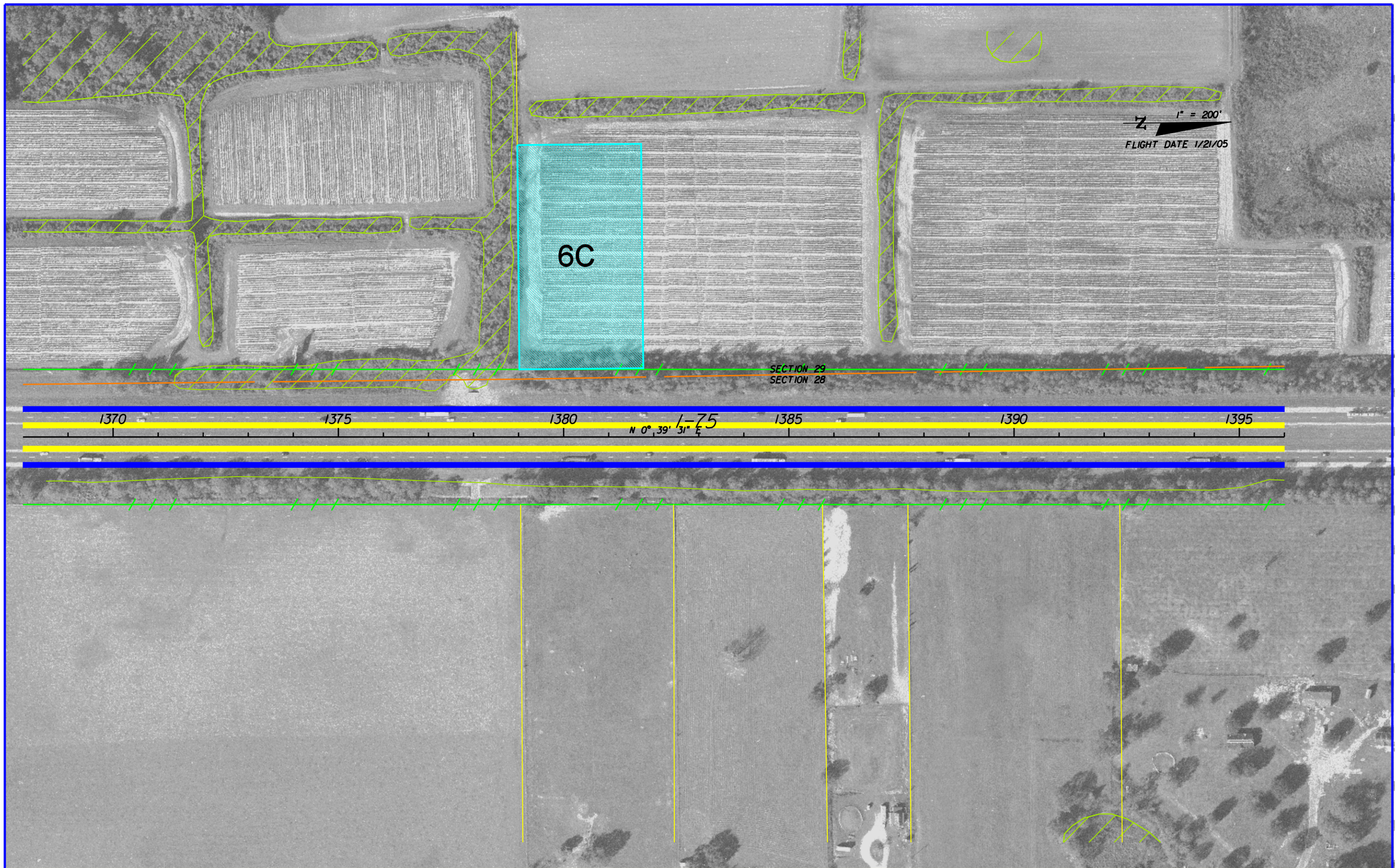
LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 11



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 12

BEGIN CONST. 325'
ST. JOSEPH ROAD

St. Joseph Rd. (CR 578)

Old Johnston Rd.

7C

8A

1" = 200'

FLIGHT DATE 1/21/05

Cypress Creek

SECTION 29
SECTION 28

SECTION 20
SECTION 21

Old Johnston Rd.

1400 1405 1410 1415 1420

N 0° 39' 31" E

END CONST. 80'
ST. JOSEPH ROAD

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

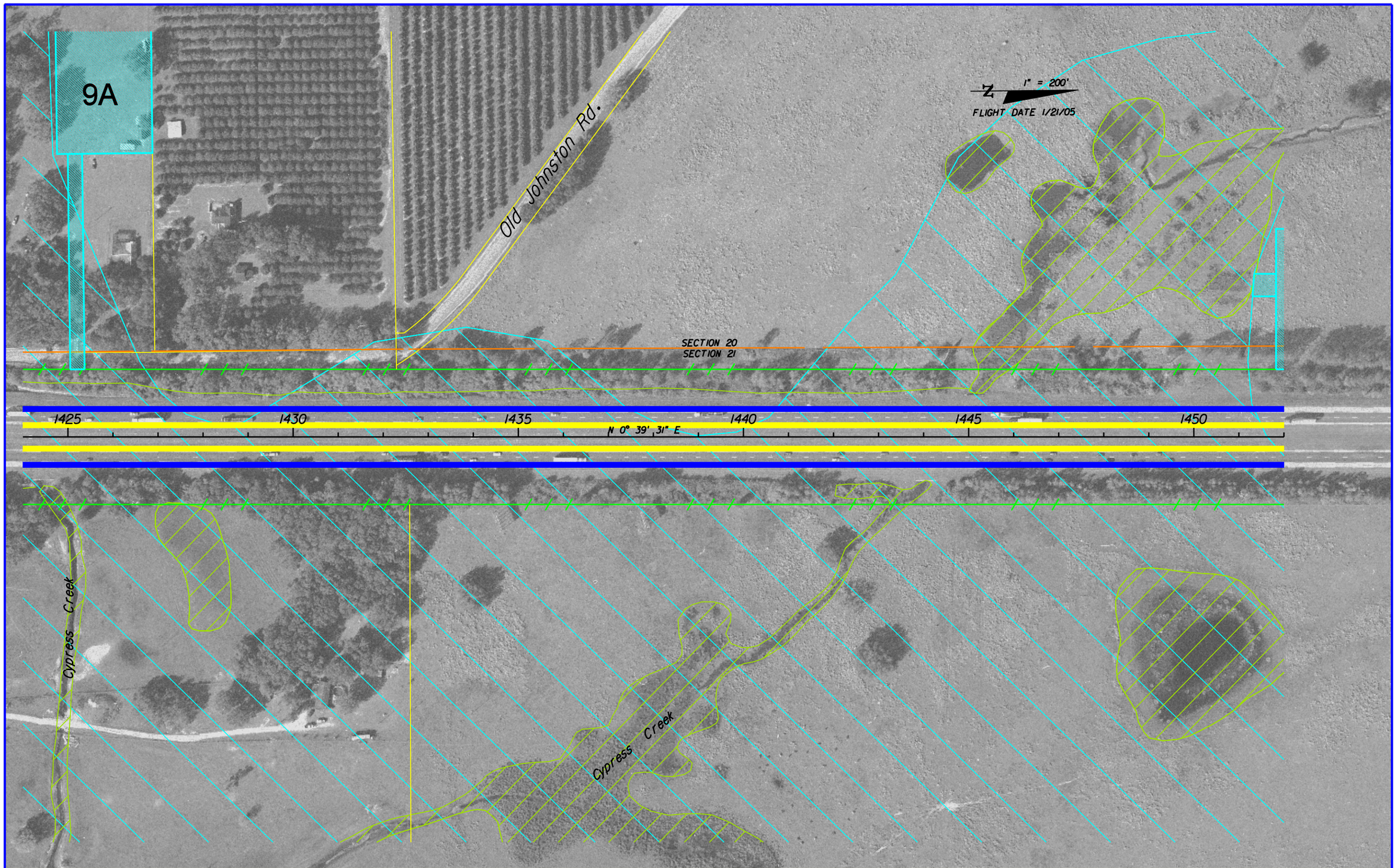
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 13

USER: khoefle December 29, 2006 10:25:53a EST H:\PD&E\DT\948_I-75\04 ENGINEERING\411014120\ROADWAY\PLANROOT.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

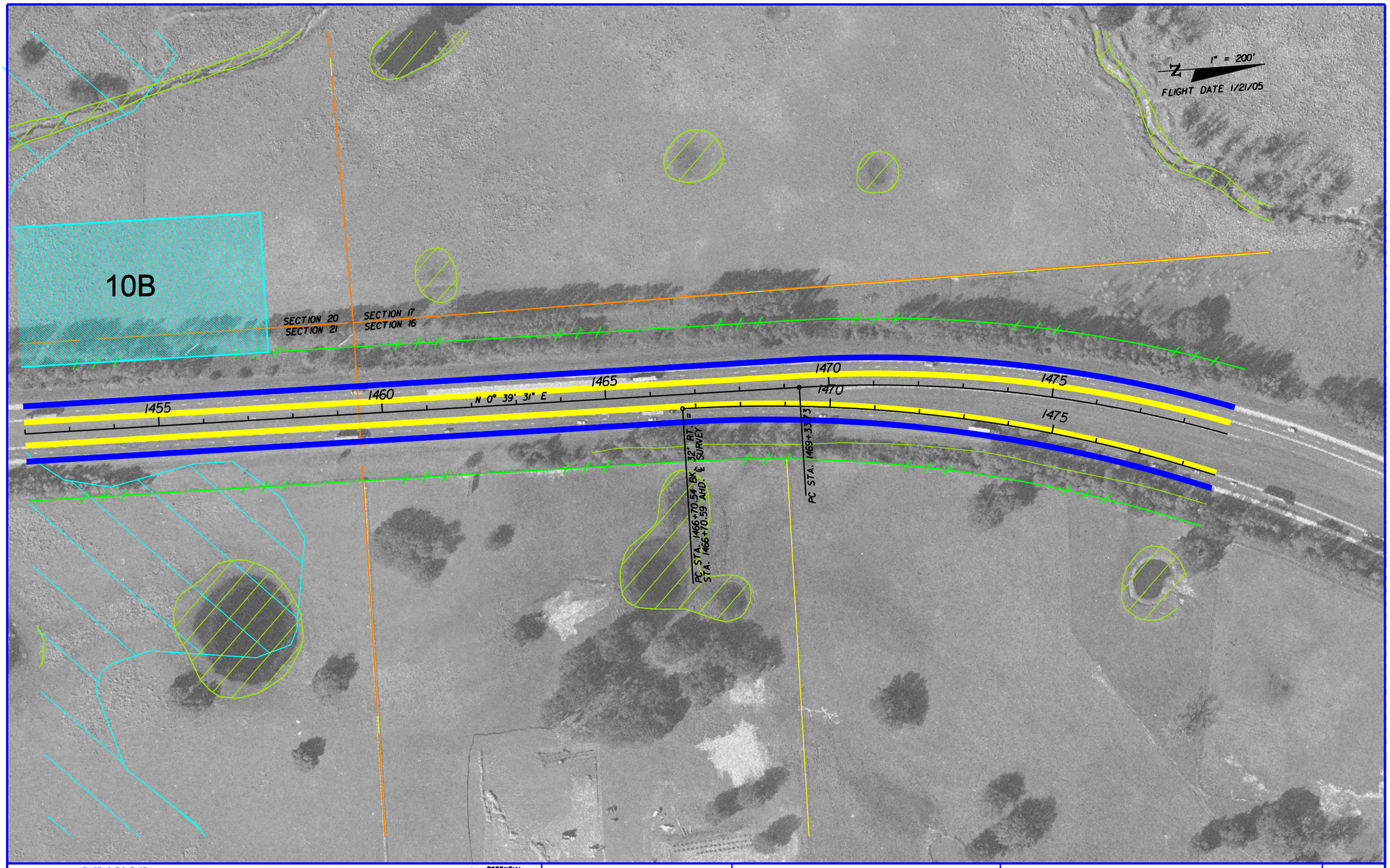
LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 14



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

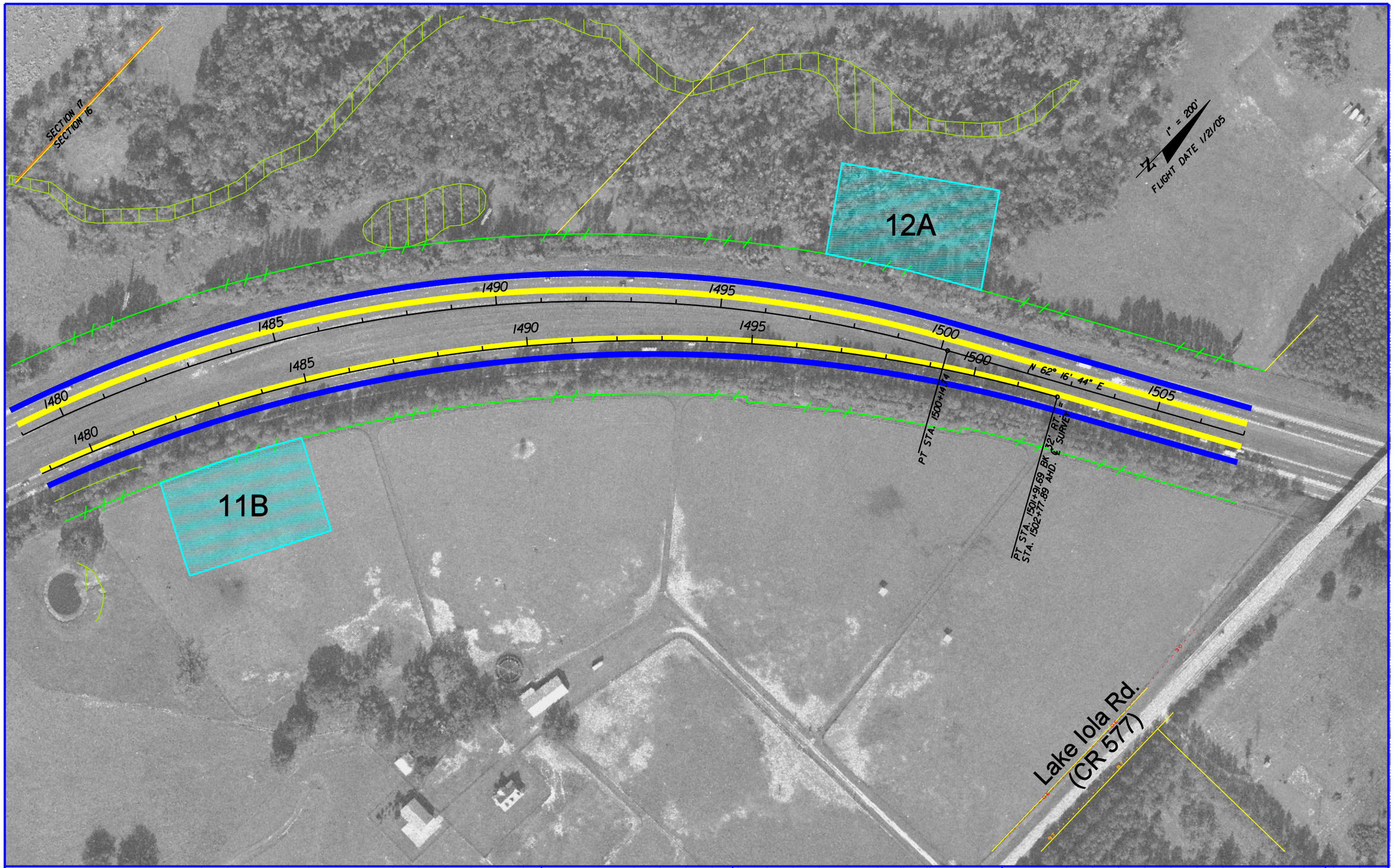
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 15

USER: kfoelle December 29, 2006 (02:53:41 EST) H:\PDRE\DT\1948_1-75\04 ENGINEERING\411014320\ROADWAY\PLANR009.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 16

USER: khoefle
December 29, 2006 (02:54:30 EST) N:\PD&E\07-1948_I-75\04 ENGINEERING\411014120\ROADWAY\PLANROLL.DGN

BEGIN CONST.
LAKE IOLA ROAD

Lake Iola Rd. (CR 577)

1" = 200'
FLIGHT DATE 1/21/05

SECTION 9
SECTION 16

PC STA. 1523+27.54
PC STA. 1526+98.18

1510
N 62° 16' 44" E
1515
1520
1525
1525
N 62° 16' 44" E
1530
1530
15.
153

END CONST.
LAKE IOLA ROAD

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
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STATE OF FLORIDA
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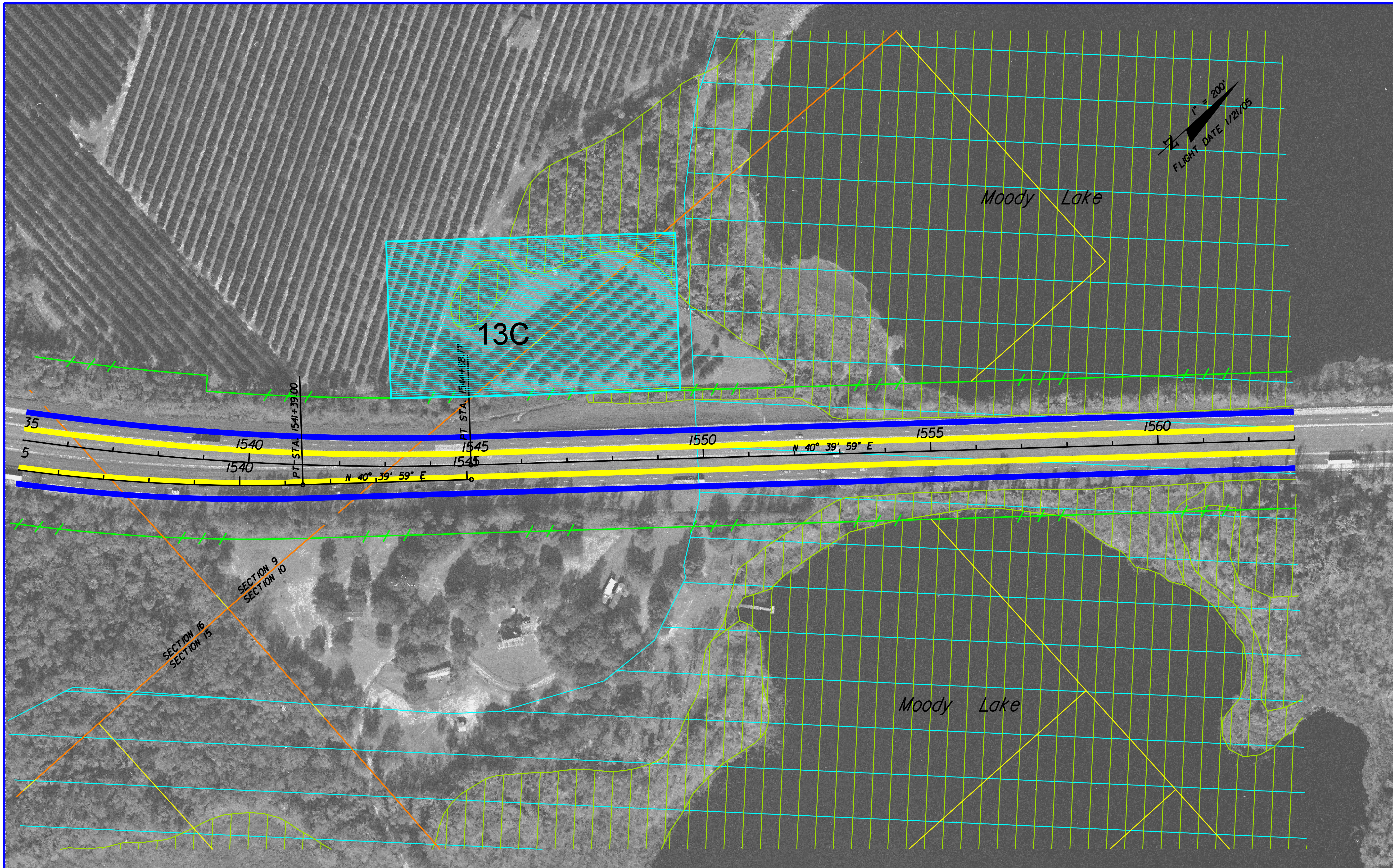
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 17



Legend	
EXISTING RIGHT-OF-WAY	RECONSTRUCTED RAMP
EXISTING L/A RIGHT-OF-WAY	RECONSTRUCTED CROSS ROAD
PROPOSED RIGHT-OF-WAY	PROPOSED BRIDGE
PROPOSED L/A RIGHT-OF-WAY	PROPERTY LINES
INTERIM 6-LANE WIDENING	SECTION LINES
ULTIMATE 8-LANE WIDENING	100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
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CLEARWATER, FLORIDA 33762
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO.
18

1" = 200'

FLIGHT DATE 1/21/05

Moody Lake

PROP. L/A R/W

1565 1570 1575 N 40° 39' 59" E 1580 1585 1590

14C

Moody Lake

Moody Lake

PROP. L/A R/W

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
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STATE OF FLORIDA
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SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 19

PROP. L/A R/W
PROP. R/W
PROP. L/A R/W
PROP. R/W
Relocated Access Rd.
Blanton Rd. (CR 41)
15A
16A
1" = 200'
FLIGHT DATE 1/21/05
1595
1600
1605
1610
1615
1620
N 40° 39' 58" E
N 40° 39' 59" E
N 60° 39' 53" E
N 60° 07' 35" E
PC STA. 1595+86.15
PC STA. 1596+20.02
PC STA. 1597+36.18
PT STA. 1666+19.35
PT STA. 1666+32.14
PT STA. 1667+36.61
15A
16A
Relocated Access Rd.
PROP. L/A R/W
PROP. R/W
Tower
SECTION 3
SECTION 10
SECTION 3
SECTION 2

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
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CLEARWATER, FLORIDA 33762
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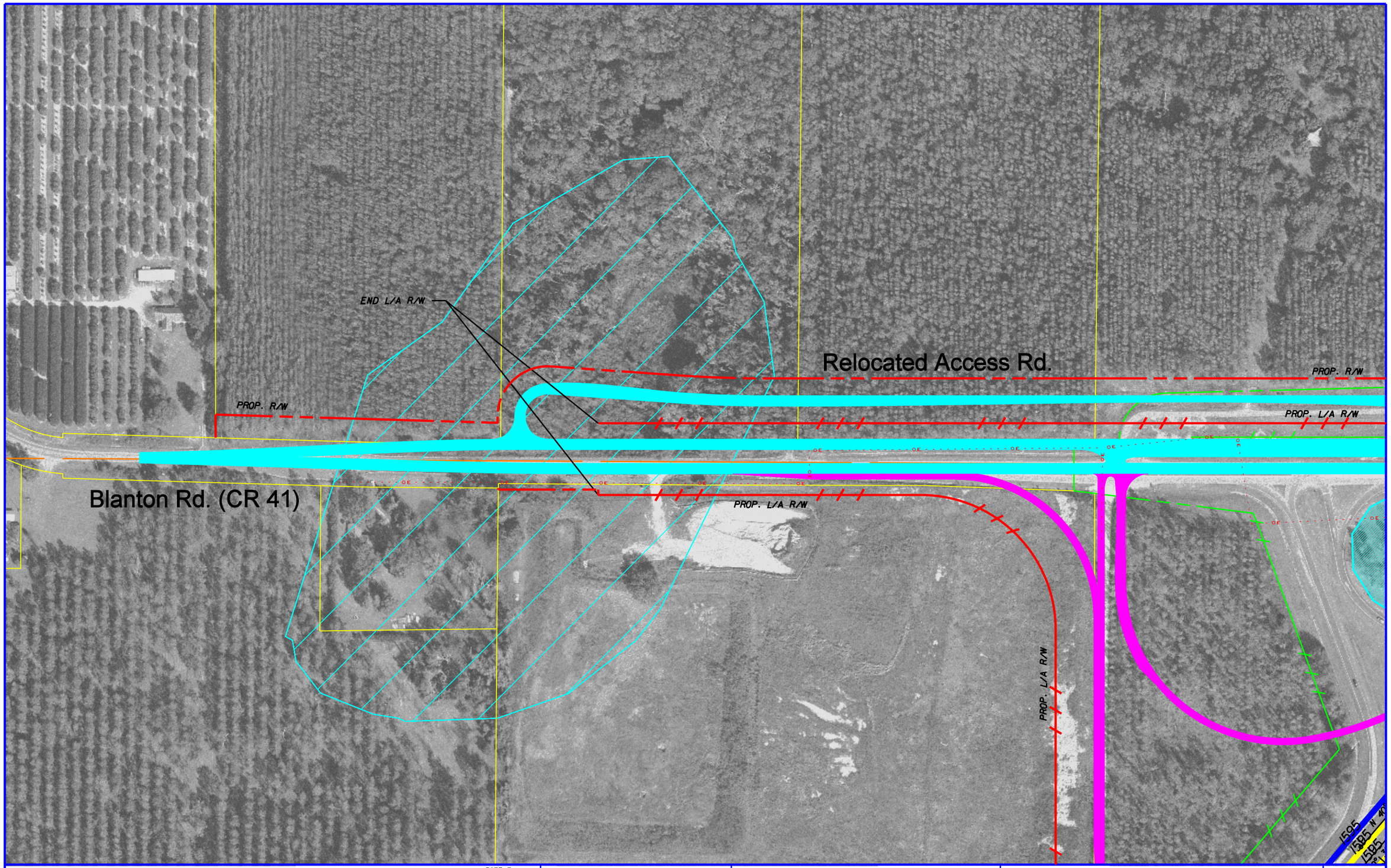
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 20



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

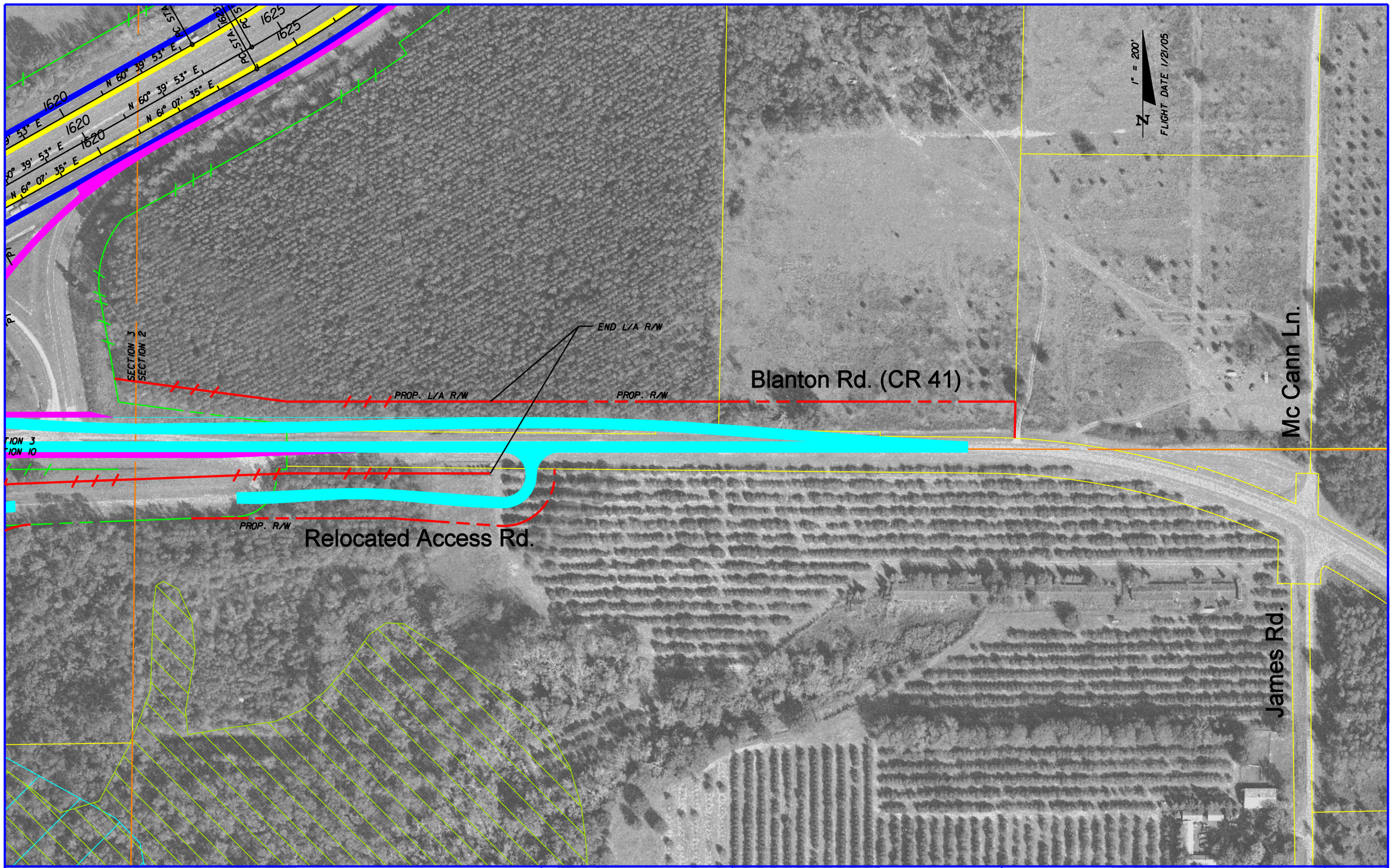
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 21

USER: khoelle November 17, 2006 (02:41:33 EST) H:\PD&E\DT\948_1-75\04 ENGINEERING\411014132G\ROADWAY\PLANRD14A.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
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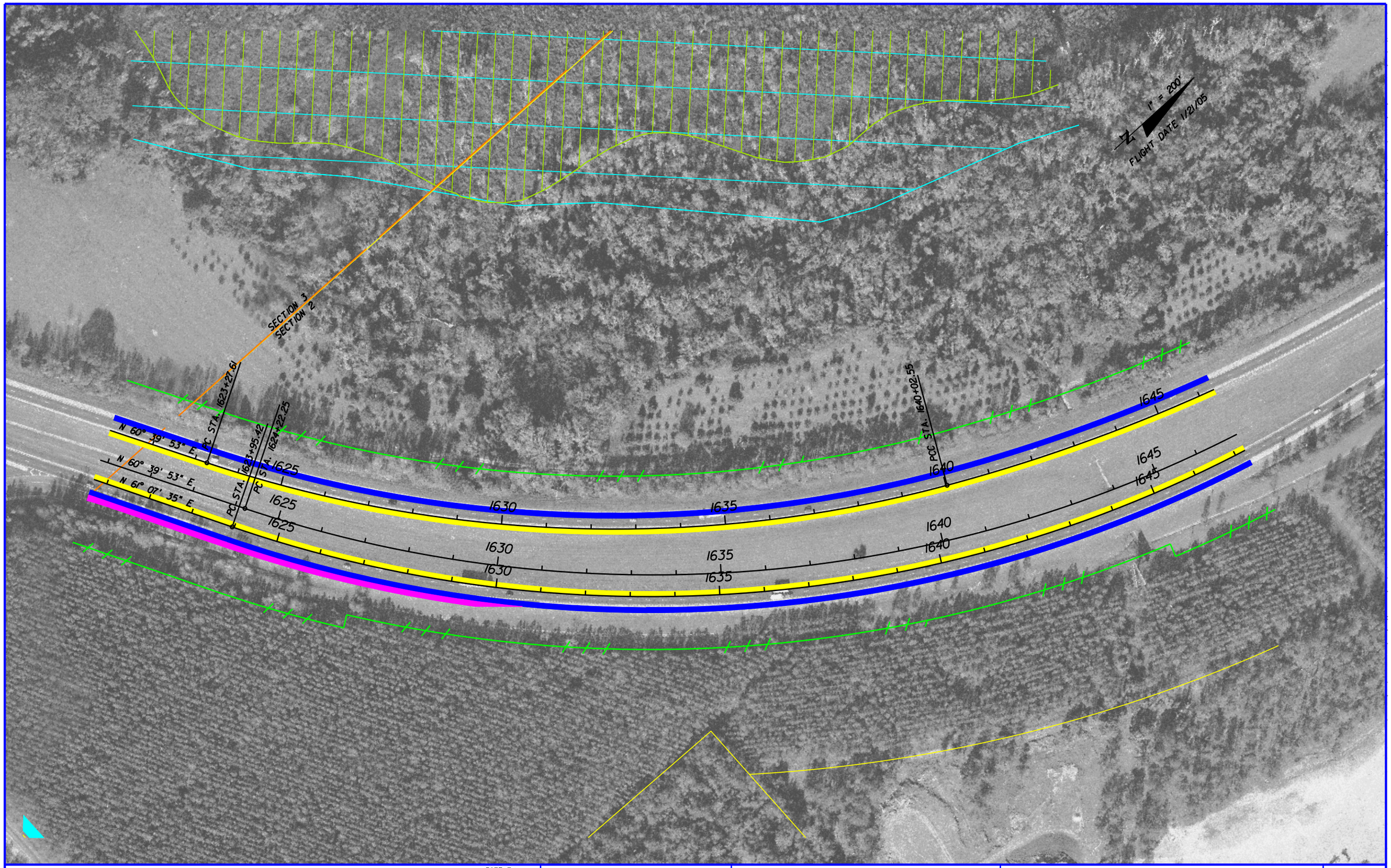
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 22



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
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FBPR CERTIFICATE OF AUTH. # 894

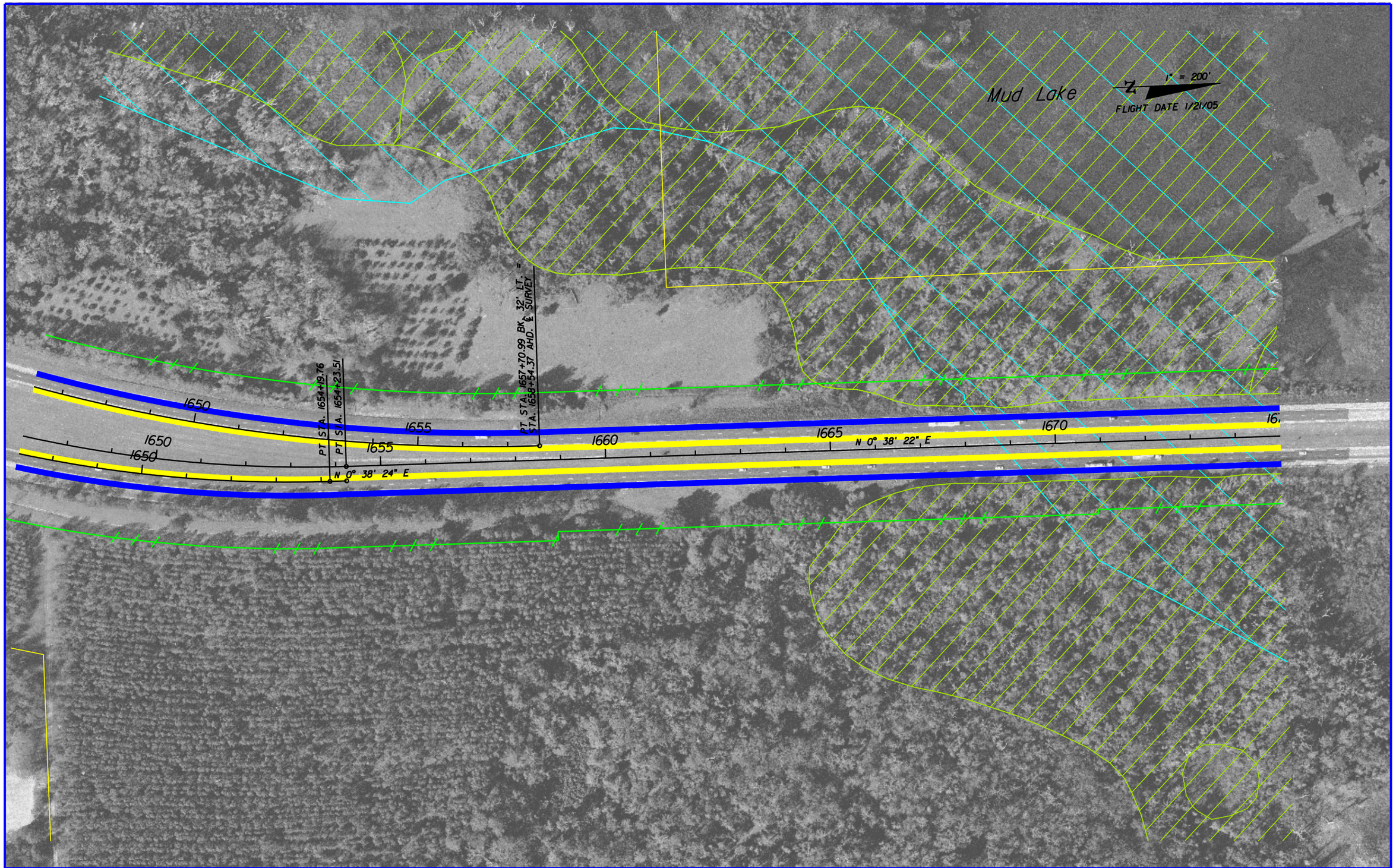
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 23

USER: Rbeitle November 17, 2006 (02:26:46 EST) H:\PD&E\DT\948_1-75\04 ENGINEERING\411014132G\ROADWAY\PLANRD15.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

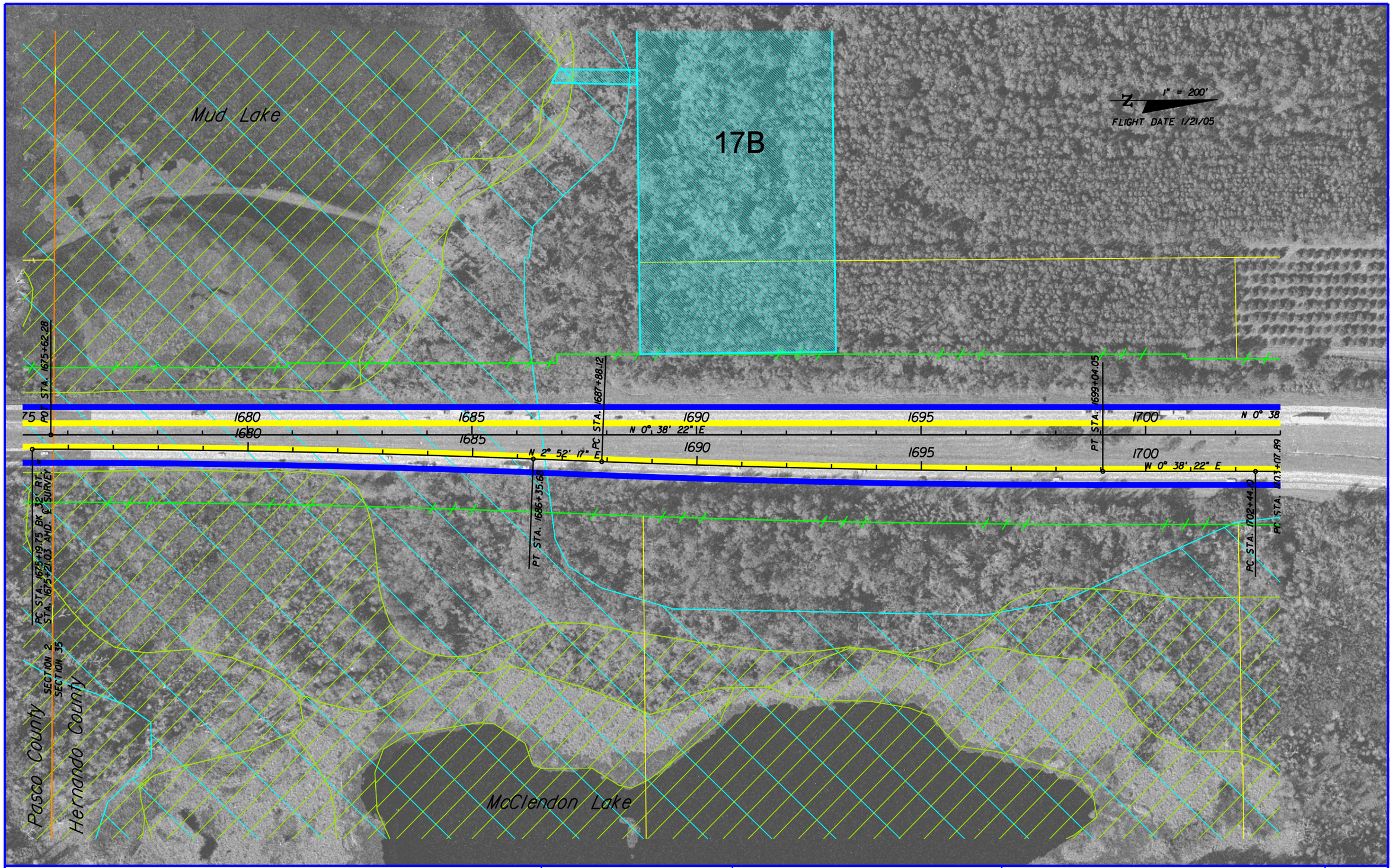
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 24

USER: khoetle November 17, 2006 (02:27:10 EST) H:\PD&E\DT\948_1-75\04 ENGINEERING\411014132O\ROADWAY\PLANRD16.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
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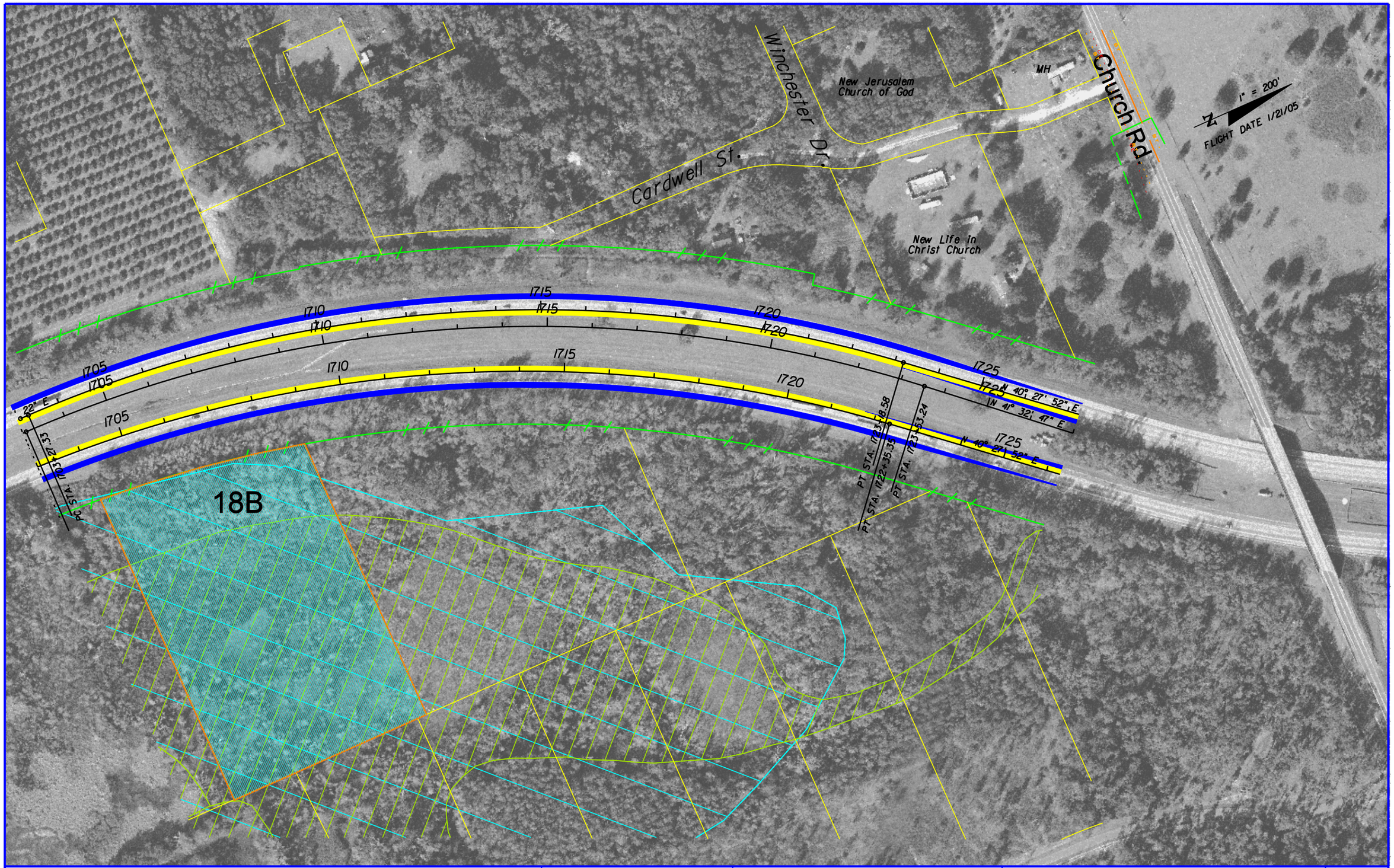
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 25



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
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LOCHNER
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FBPR CERTIFICATE OF AUTH. # 894

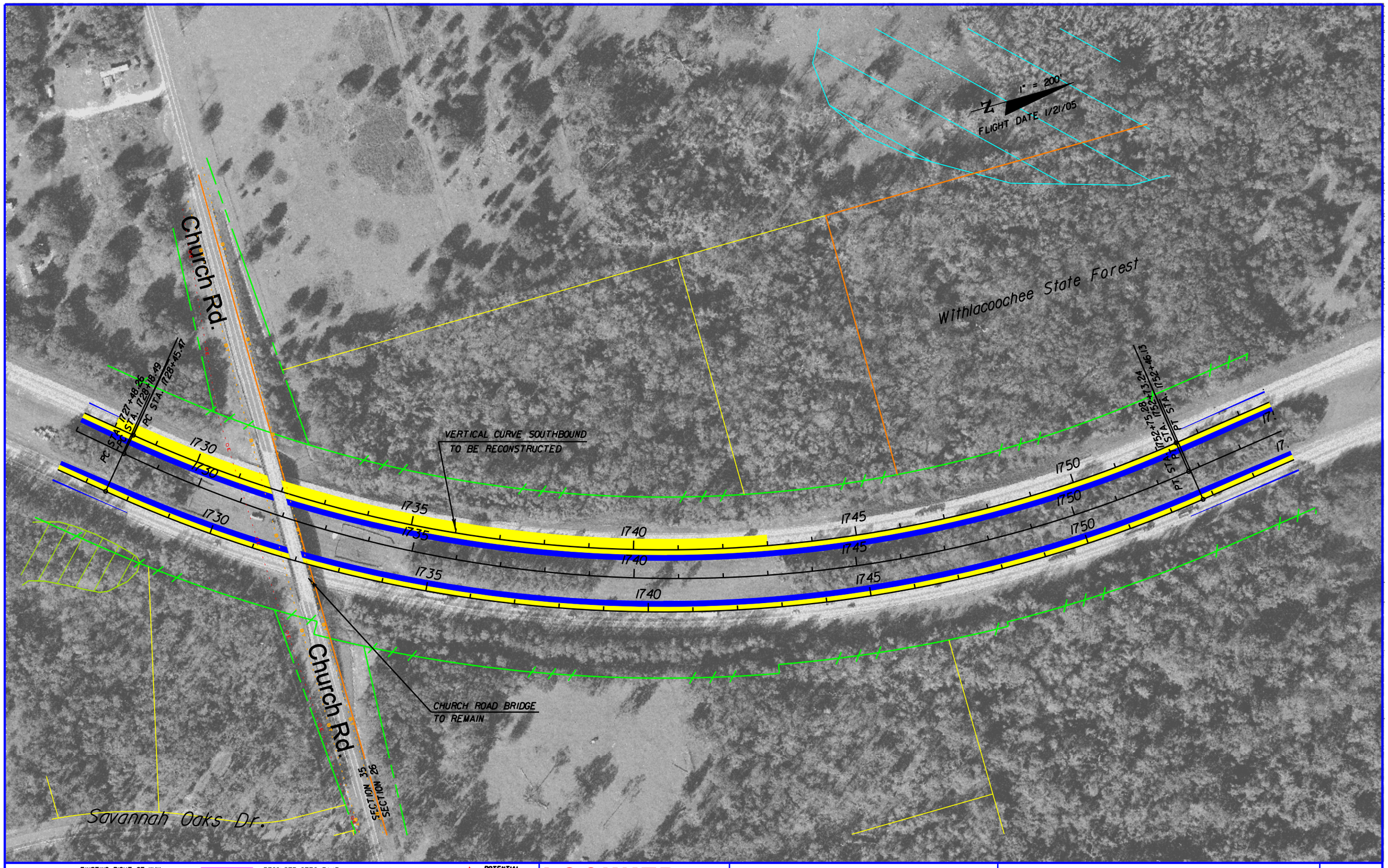
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 26

USER: khoefle November 17, 2006 (02:21:52 EST) N:\PD&E\07948_1-75\04 ENGINEERING\411014132\ROADWAY\PLANROLL.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

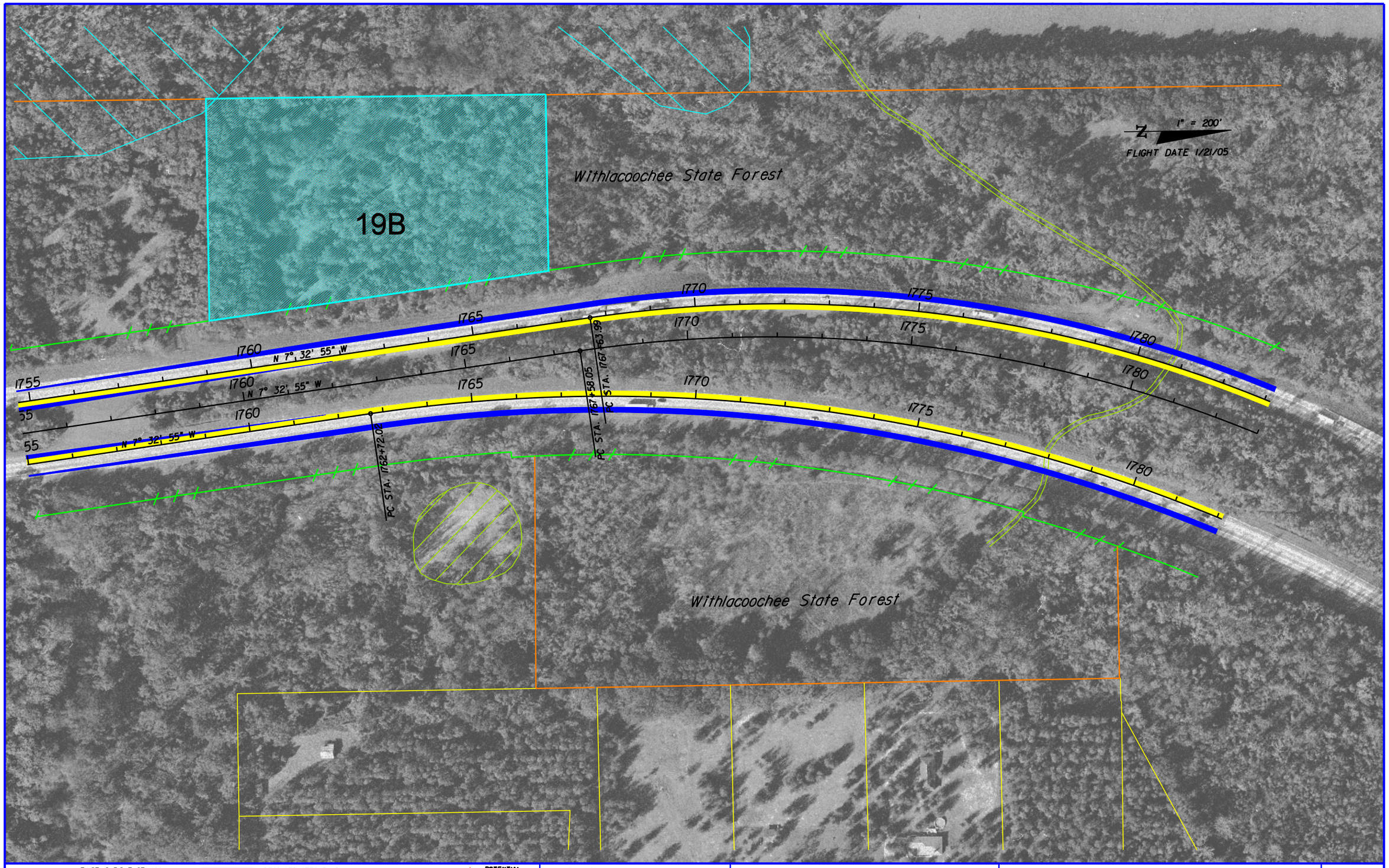
LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 27



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
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LOCHNER
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CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 28

USER: kfoelle November 29, 2006 (08:27:12) EST) N:\PDBE\DT\3948_1-75\04 ENGINEERING\411014320\ROADWAY\PLANR020.DGN

20B

Sea Pond

1" = 200'

FLIGHT DATE 1/21/05

Withlacoochee State Forest

1795 1790 1795 1800 1800 1805 1805 1810 1810 1795 1790 1785 1785 1790 1800 1805 1785

PT STA. 1801+12.20

PT STA. 1799+90.23

PT STA. 1802+91.96

SECTION 23
SECTION 26

SECTION 23
SECTION 24

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 29

SECTION 23
SECTION 24

1" = 200'
FLIGHT DATE 1/21/05

1815 1820 1825 1830 1835
N 57° 24' 56" E
1815 1820 1825 1830 1835
N 57° 05' 41" E
1810 1815 1820 1825 1830 1835
N 56° 46' 13" E

21B

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

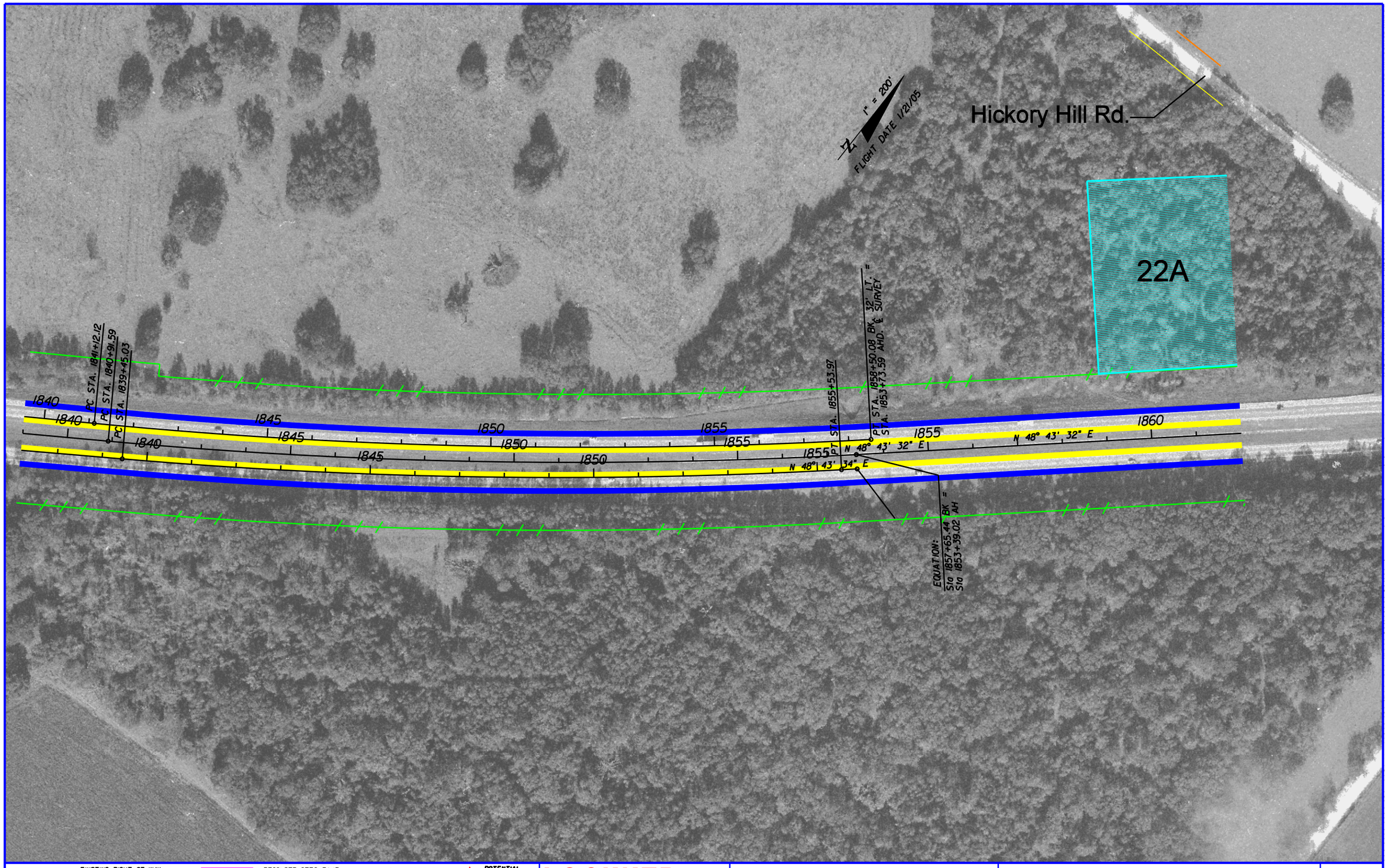
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 30

USER: khoefle November 17, 2006 (02:30:57 EST) H:\PD&E\DT\948_1-75\04 ENGINEERING\411014\320\ROADWAY\PLANRD22.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

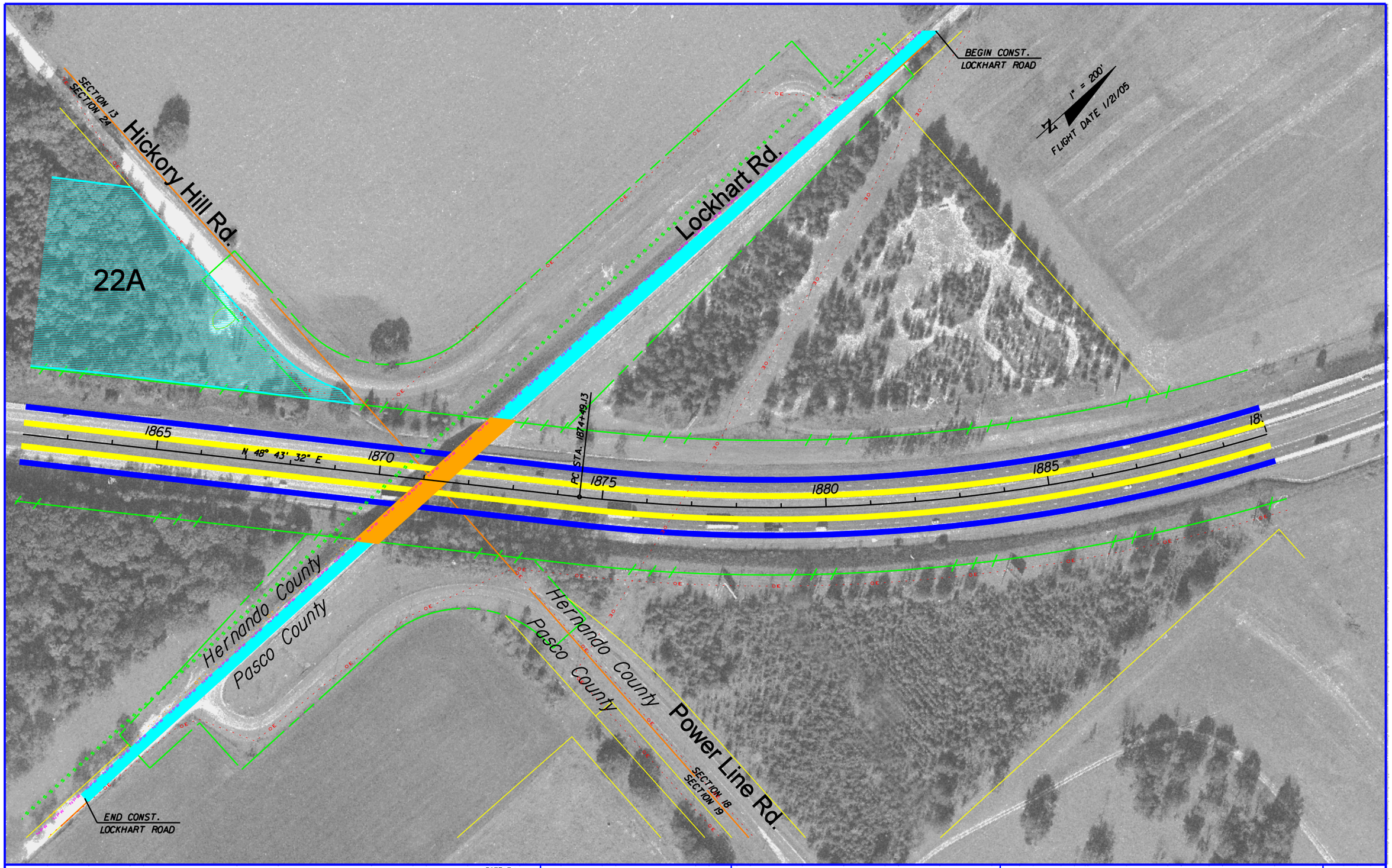
LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 31



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 32

1" = 200'

FLIGHT DATE 1/21/05

1890

1895

1900

1905

1910

1915

PT STA. 1906+92.11

N 0° 04' 51" E

23A

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

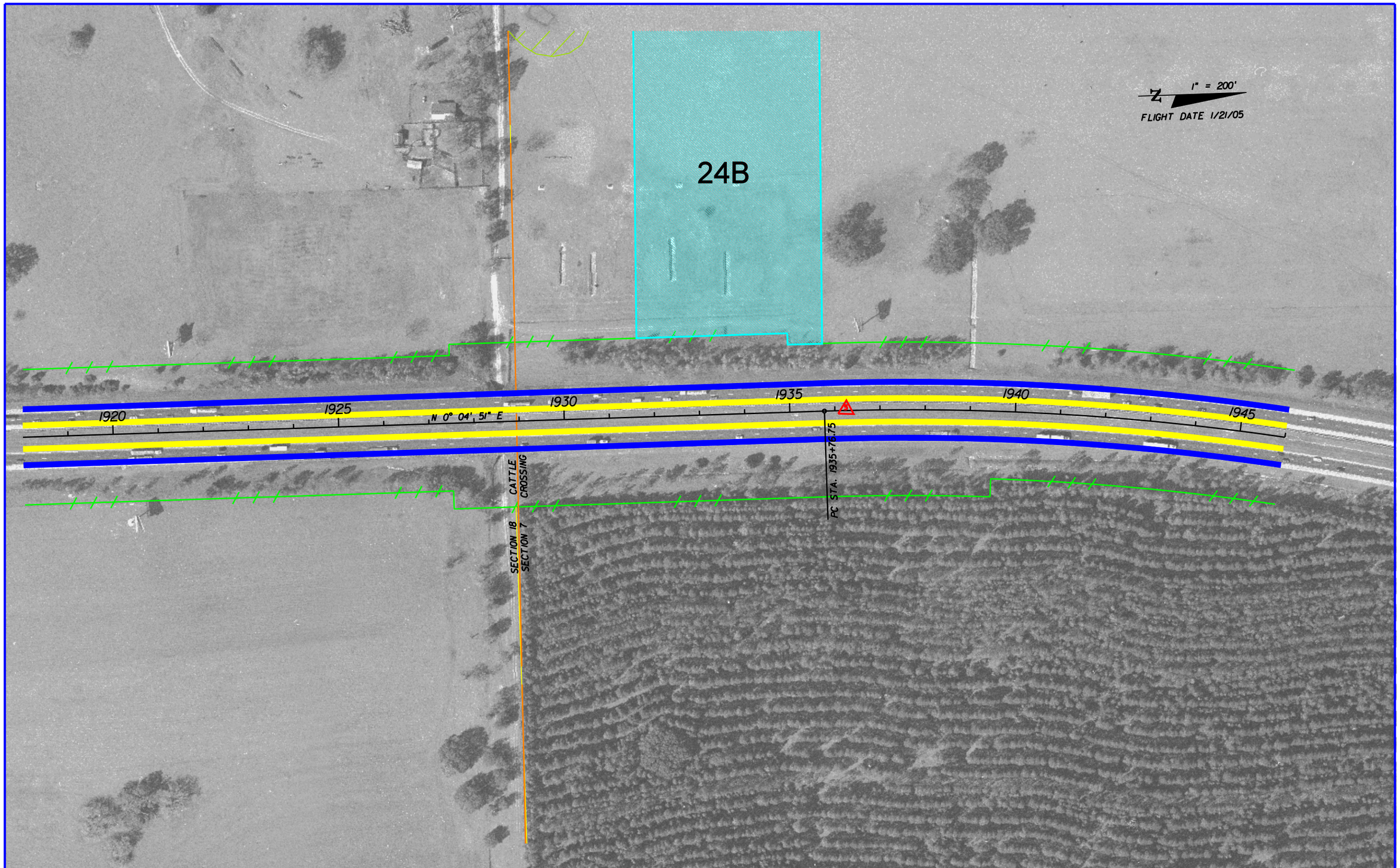
LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 33



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
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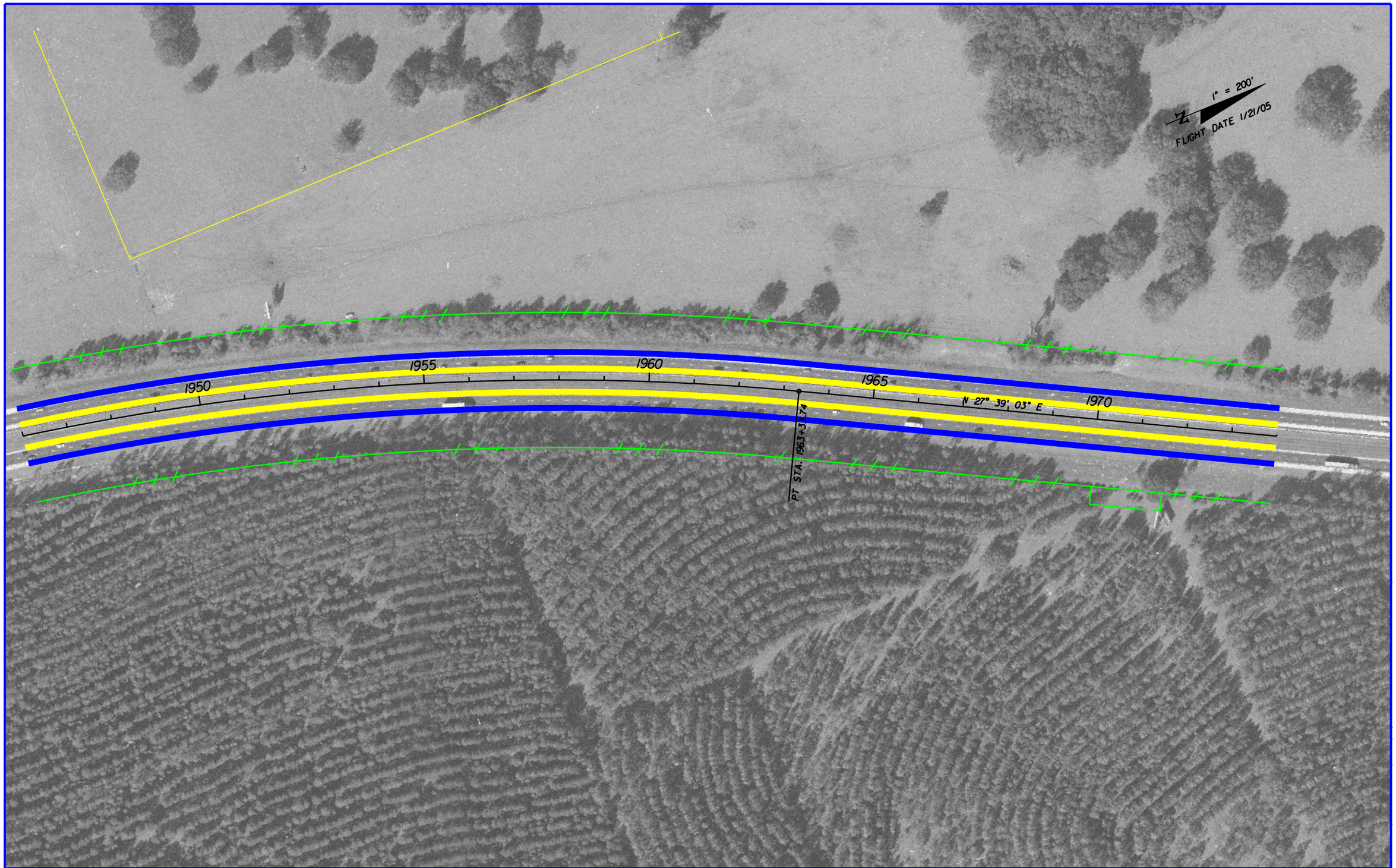
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 34



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
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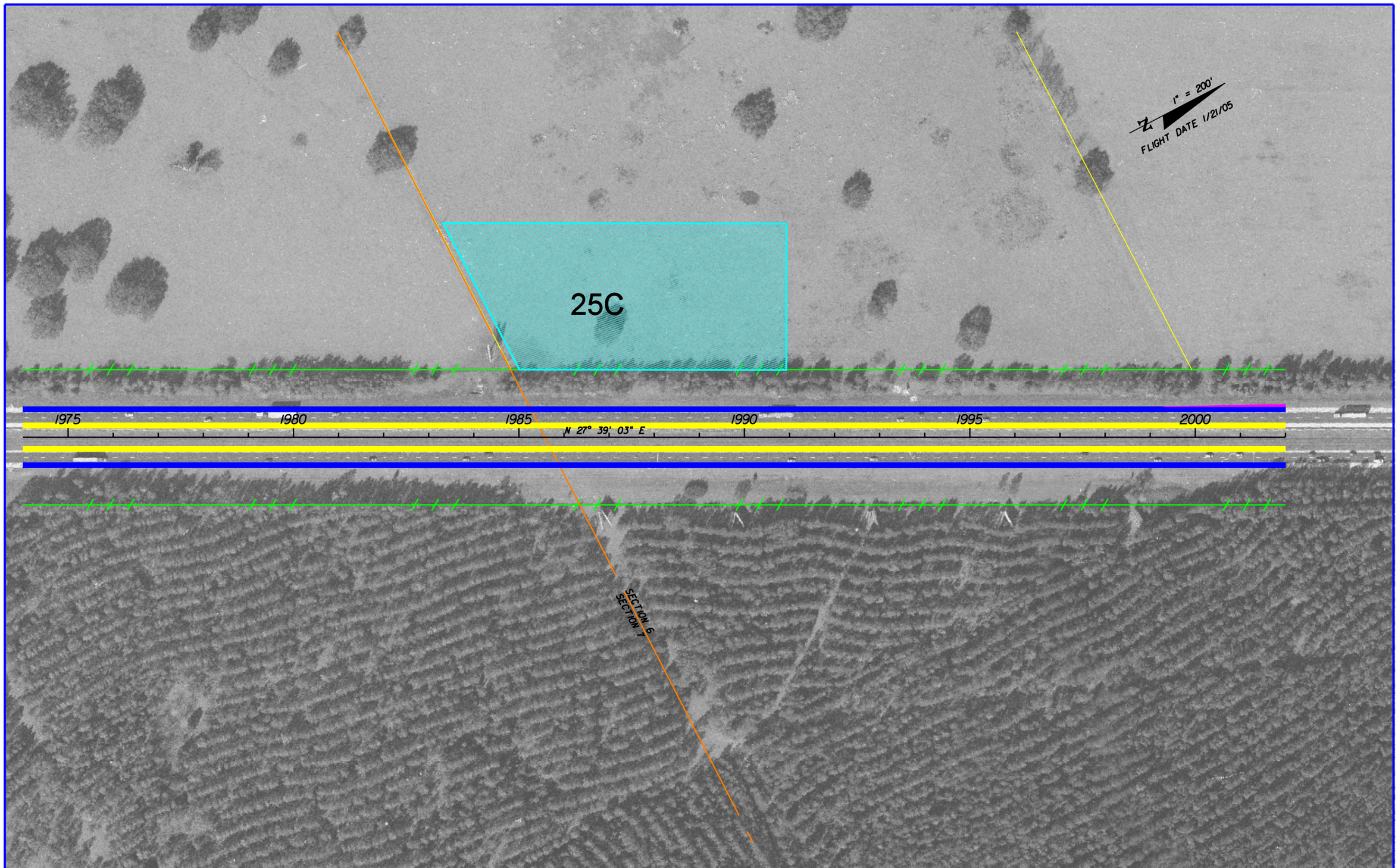
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 35

USER: khoetle November 17, 2006 (02:33:02 EST) H:\PD&E\D7\948_1-75\04 ENGINEERING\411014132O\ROADWAY\PLANR02F.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 36

Hitek Truss

Cortez Crossing Industrial Park

1" = 200'

FLIGHT DATE 1/21/05

Nature Coast Blvd.

Retention

Universal Microwave

PC STA. 2014+82.70

2005

N 27° 39' 03" E

2010

2015

2020

2025

26C

27C

PROP. L/A R/W

PROP. L/A R/W

SECTION 6
SECTION 5

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

$USER$ $DATE$ $TIME$ $FILE$

RECOMMENDED ALTERNATIVE

SHEET NO. 37

Nature Coast Blvd.

Forest Rd.

La Rose Rd.

Burger King

Max Grill

Tourist Info

Best Western

Shaw's Station/ Office

Chevron Gas/ Subway

Cortez Crossing Industrial Park

Cortez Crossing Industrial Park

Tower

1" = 200'

N

FLIGHT DATE 1/21/05

2030

2035

2040

PT STA. 2042+26.78

2045

2050

2055

N 0° 11' 24" E

SECTION 31

SECTION 32

SECTION 6

SECTION 5

27C

PROP. L/A R/W

Cracker Barrel

Buckner Blvd.

Closed Texaco Station

Fruit Stand

Sunoco Gas

Holiday Inn Express

Pine Ridge Ln.

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
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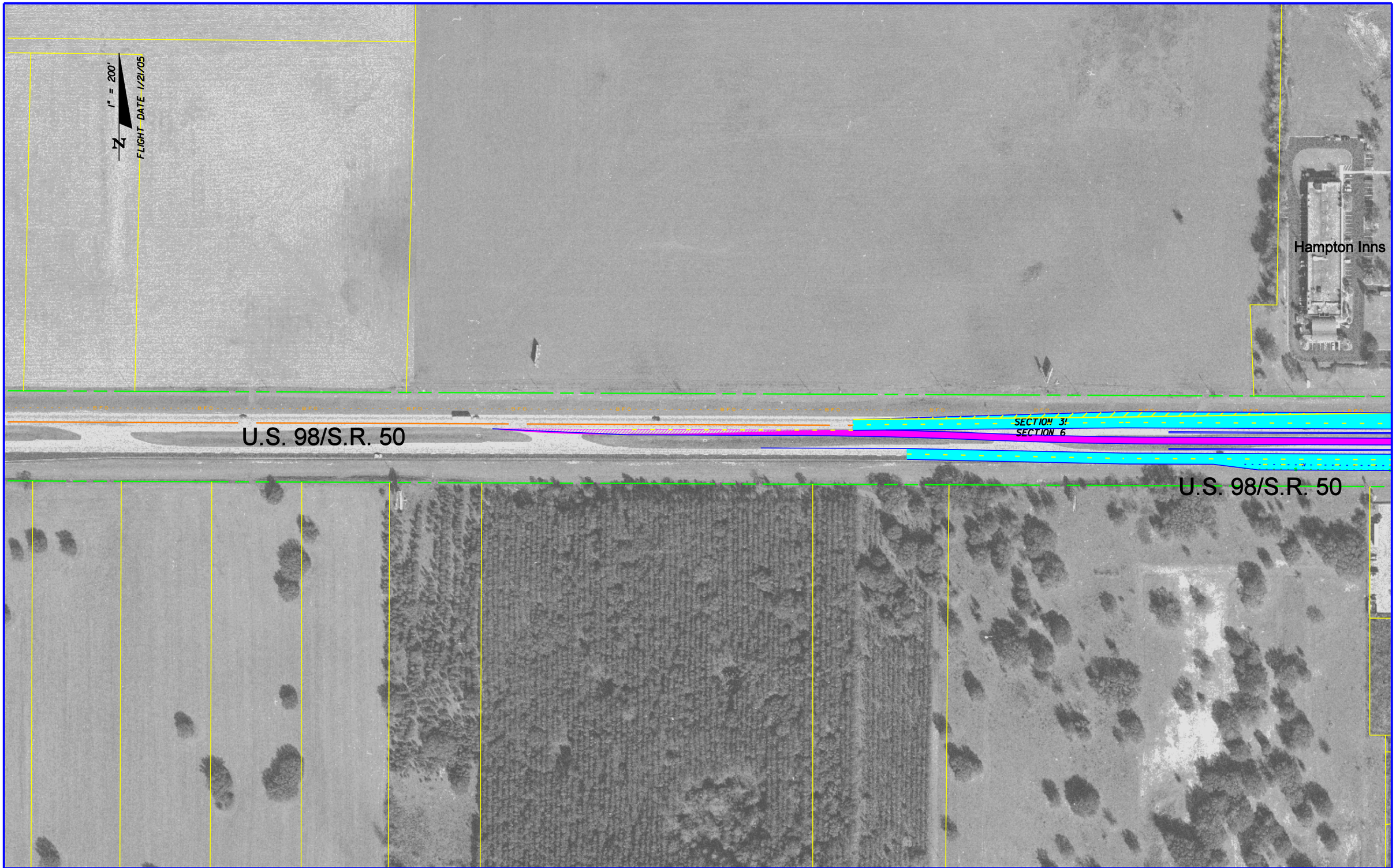
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 38



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 39

USER: khoefle
December 29, 2006 (02:47:08 EST) H:\PD&E\D7\I94B_I-75\04 ENGINEERING\411014\3201\ROADWAY\PLANRD304A.DGN

Learning Tree Day Care
Res.
well
Windmere Rd.
SHERMAN HILLS GOLF COMMUNITY
Lancewood Dr.
1" = 200'
FLIGHT DATE 1/21/05
Days Inn at Ridge Manor
Dave Hill Real Estate
Molly's Steakhouse
Farm Credit
Consignment Shop
Waffle House
BP Gas
Denny's
Carriage Hills Plaza
SECTION 32
SECTION 5
U.S. 98/S.R. 50
Racetrac Petroleum
McDonalds
Vacant
Wendy's
Sun Trust Bank
Parkland Ave.
Bronson Blvd.
Sunrise Plaza Ridge Manor
Vacant Commercial
Vacant
Laundromat
Vacant
Winn Dixie
Bealls
Century 21
Curves
Hair Salon
Pizza
King's Wok
Ridge Manor Family Medicine
Library
Vacant
Dollar General

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 40

USER: khoefle
December 29, 2006 (02:47:29 EST) H:\PD&E\D7\948_1-75\04 ENGINEERING\411014132\01\ROADWAY\PLANRD3048.DGN

1" = 200'

FLIGHT DATE 1/21/05

Withlacoochee State Forest
(Croom Motorcycle Area)

Withlacoochee State Forest
(Croom Motorcycle Area)

Mini Storage

Motorsports
Motorcycle Shop

Gate

La Rose Rd.

2060 2065 2070 2075 2080

N, 0° 11' 24" E

SECTION 31
SECTION 32

Tower

29C

First
Lutheran
Church

Willow Bank Ave.

Park Ridge Dr.

East Hernando
Branch Library

Lexington Circle

Sherman Hills Golf Course

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 41

USER: khoefle
December 29, 2006 (02:41:52 EST) H:\PROJECTS\48_I-75\04 ENGINEERING\411014\32\ROADWAY\PLANR0314.DGN

1" = 200'

FLIGHT DATE 1/21/05

Withlacoochee State Forest
(Croom Motorcycle Area)

La Rose Rd.

PC STA. 2092+96.15

PT STA. 2094+37.75

2085 2090 2095 2100 2105 2110

N 0° 11' 24" E

N 0° 05' 41" E

SECTION 31
SECTION 32

SECTION 30
SECTION 29

Sherman Hills Golf Course

Withlacoochee State Forest

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

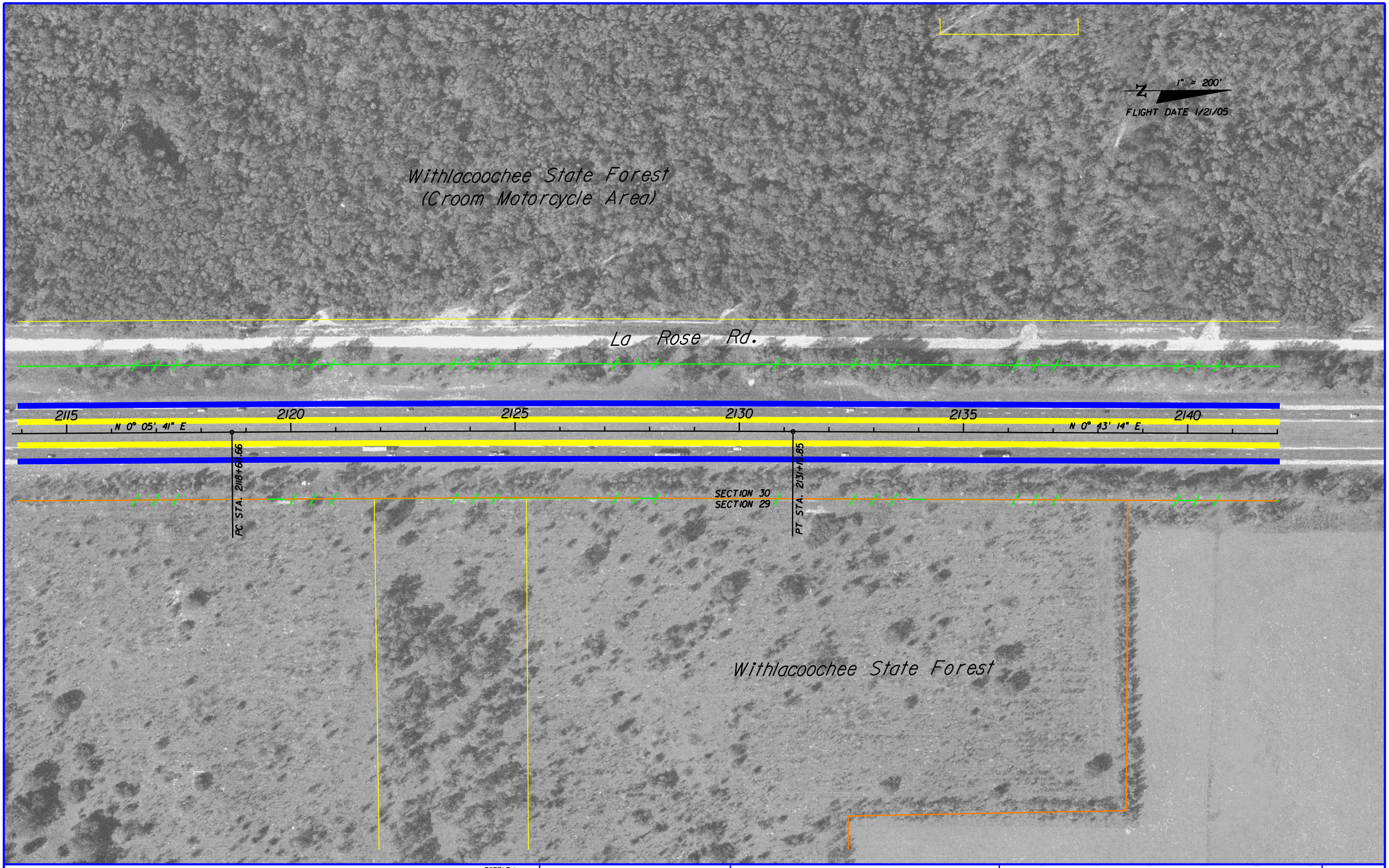
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 42

USER: khoefle December 29, 2006 10:34:50 EST H:\PD&E\DT\948_1-75-04 ENGINEERING\411041320\ROADWAY\PLANRD32.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

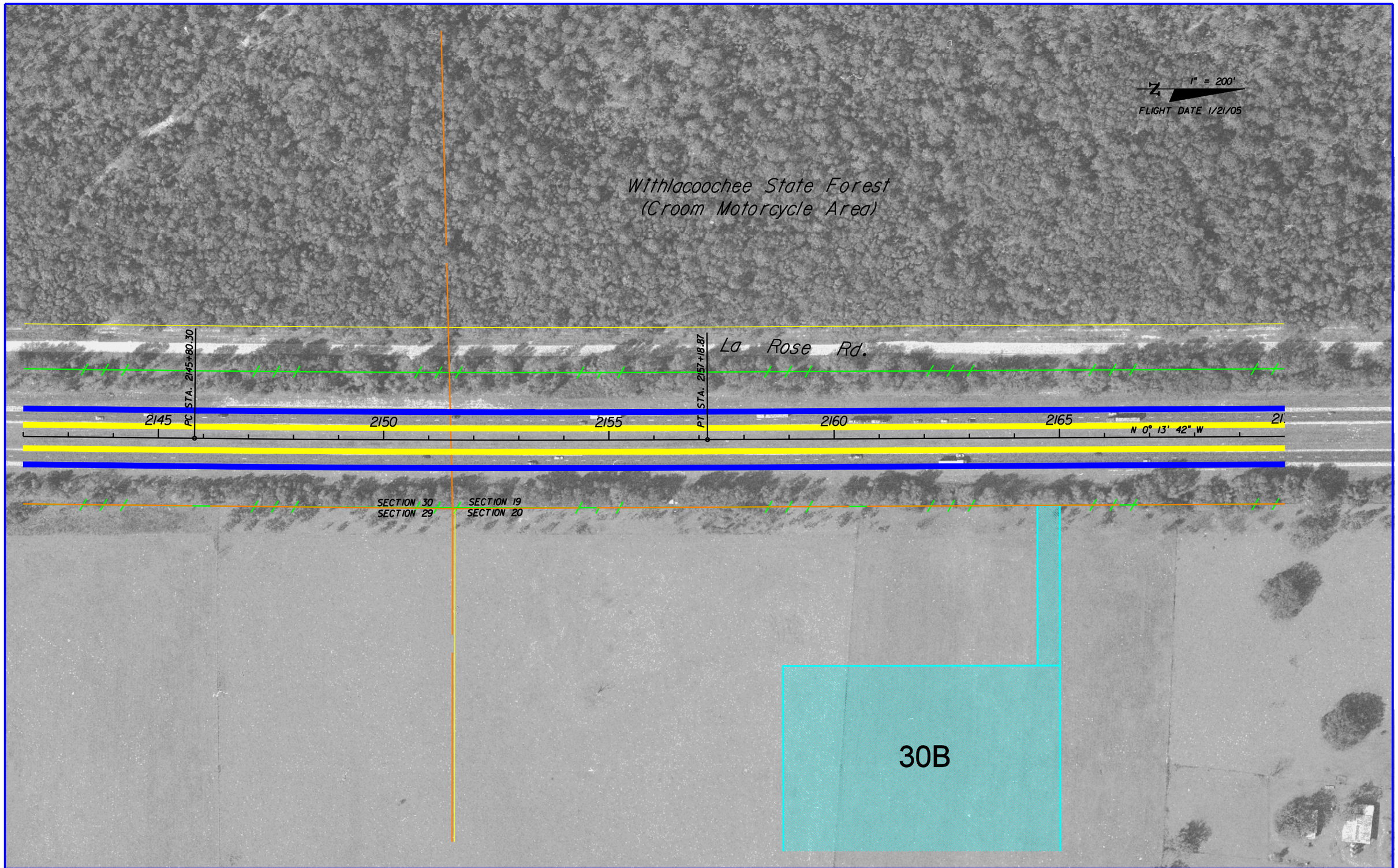
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 43

USER: khoefle
December 29, 2006 (03:45:28 EST) H:\PDME\D7\948_I-75\04 ENGINEERING\411014\320\ROADWAY\PLANRD33.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 44

Withlacoochee State Forest
(Croom Motorcycle Area)

1" = 200'

FLIGHT DATE 1/21/05

La Rose Rd.

2175 2180 2185 2190 2195

N 0° 13' 42" W

70

PC STA. 2176+82.19

SECTION 19

SECTION 20

31D

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 45

USER: kheflin December 29, 2006 10:34:48:2 EST) H:\PROJ\DF\1948_I-75\04 ENGINEERING\411014320\ROADWAY\PLANRD35.DGN

Withlacoochee State Forest
(Croom Motorcycle Area)

1" = 200'
FLIGHT DATE 1/21/05

2200 2205 2210 2215 2220 2225

N 48° 48' 23" E

PT STA. 2201+17.93

SECTION 17
SECTION 20

Withlacoochee State Forest

31D

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING
RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN
POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 46

USER: kheflie
December 29, 2006 10:39:37 EST H:\PD&E\DT\948_1-75-04 ENGINEERING\411014320\ROADWAY\PLANRD36.DGN

Withlacoochee State Forest
(Croom Motorcycle Area)

Perpetual Transportation/
Drainage/Maintenance
Easement

Withlacoochee State Trail

Croom Rital Rd.

Withlacoochee State Forest

Perpetual Transportation/
Drainage/Maintenance
Easement

1" = 200'

FLIGHT DATE 1/21/05

2230 2235 2240 2245 2250

N 48° 48' 23" E

PC STA. 2237+13.67

Withlacoochee State Forest

Withlacoochee State Trail

Croom Rital Rd.

Withlacoochee State Forest
(Silver Lake Recreation Area)

Perpetual Transportation/
Drainage/Maintenance
Easement

SECTION 17

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 47

USER: jkelly April 4, 2007 (03:54:23 EST) H:\PD&E\DF\948_I-75\04-ENGINEERING\411014120\ROADWAY\PLANRD37.DGN

Withlacoochee State Forest

Perpetual Transportation/
Drainage/Maintenance
Easement

Un Rd.

1" = 200'
FLIGHT DATE 1/21/05

Withlacoochee River

SECTION 17
SECTION 16

SECTION 9
SECTION 16

PT STA. 2257+76.85

2255 2260 2265 2270 2275 2280

N 38° 48' 56" E

Hallock Rd.

Withlacoochee State Forest
(Silver Lake Recreation Area)

Entrance

Silver Lake

Hernando County

Sumter County

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 48

USER: jkenly April 4, 2007 (03:55:04 EST) H:\PD&E\DT\948_1-75\04 ENGINEERING\411014132D1\ROADWAY\PLANR038.DGN

Withlacoochee State Forest

1" = 200'

FLIGHT DATE 1/21/05

Rest Stop

2285 2290 2295 2300 2305

N, 38° 48' 56" E

PC STA. 2309+85.81

Rest Stop

pump

Withlacoochee State Forest

SECTION 9
SECTION 16

Perpetual Transportation/
Drainage/Maintenance
Easement

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

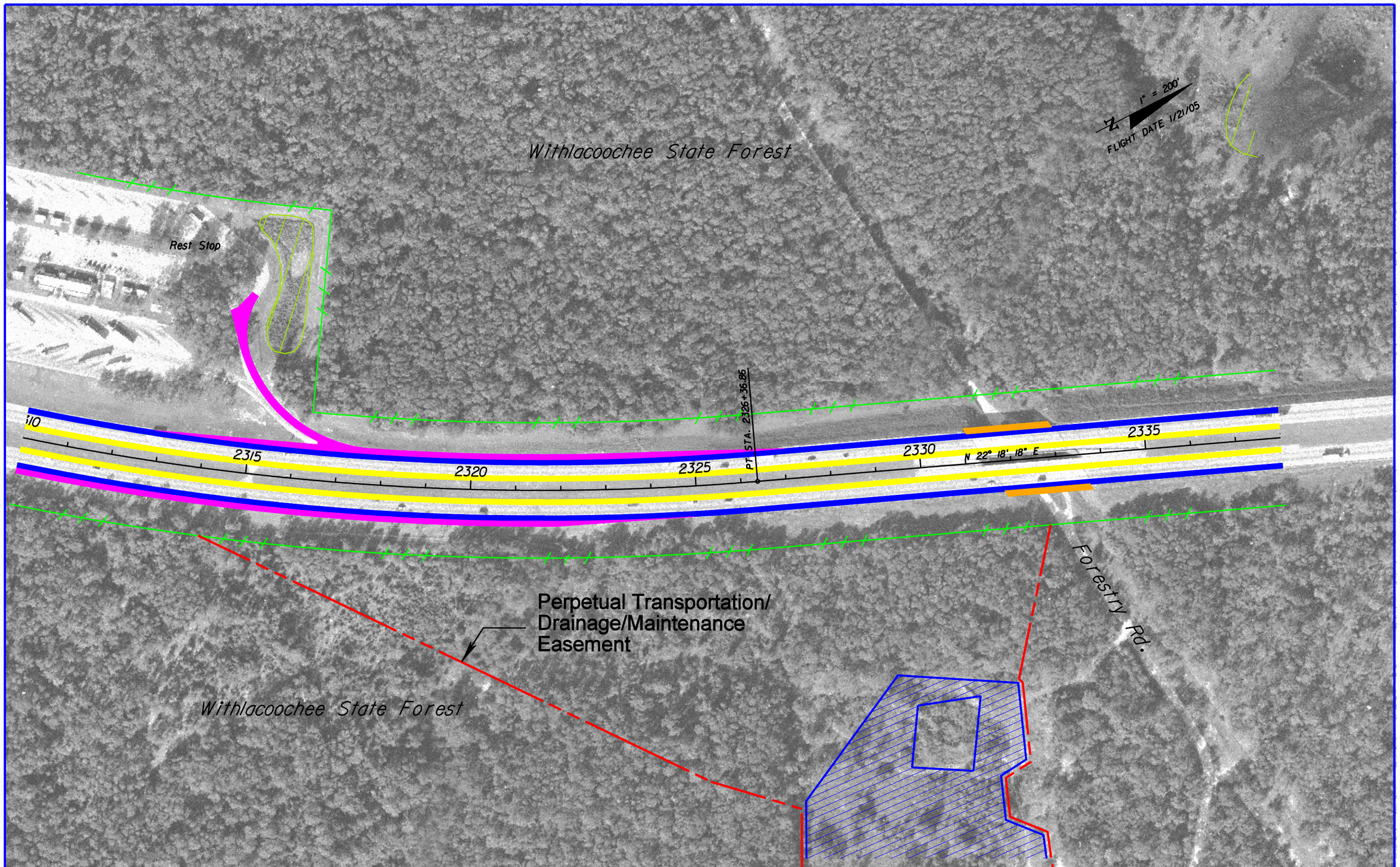
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 49

USER: jkelly April 4, 2007 (03:55:30 EST) H:\PBRE\DT\946_1-75-04 ENGINEERING\411014132\01\ROADWAY\PLMRD39.DGN



EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 50

USER: jfenly April 4, 2007 (03:56:33 EST) H:\PD&E\DT-N948_1-75\04 ENGINEERING\411014132\ROADWAY\PLANR040.DGN

Perpetual Transportation/
Drainage/Maintenance
Easement

1" = 200'

FLIGHT DATE 1/21/05

St. Catherine Rd.
(CR 476B)

Withlacoochee State Forest

END PROJECT
STA. 2356+25

2340 2345 2350 2355 2360 2365

N 22° 18' 18" E

RECOMMENDED RAMP
FPN 242626-1
PD&E STUDY

Withlacoochee State Forest

SECTION 4
SECTION 3

SECTION 9
SECTION 10

EXISTING RIGHT-OF-WAY
EXISTING L/A RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED L/A RIGHT-OF-WAY
INTERIM 6-LANE WIDENING
ULTIMATE 8-LANE WIDENING

RECONSTRUCTED RAMP
RECONSTRUCTED CROSS ROAD
PROPOSED BRIDGE
PROPERTY LINES
SECTION LINES
100-YEAR FLOODPLAIN

POTENTIAL RELOCATIONS
POTENTIAL CONTAMINATION SITES
PREFERRED STORMWATER PONDS
STORMWATER NATURAL DISCHARGE AREAS
STATE FOREST BOUNDARY
WETLANDS

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

RECOMMENDED ALTERNATIVE

SHEET NO. 51

USER: jkelly April 4, 2007 (03:57:24 EST) H:\PD&E\DF\948_1-75\04 ENGINEERING\411014\201\ROADWAY\PLANRD41.DGN