S.R. 200
PD&E STUDY REEVALUATION

S.R. 200 PD&E Study Reevaluation

From U.S. 41 to North of the Marion County Line
Citrus County, Florida
WPI Segment No. 257188 1
FAP No. FL62-020R

FINAL CONTAMINATION SCREENING EVALUATION REPORT

Florida Department of Transportation

District 7, Tampa, Florida

July 2002

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Florida Department of Transportation

District 7, Tampa, Florida

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1. DEFINITIONS

The following list provides a quick reference for the acronyms used in this report.

CFR	Code of Federal Regulations
C.R.	County Road
CSER	Contamination Screening Evaluation Report
EDR	Environmental Data Resources
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
HM/HW	Hazardous Materials / Hazardous Waste
I.D.	Identification Number
NRCS	Natural Resources Conservation Service
PD&E	Project Development and Environment
ROW	Right-of-Way
SCS	Soil Conservation Service
S.R.	State Road
USEPA	United States Environmental Protection Agency
USTs	Underground Storage Tanks

2. EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) proposes to improve a 6.7-mile segment of State Road (S.R.) 200 that extends from U.S. 41 in Citrus County to just north of the Marion County Line for a Project Development and Environment (PD&E) Reevaluation. A project location map is provided in Figure 1. A Level I contamination analysis has been performed and a Contamination Screening Evaluation Report (CSER) has been prepared pursuant to the Federal Highway Administration's (FHWA) Technical Advisory T 6640.8A, dated October 30, 1987, and in accordance with the FDOT's PD&E Manual, Part 2, Chapter 22, dated February 8, 1994.

Twenty-one sites within the project study corridor were identified as having the potential for contamination impacts to the proposed project. The project study corridor is shown in an aerial photographic series of maps included in Appendix A. The locations of the identified potential contamination sites are shown on these maps. These sites were evaluated and rated either **no, low, medium,** or **high** for having potential petroleum and/or hazardous materials/ hazardous waste (HM/HW) contamination.

The preferred alternative, as shown in Appendix A, has a total of nine potentially contaminated sites within or adjacent to the preferred alternative. Of the nine sites identified, five are low risk, hazardous material sites and four are associated with petroleum storage tanks and are ranked as medium, due to the propensity of fuel underground storage tanks (UST's) to leak. It must be noted that the list of these sites is not all-inclusive; contamination may be encountered anywhere along the study length of S.R. 200.

In order to confirm or refute possible contamination involvement, it is recommended that a Level II Contamination Assessment be conducted for the preferred alternative prior to construction, if additional right-of-way is required. This Assessment should focus on the rated sites within the project corridor that will be directly impacted by construction of the alternative. The Level II Contamination Assessment should include field sampling and quantitative analysis of soils and groundwater.

3. PROJECT DESCRIPTION

The FDOT proposes to improve a 6.7-mile segment of S.R. 200 that extends from U.S. 41 in Citrus County to just north of the Marion County Line. A project location map is provided in Figure 1. This PD&E Study Reevaluation (Reevaluation) is being conducted to aid in determining the alignment of the proposed S.R. 200 roadway widening and will document the impacts of the potential alternatives.

The purpose of this report is to present the findings of a contamination screening evaluation for the proposed improvements pursuant to the FHWA Technical Advisory T 6640.8A, dated October 30,

1987 and in accordance with FDOT PD&E Manual, Part 2, Chapter 22, dated February 8, 1994. This report identifies and evaluates known or potential contamination problems, presents recommendations concerning these problems, and discusses possible impacts to the proposed project.

3.1 Need for Project

In November 1996, the FDOT received FHWA approval on a PD&E Study that evaluated improvement alternatives along the S.R. 200 corridor. The limits of that PD&E Study extended from U.S. 41 (S.R. 45) in Citrus County to County Road (C.R.) 484 in Marion County, a length of approximately 12.9 miles. That study concluded that in consideration of the future traffic demands, motorist safety, and evacuation needs, the subject segment of S.R. 200 should be widened to a four-lane divided facility.

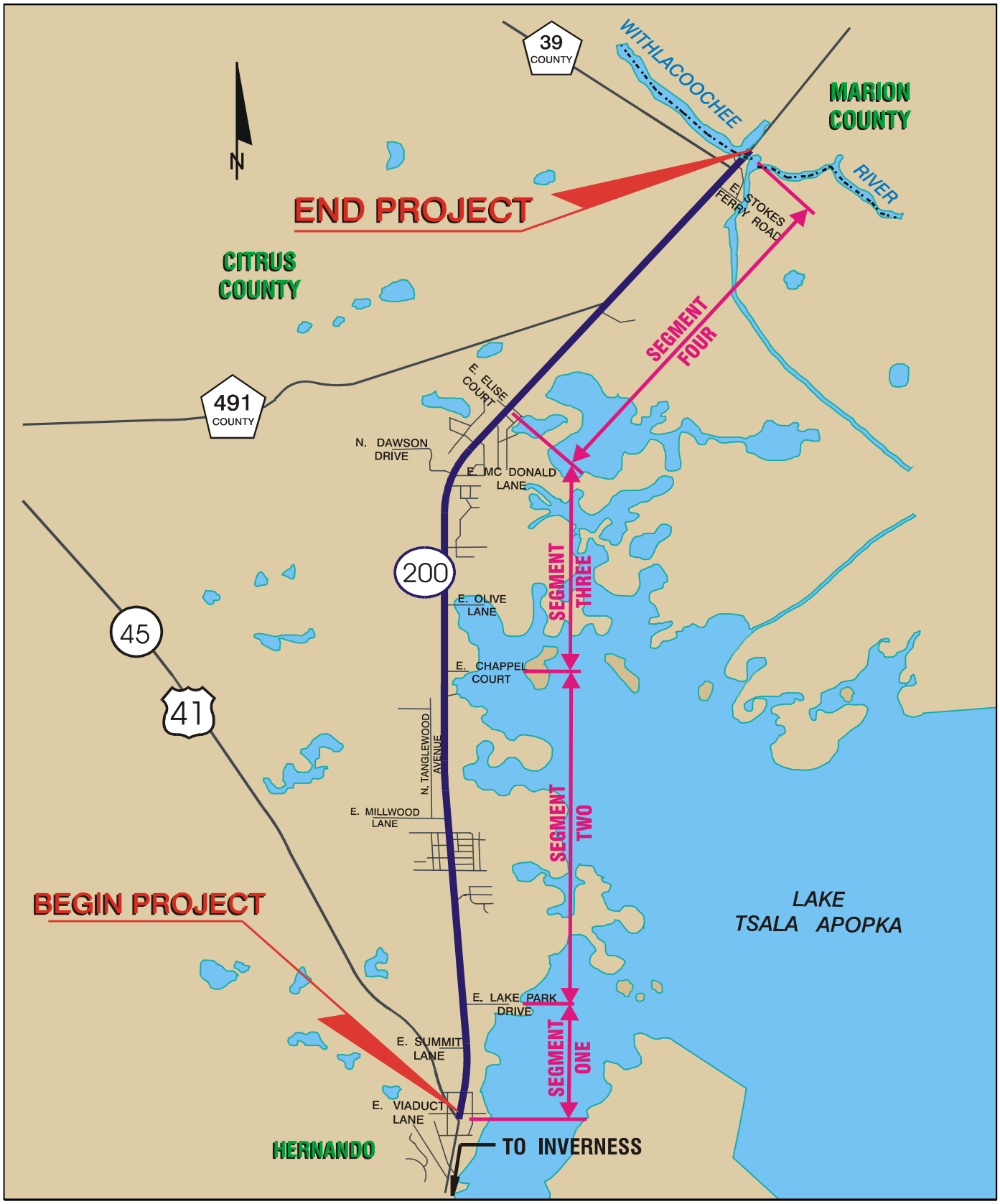
FDOT is conducting this PD&E Study Reevaluation for the segment of S.R. 200 which extends from U.S. 41 in Citrus County to just north of the Marion County Line in accordance with Title 23 of the Code of Federal Regulations (CFR) Part 771.129. This segment of S.R. 200 is approximately 6.7 miles. This Reevaluation will use current data to re-assess the effects of implementing the recommendations of the original PD&E study and, where possible, will modify these recommendations to further minimize any effects. The Design Year for the various analyses, evaluations, and assessments performed in this Reevaluation is 2025.

The remaining portion of S.R. 200, beyond the northern project terminus of the Reevaluation study area (the remaining segment from the original S.R. 200 PD&E Study), is currently in the Final Design phase where it will be widened to a four-lane rural facility by the FDOT District 5 office.

4. LAND USE

S.R. 200 is a two-lane undivided rural facility centered within 100 feet of right-of-way within the limits of the Reevaluation study area. The existing cross section, in general, provides two 11-foot-wide travel lanes and four-foot-wide paved shoulders and drainage ditches on each side (see Figure 2). The only variation to this cross section is from south of East Arbor Lakes Drive to north of North Apache Trail, a distance of 0.7 miles, where S.R. 200 has been recently widened to provide two 12-foot-wide through lanes, a center 13-foot-wide two-way left turn lane, 4-foot-wide paved shoulders and 5-foot-wide sidewalks behind the ditches. The project includes two bridge structures; a double box culvert over a creek approximately 4.7 miles from the beginning of the project and a bridge over the Withlacoochee River, just south of the northern project terminus.

The existing land use along the project is primarily rural and open land. At the southern terminus of the project, in the vicinity of the Town of Hernando, land use is mostly light commercial. In the vicinity of Apache Shores, where S.R. 200 has been widened, land use transitions to light residential and commercial. S.R. 200 is classified as a Class 3 facility by Access Management. An existing land use map is provided in Figure 3.



S.R. 200
PD&E Study Reevaluation

PROJECT LOCATION MAP

FIGURE 1

S.R. 200 PD&E Study Reevaluation
From U.S. 41 to N. of Marion County Line
Citrus County
WPI Seg. No. 257188 1; FAP No. FL62-020R

5. HYDROLOGIC FEATURES

Citrus County is generally underlain by the Floridan Aquifer, which is described as unconfined because of the absence of well-developed, slowly permeable or very slowly permeable sediment between the ground surface and the top of the aquifer. The Floridan Aquifer is productive and is characterized by high porosity sands and limestone, which typically allow rapid infiltration of rainfall and surface runoff. The potentiometric surface for the Floridan Aquifer in this area is 40 feet above mean sea level (Jones and Randazzo 1997).

The seasonal high groundwater table varies throughout the project from land surface to eight feet below land surface: the highest being near surface water features (United States Department of Agriculture Soil Conservation Service 1988). Two surface water features exist within the study area. Tsala Apopka is a natural lake chain, with only a few man-made boat trails and canals. There are dozens of islands, hundreds of miles of productive shorelines, and many "finger lakes" that wind for miles. The Tsala Apopka chain of lakes is 22 miles long, covering 23,000 acres. The Withlacoochee River, located at the terminus of the S.R. 200 corridor, flows from south to north and eventually empties into the Gulf of Mexico. Groundwater flow in the surficial aquifer will mimic the topography and will discharge into the closest surface water body.

The entire project is located within the Withlacoochee River drainage basin. The existing drainage pattern and basin boundaries were determined based on the existing FDOT construction plans, United States Geologic Survey quadrangle and Southwest Florida Water Management District maps. Figure 4 shows the drainage basins and sub-basins for the project area.

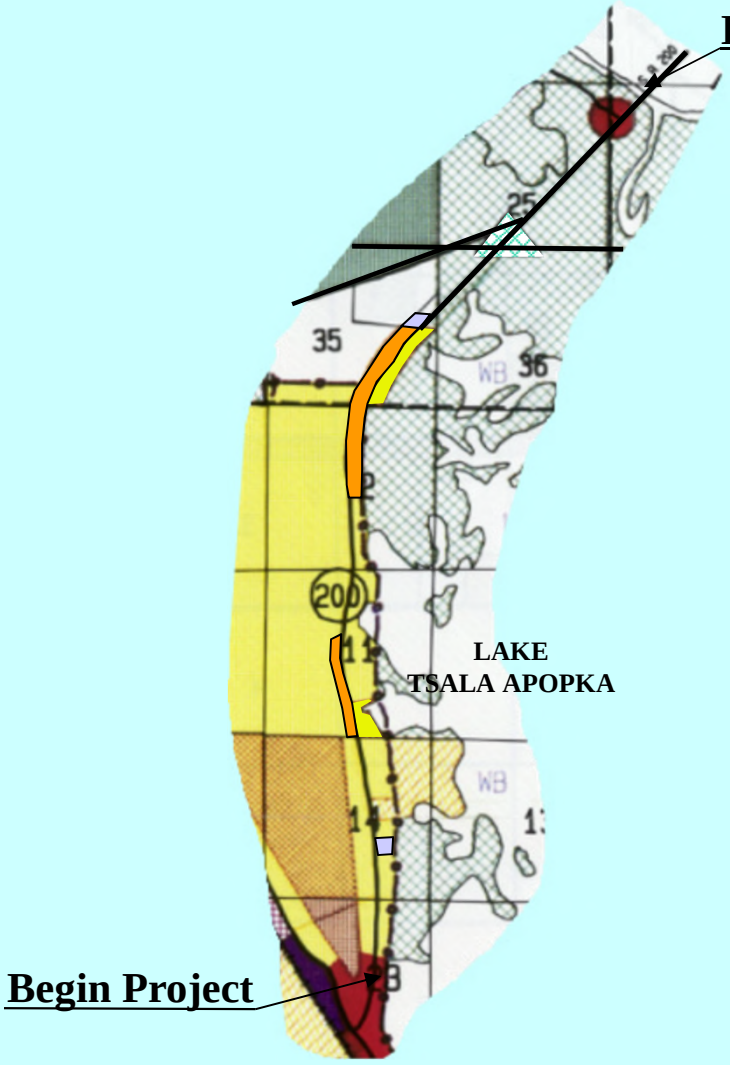
Wetlands are very sparse and predominantly consist of isolated depressions within the immediate vicinity of S.R. 200. Low ridges that are over-topped in periods of excess rainfall generally divide these wetlands. Most of the stormwater runoff travels from west to east draining commercial and residential properties, wetlands, and open land. Overland flow meanders through these areas until it reaches low areas where it flows under S.R. 200 through cross drain culverts and outfalls to Lake Tsala Apopka and the Withlacoochee River.

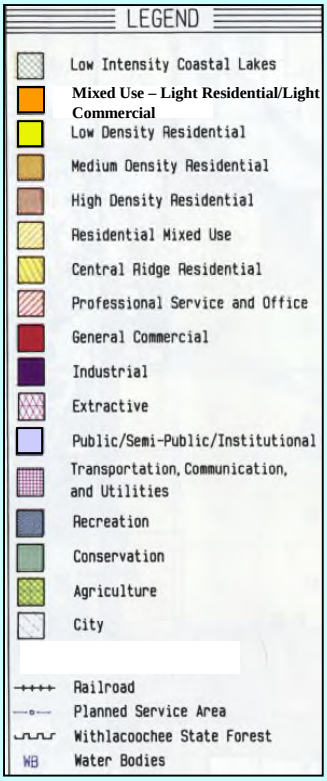
According to the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service (SCS), Soil Survey of Citrus County, Florida, general soil types in Citrus County can be briefly described as surficial sands and clay, and sandy clays overlying limestone. Surficial soils within the study area include twelve mapping units as illustrated on the soil survey map, Figure 5.

6. METHODOLOGY

A preliminary evaluation of the Reevaluation study area was conducted in December 2000 to identify potential contamination sites within the proposed project limits from properties or operations located in the vicinity of the project. This evaluation was conducted in accordance with

Source: Citrus County Comprehensive Plan

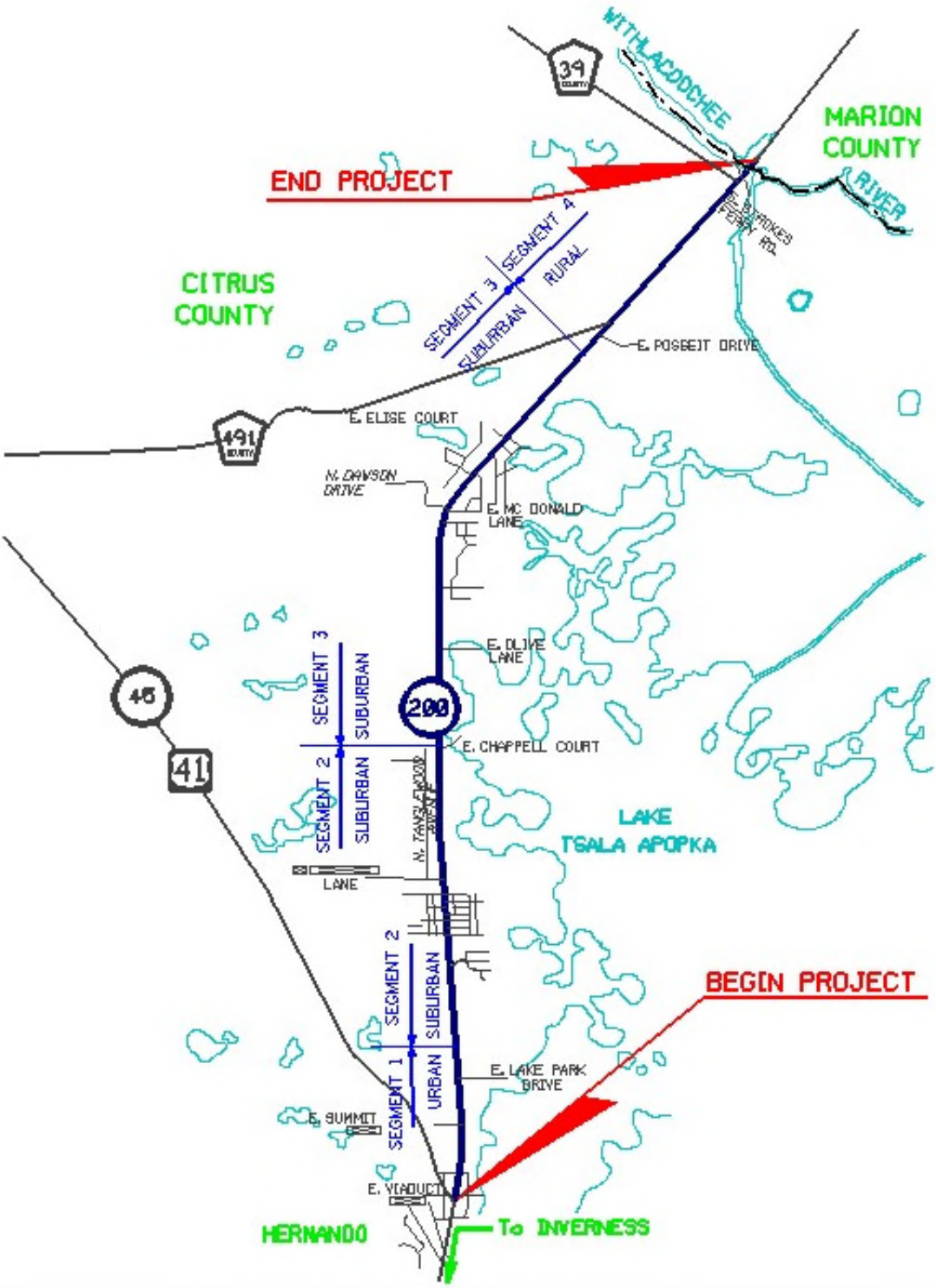




S.R. 200
PD&E STUDY REEVALUATION

GENERALIZED EXISTING LAND USE MAP
FIGURE 3

S.R. 200 PD&E Study Reevaluation
From U.S. 41 to N. of Marion County Line
Citrus County
WPI Seg. No. 257188 1; FAP No. FL62-020R



S.R. 200
PD&E STUDY REEVALUATION

Project Location Map

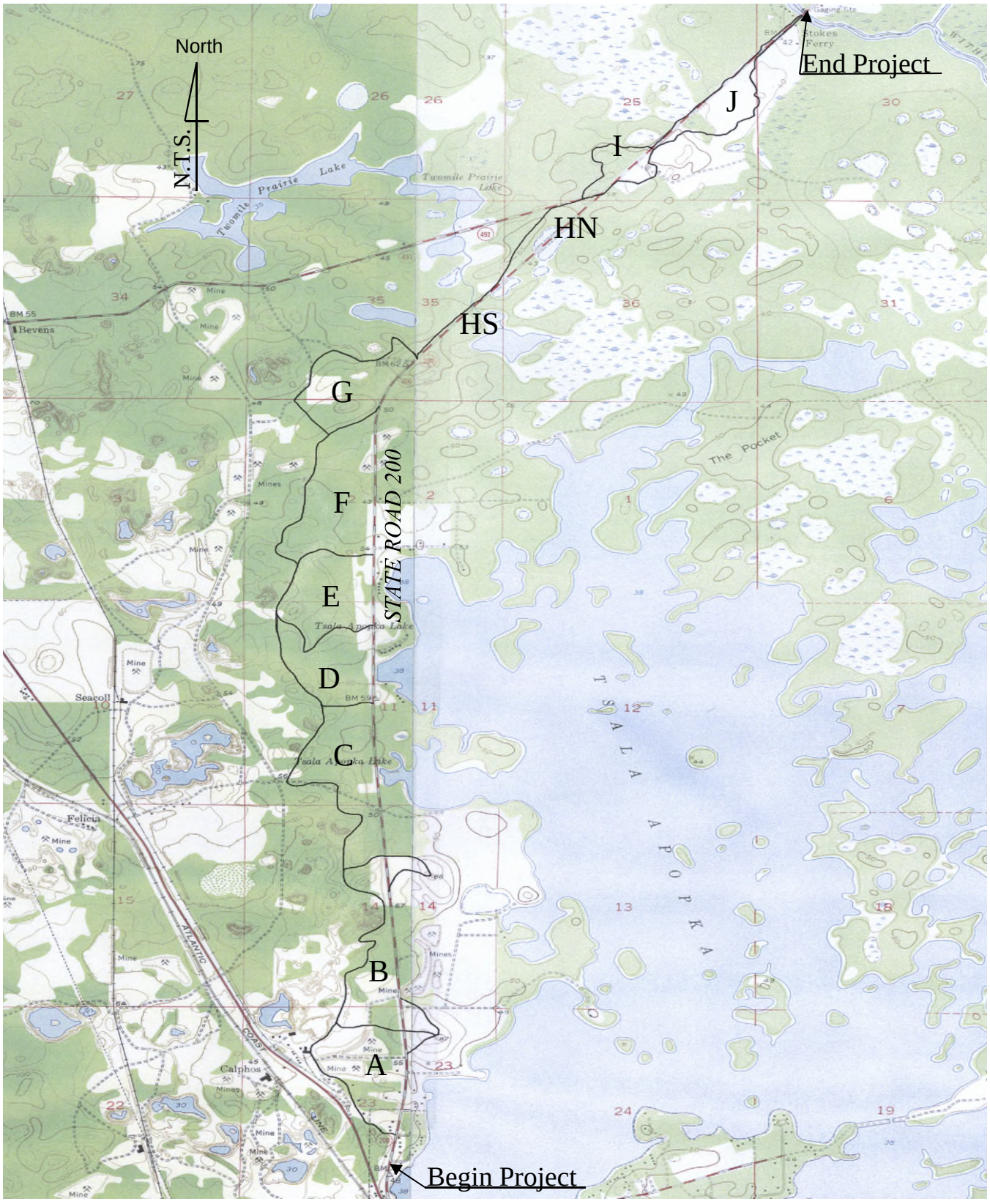
Figure 1

S.R. 200 PD&E Study Reevaluation

From U.S. 41 to N. of Marion County Line

Citrus County

WPI Seg. No. 257192; FAP No. FL62-020R



S.R. 200
PD&E STUDY REEVALUATION

DRAINAGE MAP

FIGURE 4

S.R. 200 PD&E Study Reevaluation
From U.S. 41 to N. of Marion County Line
Citrus County
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the requirements set forth in Part 2, Chapter 22 of the PD&E Guidelines (rev. 2-8-94). Initial identification of potential hazardous materials and petroleum sites was conducted using:

- Current and historical aerial photographs for years 1972, 1973, 1987, and 2000 (2000 project aerial photographs can be found in Appendix A).
- Florida Department of Environmental Protection (FDEP) file investigations.
- United States Environmental Protection Agency (USEPA) file investigations.
- Citrus County Environmental Health Department file investigations.
- Field surveys

Site visits, including interviews with site personnel, property owners, long-time residents, and local officials were conducted in December 2000. Copies of correspondence regarding the Reevaluation of S.R. 200 have been included in Appendix B. Criteria used for on-site evaluation included:

- Physical observations made for signs of potential contamination (odor, stressed vegetation, soil staining, and land use).
- Storage and/or use of hazardous chemicals.
- Presence of groundwater wells.

The type of information requested during interviews consisted of the presence and location of above and underground storage tanks, location and contents of waste containers, and history of spills regarding petroleum and HM/HW. Field notes taken during site visits can be found in Appendix C. The current legal owners and previous owners of the properties located along the study corridor were identified using public record information including information from the Citrus County Property Appraiser and FDOT Right-of-Way (ROW) maps.

A regulatory records report was prepared for ARCADIS Geraghty & Miller by Environmental Data Resources (EDR) of Southport, Connecticut, to identify the USEPA- and FDEP-registered facilities in the site vicinity. The inventory search radii presented in the EDR report are those required by the ASTM standard. A copy of the EDR report is included in Appendix D. The environmental records maintained by the USEPA, the FDEP, and/or the county were reviewed for the properties identified in the EDR report. Copies of these records are included in Appendix E.

Several businesses adjacent to the S.R. 200 corridor were not identified as having a facility I.D. number; however, the potential for contamination still exists. These are sites that potentially have HM/HW as the primary potential contaminant. HM/HW include pesticides, solvents, paints, resins

and chemicals, and will typically be found at lubrication services, automotive body shops, pesticide companies, dry cleaning establishments, etc.

Each identified site has been classified with a rating of either **no, low, medium,** or **high** for its potential to impact the project. These ratings are described as follows:

- **No:** After a review of all available information, there is nothing to indicate contamination would be a problem. It is possible that contamination could have been handled on the property; however, all information indicates problems should not be expected.

- **Low:** The former or current operation has a hazardous waste generator identification (I.D.) number, or deals with HM/HW or petroleum products; however, based on all available information, there is no reason to believe there would be any involvement with contamination. After a review of all available information, there is nothing to indicate contamination would be a problem. It is possible that contamination could have been handled on the property; however, all information indicates problems should not be expected. In the case of petroleum sites, if there is no information regarding a release and the dates of tank installations are unknown, a ranking of **medium** was assigned based on previous experience with the propensity of fuel underground storage tanks (USTs) to leak.

- **Medium:** After a review of all available information, indications are found that identify known soil and/or groundwater contamination and that the problem does not need remediation, is being remediated (i.e., air stripping of the groundwater, etc.), or that continued monitoring is required.

- **High:** After review of all available information, there is a potential for contamination problems. Further assessment will be required after alignment selection to determine the actual presence and/or levels of contamination and the need for remedial action.

The known potential contamination sites within the study area have been investigated and rated as described above. Each of the proposed alternatives has been evaluated for their potential to have problems from contamination involvement.

7. ALTERNATIVE ALIGNMENTS

The approved original PD&E Study recommended that the following improvements would be the optimal solution to accommodate the anticipated Design Year 2025 conditions within the project limits:

- From U.S. 41 to just north of East Lake Park Drive, a length of approximately 1.1 miles, S.R. 200 should be widened to provide an urban four-lane divided typical section that would utilize the existing 100-foot right-of-way.

- From north of East Lake Park Drive to the northern project terminus, a length of approximately 5.6 miles, S.R. 200 should be widened to provide a rural four-lane divided typical section that utilized a 200-foot right-of-way. From north of East Lake Park Drive to north of C.R. 491, the additional ROW requirement is to occur along the western side of S.R. 200. From north of C.R. 491 to the northern project terminus, the widening is to occur along the eastern side.

This reevaluation evaluates the engineering and environmental effects associated with an improved S.R. 200, including a No-Build Alternative. After a detailed and comprehensive analysis, along with local officials and the general public involvement, the study concluded that without capacity improvements, S.R. 200 would deteriorate to an unacceptable level.

Thus, a build alternative was deemed appropriate for improvement of S.R.200. To determine the appropriate build alternative, this project was divided into four segments as follows:

Segment 1 – Project Southern Terminus to East Lake Park Drive

Segment 2 – East Lake Park Drive to North of East Chappell Court

Segment 3 – North of East Chappell Court to North of East Elise Court

Segment 4 – North of East Elise Court to Project Terminus

Using these segments, three typical sections were evaluated. A description of the typical sections and the segments considered for each are as follows:

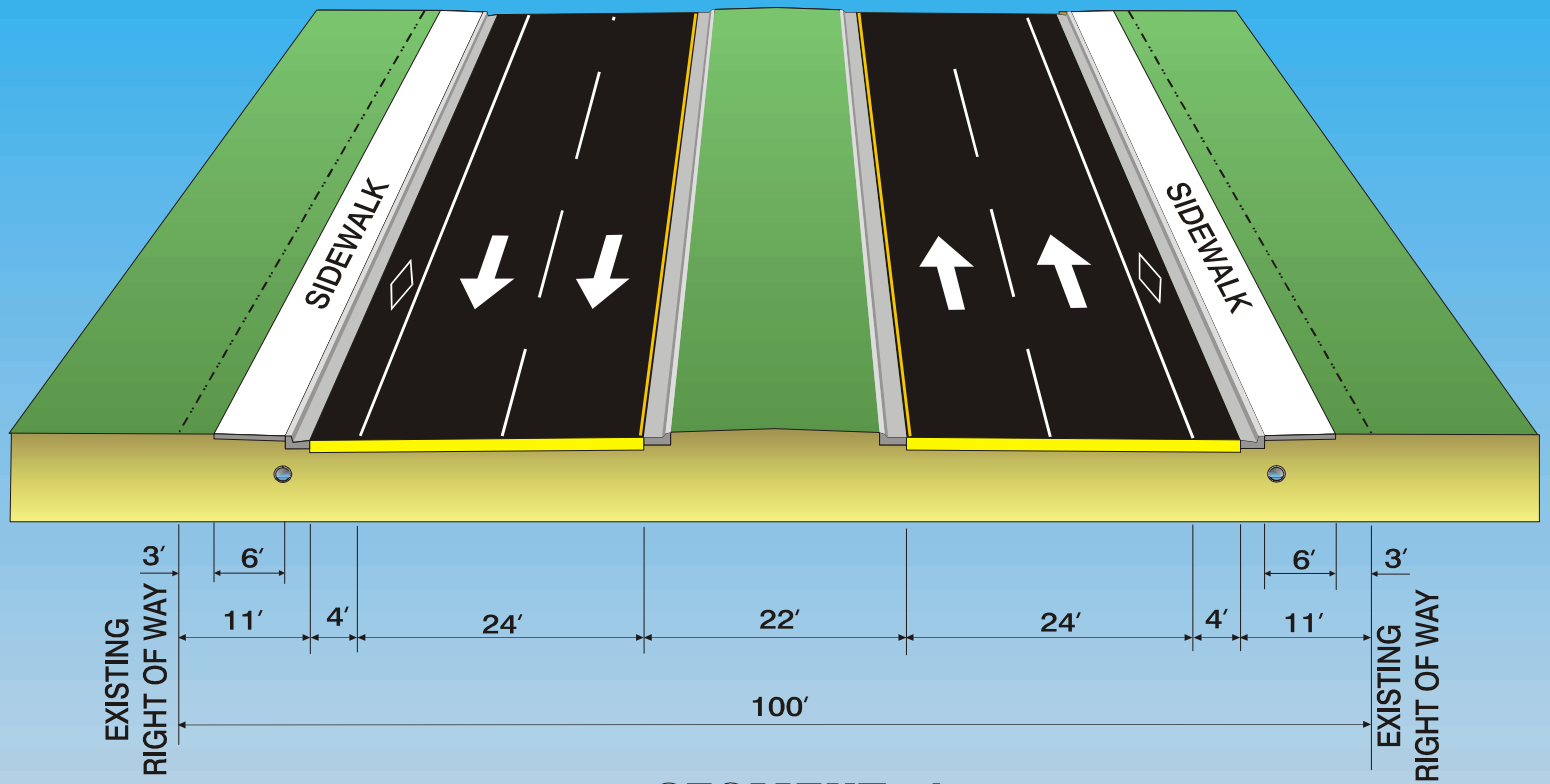
Urban, Four-Lane Divided

Figure 6 illustrates the proposed urban typical section for this reevaluation. Similar to the urban typical section recommended by the original PD&E Study, this typical section maintains the same design speed and fits within the existing 100-foot right-of-way. However, this proposed typical section differs from the original typical section in that the sidewalk is proposed to be contiguous to the curb instead of the right-of-way line.

Consistent with the original PD&E Study, the urban typical section is recommended for the segment of S.R. 200 from U.S. 41 to north of East Lake Park Drive (Segment 1), a distance of approximately 1.1 miles.

Suburban, Four-Lane Divided

Figure 7 illustrates the recommended suburban typical section to be used as an option for this reevaluation from north of East Lake Park Drive to north of East Elise Court (Segments 2 and 3). This typical section used in evaluation of alternatives utilized a 148-foot right-of-way.



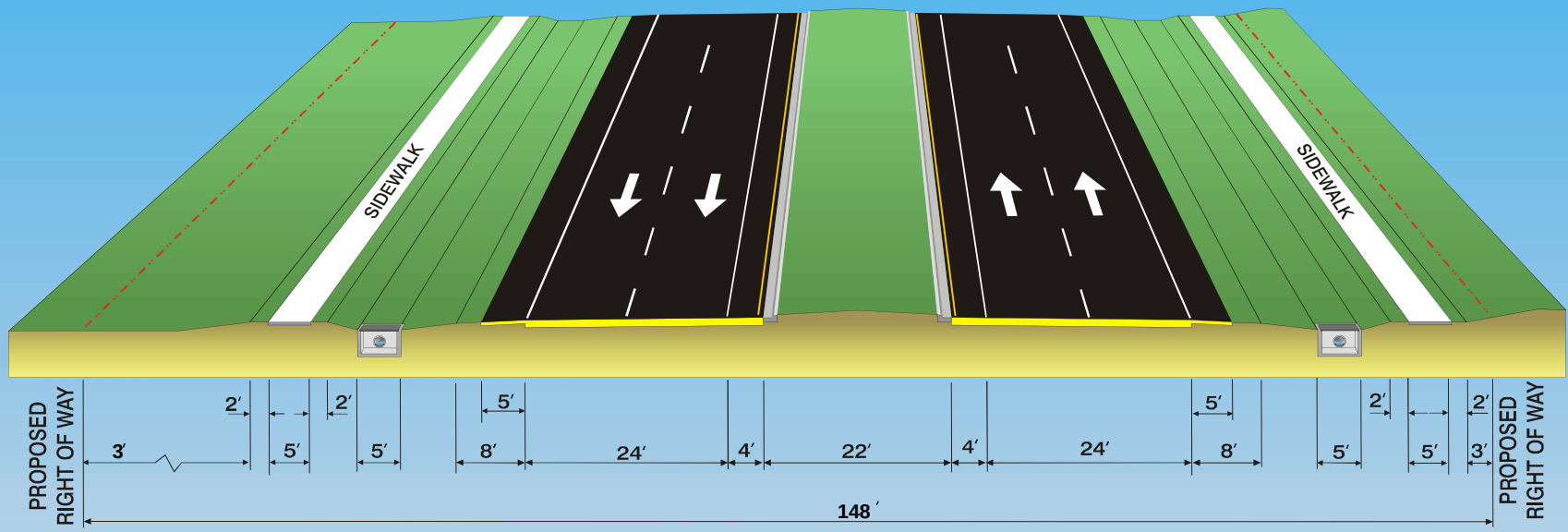
SEGMENT 1
from U.S. 41 to East Lake Park Drive

PROPOSED 4- LANE URBAN ROADWAY TYPICAL SECTION

S.R. 200
PD&E Study Reevaluation

PROPOSED FOUR-LANE
URBAN TYPICAL SECTION
FROM U.S. 41 TO NORTH
OF EAST LAKE PARK DRIVE
FIGURE 6

S.R. 200 PD&E STUDY
REEVALUATION
FROM U.S. 41 TO N. OF MARION COUNTY LINE
CITRUS COUNTY
WPI SEG. NO. 257188 1; FAP NO. FL62-020R



SEGMENTS 2 AND 3
from East Lake Park Drive to East Elise Court

PROPOSED 4- LANE SUBURBAN ROADWAY TYPICAL SECTION

S.R. 200
PD&E Study Reevaluation

PROPOSED FOUR-LANE
SUBURBAN TYPICAL SECTION
FROM EAST LAKE PARK DRIVE TO
EAST ELISE COURT
FIGURE 7

S.R. 200 PD&E STUDY
REEVALUATION
FROM U.S. 41 TO N. OF MARION COUNTY LINE
CITRUS COUNTY
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Rural, Four-Lane Divided

Figure 8 illustrates the recommended rural typical section. In comparison to the rural typical section recommended in the original PD&E Study, this typical section:

- Continues to require 200 feet of right-of-way; and
- Allows for a design speed of 70 mph.

This typical section is recommended for the segment of S.R. 200 to be used as an option for this reevaluation from north of East Lake Park Drive to the northern terminus of the project (Segments 2, 3 and 4).

Table 1 summarizes the alternatives under consideration.

8. PREFERRED ALTERNATIVES

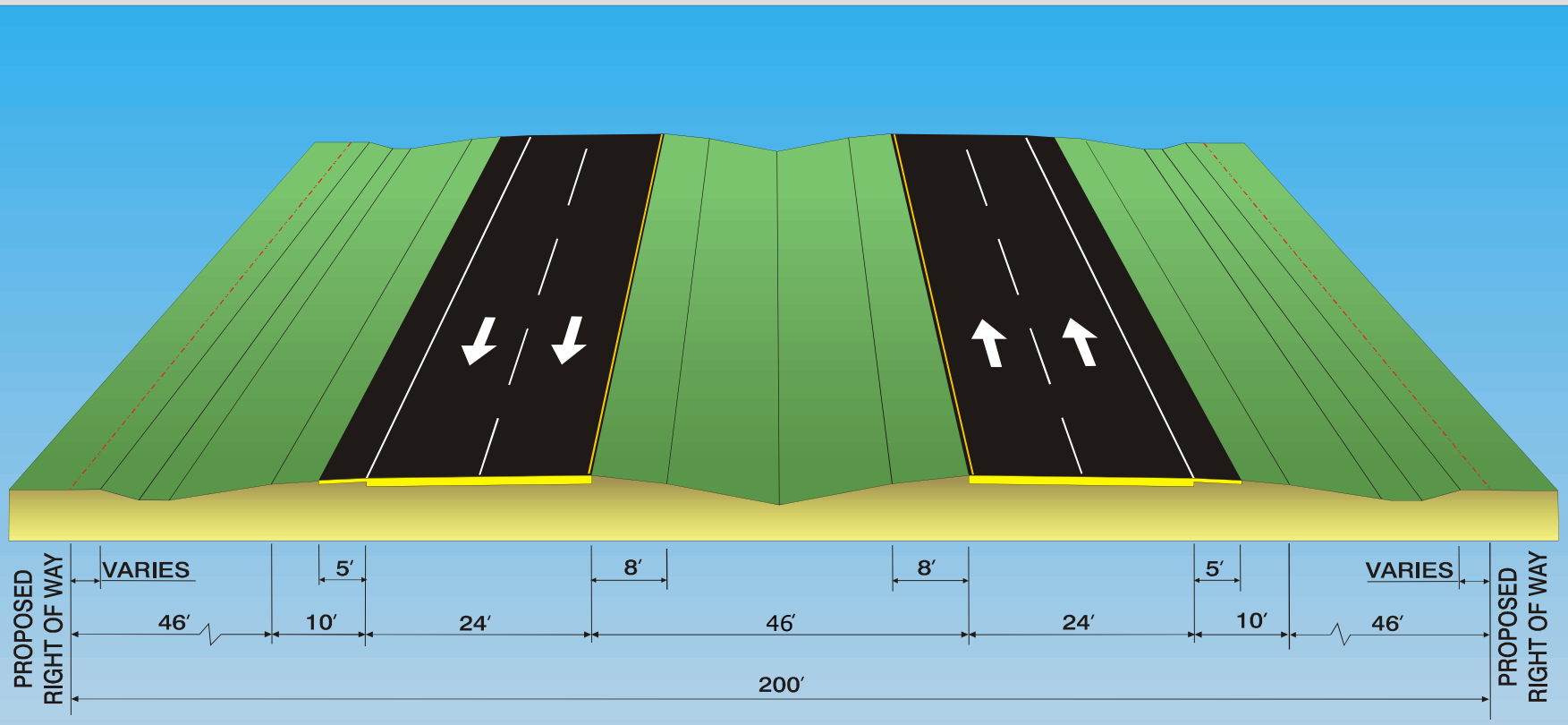
The selection of a preferred alternative by segment was made after consideration of the estimated impacts for each alternative, estimated costs of each alternative and input from the public and both local and state officials. During the process for selection of the preferred alternative, it was determined that the right-of-way requirement for the suburban typical section needs to be modified to utilize a 180-foot right-of-way width as shown in Figure 9. Thus, impacts as discussed in subsequent sections for the preferred alternatives, are in terms of a 180-foot right-of-way for the suburban typical section. A discussion by segment of the preferred alternative follows.

Segment 1 – The Preferred Alternative is a four-lane urban typical section with 12-foot lanes, four-foot bicycle lanes, five-foot sidewalks, 22-foot median, with all contained within a 100-foot right-of-way. The alignment is centered within the existing right-of-way. Additional right-of-way will be limited to stormwater management ponds.

Segment 2 – The Preferred Alternative is a four-lane suburban typical section with 12-foot lanes, eight-foot (five foot paved) outside shoulders, 22-foot median with all contained within a proposed 180-foot right-of-way. The alignment is shifted west and maintains the eastern existing right-of-way limit.

Segment 3 – The Preferred Alternative is a four-lane suburban typical section with 12-foot lanes, eight-foot (five foot paved) outside shoulders, 22-foot median with all contained within a proposed 180-foot right-of-way. The alignment is shifted west and maintains the eastern existing right-of-way limit.

Segment 4 - The Preferred Alternative is a four-lane rural typical section with 12-foot lanes, 10-foot (5 foot paved) outside shoulders, 40-foot median with all contained within a proposed 200-foot-right-of-way. The alignment continues the widening to the west before shifting to the east side, just



SEGMENT 4
from East Elise Court to north of the Marion County Line

PROPOSED 4- LANE RURAL ROADWAY TYPICAL SECTION

S.R. 200
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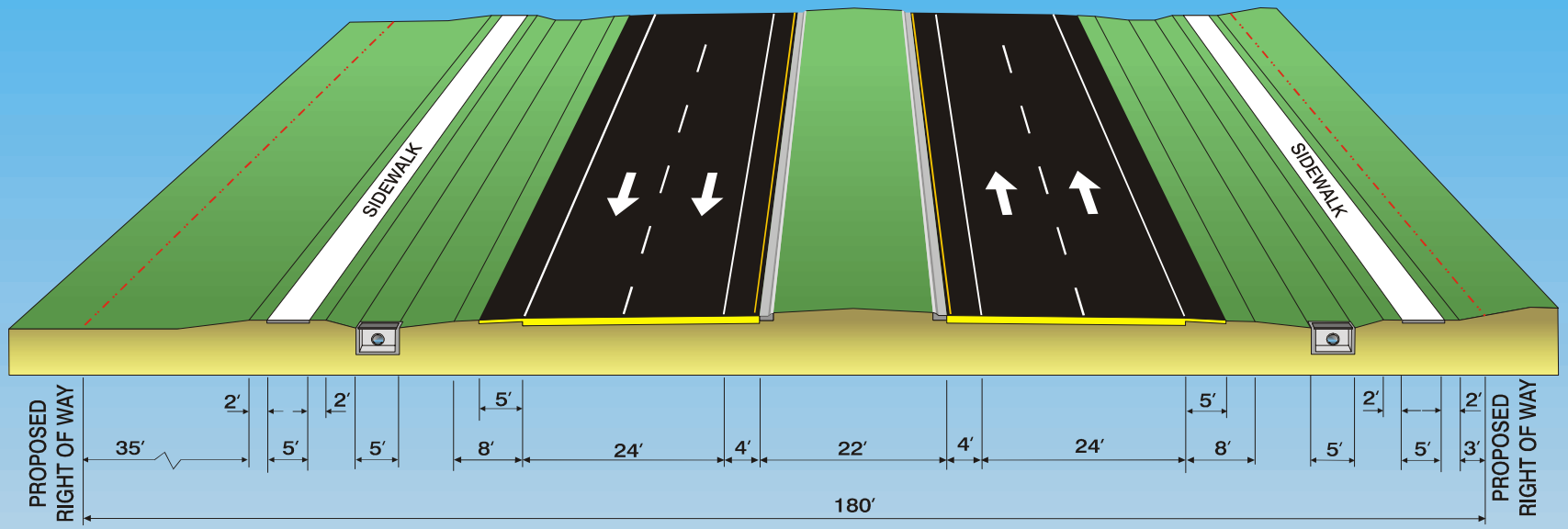
PROPOSED FOUR-LANE
RURAL TYPICAL SECTION
FROM EAST ELISE COURT TO
NORTH OF THE MARION COUNTY LINE
FIGURE 8

S.R. 200 PD&E STUDY
REEVALUATION
FROM U.S. 41 TO N. OF MARION COUNTY LINE
CITRUS COUNTY
WPI SEG. NO. 257188 1; FAP NO. FL62-020R



SEGMENTS 2 AND 3
from East Lake Park Drive to East Elise Court

PROPOSED 4- LANE SUBURBAN ROADWAY TYPICAL SECTION

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RECOMMENDED FOUR-LANE
SUBURBAN TYPICAL SECTION
FROM OF EAST LAKE PARK DRIVE TO
EAST ELISE COURT
FIGURE 9

S.R. 200 PD&E STUDY
REEVALUATION
FROM U.S. 41 TO N. OF MARION COUNTY LINE
CITRUS COUNTY
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beyond the S.R. 200 / CR 491 intersection. The alignment continues with widening to the east, crossing the Withlacoochee River and terminating at the project terminus.

9. PROJECT IMPACTS

Using the above described methodology, 21 sites within the study corridor were identified that have questionable use of, a history of, or currently store, sell, or use petroleum products or HM/HW. These sites were assigned a risk rating of **high, medium, low,** or **no** for their potential to impact the project. Photographs of some of these sites can be found in Appendix F and their locations in the study area are presented on the aerial sheets found in Appendix A. The sites are numbered from south to north and consecutively from 1 through 21, as listed in Table 2. The sites are identified using a three-part code made up of the site number, the potential contamination source (petroleum versus HM/HW), and the site risk rating.

The potential contamination sites that were identified through this contamination screening evaluation process have been investigated and the results for each site are presented below in Section 9.1. Of the 21 sites, 7 have the potential for petroleum contamination and 14 have the potential for HM/HW contamination. Table 2 lists the sites potentially involving contamination, the type of material involved, and the site's risk rating.

9.1 Sites Investigated for Potential Contamination

Site 1
Ogle, William H. Jr.
Facility ID #9200411

FDEP records and historic aerial photos indicate a residence historically existed at 2656 N. Florida Avenue. Current land use at this address is an abandoned residence. Two USTs were removed from this site. Information regarding the dates the USTs were removed, the size of the tanks, and the contents of the tanks was not available in the FDEP files for this site. There was no visual evidence (concrete patching) of the former tank locations.

According to the FDEP, no discharge records were reported for the above-mentioned property. Physical evidence of contamination (stressed vegetation) or spills (discolored soil) was not observed during site visits. A copy of the Petroleum Contamination Tracking form from the FDEP Storage Tank and Contamination Monitoring database has been included in Appendix E.

No assessment activity has been performed at the site; therefore, based on the limited information known about the site, this site was given a rating of **medium**. The location of this site (***1-P-M***) in relation to the proposed project is shown on Sheet 1 of Appendix A.

Site 2
Armstrong, Mary L.
Facility ID #9200412

FDEP records and historic aerial photos indicate a residence historically existed at 2700 N. Florida Avenue. Current land use at this address is Heritage Propane. Three USTs (two leaded gasoline; one kerosene) were removed from this site. The dates removed and the sizes of the tanks were not identified based upon the limited file content for this site. The tanks were located approximately 40 feet west of the existing right of way of SR 200.

According to the FDEP, no discharge records were reported for the above-mentioned property. Physical evidence of contamination (stressed vegetation) or spills (discolored soil) was not observed during site visits. A copy of the Petroleum Contamination Tracking form from the FDEP Storage Tank and Contamination Monitoring database has been included in Appendix E.

No assessment activity has been performed at the site; therefore, based on the limited information known about the site, this site was given a rating of **medium**. The location of this site (***2-P-M***) in relation to the proposed project is shown on Sheet 1 of Appendix A.

Site 3
Cumberland Farms
Facility ID #8626536

Cumberland Farms is a gas station with accompanying convenient store located at the intersection of U.S. 41 and S.R. 200. Three (3) 8000-gallon USTs (unleaded gasoline) are located approximately 25 feet west of the existing right-of-way of S.R. 200. Monitoring wells at the site include compliance wells required for the in-service unleaded USTs.

Physical evidence of contamination (stressed vegetation) or spills (discolored soil) was not observed during site visits. The current Storage Tank Facility Compliance Inspection Report has been included in Appendix E. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest aerial photograph available for the area).

No assessment activity has been performed at the site; therefore, based on the limited information known about the site, this site was given a rating of **medium**. The location of this site (***3-P-M***) in relation to the proposed project is shown on Sheets 1 and 2 of Appendix A.

Site 4
Absolute Quality Paint and Body

Absolute Quality Paint and Body was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business.

Physical evidence of contamination (stressed vegetation) or spills (discolored soil), however, was not observed during site visits. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest photographic record available for this area). Based on the above information, this site was given a rating of **low**. The location of this site (***4-HM/HW-L***) in relation to the proposed project is shown on Sheet 2 of Appendix A.

Site 5
Don's Front End Service

Don's Front End Service was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (discolored soil), however, was not observed during site visits. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest photographic record available for this area). Based on the above information, this site was given a rating of **low**. The location of this site (***5-HM/HW-L***) in relation to the proposed project is shown on Sheet 2 of Appendix A.

Site 6
Foreign Automotive Service

Foreign Automotive Service was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during subsequent site visits. Historic aerial photos indicate that this property may have been developed as far back as 1973 (the oldest photographic record available for this area). Based on the above information, this site was given a rating of **low**. The location of this site (***6-HM/HW-L***) in relation to the proposed project is shown on Sheet 2 of Appendix A.

Site 7
B and D Lawnmowers and Power Sports

B and D Lawnmowers and Power Sports was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil), however, was not observed during subsequent site visits. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest photographic record available for this area). Based on the above information, this site was given a rating of **low**. The location of this site (***7-HM/HW-L***) in relation to the proposed project is shown on Sheet 2 of Appendix A.

Site 8
Scott's Complete Auto Repairs

Scott's Complete Auto Repairs was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil), however, was not observed during subsequent site visits. Historic aerial photos indicate that this property was not developed in 1973. Based on the above information, this site was given a rating of **low**. The location of this site (***8-HM/HW-L***) in relation to the proposed project is shown on Sheet 2 of Appendix A.

Site 9
Easy Wheels

Easy Wheels was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil), however, was not observed during subsequent site visits. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest aerial photograph available for the area). Based on the above information, this site was given a rating of **low**. The location of this site (***9-HM/HW-L***) in relation to the proposed project is shown on Sheets 2 and 3 of Appendix A.

Site 10
Robert's Automotive

Robert's Automotive was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil), however, was not observed during subsequent site visits. Historic aerial photos indicate that this property was not developed in 1973. Based on the above information, this site was given a rating of **low**. The location of this site (***10-HM/HW-L***) in relation to the proposed project is shown on Sheet 3 of Appendix A.

Site 11
Hernando Hwy 200 Dump
Facility ID #39872

This site involves a 4-acre plot adjacent to the eastern property boundary of Under the Sun Sales and Service. The exact boundaries of this historic landfill are unknown. Information from FDEP indicates a landfill was operated by the City of Hernando in the late 1960's to the mid-1970's. The actual contents of the landfill are unknown; however, according to the FDEP files for this site, only

residential and commercial refuse was dumped there. The landfill was not lined with conventional liner material. Refuse was reportedly burned in abandoned clay pits.

According to the FDEP, no discharge records were reported for the above-mentioned property. A copy of the site cover page from the FDEP Ground Water Management System database has been included in Appendix D. The risk rating for potential HM/HW contamination to affect the project is **high** for this site based on the lack of available information. The location of this site (***11-HM/HW-H***) in relation to the proposed project is shown on Sheet 3 of Appendix A.

Site 12
Dinkins Property, C L
Facility ID #8942997

Citrus County Department of Health records and historic aerial photos indicate a gas station historically existed at 4473 N. Carl G. Rose Highway. Current land use at this address is paved parking for Gennie D's Home Cooking and The Clip Joint Salon. Three 4000-gallon USTs (one leaded gasoline; two unleaded gasoline) and the associated distribution lines were removed from this site in April 1990. The tanks were located approximately 40 feet east of the existing right of way of S.R. 200.

Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during subsequent site visits. A Closure Assessment Form has been included in Appendix D. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest aerial photograph available for the area). Based on the above information, this site was given a rating of **medium**. The location of this site (***12-P-L***) in relation to the proposed project is shown on Sheet 5 of Appendix A.

Site 13
Professional Pest Control

Professional Pest Control was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during subsequent site visits. Historic aerial photos indicate that this property was not developed in 1973. Based on the above information, this site was given a rating of **low**. The location of this site (***13-HM/HW-L***) in relation to the proposed project is shown on Sheet 7 of Appendix A.

Site 14
Hernando Veterinary Clinic

Hernando Veterinary Clinic was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is

still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil), however, was not observed during subsequent site visits. Historic aerial photos indicate that this property was not developed in 1973. Based on the above information, this site was given a rating of **low**. The location of this site (***14-HM/HW-L***) in relation to the proposed project is shown on sheets 8 and 9 of Appendix A.

Site 15
Gary and Carol's Wildlife Art

Gary and Carol's Wildlife Art was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination or spills was not observed during site visits. Historic aerial photos indicate that this property was not developed in 1973. Based on the above information, this site was given a rating of **low**. The location of this site (***15-HM/HW-L***) in relation to the proposed project is shown on Sheets 8 and 9 of Appendix A.

Site 16
Kwik Stop – Patel and Patel
Facility ID #8503172

The Kwik Stop Food Mart is a gas station with accompanying convenient store located on the northeast corner of S.R. 200 and Orchid Street. Two 8000 gallon USTs (unleaded gasoline and diesel) are located approximately 15 feet east of the existing right of way of S.R. 200. Two 8000 gallon USTs (unleaded gasoline) and associated distribution lines were removed from this site in April 1993. The tanks were located approximately 25 feet east of the existing right of way of S.R. 200.

Monitoring wells at the site include compliance wells required for the in-service unleaded and diesel USTs. The current Storage Tank Facility Compliance Inspection Report has been included in Appendix E. A Tank Closure Assessment Report has also been included in Appendix E. Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during site visits. An assessment of the site has not been performed; therefore, this site was given a rating of **medium**. Historic aerial photos indicate that this property was not developed in 1973. The location of this site (***16-P-M***) in relation to the proposed project is shown on Sheets 8 and 9 of Appendix A.

Site 17
Auto Menders Inc.

Citrus County Property Appraiser records and historic aerial photos indicate an auto body shop (Auto Menders Inc.) historically existed at 6809 N. Highway 200. Current land use at this address is an auto body shop identified as Clark's Auto Repair Center. Physical evidence of contamination or spills; however, was not observed during site visits. Historic aerial photos indicate that this property

was developed as far back as 1973 (the oldest aerial photograph available for the area). Based on the above information, this site was given a rating of **low**. The location of this site (***17-HM/HW-L***) in relation to the proposed project is shown on Sheet 9 of Appendix A.

Site 18
Genie Wall Units

Genie Wall Units was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during subsequent site visits. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest aerial photograph available for the area). Based on the above information, this site was given a rating of **low**. The location of this site (***18-HM/HW-L***) in relation to the proposed project is shown on Sheet 9 of Appendix A.

Site 19
C&M Paint and Body Shop

C&M Paint and Body Shop was identified on the 2000 project aerial photos following the initial site reconnaissance visit. Although this site was not reported in the USEPA and FDEP databases, there is still a potential for HM/HW contamination based on the inferred nature of the business. Physical evidence of contamination (stressed vegetation) or spills (stained soil); however, was not observed during subsequent site visits. Historic aerial photos indicate that this property was not developed in 1973. Based on the above information, this site was given a rating of **low**. The location of this site (***19-HM/HW-L***) in relation to the proposed project is shown on Sheet 9 of Appendix A.

Site 20

Handy Way Food Store
Facility ID #9063811

The Handy Way Food Store is a gas station with accompanying convenient store located on the southwest corner of S.R. 200 and Withlacoochee Trail. Four USTs (three 8000-gallon unleaded gasoline and one 3000-gallon vehicular diesel) are located approximately 100 feet west of the existing right-of-way of S.R. 200. Monitoring wells at the site include compliance wells required for the in-service unleaded and diesel USTs. The current Storage Tank Facility Compliance Inspection Report has been included in Appendix D.

Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during subsequent site visits. Historic aerial photos indicate that this property was not developed in

1973. No assessment reports have been prepared for this site; therefore, this site was given a rating of **medium**. The location of this site (***20-P-M***) in relation to the proposed project is shown in Appendix A.

Site 21
Food Mart
Facility ID #8503152

The Food Mart is a gas station with accompanying convenient store located on the northwest corner of S.R. 200 and Withlacoochee Trail. Three 8000-gallon USTs (unleaded gasoline) are located approximately 50 feet west of the existing right-of-way of S.R. 200. Monitoring wells at the site include compliance wells required for the in-service unleaded USTs. The current Storage Tank Facility Compliance Inspection Report has been included in Appendix E.

Physical evidence of contamination (stressed vegetation) or spills (stained soil) was not observed during subsequent site visits. Historic aerial photos indicate that this property was developed as far back as 1973 (the oldest aerial photograph available for the area). No assessments have been conducted at this site; therefore, this site was given a rating of **medium**. The location of this site (***21-P-M***) in relation to the proposed project is shown on Sheet 13 of Appendix A.

9.2 Impacts by Alternative

Each of the eight alternatives described in Table 1 were evaluated for potential impacts from contamination. Overall, the potential for contamination to affect the project is low. However, use of the right-of-way proposed by those alternatives whose alignment widens to the left (3-5-6 and 3-5-R) would even further minimize the potential for the project to be impacted by contamination sources that may exist outside the right-of-way. An evaluation matrix that summarizes the greatest potential for contamination by alternative is presented in Table 3.

9.3 Impacts by the Preferred Alternative

Table 4 presents the potential impacts from contamination for the preferred alternative. Based on this analysis, a total of nine sites, five with a risk rating of low (5-H'M\HW-L; 6-HM\HW-L; 7-HM\HW-L; 18-HM\HW-L; 19-HM\HW-L) and four with a risk rating of medium (12-P-M; 16-P-M; 20-P-M; 21-P-M).

10. CONCLUSIONS AND RECOMMENDATIONS

This report describes the facilities within the project study corridor where potential contamination could affect the project during construction. Twenty-one such sites were identified and evaluated through FDEP and USEPA record searches, aerial photography, and site investigations. The sites were rated either no, low, medium, or high for their potential to contain petroleum or HM/HW contamination.

The objective of the FDOT is to avoid sites associated with petroleum and hazardous materials contamination. In order to confirm or refute possible contamination involvement, it is recommended that a Level II Contamination Assessment be conducted for the preferred alternative, if additional right-of-way is required, prior to construction. This Assessment should focus on the rated sites within the project corridor that will be directly impacted by construction of the alternative. The Level II Contamination Assessment should include field sampling and quantitative analysis of soils and groundwater.

It must be recognized that limitations exist for hazardous materials and petroleum contamination screening. The Level I Contamination Assessment for this study did not involve sampling the sites' soil, groundwater, and surface water and, therefore, does not preclude those unreported and undiscovered hazardous materials, petroleum products, and other regulated substances that may have occurred on private property or deposited during the construction of residences or parking facilities. This evaluation does not provide a certification as to the absence of HM/HW or petroleum contamination in the project vicinity, but does decrease the chance that unknown contamination will be encountered.

The FDOT has evaluated the proposed right-of-way and has identified potential contamination sites, i.e., petroleum contamination, along the proposed project corridor. Resolution of problems associated with contamination will be coordinated with the regulatory agencies, and prior to construction, appropriate action will be taken.

11. REFERENCES

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Appendix A

Project Corridor Aerial Photographic Series with Potential Contamination Sites Identified on Preliminary Alternatives

Appendix A

Project Corridor Aerial Photographic Series with Potential Contamination Sites Identified on Preferred Alternative

Appendix B

Correspondence

Appendix C

Field Notes

Appendix D

EDR Database Radius Search

Appendix E

Site Information from USEPA, FDEP, and Citrus County Environmental Health Department Files

Appendix F

Site Photographs