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Final

Preliminary Engineering Report

County Road 470

From Florida's Turnpike to U.S. 27

Financial Project Number: 410372-1
Financial Aid Project Number: 410372-1-54-01

Lake County, Florida

Prepared For:

Lake County Department of Public Works

August 2004

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520 South Magnolia Avenue ▪ Orlando, Florida ▪ 32801 ▪ (407) 843-5120

County Road 470

Engineering Design Analysis

Table of Contents

County Road 470

Engineering Design Analysis

List of Tables

\\admin\LK3\Report\ListofTables1

County Road 470
Engineering Design Analysis

List of Figures

County Road 470

Engineering Design Analysis

List of Appendices

Appendix A **Conceptual Plans**

Appendix B **Public Involvement**

- Advance Notification Package
- County Road 470 Project Newsletter – Issue 1
- Public Information Workshop Notice
- County Road 470 Newsletter – Issue 2
  - Mail-out List
  - Sign-In Sheets for Public Meeting 1
  - Question/Answers for Public Meeting 1
  - Comments
- Notice of Public Information Workshop
  - Sign-In Sheets
  - Questions/Answers
  - Comments
- County Road 470 Project Newsletter – Issue 3
- Public Hearing Notice
  - Public Hearing Handout
  - Sign-In Sheet for Public Hearing
  - Public Hearing Transcript
- County Road 470 Project Newsletter – Summary
- State Historic Preservation Office Determination of Effects

EXECUTIVE SUMMARY

The Lake County Public Works Department has conducted a Project Development and Environment (PD&E) Study that addresses the proposed roadway improvements to County Road 470 (CR 470) in Lake County, Florida. The project extends from west of the Florida's Turnpike easterly to east of US 27, a distance of approximately 5.3 miles.

The objective of this PD&E Study was to document the environmental and engineering analysis used by Lake County to reach a decision on the type, location and conceptual design of the required improvements to CR 470. The proposed improvements are required to accommodate future traffic demand safely and efficiently while serving the local needs of the community. The proposed improvements consist of widening CR 470 to a four-lane divided roadway throughout the project limits.

The driving force behind the expanded roadway is the planned interchange between CR 470 and the Florida's Turnpike. The Turnpike Enterprise has performed a PD&E Study for the interchange area and have completed final plans for a full access interchange at CR 470. Construction of this interchange will begin in the summer of 2003 and be completed in 2005. The interchange will increase traffic on CR 470 between the Turnpike and US 27 and also will likely promote development along the corridor.

Preferred Alternative

The preferred typical section consists of a four-lane divided roadway. From the beginning of the project to Bay Street, the typical section will be a rural section with two twelve-foot travel lanes and five-foot paved shoulders in each direction. The travel lanes will be divided by a 40-foot wide depressed, grassed median and sidewalks will be provided along both sides. Drainage will be provided by roadway swales and conveyed to retention ponds. This typical section requires 160-feet of right-of-way. This typical section is consistent with the CR 470 typical section developed by the Turnpike for the interchange project. This preferred typical section is illustrated in Figure 48.

From Bay Street to the project terminus, a four-lane divided urban roadway section is preferred. This typical consists of two twelve-foot travel lanes in each direction separated by a raised 22-foot wide median and Type E curb and gutter. A Type F raised curb and gutter and sidewalks are provided along both sides of the roadway. Stormwater runoff is collected in curb inlets and conveyed underground in pipes to retention ponds. This typical section requires a total of 100 feet of right-of-way and is illustrated in Figure 46.

County Road 470

Project Development and Environmental Study

1.0 SUMMARY

1.1 Commitments

This Project Development and Environment (PD&E) Study addresses the proposed roadway improvements that are required for the widening of County Road 470 (CR 470) in Lake County, Florida. The project begins west of the Florida's Turnpike and extends easterly approximately 5.3 miles to its terminus east of US 27. Within the project limits, the Turnpike Enterprise has already completed a PD&E Study for the proposed Turnpike/CR 470 interchange. The Turnpike Interchange Study and recommendations are incorporated into this Study.

In Lake County, CR 470 has been classified as a rural arterial. The corridor traverses a variety of land uses, including agricultural/undeveloped, residential and commercial/business. CR 470 serves as a transportation connector between Sumter County and US 27.

Existing CR 470 is a two-lane, rural roadway with open ditch drainage. Stormwater runoff from the roadway is typically collected in roadside ditches and conveyed to low lying areas.

The existing posted speed varies from 35 to 55 mph along the corridor. On the west end of the project, the speed limit is posted at 55 mph. In the area of Okahumpka, the posted speed is between 35 and 45 mph. From CR 33 to US 27, the posted speed limit is 45 mph. CR 470 currently spans over the Florida's Turnpike with no access provided. However, the Turnpike will be replacing the existing CR 470 bridge over the Turnpike and constructing ramps to provide full Turnpike access. In addition, there are two signalized intersections along the corridor at CR 33 and US 27. Also, the CR 470 bridge over the Palatlakaha River located just east of US 27, will be widened to accommodate intersection improvements at the US 27 intersection.

The driving force behind improving the roadway is increased traffic demand that will be generated by the addition of the Turnpike/CR 470 interchange. The interchange will not only increase traffic by providing a direct link between the Turnpike and US 27, but will also promote additional commercial, industrial and residential growth along the corridor and surrounding areas.

Lake County will adhere to the following commitments with regard to the proposed improvements to CR 470:

- Lake County is committed to continuing coordination with the Turnpike Enterprise and the City of Leesburg regarding interchange improvements, side street improvements, stormwater retention pond locations and other amenities such as lighting and landscaping.

- Lake County will coordinate the roadway improvements with the City of Leesburg within their property located just east of the interchange. The City of Leesburg is conducting a study to determine the feasibility of developing an industrial park on this City owned property. Lake County will coordinate with the City of Leesburg to accommodate the results and recommendations of the feasibility study into the final design of the roadway, including issues related to median openings, driveway access, pond locations and aesthetic enhancements. The City of Leesburg has expressed a willingness to work with Lake County with regards to right-of-way, joint use retention ponds and other roadway enhancements.

- The background research revealed one historic structure within the project limits. The Campbell House, a Frame-Vernacular style residence constructed around 1880, is listed in the National Register of Historic Places. This structure is located at 3147 CR 470 in Okahumpka and the property borders the CR 470 right-of-way. Lake County has committed to ensuring that there will be no impacts to this historic site. The proposed typical section along the roadway frontage of the Campbell House will consist of a four-lane divided urban facility. The typical consists of two twelve-foot lanes in each direction separated by a 22-foot wide raised median. Curb and gutter and concrete sidewalk will be constructed along the roadway. This typical section will be constructed within the existing 100-foot wide right-of-way. There will be no right-of-way acquired for the roadway construction from the Campbell House property. Lake County commits to coordinate with the Campbell House owners during design to provide a vegetative screen to mitigate the impacts of the roadway improvements (See SHPO letter, Appendix B). In addition, Lake County commits to utilizing design and construction techniques to eliminate encroachment onto the property. The property along the roadway frontage will be staked during construction. The roadway frontage will be sodded after construction to maintain the visual aesthetics of the site. Access to the property will be maintained.

- U.S. Fish and Wildlife Service (USFWS) approved Standard Protection Measures will be implemented for protection of the Eastern Indigo Snake. This plan will be developed during final design and coordinated with the appropriate agencies.

- Wetland impacts, which will result from the construction of this project, will be mitigated through either the creation of wetlands or preservation and/or enhancement of existing wetlands. Wetland impacts and mitigation will be coordinated and permitted through the St. John's River Water Management District and the United States Army Corps of Engineers.

- The reduction of floodplain storage created by the project construction will be compensated for to minimize the potential for flood damage to adjacent properties. Floodplain impacts will be compensated for on a 'cup-for-cup' basis as required by Lake County.

1.2 Recommendations

This section summarizes the design recommendations for the preferred build alternative. Detailed analysis of the engineering and environmental issues associated with the preferred alternative is presented in Section 9 of this Preliminary Engineering Report.

1.2.1 Study Alternatives

Several alternatives were developed and evaluated for the project, including the No-Build and Transportation System Management (TSM) alternatives (see Section 8 of this Report). The Build Alternatives considered included urban, suburban and rural four-lane divided roadways.

1.2.2 Alternatives Evaluation

As discussed in Section 7 of this Report, the only corridor considered feasible for this transportation improvement was the existing CR 470 corridor. Three alternative typical sections were developed and evaluated for the four-lane widening. The alignments considered were left, right and centered widenings, except in the area of the existing S-curves located east of the Turnpike. In this area, three alignment alternatives were evaluated to improve the operational and safety aspects of the roadway. The evaluation matrix prepared and presented to the public at the second public meeting, is included as Table 5. The alternative that was selected from this comparative analysis was further refined and the costs and impacts associated with the recommended improvements are included in Chapter 9 of this Report.

1.2.3 Recommended Typical Sections

As a result of the comparative evaluation of the alternatives, it was determined that the proposed improvements should consist of two different typical sections for different segments of the roadway.

A four-lane divided rural section is proposed from the beginning of the project to Bay Street. The rural typical section is consistent with the CR 470 improvements at the Turnpike interchange and are compatible with the agricultural/undeveloped land usage along this segment. The rural four-lane, divided typical section includes two-twelve foot lanes and a 5-foot paved shoulder in each direction. The travel lanes are separated by a 40-foot wide depressed median. Roadside ditches will convey

stormwater runoff to retention facilities. A sidewalk along both sides will be provided. Approximately 160 feet of right-of-way is required for this section.

An urban typical section is recommended from Bay Street to the end of the project. This typical is compatible with the residential and commercial land uses along this segment of the roadway. The four-lane divided urban typical section will include two twelve-foot lanes in each direction separated by a 22-foot raised median with Type E curb and gutter. Type F curb and gutter and five-foot sidewalks will be provide along each side of the roadway. Drainage will be collected in curb inlets and conveyed by underground pipes to retention ponds. This typical section requires approximately 100-feet of right-of-way. Figures 46 and 48 illustrate these typical sections.

1.2.4 Recommended Roadway Alignment

The recommended alignment of CR 470 follows the existing alignment except for the curved alignment area just east of the Turnpike interchange. The existing reverse curves in this area are substandard and do not provide for the recommended design speed. To improve the safety and operational aspects of the facility, the roadway was realigned to flatten the curves. The realignment occurs within the City of Leesburg spray field property.

The urban typical section can be constructed within the existing right-of-way. Additional right-of-way will be required in high fill areas, for side street improvements, at intersections requiring multiple turn lanes and for stormwater retention ponds. The concept plans for the recommended roadway improvements are included in Appendix A of this Report.

1.2.5 Recommended Turnpike/CR 470 Interchange

The Turnpike Enterprise has recently completed a PD&E Study and the final design for the proposed Turnpike/CR 470 interchange. This project is scheduled to begin construction in the summer of 2003 and be completed in 2005. The improvements and Impacts within the footprint of the interchange were identified and addressed in the interchange PD&E Study project. The interchange concept is for CR 470 to be a four-lane divided rural roadway within the interchange limits. The initial interchange project will construct one of the two-lane twin structures required for the ultimate four-laning. This study proposes to construct the remaining bridge structure and additional two-lanes to complete the four-lane facility. The interchange drainage system is being designed to accommodate the future four-lane CR 470 improvements.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Preliminary Engineering Report is to document the findings of the engineering and environmental evaluation for the proposed improvements to CR 470 in Lake County, Florida. This report provides the information necessary to confirm the need for the project, documents the development and evaluation of improvement alternatives and cites the pertinent data regarding the preliminary design.

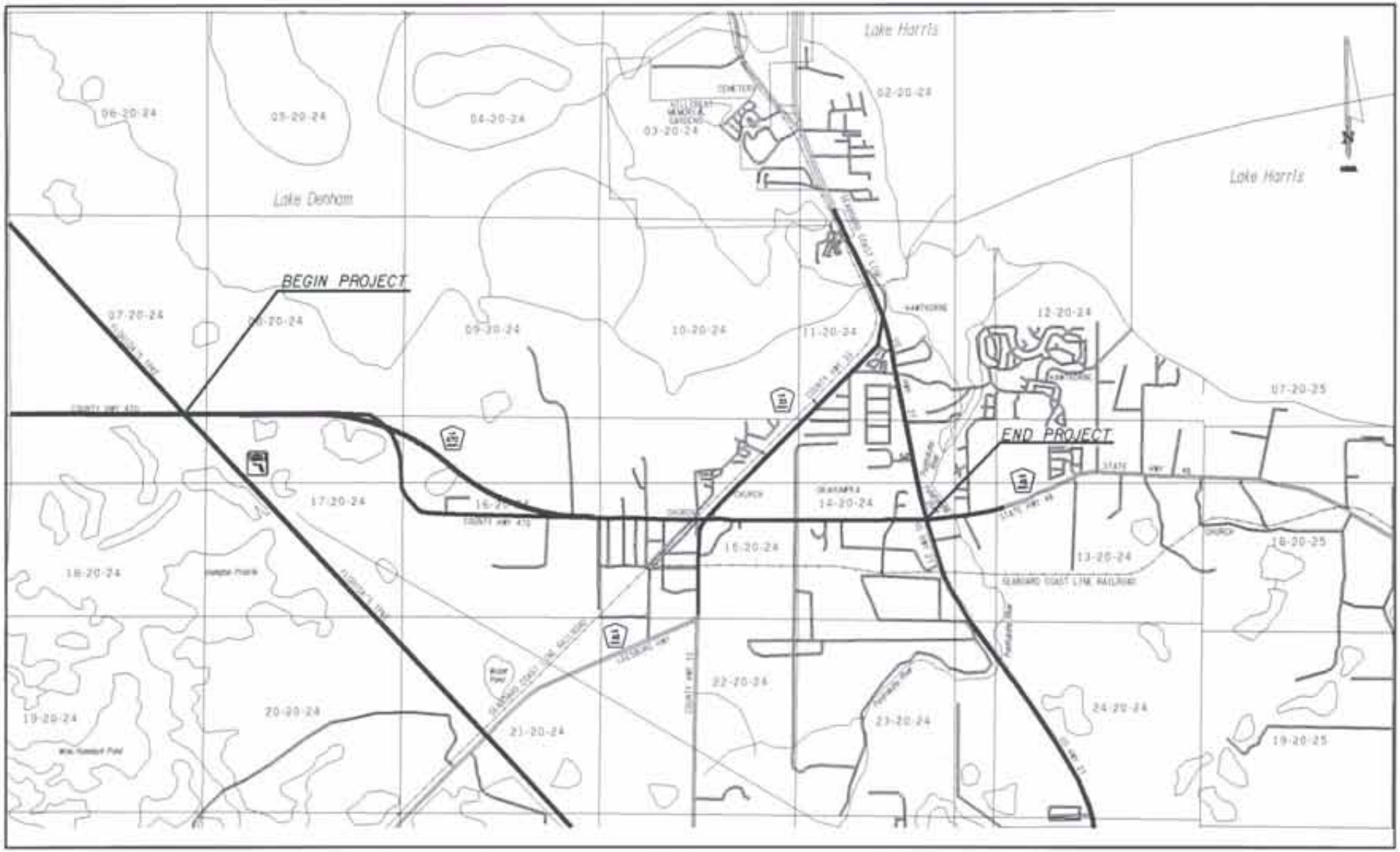
This study documents the existing physical features of the roadway and the existing environmental characteristics of the project corridor. The study identifies the deficiencies in the existing facility and develops improvement alternatives that will provide adequate roadway service commensurate with social, economic and environmental impacts. It also defines the need for the improvement, including the analysis of existing and projected traffic conditions that establish the requirements for the proposed project improvements. The proposed full interchange between CR 470 and Florida's Turnpike will play a major role in this study and thus in the recommendations of this document. The results of the analysis are summarized in an alternatives evaluation matrix that compares the relative impacts and costs of individual alignment and typical section alternatives. The recommended alternative shall be consistent with federal, state and local goals and objectives, for the widening/reconstruction of County Road 470.

This report will serve as the document of record to move this project forward and to support the subsequent engineering decisions as the project advances through the design and construction phases. This Project Development and Environmental (PD&E) Study was conducted in accordance with Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA) requirements.

2.2 Project Description

This PD&E study examines approximately 5.3 miles of County Road 470 within Lake County, Florida. The project begins west of Florida's Turnpike and extends eastward to east of US 27. The western end of the project is located within the City of Leesburg. The middle portion of the project is located within the unincorporated area of Okahumpka. The eastern end of the project is located within unincorporated Lake County. **(See Figure 1- Location Map)**.

Within the project corridor, County Road 470 has generally an east-west alignment. A reverse curve is located just east of the Turnpike that brings the road approximately ½ mile south from its original alignment. The typical section of the existing roadway consists of a two-lane roadway with unpaved shoulders and roadside ditches for stormwater conveyance. At the intersections, a



LOCATION MAP
CR 470 (FLORIDA'S TURNPIKE TO US HIGHWAY 27)
LAKE COUNTY, FLORIDA

FIGURE 1

third lane is introduced to allow left-turn movements. A grade-separated bridge carries CR 470 over the Florida's Turnpike near the west end of the project. There are two signalized intersections along the project corridor. The first intersection is at County Road 33, which runs northeast to southwest. The second intersection is at US Highway 27, which runs north-south, and is located near the east end of the project.

3.0 NEED FOR IMPROVEMENT

3.1 Need for Improvement

The need for improvement to this facility is based on several factors. The first of these factors is to improve the operational characteristics and capacity to meet the projected traffic volumes in the area. The second factor is to improve safety and reduce accidents along the corridor. With the anticipated traffic growth in the area, the number of accidents can be expected to increase if no improvements are made to the existing roadway system. Thirdly, improvements to CR 470 will help meet the socio-economic demand of the area. Finally, improvements to CR 470 are consistent with the Lake County Comprehensive Plan. This section of the report presents the findings relative to each of these areas and a review of the recommendations presented by the local comprehensive planning efforts.

3.2 Deficiencies

3.2.1 Capacity

The No-Project alternatives analysis was conducted on the study corridor to document the need for additional capacity/geometric improvements. No-Project Year 2027 Annual Average Daily Traffic (AADT) volumes on CR 470 from the Turnpike to US Highway 27 range from 22,317 to 26,504. CR 470 would operate below the minimal acceptable Level of Service (LOS) D. In addition to the roadway deficiencies, both the CR 33 and US 27 intersections will operate below the minimum acceptable LOS D.

3.2.2 Safety

The proposed improvements to this facility include the construction of additional travel lanes and sidewalks on each side of the road. The new typical section will satisfy future traffic demands and will provide a safe media for pedestrians and incoming traffic from side streets.

4.0 EXISTING CONDITIONS

4.1 Existing Roadway Characteristics

4.1.1 Functional Classification

CR 470 is functionally classified as a rural arterial within the project limits.

4.1.2 Typical Section(s)

The existing typical section for CR 470 from west of Florida's Turnpike to east of US 27 is a two-lane rural roadway. Travel lanes are approximately 12-feet wide with two-foot paved shoulders. The stormwater runoff is conveyed to roadside ditches on both sides of the road. **(See Figure 2 – Typical Section 1).**

At the intersections of CR 470 with CR 33, and at the intersection of CR 470 with US Highway 27, the typical section changes to a 3-lane facility, to allow for left turn lanes. **(See Figure 3 – Typical Section 2).**

4.1.3 Pedestrian and Bicycle Facilities

There are no pedestrian or designated bicycle facilities provided within the project limits other than a few short lengths of sidewalk in areas of recent property development.

4.1.4 Right-of-Way

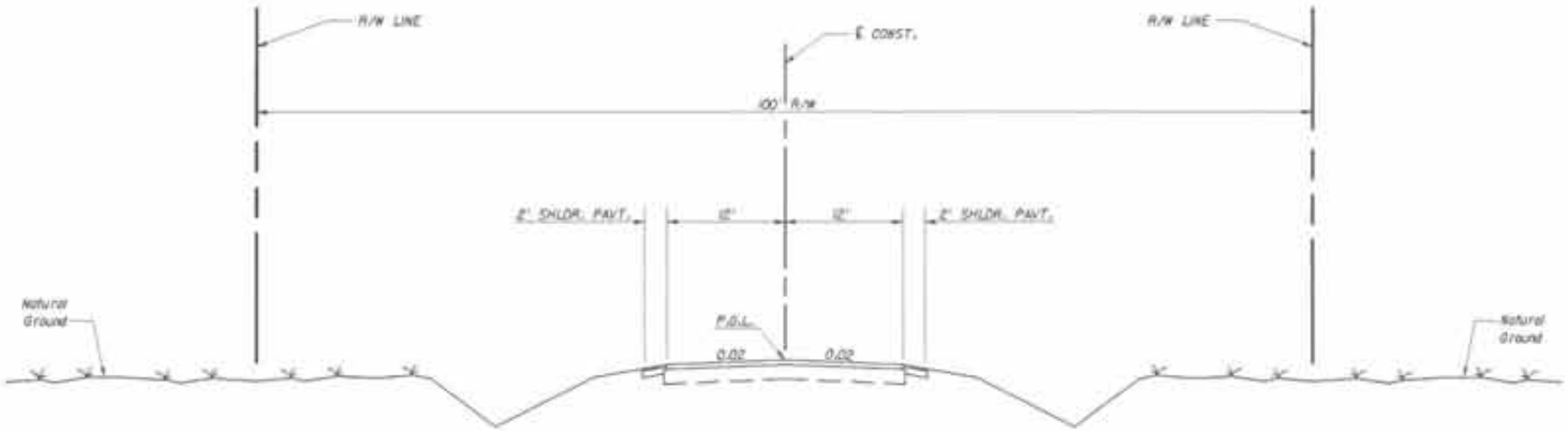
The existing right-of-way for the CR 470 corridor varies throughout the project length, but is typically 100 feet. The determination of the extents of the existing right-of-way for CR 470 included a review of the County Tax Maps provided by Lake County. See **Table 1** for a list of the right-of-way limits for the project.

Table 1
Existing Right-of-Way

Approx. Station Limits (1)	Width (ftl)	Left (ft.)	Right (ft.)
10+00 to 30+00	102-104.5	(51-53.5)	51
30+00 to 92+00 (2)	VARIES	VARIES	VARIES
92+00 TO 286+00	100	50	50

(1) All stationing refers to Survey Line

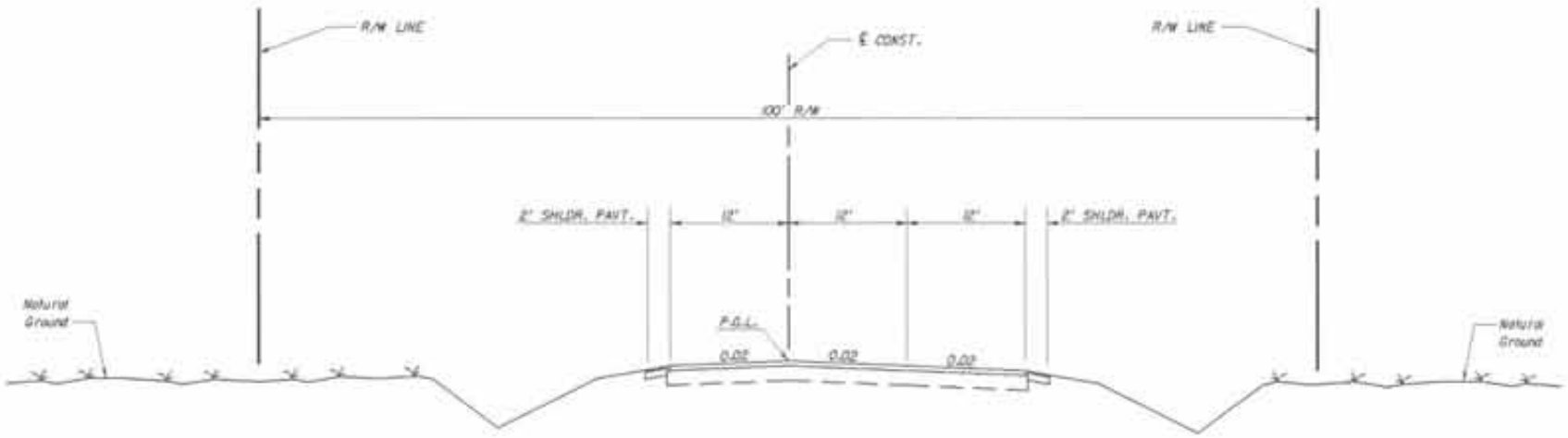
(2) Within Turnpike Interchange Limit



TYPICAL SECTION-1

EXISTING 2-LANE RURAL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY	Lake County	FIGURE NO. 2



TYPICAL SECTION-2
EXISTING 2-LANE RURAL
W/ LEFT TURN LANE

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY

Lake County

FIGURE NO. 3

4.1.5 Horizontal Alignment

The study section of County Road 470 begins west of Florida's Turnpike at station 10+00.00. The corridor alignment runs east to station 104+42.40. An "S" curve is then introduced to the alignment beginning at station 104+42.40.

Curve No. 1 turns right with a radius of 1,150 ft. and a length of 1807.80 ft. with it's PC located at station 122+50.20. Following the curve is a 373.00 ft. tangent, which meets Curve No. 2 at station 126+23.87. Curve No. 2 turns left with a 1150.00 ft. radius and a length of 1,797.67 ft., bringing the road approximately one-half mile south of it's beginning alignment.

The PT of Curve No. 2 is located at station 144+21.53. At this station the alignment has an east-west orientation to station 267+71.04 where a Curve No. 3 is introduced. This curve has a radius of 5,700 ft and a length of 901.56 ft., shifting the alignment further north. At station 276+72.61, the PT for Curve No. 3, there is a 975.20 ft tangent, which ends at station 286+47.83. Station 286+47.83 is the PC for Curve No. 4, which has a radius of 5,600 ft and a length of 536.51. This curve ends at station 291+84.34, which is the end of project station.

4.1.6 Vertical Alignment

The study corridor begins west of the bridge that crosses Florida's Turnpike. There is a crest vertical curve on the alignment to accommodate the existing bridge. East of the bridge, the vertical alignment is fairly level with some vertical curves along the alignment, which delineate the various drainage basins found along the corridor.

After conducting a field review of the project, there appeared to be no sight distance problems with the existing vertical alignment. However, a detailed topographic survey will be part of the design process, which will determine if the existing profile grades are adequate for sight distance, stormwater runoff, etc.

4.1.7 Drainage

4.1.7.1 Overview

The CR 470 corridor contains multiple closed basins that may overtop in larger storm events depending on several hydrologic factors. An open basin is located at the eastern end of the project that discharges into the Palatlakaha River. The entire project is located in the St. Johns River Water Management District (SJRWMD) and the area east of Florida's

Turnpike is within the Ocklawaha River Basin, which has special criteria for stormwater management. The drainage design for the area adjacent to the Turnpike has been included in the proposed interchange to be constructed by the FDOT's Turnpike District (FPID No. 404214-1-52-01).

Existing CR 470 has a rural drainage system consisting of roadside swales and cross drains at low points. The storm water runoff is discharged without treatment or attenuation.

4.1.7.2 Drainage Basins

Small, isolated basins that may or may not overtop in larger storm events characterize this area of Lake County. The low areas within these basins may be wet, dry or intermittently submerged. Ditches or pipes have drained some of these existing low areas through the years, while others have been maintained in their natural condition. The roadway is currently drained by a roadside swale system that collects the runoff and transports the water to the low areas.

4.1.7.3 Drainage Structures

There are fourteen existing cross drains on the corridor, not including the bridge over the Palatlakaha River. A detailed analysis of these cross drains is provided in a separately bound "Location Hydraulics Report" for the CR 470 project. Table 2 contains an inventory of existing cross drains.

Table 2: Inventory of Existing Cross Drains

Cross Drain No.	Station	Size (ft)	Flow Direction	Structure Length
1	17+33.57	30"RCP	S-N	72.50
2	52+15.82	36"RCP	S-N	192.00
3	81+20.87	30"RCP	S-N	138.00
4	100+23.20	24"RCP	S-N	50.00
5	114+82.82	24"RCP	S-N	60.00
6	1244.50 ft North of Sta. 146+81.97 on CR 470	24"RCP	S-N	N/A
7	508.17 ft North of Sta. 158+57.01 on CR 470	4 @ 30"RCP	S-N	N/A
8	171+04.00	24"RCP	N-S	48.00
9	188+00.80	24"RCP	S-N	57.00
10	210+64.00	24"RCP	S-N	55.00
11	213+00.00	24"RCP	S-N	55.00
12	214+63.30	18"RCP	S-N	97.00
13	243+59.50	30"RCP/EB 2' x 2' Concrete Box	S-N	69.00
14	273+20.20	24"RCP	S-N	82.00

4.1.7.4 Surface Water Management

The project is contained wholly within the SJRWMD and Lake County. SJRWMD has specific criteria related to the Ocklawaha River Basin in addition to its standard criteria for water quality and quantity. The criteria will also change if the basin is opened or closed. The criteria are located in Section 11.2 of the SJRWMD Applicants Handbook: Management and Storage of Surface Waters.

Lake County stormwater criterion is outlined in the Lake County Land Development Regulations in Section 9.06.00-Stormwater Management.

4.1.8 Geotechnical Data

Based on the United States Geological Survey (USGS) "Leesburg West", "Howey-in-the-Hills" and "Center Hill" Florida Quadrangle Maps, the project ranges in elevation from about +70 feet NGVD to +100 feet NGVD. The quadrangle map indicates several areas of wetlands throughout the project area, especially to the north surrounding Lake Denham. Areas containing citrus groves are also shown on the quadrangle map. Sections of the USGS "Leesburg West", "Howey-in-the-Hills" and "Center Hill" quadrangle maps for the entire project are shown in **Figure 4**. A detailed analysis of the soil conditions can be found under separate cover in the "PD&E Soil Survey Report". A Soils Map delineating the soils in the vicinity is presented in **Figure 5** of this report.

The geology of the area is conducive to the development of sinkholes. The solution features within the limestone can collapse or can allow downward movement of overlying soils, know as raveling, to produce depressions at the surface, which are typically circular in shape. Sinkholes can occur nearly anywhere in Central Florida, but are more likely to occur in areas characterized by thin confining beds, large differences between the water table elevation and the Floridian aquifer potentiometric level and the presence of limestone in relatively close proximity to the ground surface. However, the probability of a sinkhole occurring within a relatively small site, even in an area regarded as "high risk area" with regard to sinkhole activity, is very low.

Some of the soil types indicated on the USDA Soil Survey include the presence of organic soils and ponded water levels during periods of heavy rainfall. Final grades for the roadway will have to account for these seasonal high groundwater levels. Earthwork calculations will have to consider the removal of highly compressible

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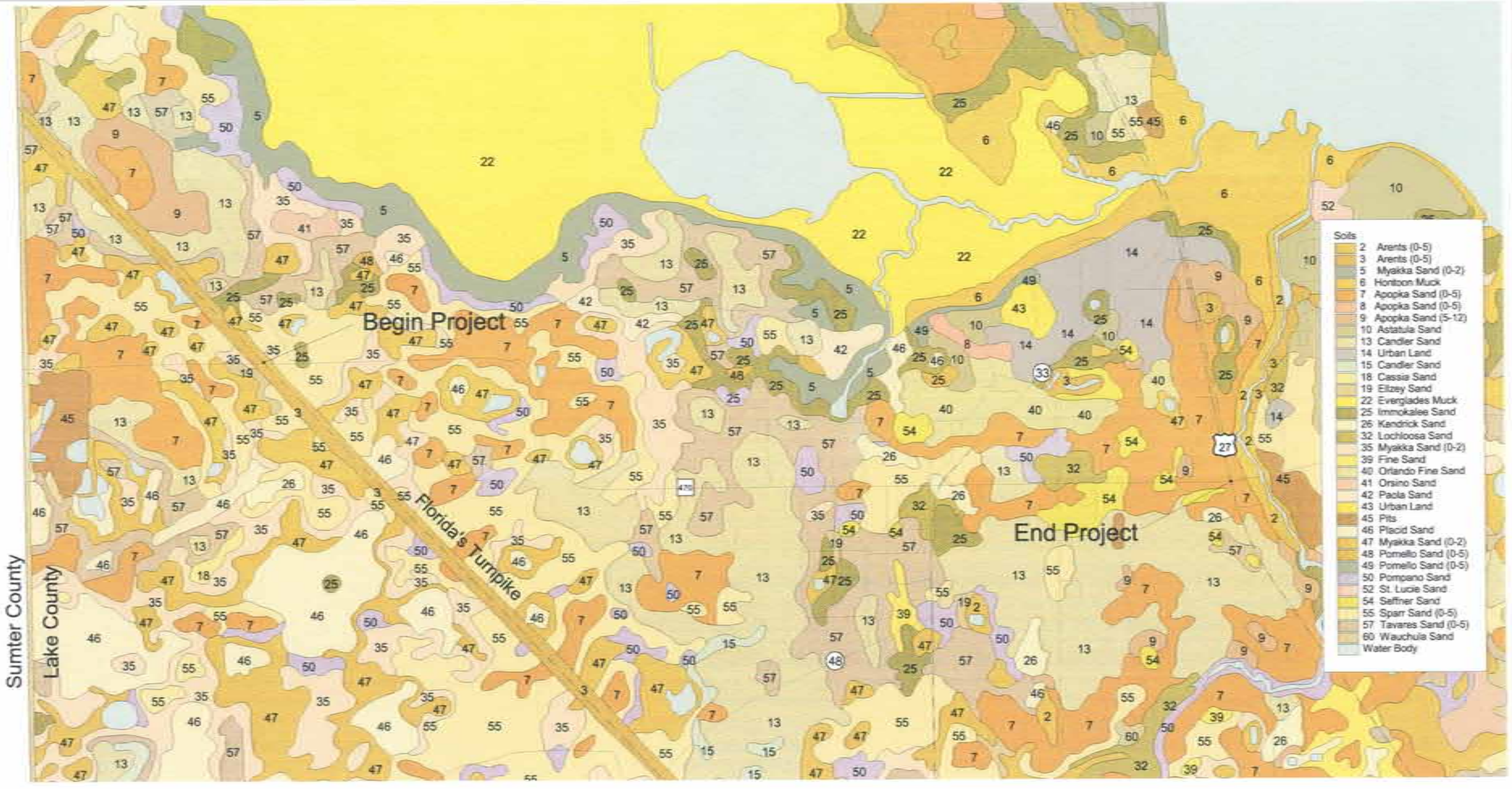
N

Not to Scale

Data Source: FGDL - USGS

Figure 4

CR 470
Lake County, Florida
USGS Quadrangle



STATE OF FLORIDA
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Figure 5

CR 470
Lake County, Florida
Soil Survey

organic soils and also removal of any highly plastic clayey soils. It is anticipated that some removal of organic soils will be required but that relatively minor removal of plastic soils will be required.

4.1.9 Accident Data

Crash data for the segment of CR 470 beginning at the Turnpike and ending at US Highway 27, was collected from the City of Leesburg and Lake County. This data was reviewed as part of the overall evaluation for the corridor, and to identify safety deficiencies. An overall summary of accidents for this corridor is presented in Table 3.

4.1.10 Intersections and Signalization

There are currently two (2) signalized intersections within the study area. These installations are at the following locations:

- CR 470 / CR 33
- CR 470 / US 27

No other intersections are currently proposed or warranted for signalization.

4.1.11 Lighting

There is no roadway lighting within the study corridor.

Table 3

Crash Data

ACCIDENT TYPE	1996	1997	1998	1999	2000	2001	AVERAGE
COLLISION WITH VEHICLE IN TRANSIT							
Rear End	4	9	8	10	7	7	7.5
Head On	0	2	0	0	0	0	0.3
Angle	2	1	1	1	3	0	1.3
Right Angle	0	2	1	3	3	3	2.0
Left Turn	1	4	4	5	1	1	2.7
Right Turn	1	0	4	0	2	0	1.2
Sideswipe	1	4	0	0	1	0	1.0
TOTAL VECHICLE IN TRANSIT COLLISIONS	**9**	**22**	**18**	**19**	**17**	**11**	**16.0**
COLLSION WITH OBJECTS							
Parked Car	0	1	1	0	0	0	0.3
Pedestrian	0	0	1	0	0	0	0.2
Bicycle	0	0	0	0	0	0	0.0
Animal	0	1	0	0	1	0	0.3
Sign/Sign Post	0	0	0	0	0	0	0.0
Utility Pole	1	0	0	0	0	0	0.2
Guardrail or Barrier Wall	0	1	0	0	0	1	0.3
TOTAL VEHICLE-OBJECT COLLISIONS	**1**	**3**	**2**	**0**	**1**	**1**	**1.3**
MISCELLANEOUS COLLISIONS							
Vehicle Ran Off Of Road	0	3	0	2	2	3	1.7
Vehicle Overturning	2	2	0	2	2	2	1.7
Vehicle Ran Into Ditch/Culvert	0	0	1	1	0	0	0.3
Tractor/Trailer Jack-knife	0	0	0	0	1	0	0.2
Other	1	2	5	2	2	3	2.5
TOTAL MISCELLANEOUS COLLISIONS	**3**	**7**	**6**	**7**	**7**	**8**	**6.3**
YEAR CRASH TOTALS	**13**	**32**	**26**	**26**	**25**	**20**	**23.7**
INJURIES	16	16	11	13	11	4	11.8
FATALITIES	0	2	1	1	0	1	0.8
VEHICLE AND PROPERTY DAMAGE	$49,350	$141,750	$67,100	$242,750	$164,500	$108,150	$128,933
LOCATION OF CRASHES	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**AVERAGE**
CR 48 east of US 27	1	1	3	1	2	0	1.3
CR 48 / US 27 Intersection	4	11	8	5	9	5	7.0
CR 48 - from US 27 to CR 33	0	0	1	3	2	3	1.5
CR 48 & CR 470 / CR 33 Intersection	2	3	6	6	5	2	4.0
CR 470 west of CR 33	3	9	5	10	5	9	6.8
On cross street not at intersection	3	8	3	1	2	1	3.0

4.1.12 Utilities

In addition to serving vehicular traffic, most road rights-of-way also accommodate various underground and/or overhead utilities. Horizontal and vertical location of these utilities must be coordinated with the road construction; therefore, it is important to identify them in the early stages of the project.

The following municipalities and companies have been identified as having utilities within the project vicinity:

AT&T c/o P.E.A. Consultants
5422 Carrier Drive
Suite 203
Orlando, Florida 32810
Mr. Bill Ham
(407) 248-3445

Broadwing Communications
5915 South Rio Grande Avenue
Suite 200
Orlando, Florida 32809
Mr. Jerry Hames
(407) 859-7661

City of Leesburg - Electric
2010 Griffin Road
Leesburg, Florida 34748
Mr. Steve Davis
(352) 728-9822

City of Leesburg - Gas
306 South 6th Street
Leesburg, Florida 34748
Mr. Jack Rogers
(352) 728-9840

City of Leesburg - Water
501 W. Meadow Street
Leesburg, Florida 34748

Mr. Bob Mirabella
(352) 728-9845

City of Leesburg - Wastewater
501 W. Meadow Street
Leesburg, Florida 34748
Mr. Gary Hunnewell
(352) 728-9847

Sprint Florida, Inc.
P. O. Box 490048
Leesburg, Florida 34749-0048
Mr. Frank Waller
(352) 326-1495

Sumter Electric Cooperative, Inc.
P. O. Box 301
Sumterville, Florida 33585
Mr. Vic Keesling
(352) 793-3801

Progress Energy Florida, Inc.
3300 Exchange Place
Lake Mary, Florida 32746-5413
Mr. George Oviedo
(407) 942-9234

Bright House Networks, Inc.
844 Maquire Road
Ocoee, Florida 34761-2916
Mr. Ed Forand
(407) 292-7200

All utility companies were provided with sets of aerials of the project corridor for use in indicating the location of their respective utility systems. The City of Leesburg has several major utilities that extend the length of the corridor, including a water main, sewer force main and natural gas pipeline. These utilities also cross the Palatlakaha River on a utility bridge located just south of the roadway bridge.

4.1.13 Pavement Conditions

A site visit was conducted to visually evaluate the conditions of the existing pavement structure. The inspection revealed that no serious deterioration, surface roughness or cracking was present.

4.2 Existing Bridges

There are two existing bridges located along the CR 470 corridor, the first spanning CR 470 over the Florida's Turnpike and the other spanning the Palatlakaha River. The Turnpike bridge is scheduled to be replaced as part of the CR 470/Turnpike interchange construction. The existing bridge will be demolished and was not considered in the study.

4.2.1 Type of Structures

Proposed Bridge No. 110600 is scheduled to be constructed with the CR 470/Turnpike interchange improvements and will be completed in 2005. This bridge will be a two-lane structure carrying CR 470 over the Turnpike. The bridge is designed to have a curb-to-curb width of 44 feet and an overall width of 47.1 feet. The superstructure consists of AASHTO Type V beams and a cast-in-place concrete deck. The interchange has been designed for the ultimate four-lane improvements to CR 470. This new two-lane bridge has been located and is designed to be one of a pair of structures that will ultimately convey four lanes of CR 470 over the Turnpike. The piles and footer for the addition of a future sidewalk is being constructed as part of the interchange construction. The piers, beams and deck for the sidewalk may be constructed as part of the CR 470 project.

Bridge No.114023, located 0.12 miles east of US 27, is a two-lane structure carrying CR 470 over The Palatlakaha River in Lake County. The bridge has a curb-to-curb width of 30.0 feet and an overall deck width of 34.7 feet. The superstructure consists of prestressed concrete Type II AASHTO beams and a cast-in-place concrete deck. The substructure consists of 18-inch square concrete piles with concrete caps.

4.2.2 Current Condition and Year of Construction

Proposed Bridge No. 110600 will be a new structure designed to current standards and is anticipated to begin construction in summer 2003.

The Inspection Report for Bridge No. 114023 indicated that this structure was constructed in 1968 and has a sufficiency rating of 74.5. The Inspection Report also indicates the bridge is in good condition with no major deficiencies. Based on this

information and the existing structure type, the bridge is suitable for widening. The existing bridge has no relevant historical significance.

4.2.3 Horizontal and Vertical Alignment

Proposed Bridge No. 110600 over the Turnpike will be constructed on a tangent horizontal alignment. The horizontal alignment is located within a 1380-foot long vertical curve with approach grades of 3 percent.

Bridge No. 114023 was constructed on a tangent horizontal alignment. This bridge was constructed level with a 0.00 percent deck gradient, and an approach gradient on each end of the structure of 0.00 percent.

4.2.4 Span Arrangement

Proposed Bridge No. 110600 is a two-span structure with Mechanically Stabilized Earth walls at each abutment. The spans are 132 feet in length with a center pier located in the Turnpike median. The overall bridge length is 264 feet. The structure has a skew angle of 43º 01' 12".

Bridge No. 114023 consists of a three span structure. All three spans are approximately 46 feet in length. The overall structure length is approximately 138 feet. The bridge was constructed with a skew angle of 27º 84' 12".

4.2.5 Bridge Clearance

Proposed Bridge No. 110600 was designed to have a minimum 16.5-foot vertical clearance over the Turnpike mainline pavement.

A complete channel survey was not conducted on Bridge No. 114023 over the Palatlakaha River. Vertical clearance from the Design High Water to the low member elevation of the bridge is approximately 12 feet. Clearance from the extreme high water to the low member elevation is 1.23 feet. The Palatlakaha River at this location is not navigable and a United States Coast Guard permit is not required.

4.2.6 Geotechnical Data

Proposed Bridge No. 110600 was designed utilizing bridge borings taken at the proposed substructure locations. No unusual soils or site conditions were identified. The boring data included with the existing bridge plans indicated a 20-foot layer of sand at the ground surface, followed by a layer of clay. Below the clay layer limerock was encountered.

For Bridge No. 114023, geotechnical borings will be performed during the design phase.

4.3 Environmental Characteristics

4.3.1 Land Use Data

4.3.1.1 Existing Land Use

Thematic mapping of land use, cover and forms within the project study area was conducted during the initial study phase of the project. Land form and land use classification follows the Florida Land Use, Cover, and Forms Classification System (FLUCFCS, FDOT, 1999) and is referenced as FLUCFCS Class in the following discussion.

4.3.1.2 Land Use Features by FLUCFCS Class

The thematic mapping of the existing land uses within the project study area is presented on **Figure 6**. A description of the cultural features identified during the mapping phase follows:

Residential, low density (110): Such areas contain single family and possibly multi-family dwellings where there are less than 2 dwelling units per acre.

Residential, medium density (120): Such areas contain single family and possibly multi-family dwellings where there are between 2 to 5 dwelling units per acre.

Commercial, Retail sales and services (141): Such areas are devoted to the sale of products and services and include shopping centers, office buildings and commercial storage units as well as associated structures.

Other light industry (155): Steel fabrication, small boat manufacturing, electronic manufacturing and assembly plants are typical examples of light industry enterprises.

Strip mines/rock quarries, abandoned (161/163): This land form is characterized by large distinct excavation mines and/or trenches largely devoid of vegetation and no longer active.

Sand and gravel pits (162): This mapping class delimits open mines primarily used to support construction activities.

Recreation (180): Recreational areas are those areas whose physical structure indicates that active user-oriented recreation is or could be occurring within the given physical area.

Open land (190): This category includes undeveloped land within urban areas and inactive land with street patterns but without structures.

Improved pastures (211): This land use class is characterized by land, which has been cleared, tilled and reseeded in support of agricultural grazing operations.

Field crops (215): This land use class is characterized by land, which has been cleared, tilled and reseeded with grasses and grains in support of agricultural harvesting operations.

Citrus groves (221): Maintained citrus orchards are mapped under this designation.

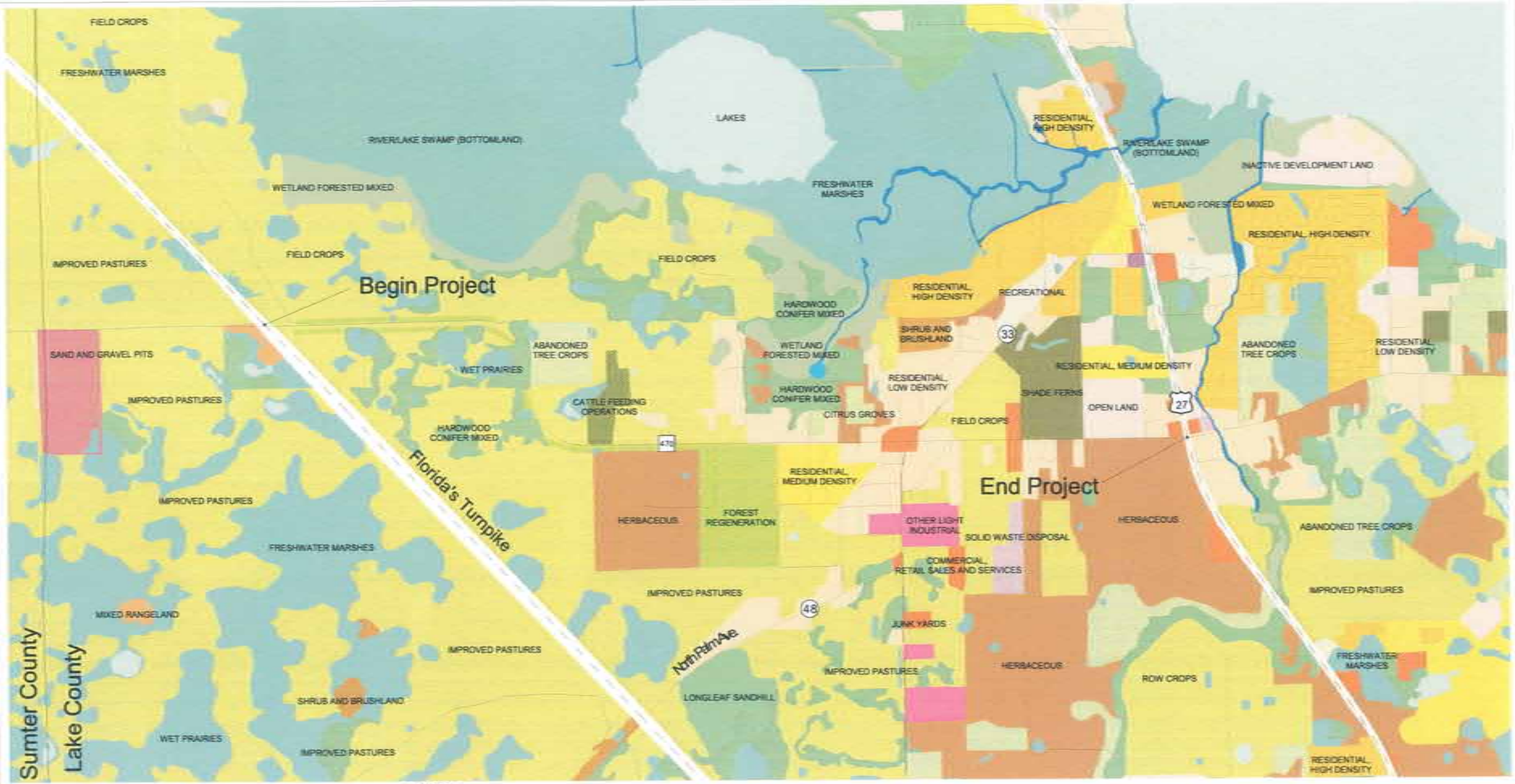
Abandoned tree crops (groves) (224): Citrus groves, which are no longer in operation or being maintained, are mapped under this designation.

Shade ferns (Ornamentals) (243): Land devoted to the cultivation of ferns under shade canopies is mapped under this designation.

Roads and highways (paved roads) (814): paved roadways and associated maintained right-of-ways.

Electric power facilities (831): This land use class includes power generation facilities and sub-stations.

Solid waste disposal (835): This land use class includes controlled and managed solid waste fields, non-permitted solid waste disposal sites and other similar land uses.



FLUCFCS

- Residential Low Density
- Residential Medium Density
- Residential High Density
- Commercial and Services
- Industrial
- Extractive
- Institutional
- Recreational
- Open Land
- Cropland and Pastureland
- Tree Crops
- Feeding Operations
- Nurseries and Vineyards
- Herbaceous
- Shrub and Brushland
- Mixed Rangeland
- Upland Coniferous Forests
- Upland Hardwood Forests
- Tree Plantations
- Streams and Waterways
- Lakes
- Reservoirs
- Major Springs
- Wetland Hardwood Forests
- Wetland Coniferous Forests
- Wetland Forested Mixed
- Vegetated Non-Forested Wetlands
- Disturbed Lands
- Utilities

N

0 500 1000 1500 2000 Feet

Data Source: St. John's River Water Management District 1999

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

Figure 6

CR 470
Lake County, Florida
Existing Land Use

As shown on **Figure 6**, the existing land usage along CR 470 is mainly agricultural/undeveloped lands. The Okahumpka area includes low and medium density residential development. Closer to US 27, the land usage transitions into light industrial and commercial uses. The corridor has the potential for future development due to the increased connectivity between US 27 and the new Turnpike/CR 470 interchange.

4.3.2 Cultural Features and Community Services

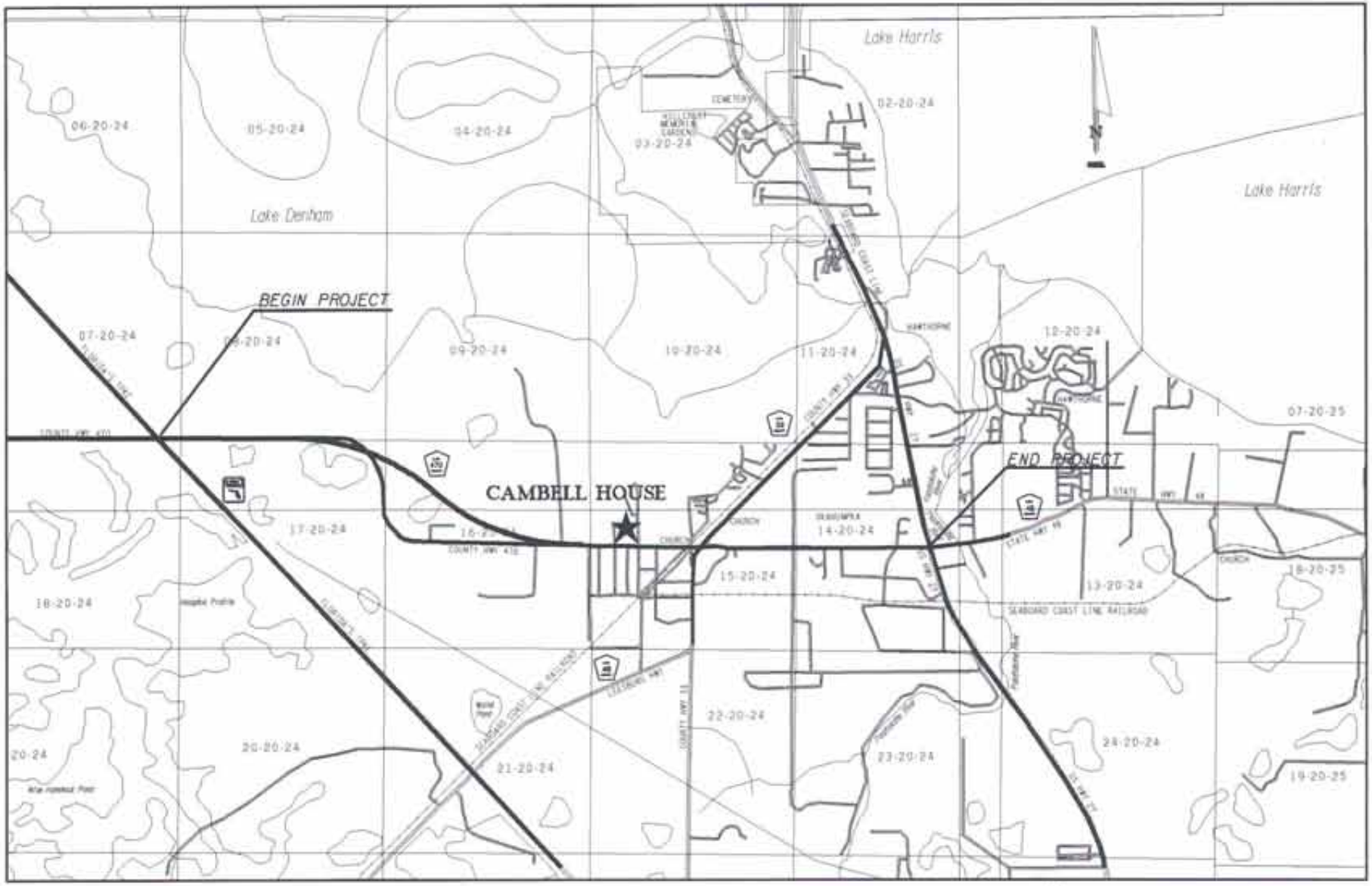
4.3.2.1 Architectural/Historical Considerations

Examination of the Florida Master Site File (FMSF) indicated that one historic structure was recorded previously within the project area. The Campbell House (8LA2243), located at 3147 CR 470 in Okahumpka, was listed in the National Register of Historic Places (NRHP) in 1999. A location map of this site can be found in **Figure 7.**

Field survey consisted of a preliminary reconnaissance of the area to determine the location of all buildings and other historic properties believed to have been built prior to 1952, and to ascertain if any such resources could be adjudged eligible or potentially eligible for NRHP consideration. An in-depth study of each identified historic resource was also conducted. This included photographing and gathering information needed for the completion of FMSF forms. In addition, each historic resource was assessed to determine style, historic context, condition and potential NRHP eligibility. A Cultural Assessment Survey was performed on this project and is included in the project documentation under separate cover.

4.3.2.2 Archaeological Considerations

A review of the FMSF indicated that 29 prehistoric archaeological sites have been recorded within a two-mile radius of the project area in both Lake and Sumter Counties. These sites consist of one single artifact site, four burial mounds, nine lithic scatters, nine artifact scatters, and six of unknown type. Although some sites near the project area were discovered in the 1800s, they were not recorded until later in the 1900s. However, most of the recorded sites were recorded as a result of professional surveys conducted since the late 1970s. **Figure 8** shows Zones of Archaeological Probability within the project.



LEGEND: ★ = HISTORICAL STRUCTURE

STATE OF FLORIDA
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HISTORIC STRUCTURES

C.R. 470 - P.D. & E STUDY

Lake County

FIGURE NO. 7

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

N

Figure 8

CR 470
Lake County, Florida
Zones of Archaeological Probability (ZAPs)

Based on professional surveys conducted in the vicinity of the project, an informed set of expectations concerning the types of sites expected to occur within the project area was determined. Many environmental factors had a direct influence upon habitation sites selected by the aboriginal population. Among these variables are soil drainage, distance to freshwater, relative topography, and proximity to food and other resources including stone and clay. Sites discovered include lithic scatters, artifact scatters, and sand mounds; all have been found adjacent to sources of freshwater.

In general, the reports summarizing the results of previous surveys illustrate that above all other factors, proximity to a source of freshwater is a key to prehistoric site location. Conversely, numerous cultural resource assessment surveys have served to illustrate that in the absence of viable freshwater, or a seasonal water source, no prehistoric sites are found.

4.3.2.3 Community Services

There are no police stations within the study area. A Lake County Fire and Rescue Station is located approximately one mile south of CR 470 within the Okahumpka area. There are no educational facilities located within the study limits. No medical facilities are located along the corridor. The Okahumpka Post Office is located along CR 470 just west of the CR 33 intersection.

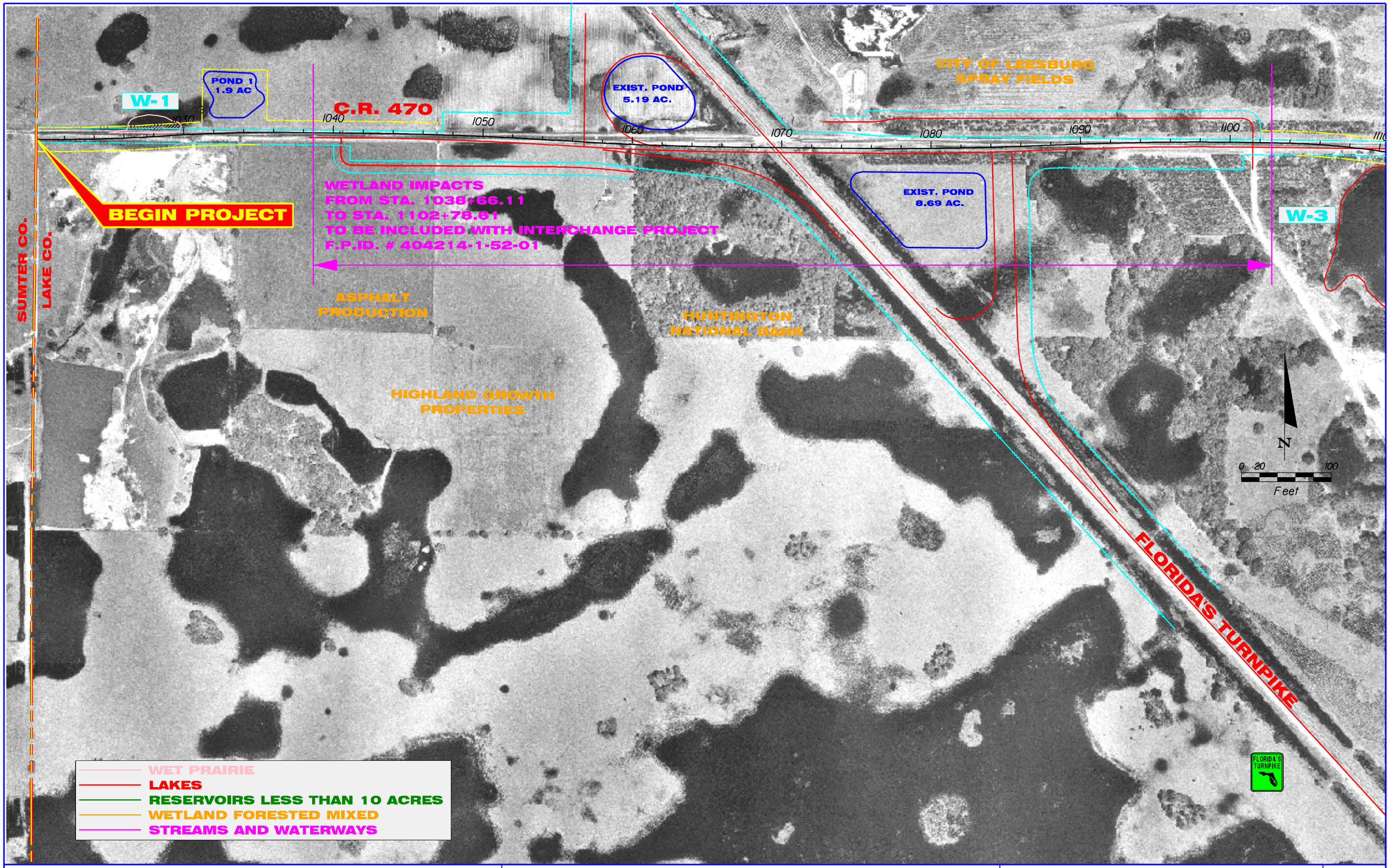
There is one church located along the corridor. The First Baptist Church of Okahumpka is located on the south side of the road, just west of the intersection of CR 470 and CR 33**.**

The Richmond Cemetery is located on the north side of the road, just east of the Palatlakaha River bridge. The cemetery is located outside the study limits and will not be impacted by the proposed improvements.

4.3.3 Natural and Biological Features

4.3.3.1 Wetlands and Surface Waters by FLUCFCS Class

A field visit, to verify preliminary wetland mapping, was conducted in March 2002. This delineation of jurisdictional wetlands was generally performed in accordance with methodologies prescribed by the State of Florida (Chapter 62-340, FAC). **Figure 9** shows a wetland map for the project corridor. A description of the surface waters and wetland communities encountered within the project study area follows:



STATE OF FLORIDA
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STATE OF FLORIDA

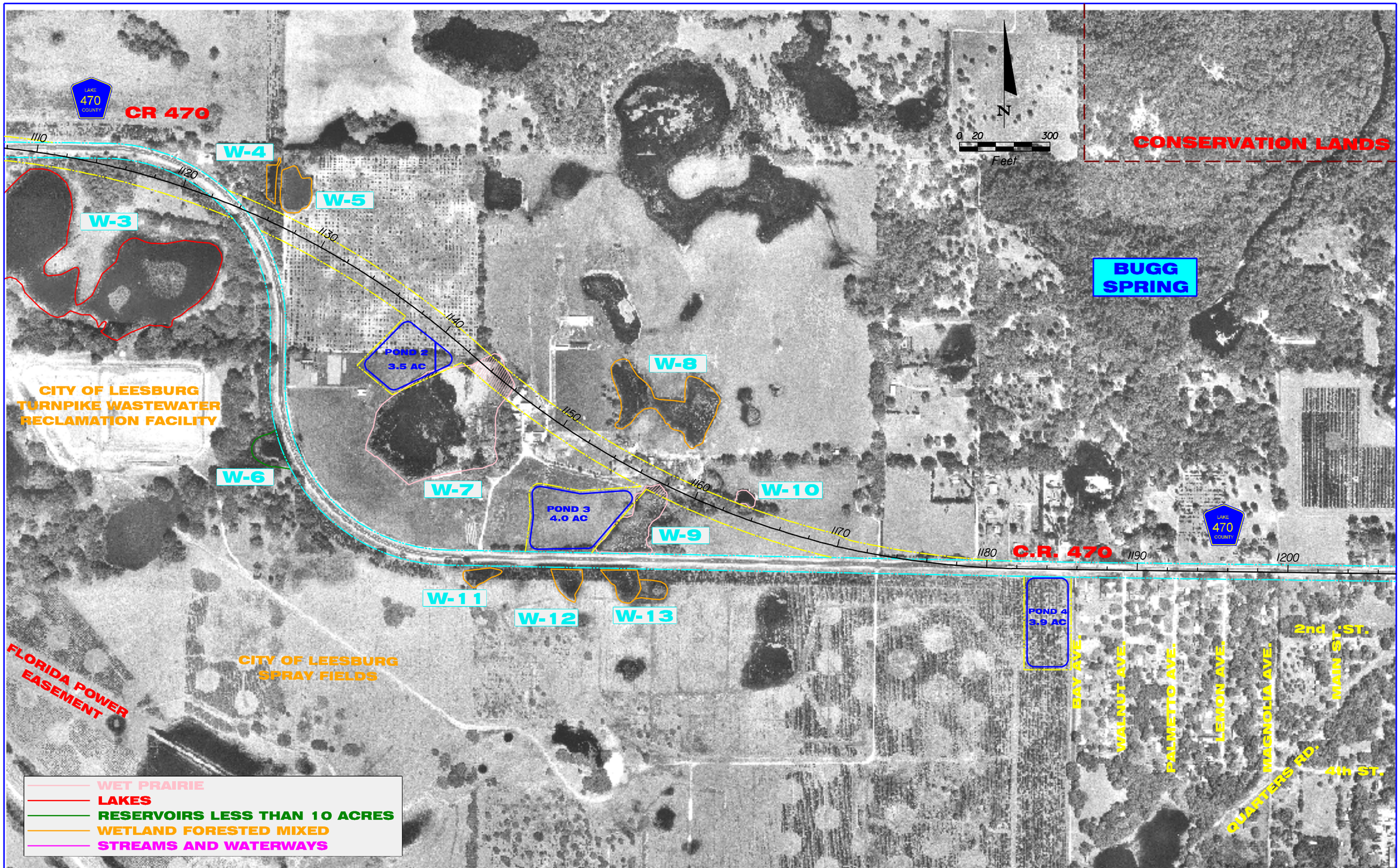
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY

FIGURE 9
C.R. 470 - P.D. & E STUDY
WETLAND BOUNDARIES

SHEET NO.
4-22

$DATE$ $TIME$ $FILE$ E:\Transportation Jobs\k3\jl\planrd10.dgn



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY

FIGURE 9
C.R. 470 - P.D. & E STUDY
WETLAND BOUNDARIES

SHEET NO.
4-23

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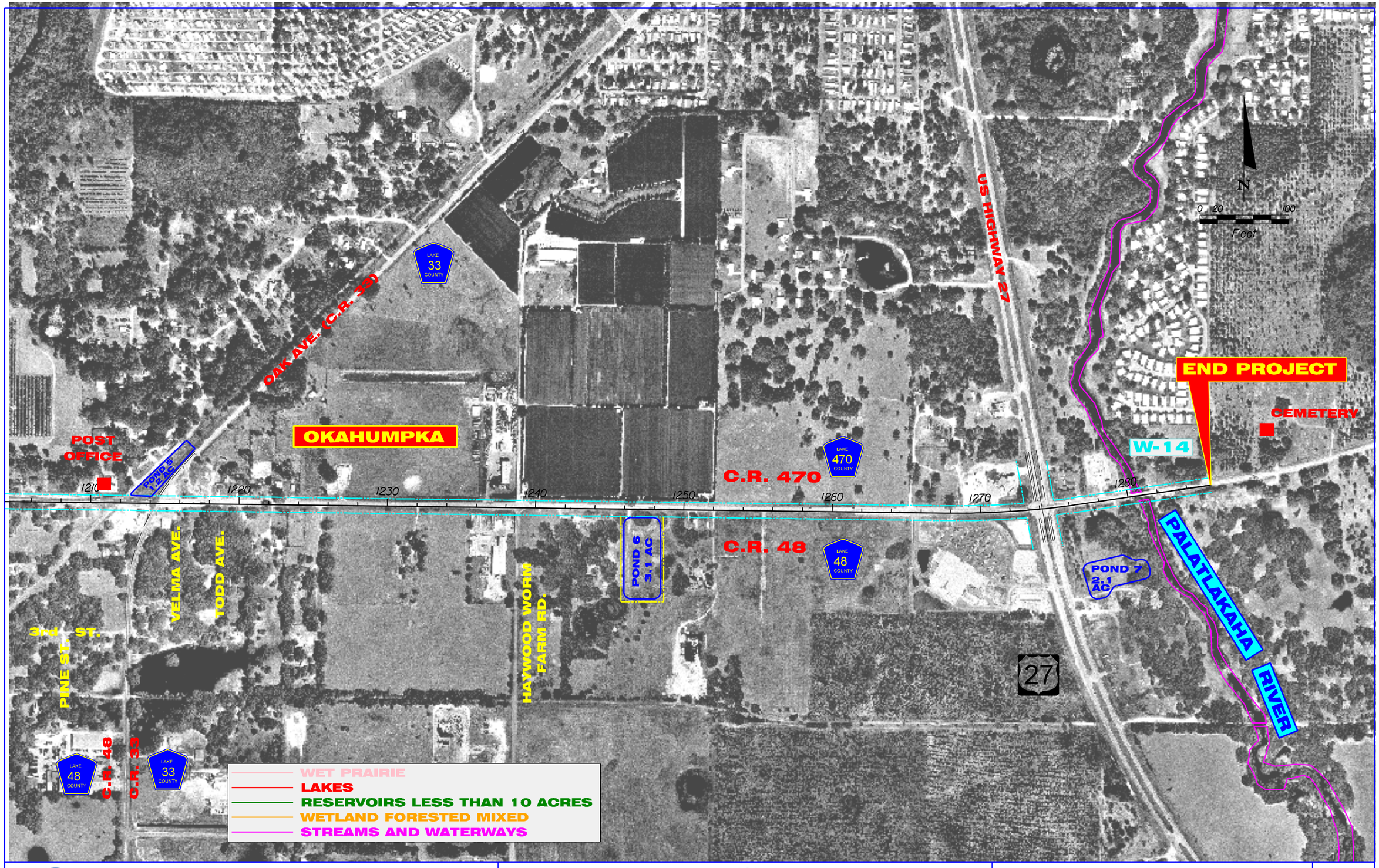

STATE OF FLORIDA
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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

LAKE COUNTY

FIGURE 9
C.R. 470 - P.D. & E STUDY
WETLAND BOUNDARIES

SHEET NO.
4-24

$DATE$ $TIME$ $FILE$ E:\Transportation Jobs\k3\j1\planrdl2.dgn

Streams and waterways (510): This category includes rivers, creeks, canals, and other linear water bodies, both natural and artificial.

Lakes (520): This category includes inland water bodies.

Reservoirs less than 10 acres (534): Artificial impoundments of water less than 10 acres in size.

Major springs (550): Natural phenomena easily identified as the point of origin of water welling from the ground.

Wetland forested mixed (630): The areal extent of the canopy within this community is ≥10%. This community is a mix of hardwoods and conifers in which neither achieves a 66% dominance of the crown canopy composition.

Scrub/shrub wetland (631): The areal extent of canopy class trees is ≤10% within this mapping class. Subcanopy-sized tree and shrub species (dbh<4") dominate this community. The extent of inundation and the density of the subcanopy typically limit ground cover.

Wet prairie (643): This community type is dominated by grassy vegetation on wet soils and is distinguished from marshes by having less water and shorter herbage. Although trees and shrubs may occasionally punctuate the landscape within this community type, their areal extent is less than 10%.

Emergent aquatic vegetation (644): This category of wetland plant species includes both floating vegetation and vegetation which is found either partially or completely above the water.

Soils: Soils are a significant determinant in the jurisdictionality of wetlands for both state and federal regulatory agencies. Fourteen soil series, excluding Fill, were identified within the United States Soil Conservation Service, Soil Survey of Lake County, Florida, 1971. These soil series have been identified by the Natural Resources Conservation Service (NRCS) formerly the Soil Conservation Service (SCS) (Figure 6). These series are Albany, Apopka, Astatula, Candler, Ellzey, Immokalee, Kendrick, Lochloosa, Myakka, Placid, Pompano, Seffner, Sparr and Tavares. Only one of the identified series is listed as hydric using both federal and state criteria: Placid

sand. Five of these series are classified as hydric using only the federal criteria: Ellzey, Immokalee, Myakka, Placid and Pompano. Fill land, loamy material (Fm) is a classification used to indicate disturbed soils. **See Figure 5 – Soils Map.**

The basis of regulatory jurisdiction with respect to wetlands is presented in the separately bound Soils Report. The referenced soils may contain inclusions of depressional mucky soils below the NRCS areal mapping threshold. Delineation protocols to establish both state and federal wetland jurisdictional limits utilize soil criteria.

4.3.3.2 Fish, Wildlife, Listed Species and their Habitats

This study utilized the initial review for potential occurrence of listed plant and animal species prepared for the CR 470 and Florida's Turnpike Interchange PD&E Study: Wildlife and Habitat Assessment Report, January 2000. Subsequent observations were made during field reviews.

General wildlife observation includes visual sightings, scat, tracks, burrows, vocalizations, shed skins, rooting and scrapes. Wildlife observed within the roadway corridor during general field surveys of the project site included white-tailed deer (*Odocoileus virginianus*), Sherman's fox squirrel (*Sciurus niger shermani*), raccoon (*Procyon lotor*), gopher tortoise (*Gopherus polyphemus*), Eastern indigo snake (*Drymarchon corais couperi*), alligator (*Alligator mississippiensis*), unidentified snakes and turtles, and a variety of wading birds such as Florida sandhill crane (*Grus canadensis pratensis*), cattle egret (*Bubulcus ibis*), great egret (*Casmerodius albus*), snowy egret (*Egretta thula*), and great blue heron (*Ardea herodias*). A variety of unidentified songbirds were also observed in several of the wetland areas.

Published lists of plant and animal species identified within Lake County notably contain American alligator, Florida sandhill crane, snowy egret, Sherman's fox squirrel, gopher tortoise and Eastern indigo snake.

The Florida Fish and Wildlife Conservation Commission (FWC) list the alligator as Threatened (T) by the United States Fish and Wildlife Service (FWS) and as a Species of Special Concern (SSC). The federal listing is based on the similarity of appearance of the alligator with the American crocodile, which is listed as Endangered (E) at both the federal and state levels. The American crocodile is limited to south Florida marine and

estuarine waters consequently; this project is expected to have no significant adverse impact upon the American crocodile.

The Florida sandhill crane is a subspecies of sandhill crane, which resides in Florida year-round. This subspecies is listed as Threatened (T) by state agencies. Although this subspecies generally cannot be accurately distinguished from migratory sandhill cranes during the winter months, migratory cranes do not nest in Florida. No active Florida sandhill crane nests were identified within the project area. This project is expected to have no significant adverse impact upon this species.

Sherman's fox squirrel has been identified within the southwest quadrant of this project of the CR 470/Turnpike interchange. This species is listed as an SSC by state agencies. This project is expected to have no significant adverse impact upon this species.

The gopher tortoise is an SSC within the state of Florida. Gopher tortoise burrows were identified within the southeast and southwest quadrants of the CR 470/Turnpike interchange. No other gopher tortoise burrows have been identified within the project area. This project is expected to have no adverse impact upon this species, as habitat for this species will not be impacted.

A shed skin from an Eastern indigo snake was identified near the mouth of a gopher tortoise burrow within the southeast quadrant of the CR 470/ Turnpike interchange on May 2, 2001. This species is listed as Threatened (T) by both state and federal agencies. A snake may be relocated on-site or off-site once the required permits have been obtained. Relocation involves removing a snake from a burrow, collapsing the burrow to prevent reentry, and releasing the snake out of harms way. The methodology to remove either a snake or a tortoise from a burrow is the same. Future Roadway Construction Documents should include standard protection measures for this species.

4.3.3.3 Outstanding Florida Waters and Aquatic Preserves

There are no Outstanding Florida Waters or Aquatic Preserves within the project corridor. The Lake Griffin State Recreation Area is the closest OFW and is located north of Lake Denham and Lake Harris.

4.3.3.4 Floodplains

The corridor contains the floodplain associated with the Palatlakaha River and several smaller, isolated floodplains according to the Flood Insurance Rate Map (FIRM) Community-Panel Number 120421 0200 B dated April 1, 1982. The floodplains are designated "Zone A" which are areas of 100 year flood where base flood elevations and flood hazard factors are not determined. It should be noted that Lake County requires that all floodplain impacts be mitigated for on a "cup for cup" basis. **(See Figure 10 - Flood Boundary and Floodway Map)**.

Typically, every wetland and cross drain is considered to have an associated base floodplain (100-year event) independent of the FEMA Flood Zone designation. The proposed cross drains and cross drain extensions will be designed in the Final Design Phase to minimize impacts to these floodplains, and to minimize the potential for flood damage to adjacent properties.

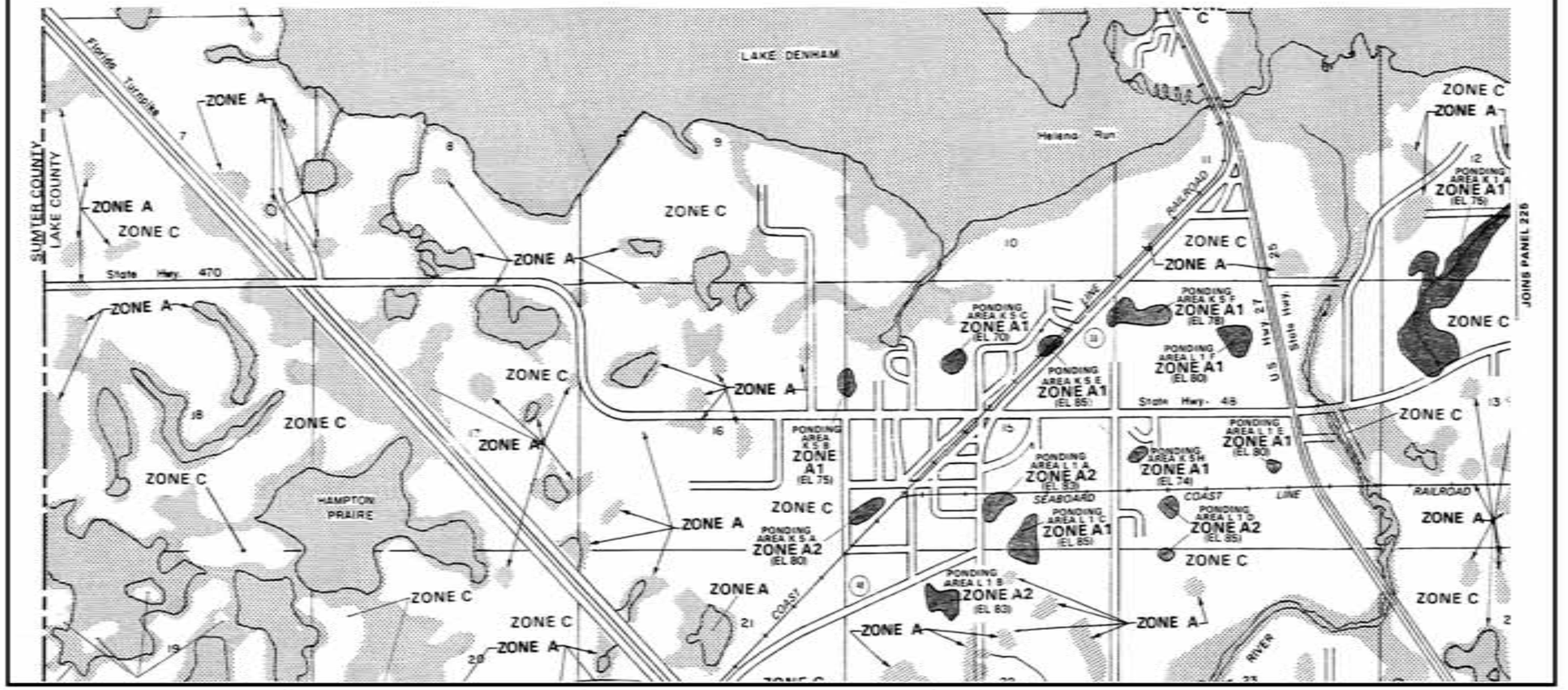
There are no regulatory floodways within the project corridor.

4.3.3.5 Noise

Existing land uses within the project area are residential, commercial, institutional, recreational and undeveloped lands. Twenty-six noise sensitive areas representing 66 residences and 1 church were identified by field surveillance and aerial-photo interpretation. The distance from the near travel lane to the closest noise sensitive site ranges from 70 to 580 feet. The existing noise levels at these sites range from 50.9 to 67.4 decibels. See separately bound Noise Study Report for was prepared for this project and is included in the project documentation under separate cover.

4.3.3.6 Contamination

Information was obtained through observations made during on-site visits, interviews and review of the database information obtained from the FDEP and Lake County Environmental Management Division. An evaluation of four properties within the CR 470 corridor was conducted to evaluate if hazardous waste or hazardous materials may exist, which may impact future roadway construction. The evaluations included interviews with persons knowledgeable about the individual sites, inquiries to the Lake County Environmental Management Division and the FDEP. In addition, database research was developed resulting in an Environmental First Search Report.



KEY TO MAP

100-Year Flood Boundary	
500-Year Flood Boundary	ZONE B
Zone Designations*	ZONE A1 / ZONE A5
100-Year Flood Boundary	ZONE B
500-Year Flood Boundary	
SPECIAL FLOOD HAZARD AREA	ZONE A
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7.1
Zone D Boundary	
River Mile	M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AE	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
MAY 20, 1970

FLOOD INSURANCE RATE MAP EFFECTIVE:
APRIL 1, 1982

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE
2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

LAKE COUNTY, FLORIDA
(UNINCORPORATED AREAS)

PANEL 200 OF 425

COMMUNITY-PANEL NUMBER
120421 0200 B

EFFECTIVE DATE:
APRIL 1, 1982

Federal Emergency Management Agency

Based upon the information obtained, the following conclusions were made relating to the four parcels shown in Figure 11:

- The two (2) Island Food Store sites, which received HIGH risk ranking, did not indicate the current presence of petroleum contamination. However, due to the close proximity of the tank areas and/or dispenser island area(s) to the current right-of-way, the sites may impact the potential roadway construction project.
- The asphalt production plant was assigned a MEDIUM risk ranking due to the type of production processes and the presence of petroleum and chemical storage tanks at the facility.
- The water treatment plant was assigned a MEDIUM risk ranking due to the discharge documented in 1999, and the presence of petroleum storage tanks.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

N

0 800 1,600 2,400 3,200
Feet

Figure 11

CR 470
Lake County, Florida
Location Map
for Hazardous Materials Sites

5.0 DESIGN CONTROLS AND STANDARDS

5.1 DESIGN CRITERIA

The alternative design concepts and reports have been prepared consistent with FDOT Standards for the design of such roadways and also must comply with recommended standard practices as set forth in the latest edition of the following documents:

- Manual on Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, State of Florida
- A Policy on Geometric Design of Highways and Streets, AASHTO
- Drainage Manual, Florida Department of Transportation
- Manual on Uniform Traffic Control Devices, Federal Highway Administration
- Roadway and Traffic Design Standards, Florida Department of Transportation
- Highway Capacity Manual, Transportation Research Board
- Structures Design Manual, Florida Department of Transportation
- Plans Preparation Manual, Florida Department of Transportation

Table 4 lists the design criteria for an urban and rural roadway typical section. All criteria are subject to change and only current criteria will be used during the Final Design Phase of this project.

Table 4 – Design Criteria

Design Elements	Urban	Rural
Horizontal Alignment	**------**	**------**
Design Speed	**45 mph**	**55 mph**
Minimum Radius (NC) Minimum Radius (Superelevated)	**2,083 feet** **694 feet**	**22,918 feet** **882 feet**
Maximum Superelevation	**.05**	**.10**
Clear Zone	**4 feet**	**30 feet**
Vertical Alignment	**-------**	**-------**
Maximum Grade	**5%**	**5%**
Minimum Grade	**.03%**	**N/A**
Stopping Sight Distance (2% Grades or less)	**360 feet**	**495 feet**
K Value – Crest	**98**	**185**
K Value – Sag	**79**	**115**

There are certain design criteria, which also control the design for alternatives and final project geometrics, such as functional classification, level of service, design traffic volumes, design high water and access management classification.

6.0 TRAFFIC

6.1 Existing Traffic Conditions

Currently, traffic is operating satisfactorily along the study corridor of CR 470. However, ongoing design plans for a full interchange with Florida's Turnpike and planned residential and commercial developments along the corridor, have the potential to greatly increase traffic on CR 470.

6.2 Multimodal Transportation System Considerations

Currently, there are no other forms of transportation such as busses or rail in the area of the study corridor. There are also no planned additions of these types of transportation.

6.3 Traffic Analysis Assumptions

Most analysis assumptions were taken from the Preliminary Engineering Report prepared by the Florida Department of Transportation for the Turnpike / CR 470 Interchange.

6.3.1 K_{30} Factor

The K_{30} Factor is the ratio of the traffic volume in the 30^{th} highest hour of the entire year to the Average Annual Daily Traffic (AADT) volume. This factor is used to determine the Design Hour Volume (DHV) used in the link level of service analysis.

The K_{30} Factor used for the analyses within this Report is 11%. This value was adopted from the August 2000 Preliminary Engineering Report for CR 470 and Florida's Turnpike Interchange PD&E Study in Lake County, Florida, prepared for the Florida Department of Transportation.

6.3.2 T Factor

The T factor is the percentage of truck traffic during the peak hour.

The T factor used for the analyses within this Report is 13%. This value was adopted from the Preliminary Engineering Report for CR 470 and Florida's Turnpike Interchange PD&E Study in Lake County, Florida, prepared for the Florida Department of Transportation.

6.3.3 D_{30} Factor

The D_{30} Factor is defined as the Directional Distribution Factor, a ratio of the higher peak directional volume to the two-way hourly volume.

The D_{30} Factor used for the analyses within this report is 57%. This value was adopted from the August 2000 Preliminary Engineering Report for CR 470 and Florida's Turnpike Interchange PD&E Study in Lake County, Florida, prepared for the Florida Department of Transportation.

6.3.4 Peak Hour Factor

The Peak Hour Factor (PHF) is the peak hour volume divided by four times the peak 15-minute volume within the peak hour.

The Peak Hour Factor (PHF) used for the analyses within this report is 0.89. This value was adopted from the August 2000 Preliminary Engineering Report for CR 470 and Florida's Turnpike Interchange PD&E Study in Lake County, Florida, prepared for the Florida Department of Transportation.

6.3.5 Existing Traffic Operations

The existing roadway and intersection operations were evaluated using the Highway Capacity Software, Release 4.1c (HCS2000). The existing traffic operation conditions at various links along the corridor and signalized intersections are delineated on Figures contained in this Report.

6.4 Existing Traffic Volumes

Peak hour turning movement counts and 72-hour machine counts were collected for this study at the CR 33 and US 27 intersections. The traffic collected was then converted to an Annual Average Daily Traffic (AADT) and Design Hour Volumes (DHV). FDOT seasonal and axle factors were used to convert the collected data.

The following figures show the existing traffic conditions:

Figure 12 – 2002 Existing Annual Average Daily Traffic (AADT)
Figure 13 – 2002 Existing Design Hour Volumes (DHV)
Figure 14 – 2002 Existing Peak Hour Turning Movement Counts

6.5 Existing Intersection Levels of Service

The existing intersection operations were evaluated using the Highway Capacity Software, Release 4.1c (HCS2000). The existing Peak Hour Levels of Service at the two signalized intersections are shown on **Figure 15.**

6.6 Existing Roadway Levels of Service

The existing roadway operations were evaluated using the Highway Capacity Software, Release 4.1c (HCS2000). The existing Levels of Service at various locations along the study corridor are shown on **Figure 16.**

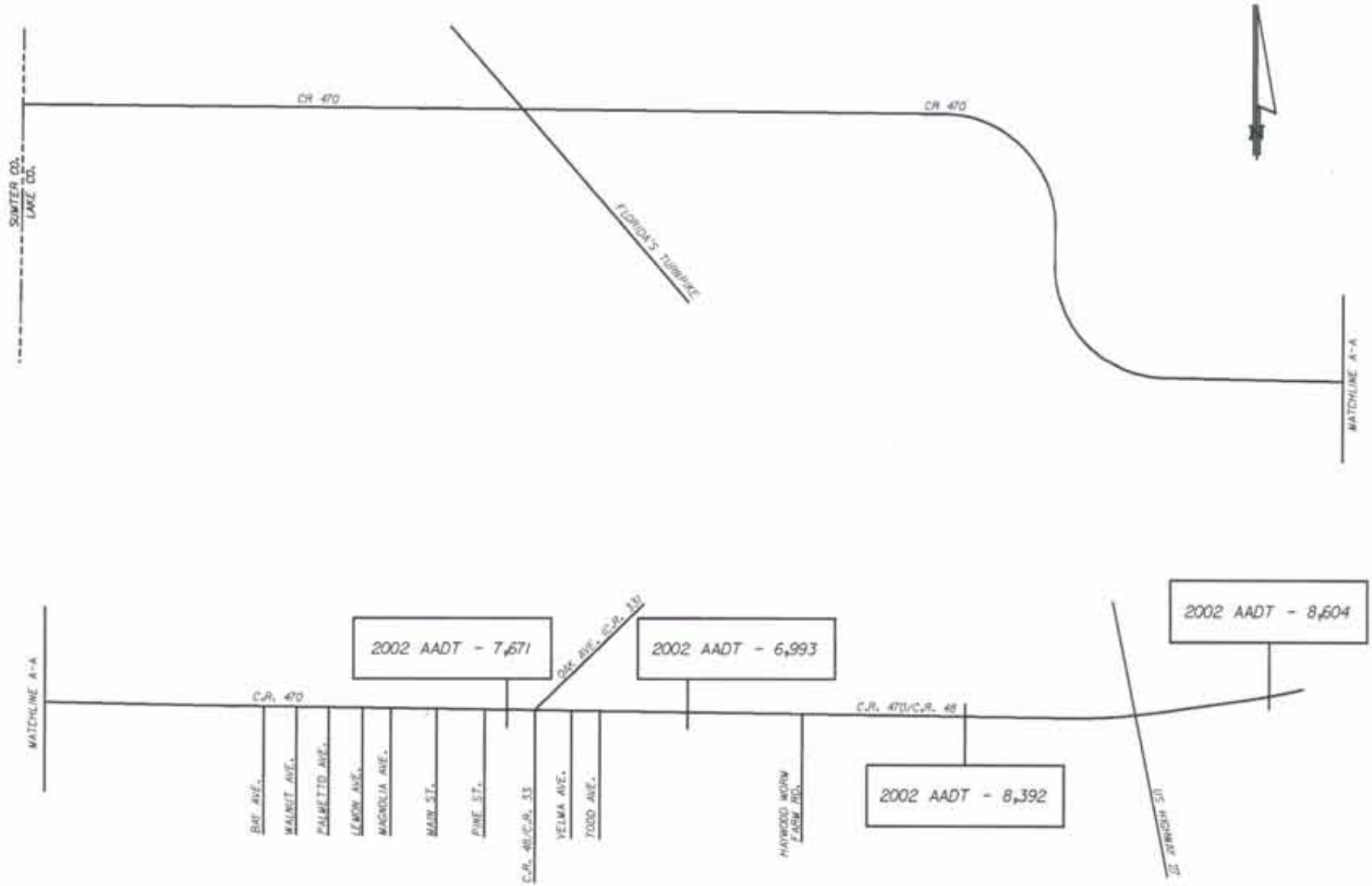
6.7 Traffic Volume Projections

Traffic volume projections were based on growth over past years since 1998. A yearly growth rate of 2.5% was used to project traffic through to the year 2027. These numbers were used for the No-Build scenarios. A growth rate of 3.0% was used for the Build scenarios. A higher growth rate was used for Build scenarios since more cars are likely to use a safe, brand new roadway for travel, rather than avoid an older roadway with less capacity.

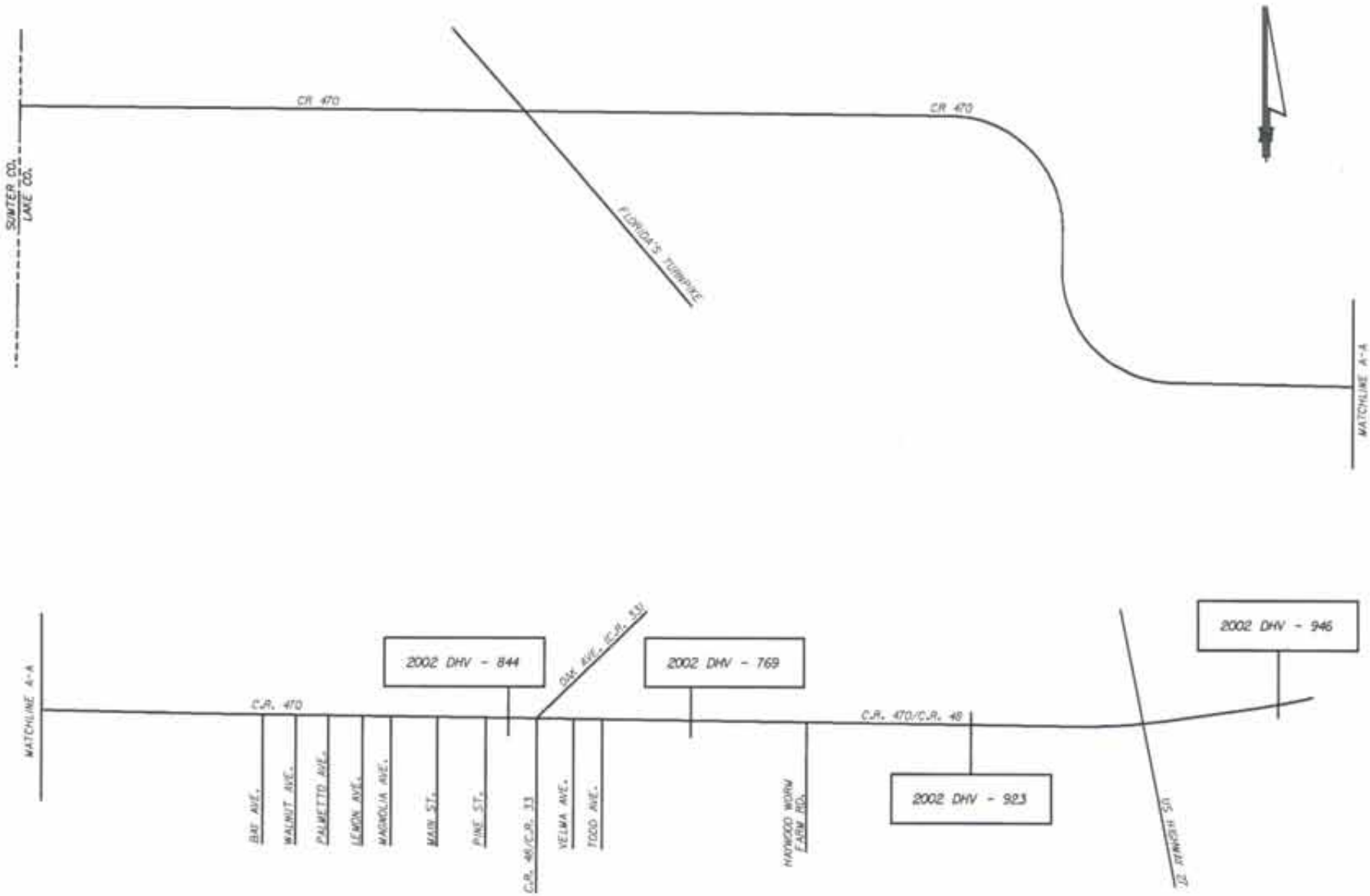
A large development, including residential, commercial and industrial sites, is planned for the area west of the Turnpike and south of CR 470. Preliminary trip generation for this development was performed and the trips generated were added to the projected traffic numbers for the No-Build and Build scenarios between the years 2017 and 2027. Volumes are shown with and without the development on **Figures 17 through Figures 32.** These include link volumes and signalized intersection turning movement volumes.

6.8 Level of Service

Levels of Service for the Mid-Year 2017 with and without development and Design Year 2027 with and without development are found on **Figures 33 through Figures 44.** These include LOS analyses for both the roadway links and signalized intersections. The recommended intersection build geometry is found in Figure 45.



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2002 EXISTING AADT	Lake County	FIGURE NO. 12



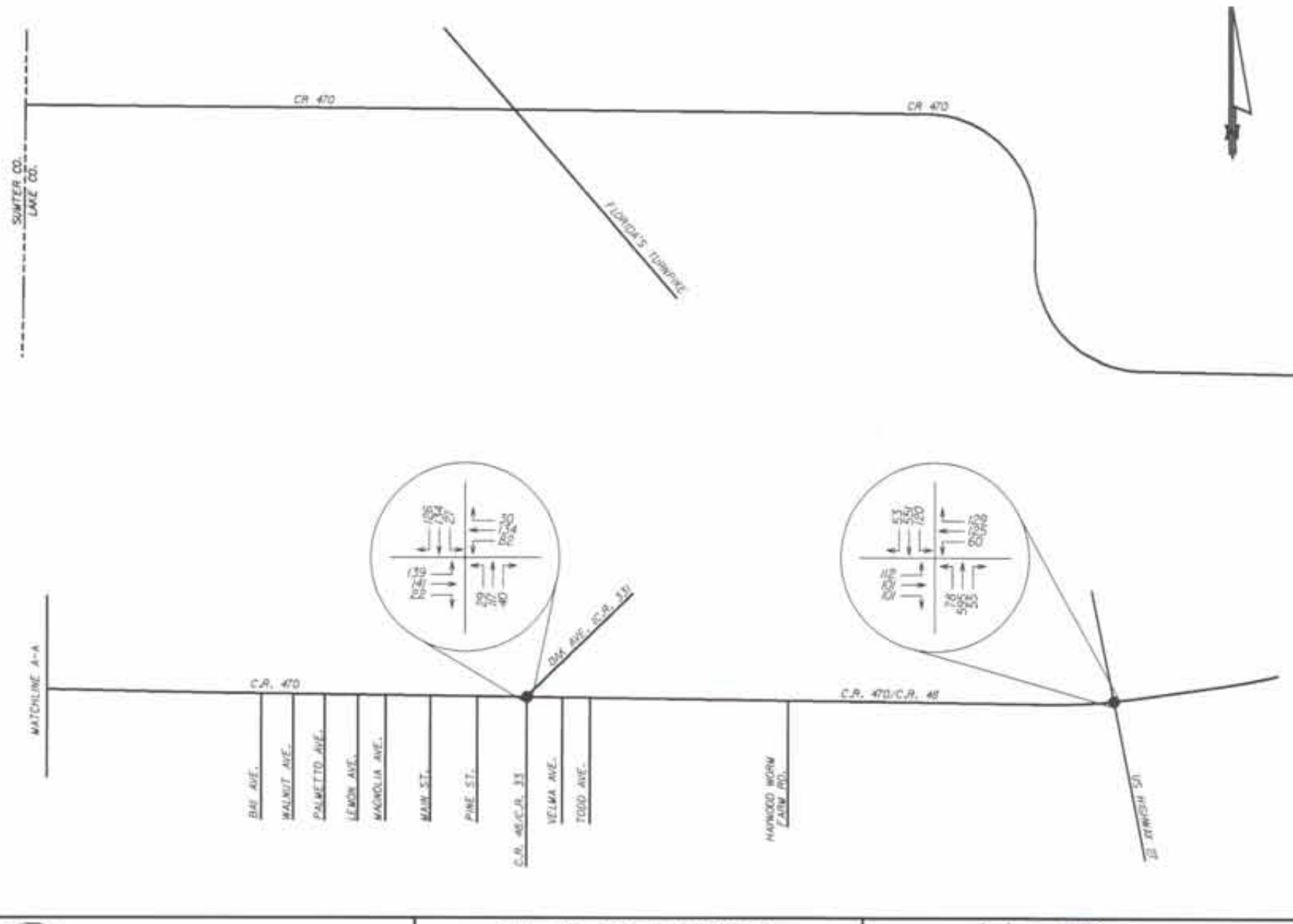
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2002 EXSTING DESIGN
HOURLY VOLUMES

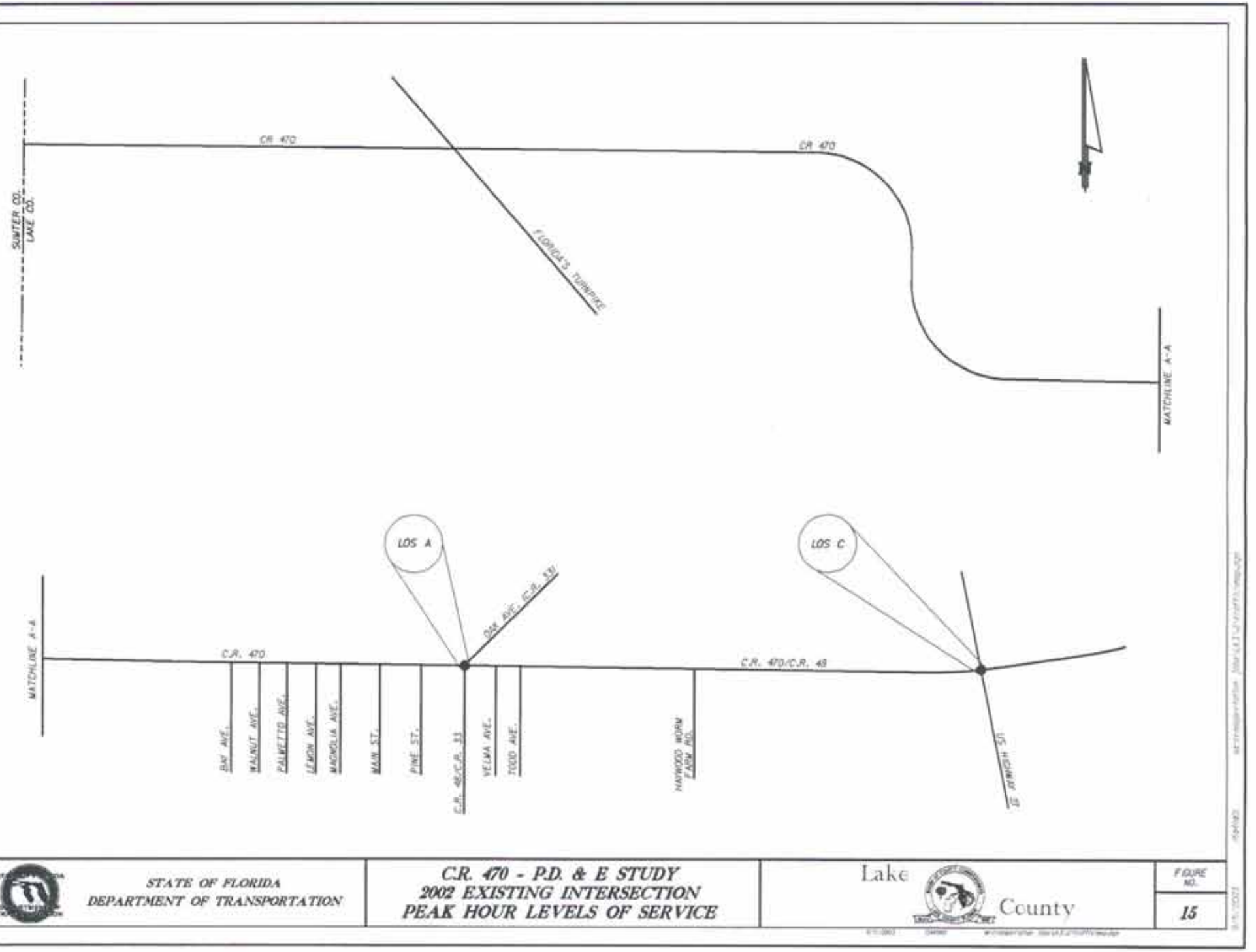
Lake County

FIGURE NO. 15

5-9



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	**C.R. 470 - P.D. & E STUDY** **2002 EXISTING PEAK HOUR** **TURNING MOVEMENT COUNTS**	Lake County	FIGURE NO. **14**

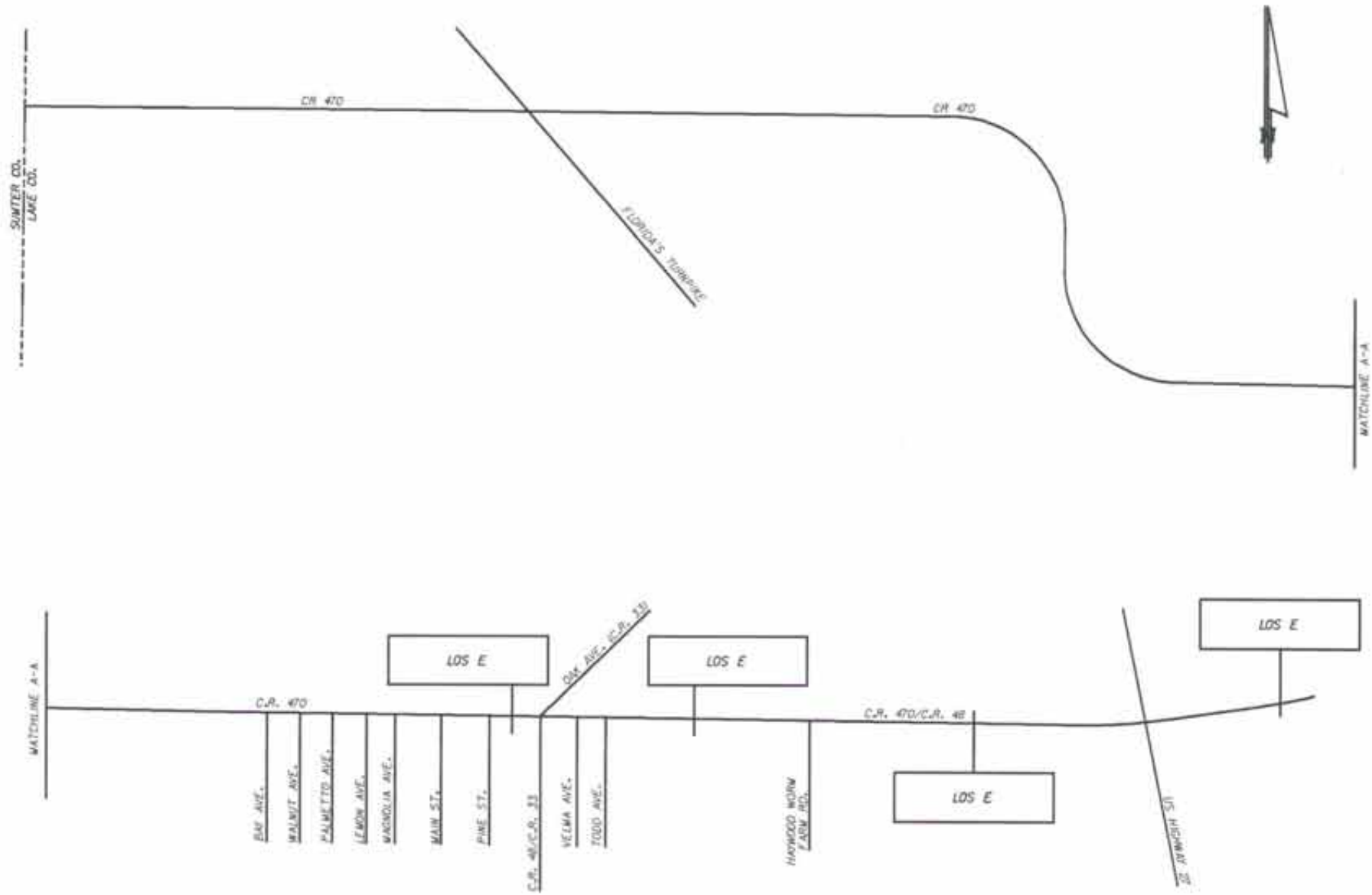


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

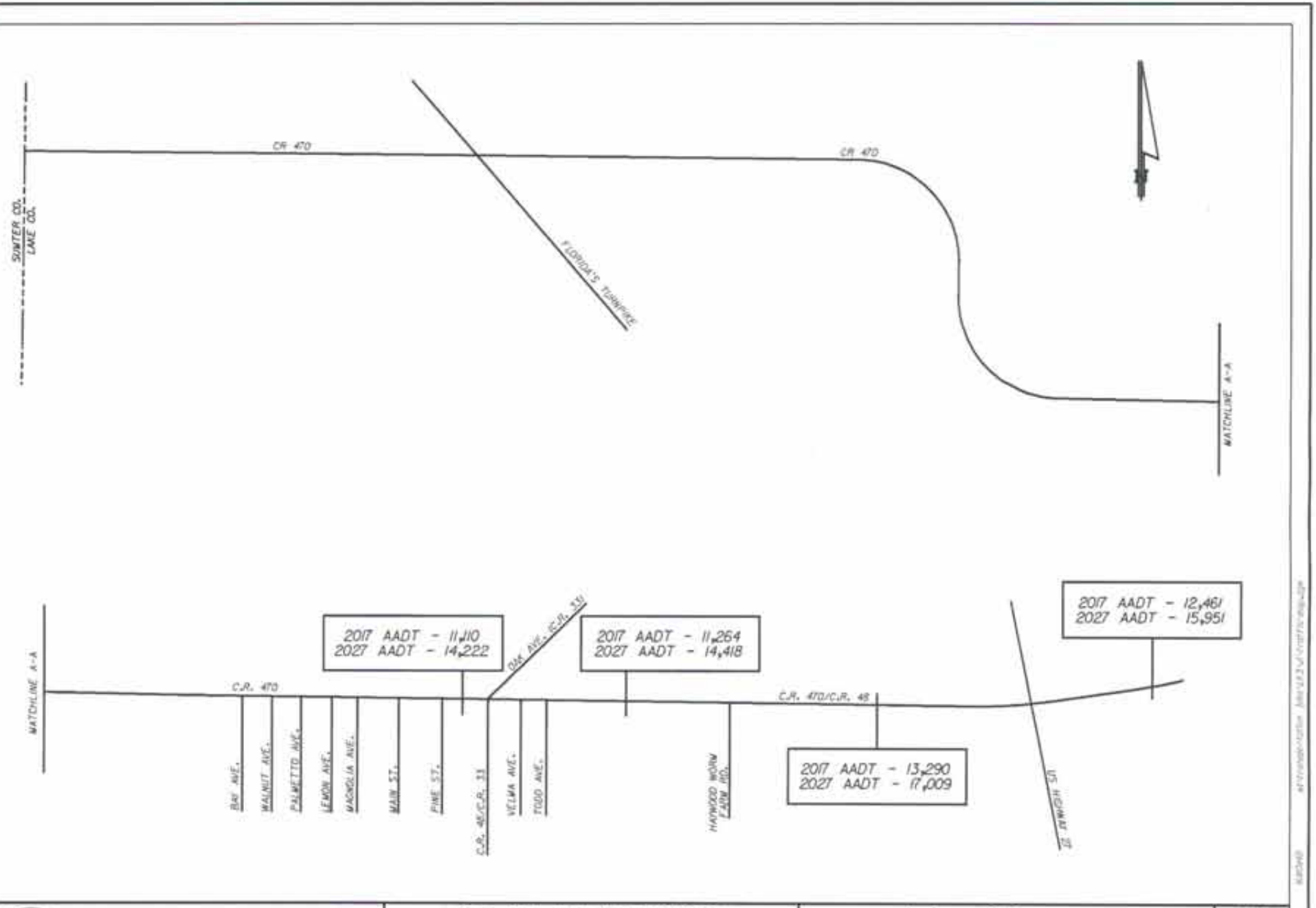
C.R. 470 - P.D. & E STUDY
2002 EXISTING INTERSECTION
PEAK HOUR LEVELS OF SERVICE

Lake County

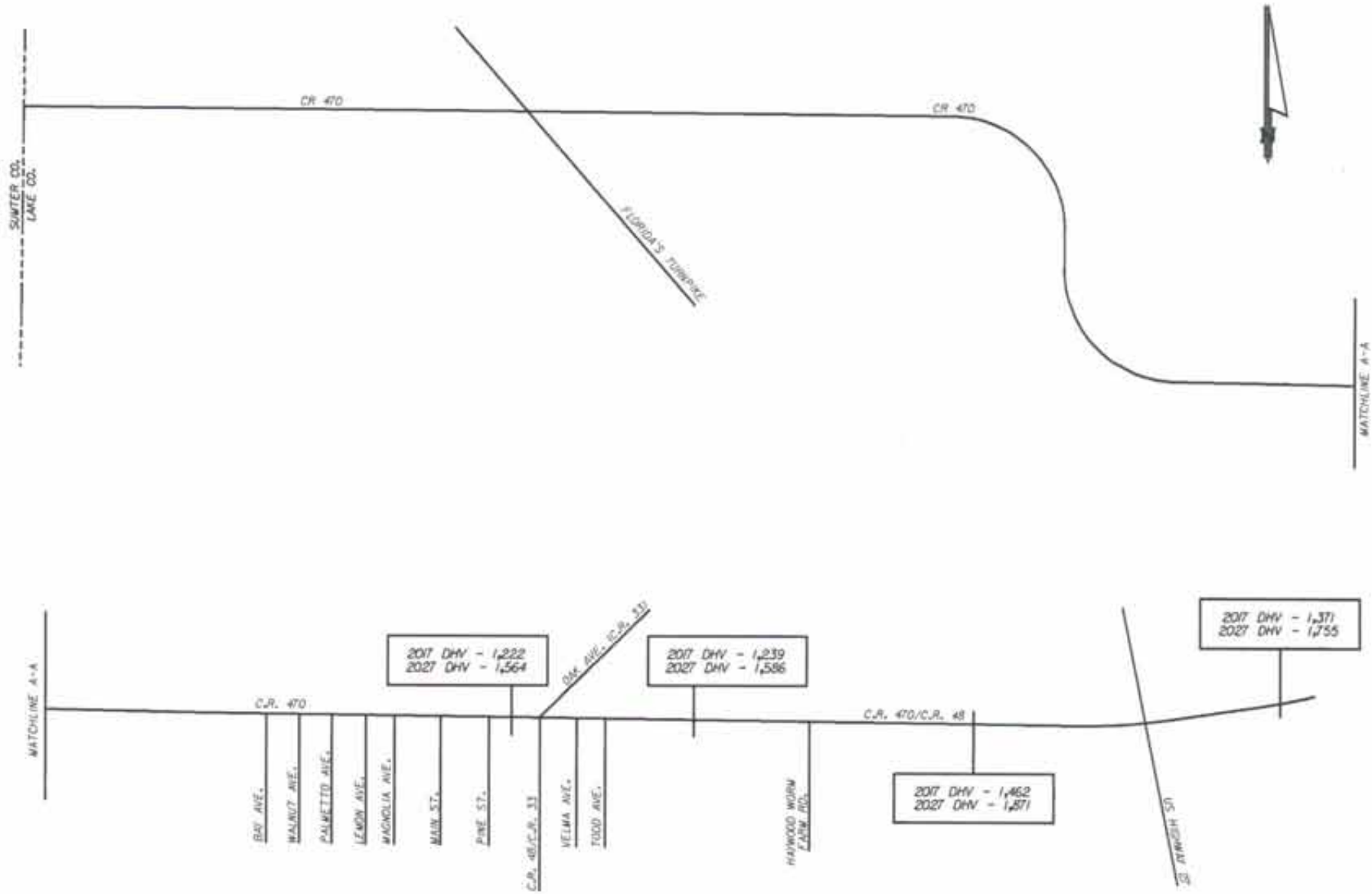
FIGURE NO. 15



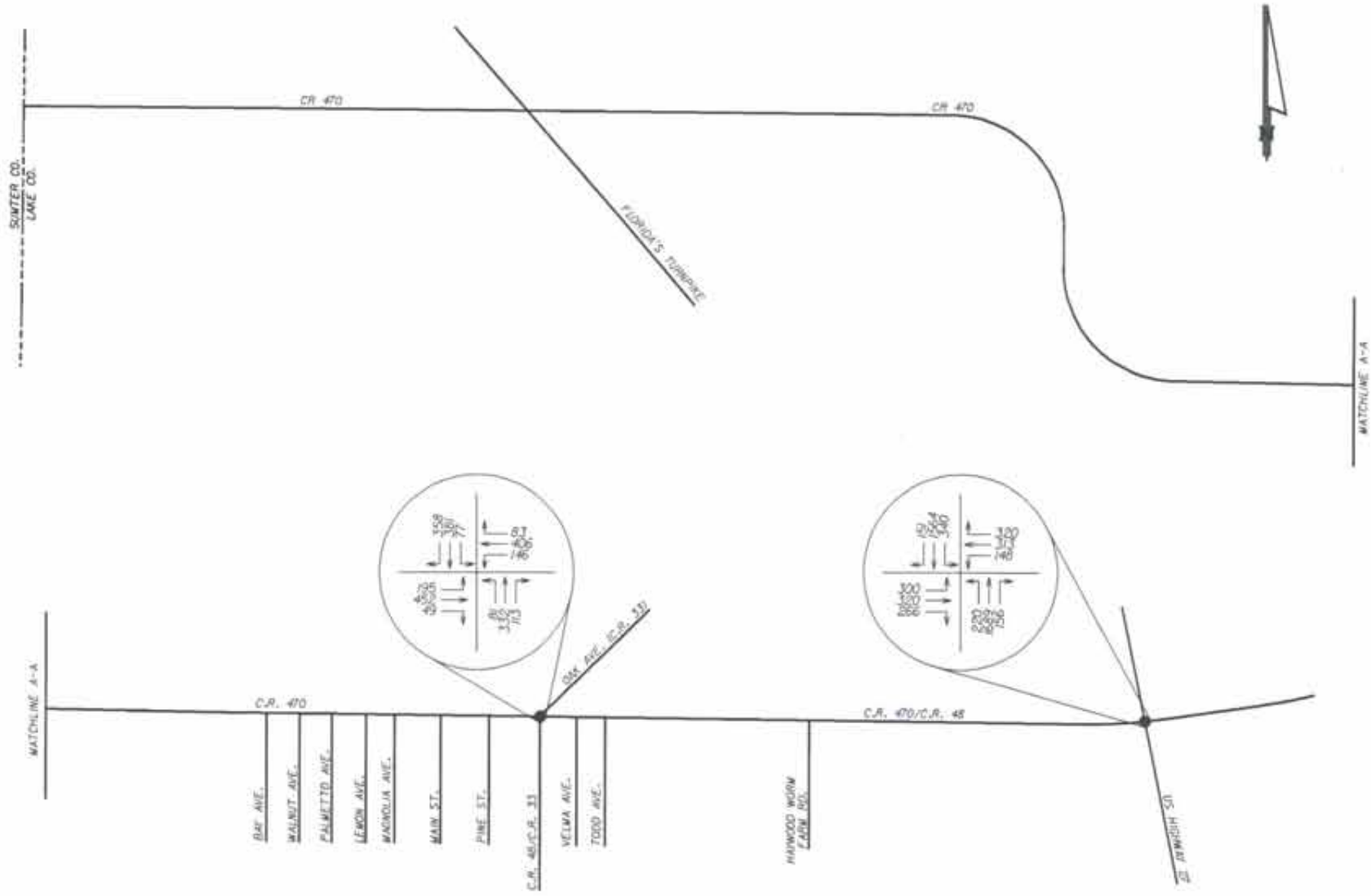
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2002 EXISTING LEVELS OF SERVICE	Lake County	FIGURE NO. 16



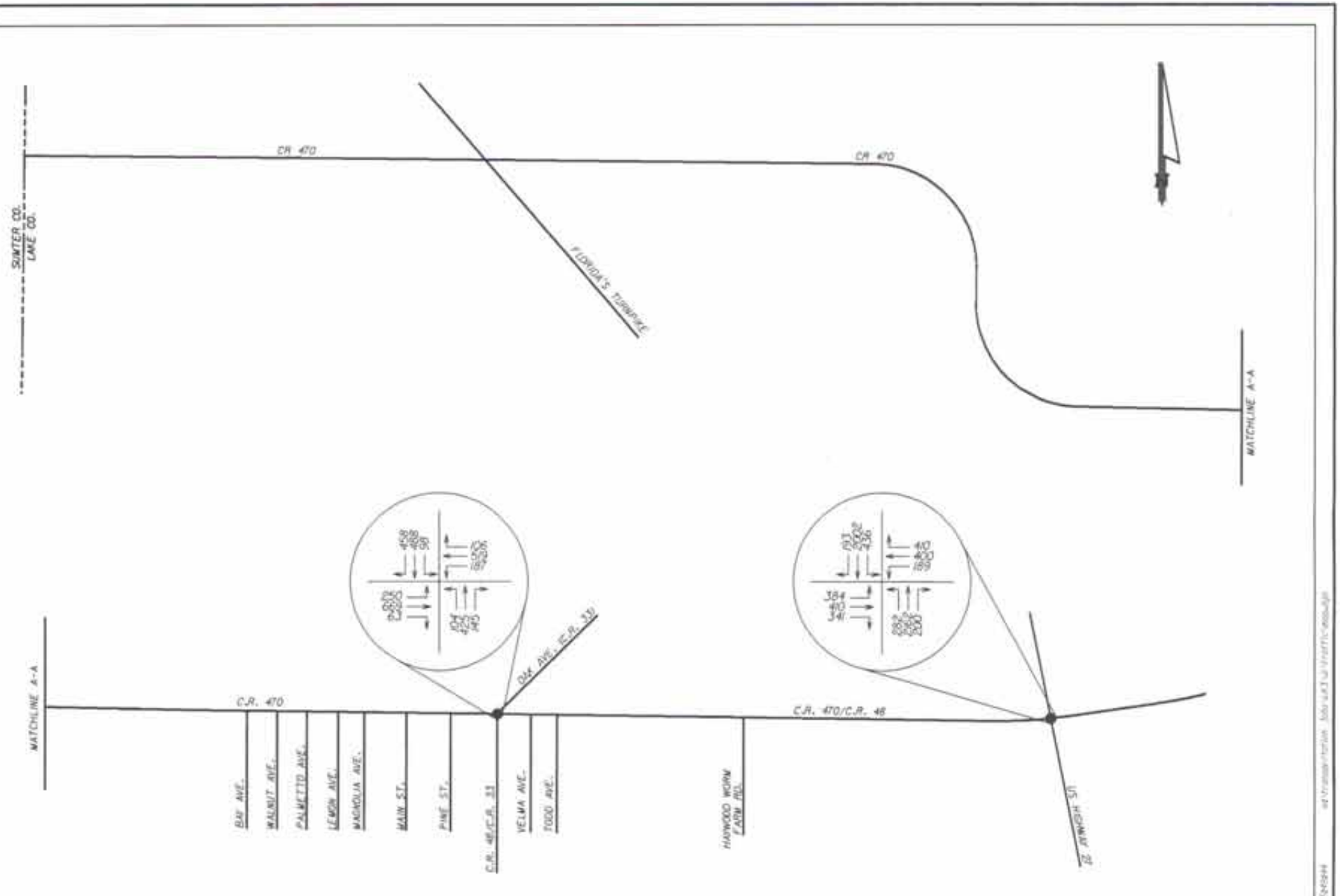
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 AND 2027 NO BUILD AADT (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 17



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	**C.R. 470 - P.D. & E STUDY** **2017 & 2027 NO BUILD DESIGN HOURLY VOLUMES (WITHOUT DEVELOPMENT)**	Lake County	FIGURE NO. **18**

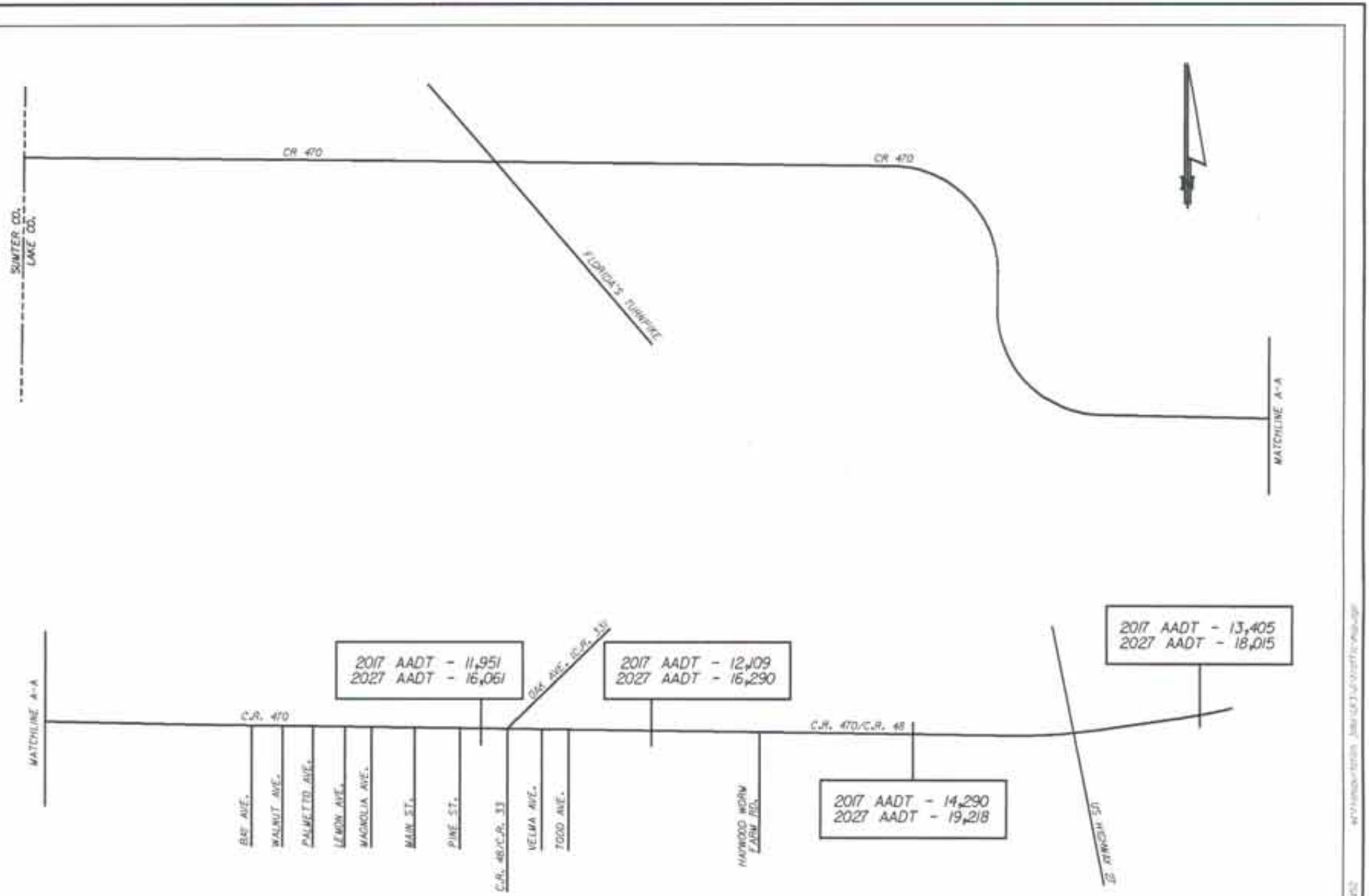


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 NO BUILD PEAK HOUR TURNING COUNTS (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 19

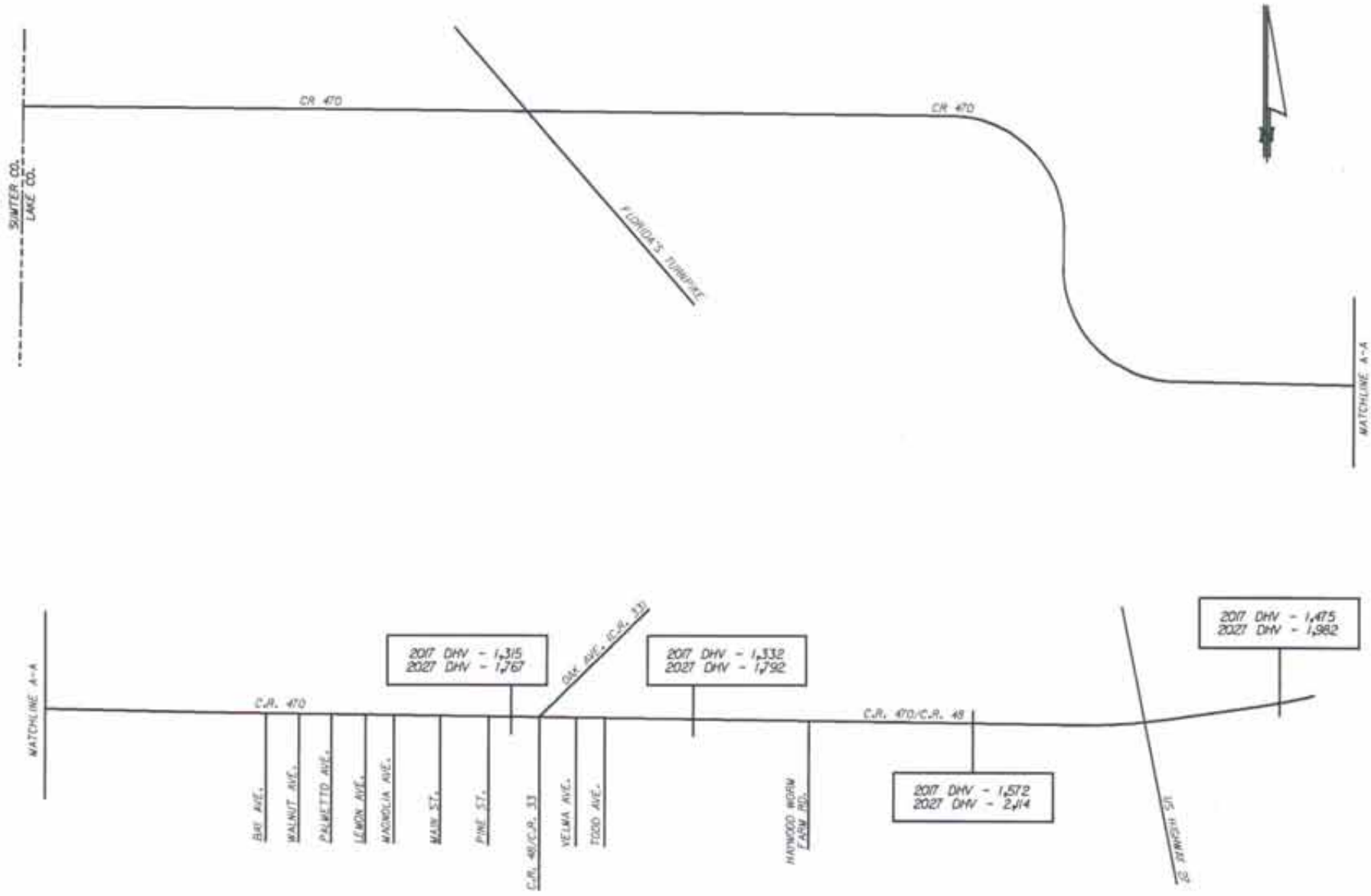


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2027 NO BUILD PEAK HOUR TURNING COUNTS (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 20

21-9



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 AND 2027 BUILD AADT (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 21

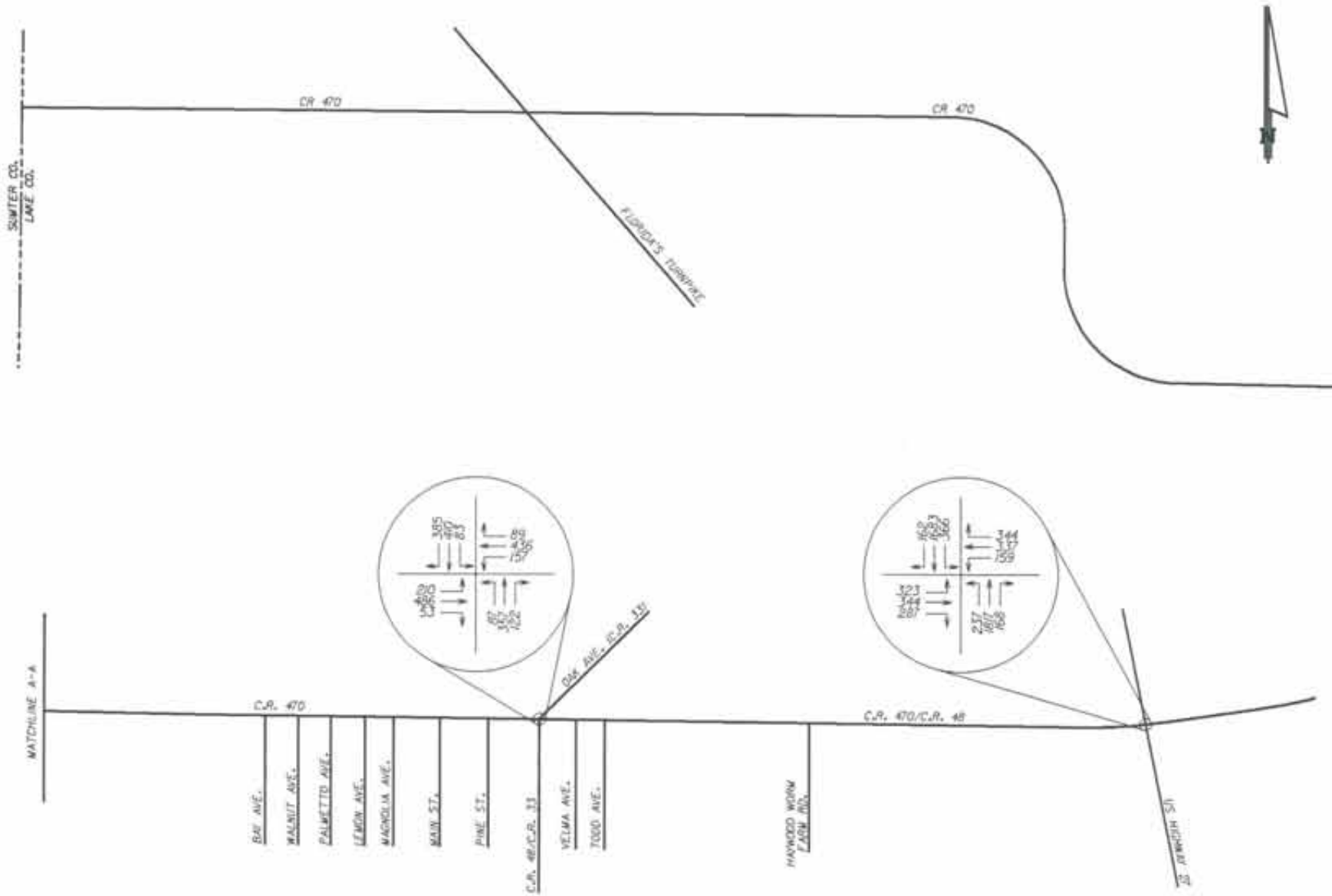


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 & 2027 BUILD DESIGN HOURLY VOLUMES (WITHOUT DEVELOPMENT)

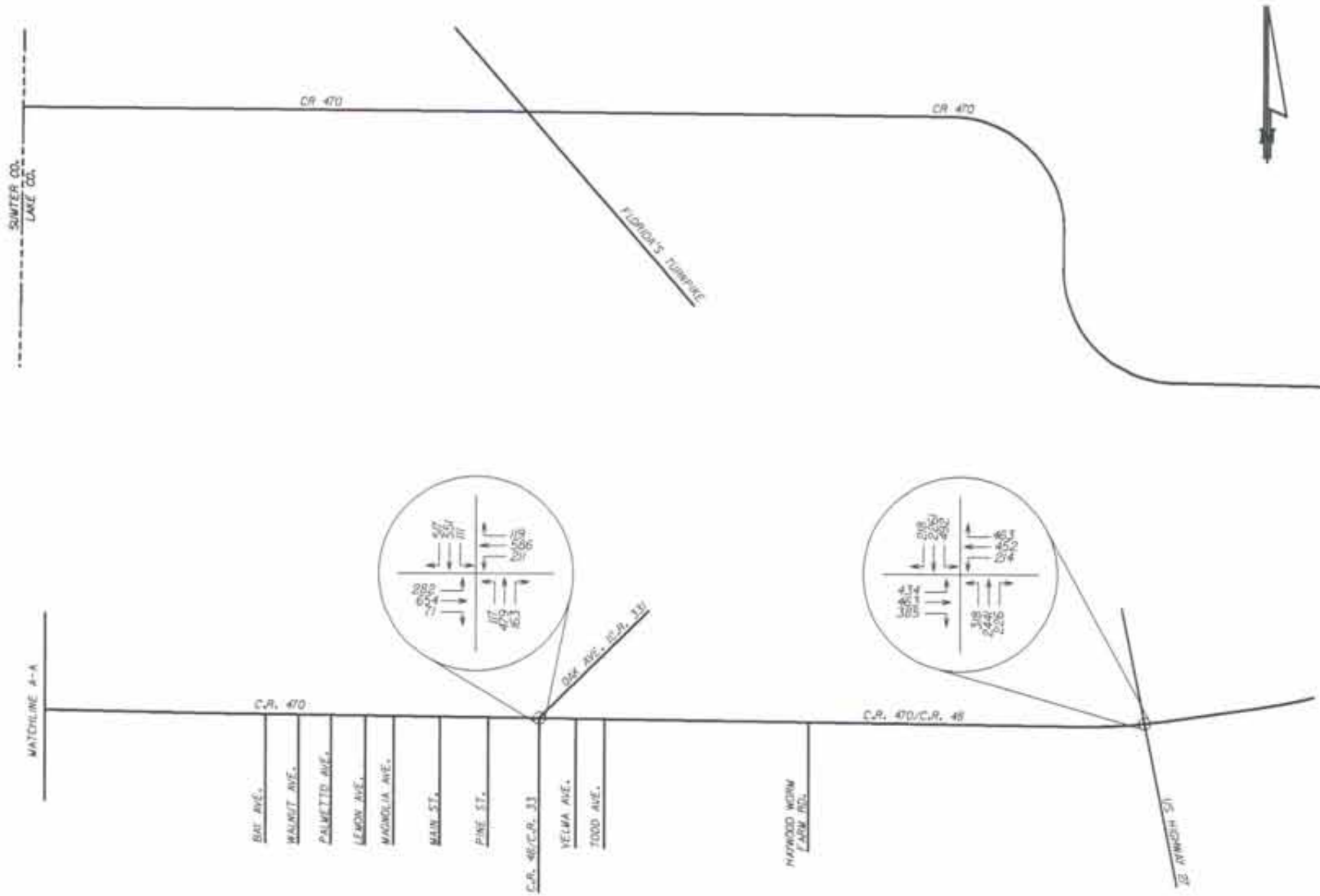
Lake County

FIGURE NO. 22

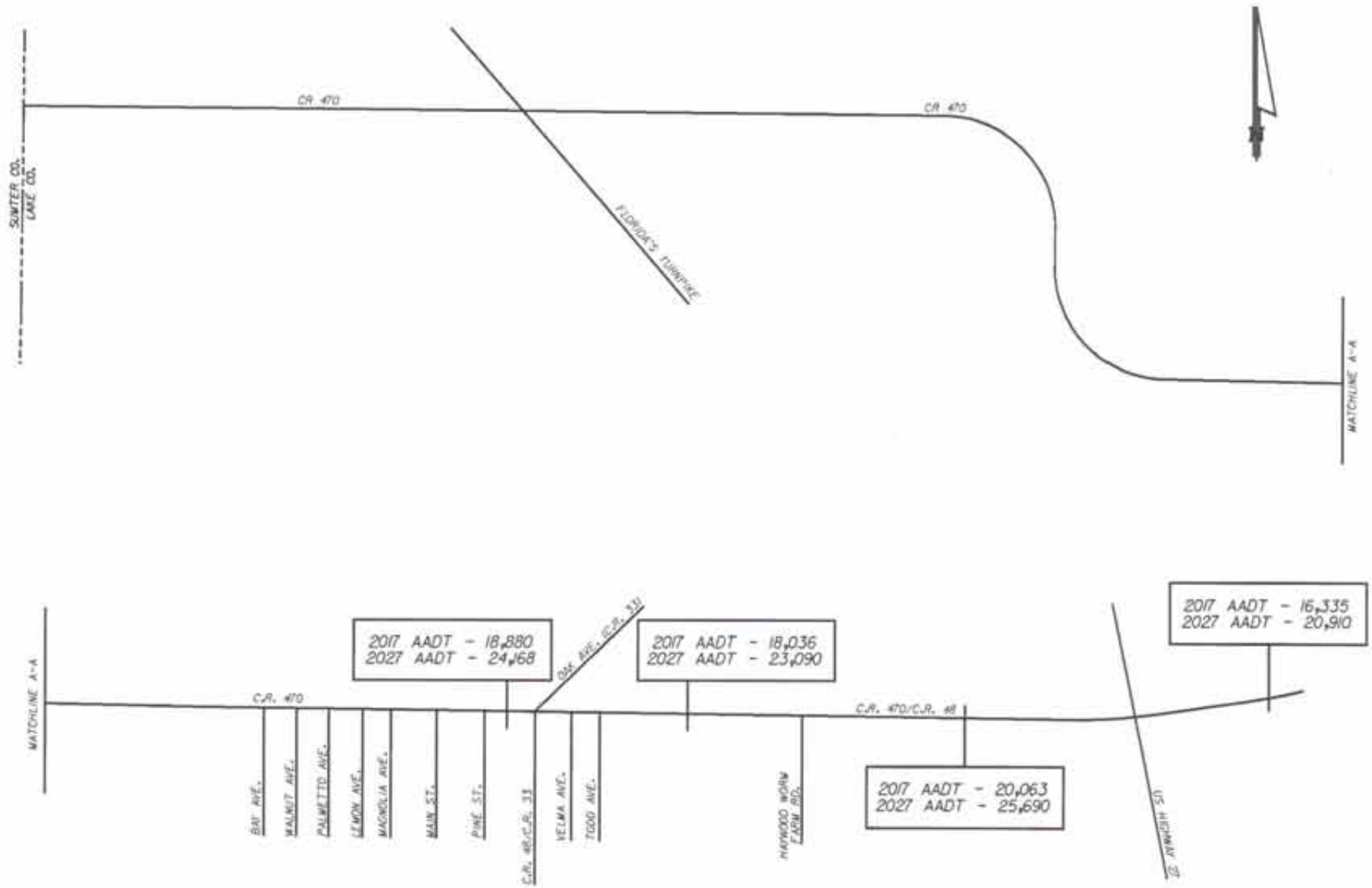


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 BUILD PEAK HOUR TURNING COUNTS (WITHOUT DEVELOPMENT)	Lake County
		FIGURE NO. 25

SI-9

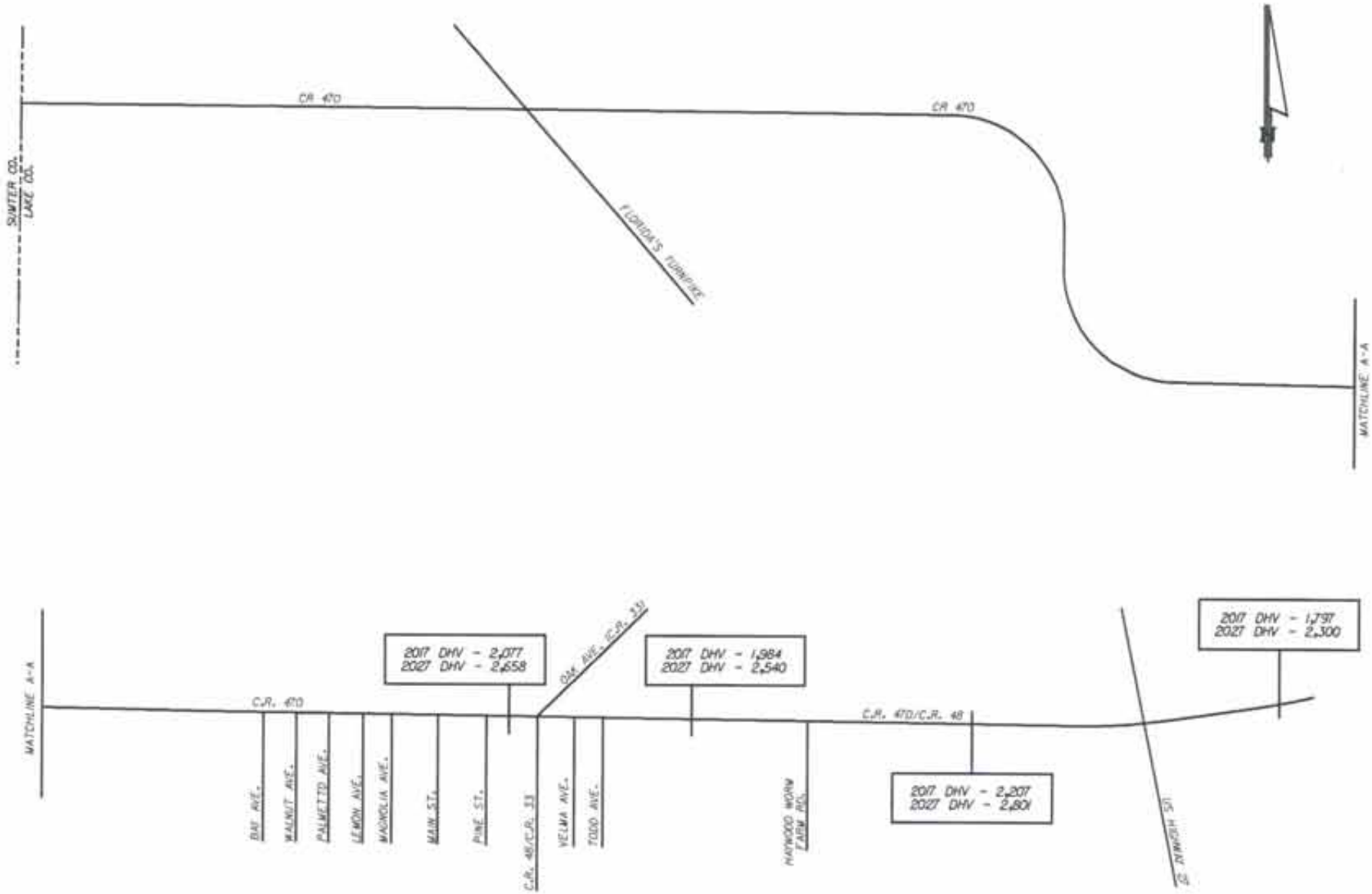


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2027 BUILD PEAK HOUR TURNING COUNTS (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 24



U-9

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 AND 2027 NO BUILD AADT (WITH DEVELOPMENT)	Lake County	FIGURE NO. 25

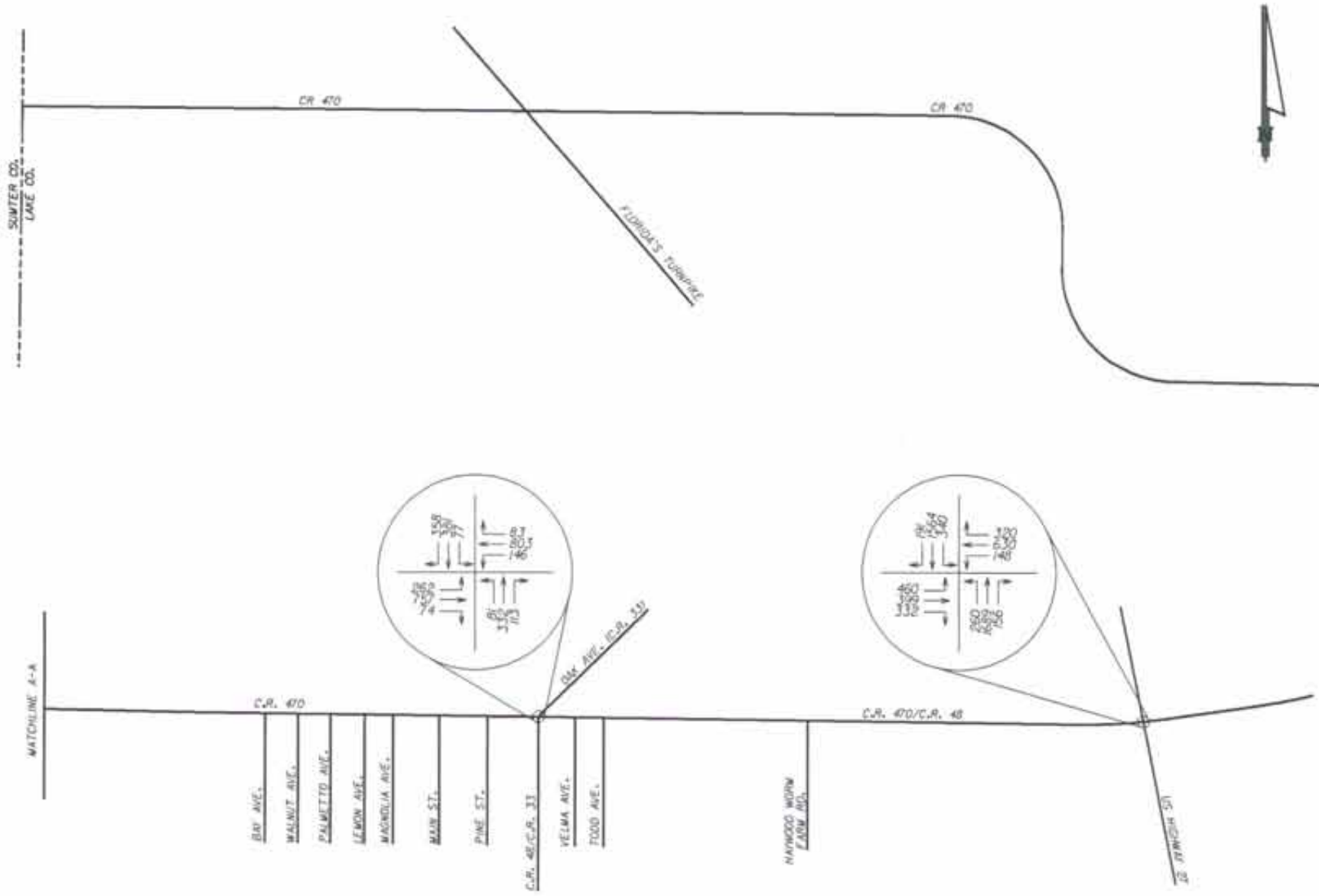


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

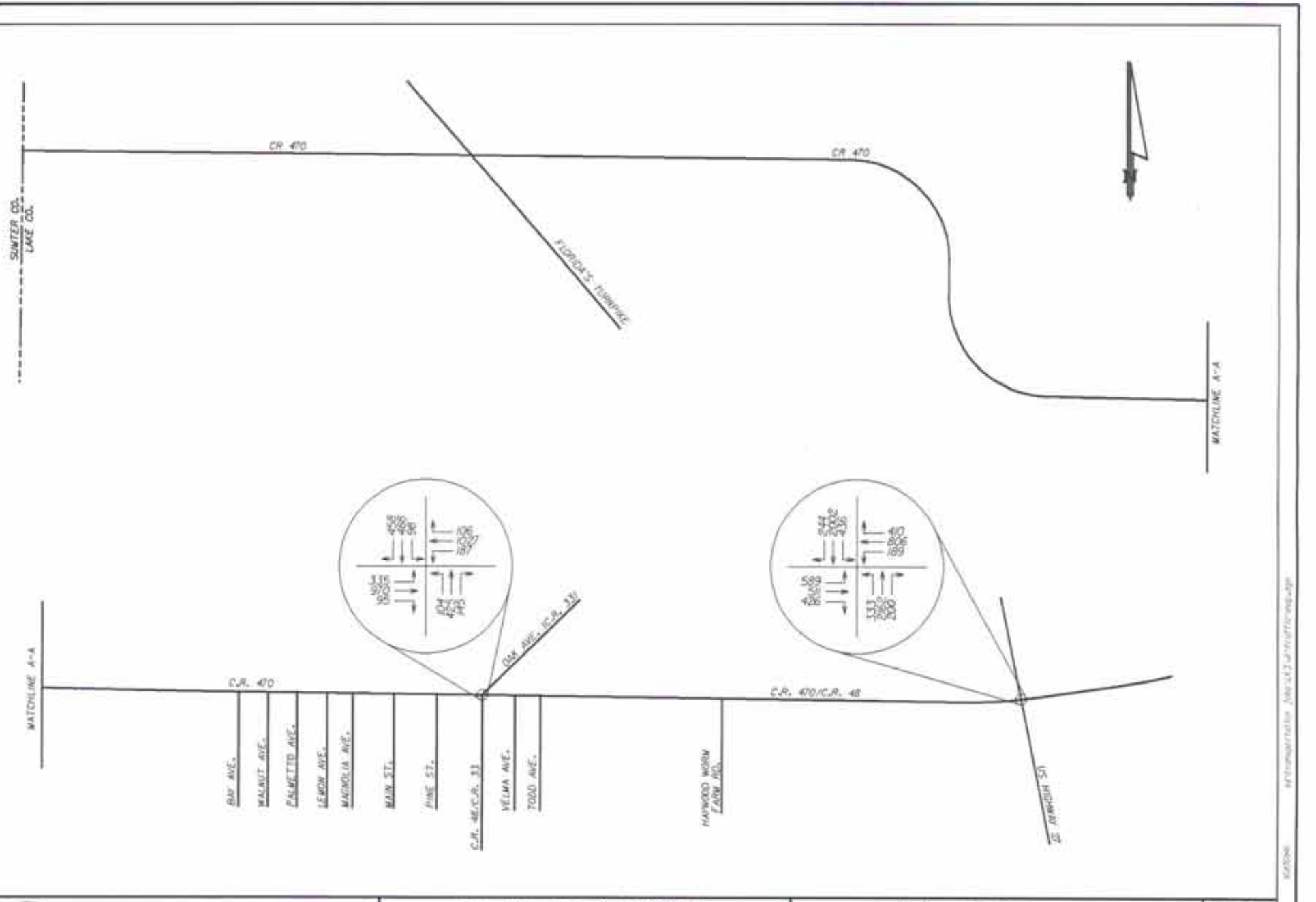
C.R. 470 - P.D. & E STUDY
2017 & 2027 NO BUILD DESIGN HOURLY VOLUMES (WITH DEVELOPMENT)

Lake County

FIGURE NO. 26

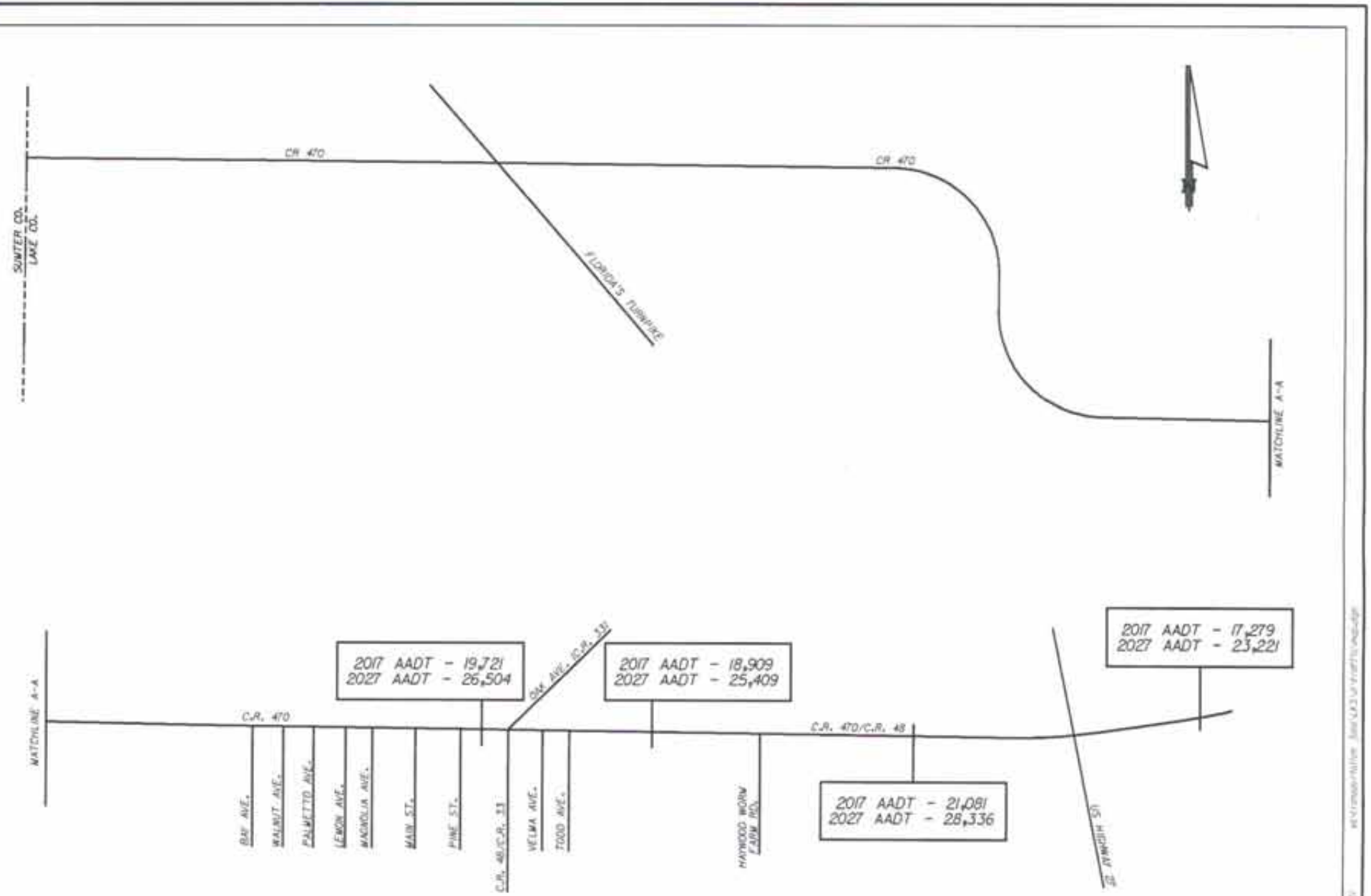


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 NO BUILD PEAK HOUR TURNING COUNTS (WITH DEVELOPMENT)	Lake County	FIGURE NO. 27

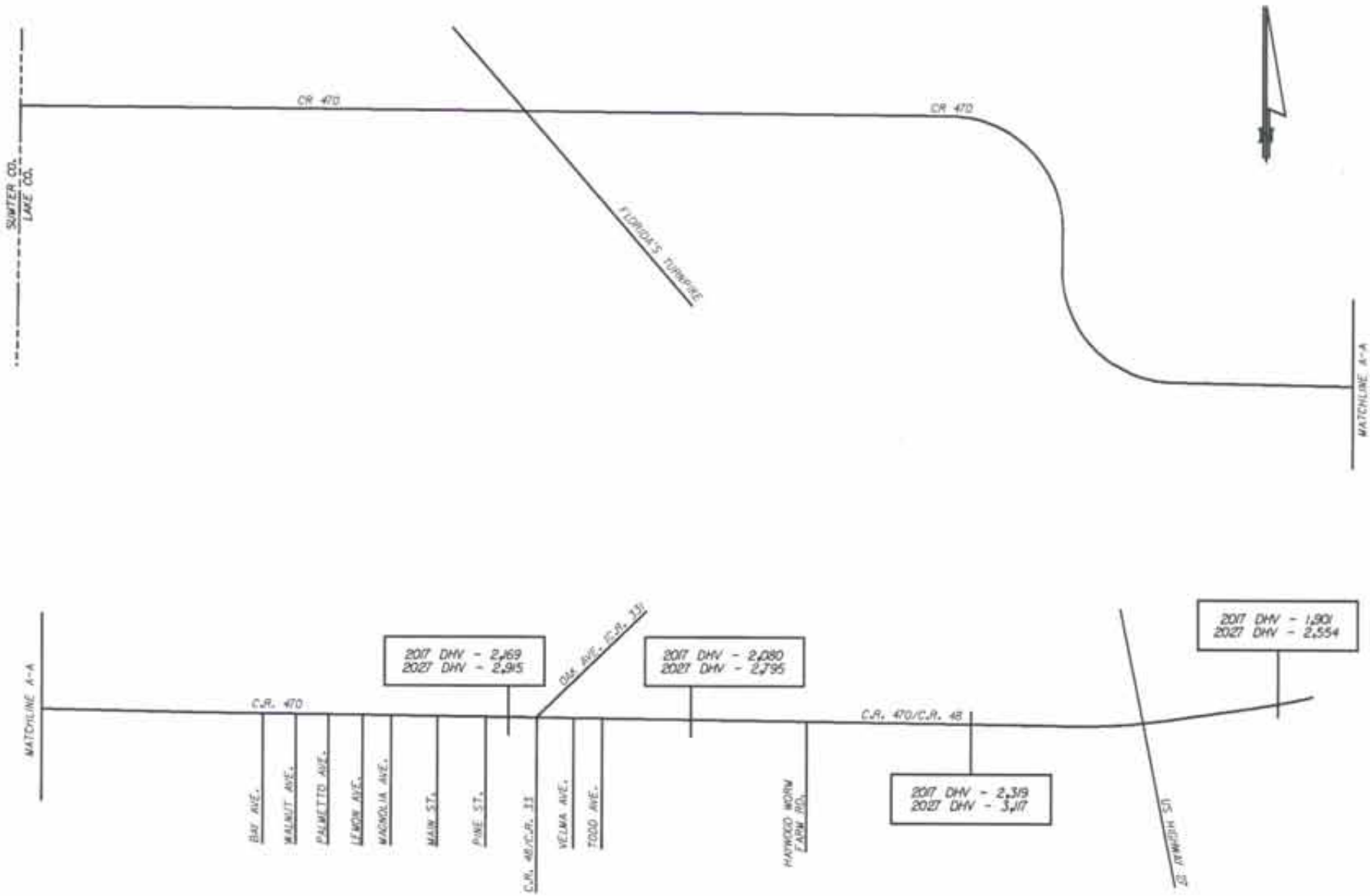


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2027 NO BUILD PEAK HOUR TURNING COUNTS (WITH DEVELOPMENT)	Lake County	FIGURE NO. 28

6-20

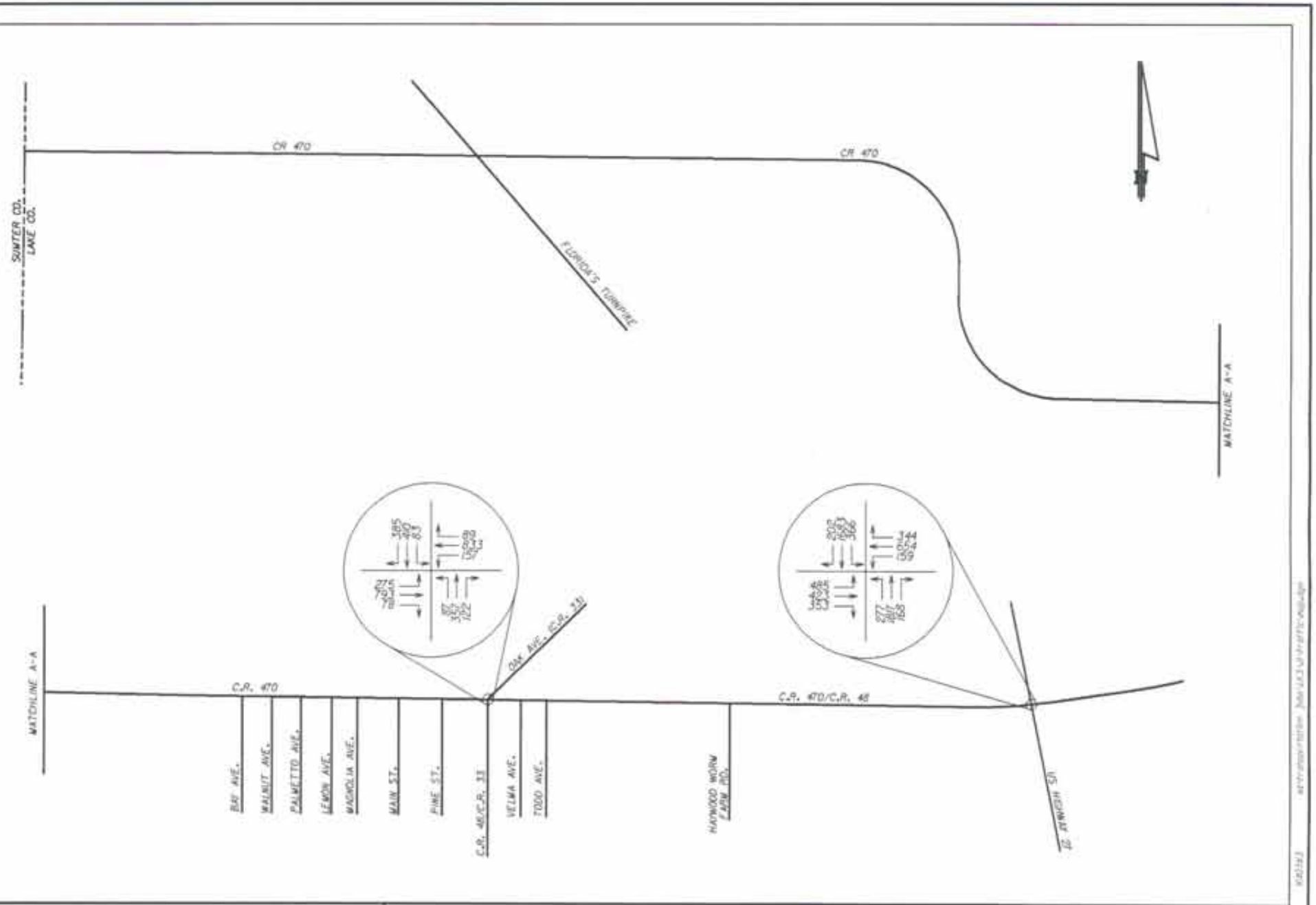


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 AND 2027 BUILD AADT (WITH DEVELOPMENT)	Lake County	FIGURE NO. 29



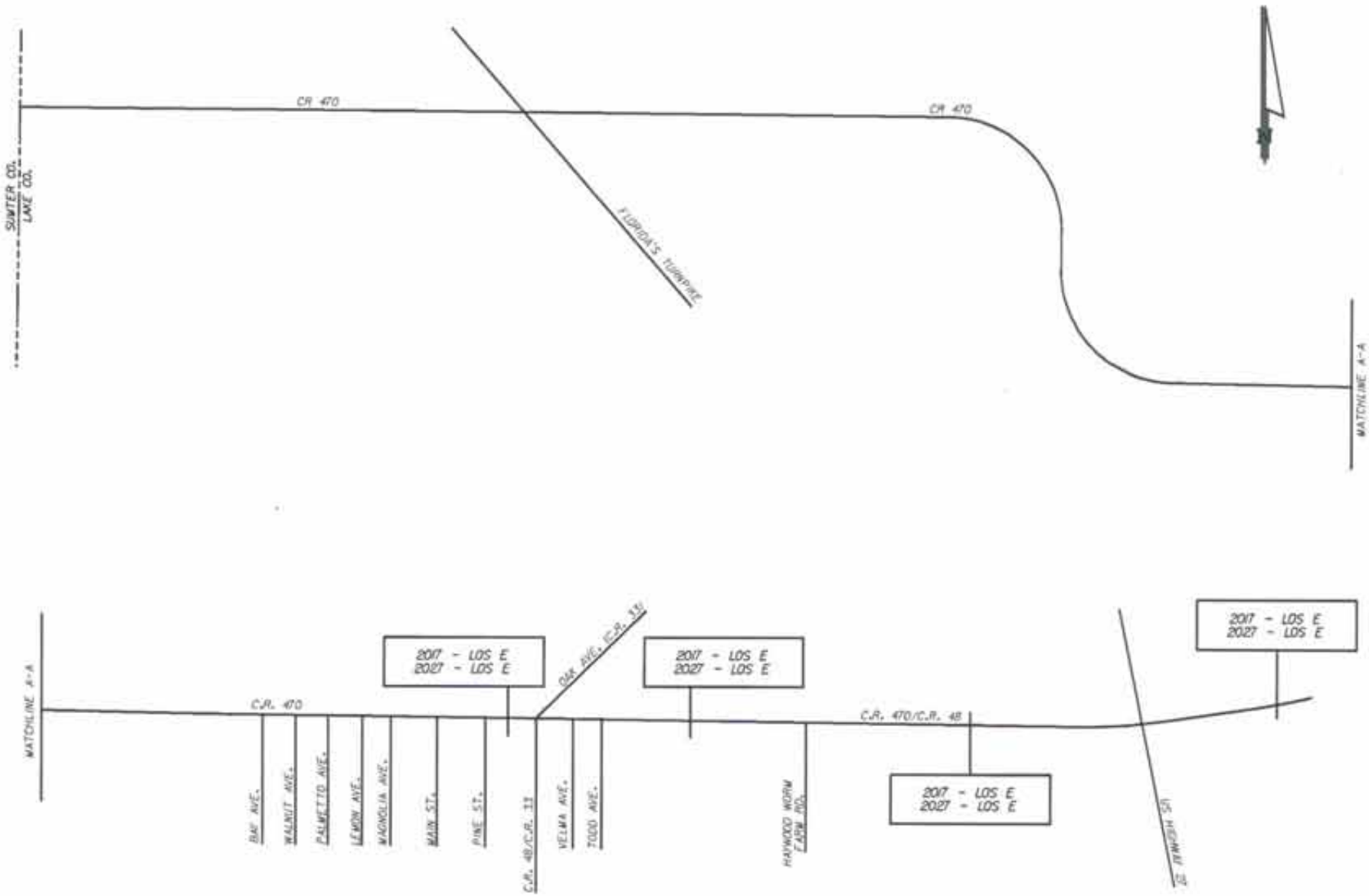
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 & 2027 BUILD DESIGN HOURLY VOLUMES (WITH DEVELOPMENT)	Lake County	FIGURE NO. 30

22-9

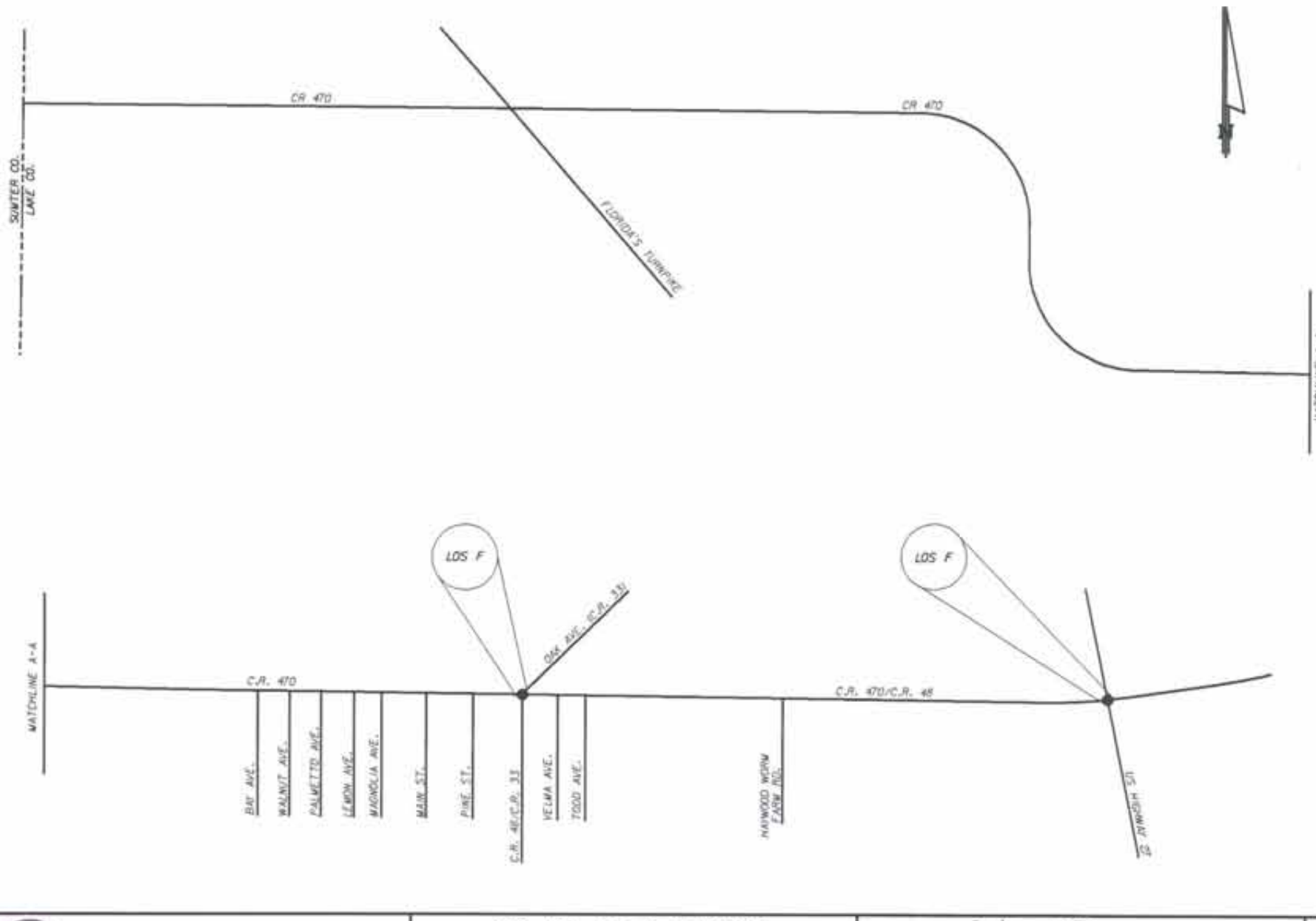


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 BUILD PEAK HOUR TURNING COUNTS (WITH DEVELOPMENT)	Lake County	FIGURE NO. 31

MATCHLINE A-A
CR 470
FLORIDA'S TURNPIKE
CR 470
SUMTER CO.
LAKE CO.
US HIGHWAY 27
C.R. 470/C.R. 48
HARWOOD WORM FARM RD.
OAK AVE.
C.R. 48/C.R. 33
TODD AVE.
VELMA AVE.
PINE ST.
MAIN ST.
MAGNOLIA AVE.
LEMON AVE.
PALMETTO AVE.
WALNUT AVE.
BAY AVE.
C.R. 470
MATCHLINE A-A
Lake County
FIGURE NO. 32
C.R. 470 - P.D. & E STUDY
2027 BUILD PEAK HOUR TURNING COUNTS (WITH DEVELOPMENT)
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 AND 2027 NO BUILD LEVELS OF SERVICE (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 33



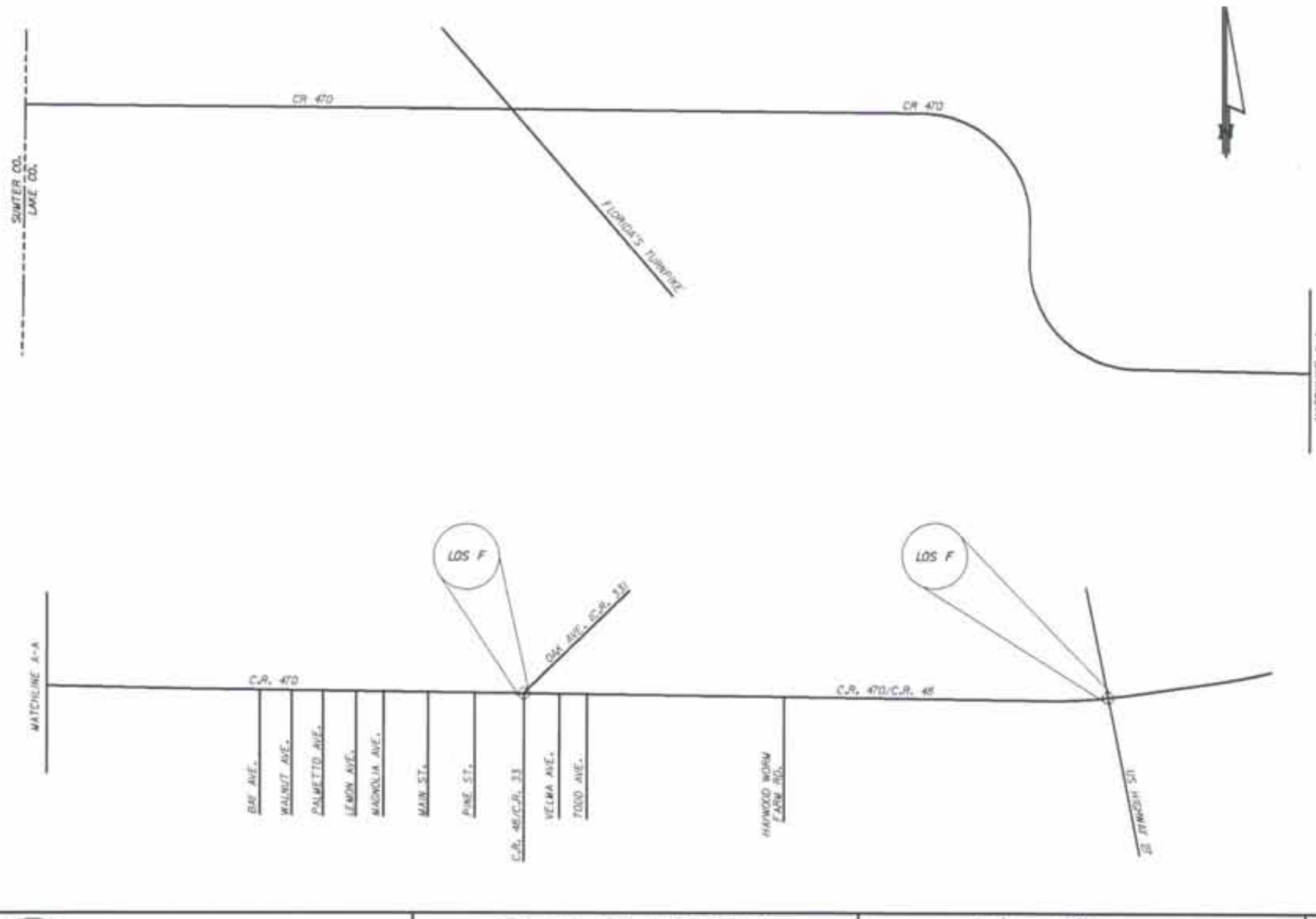
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 NO BUILD INTERSECTION LEVELS OF SERVICE (WITHOUT DEVELOPMENT)

Lake County

FIGURE NO.
34

92-9

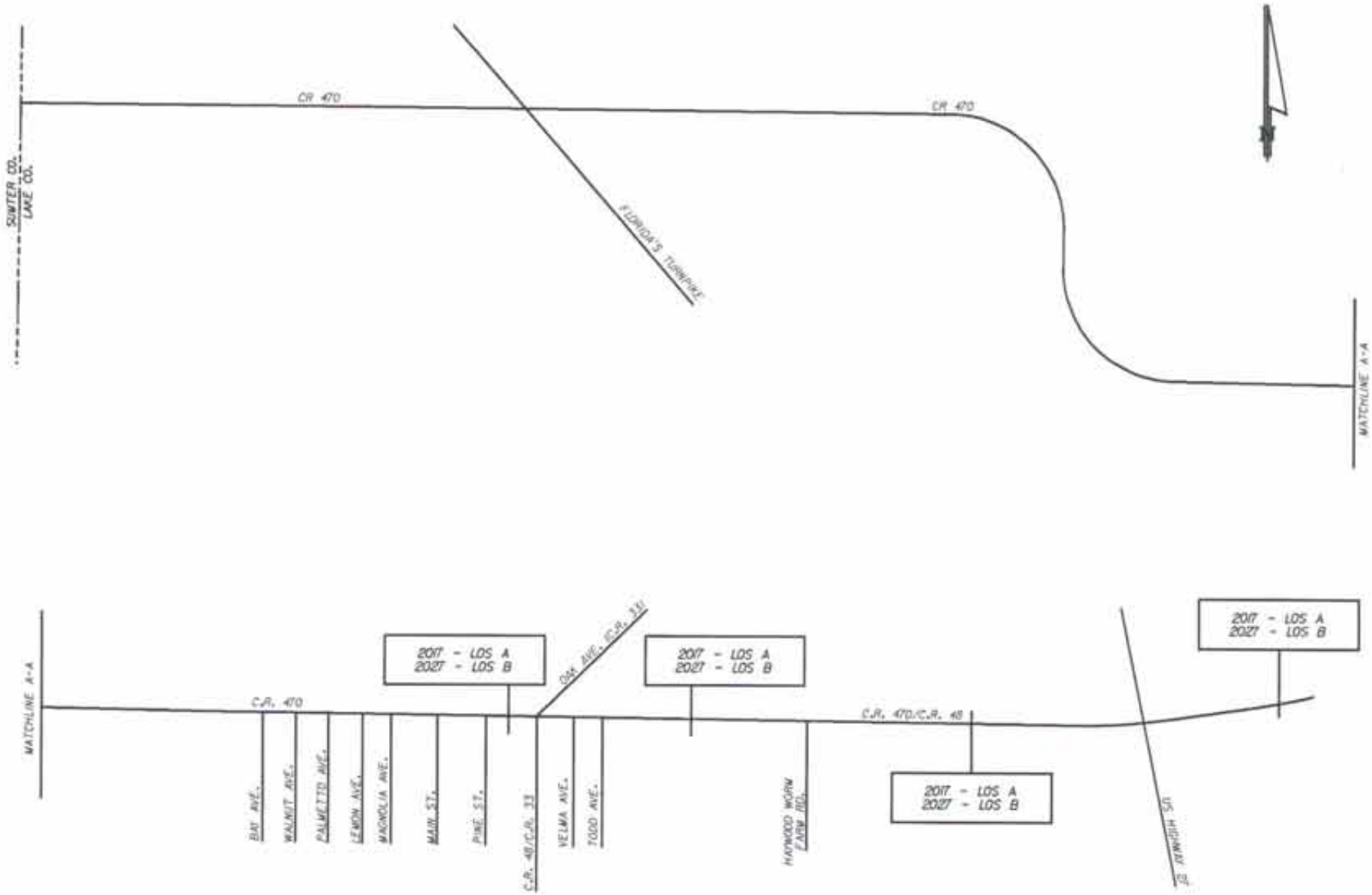


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

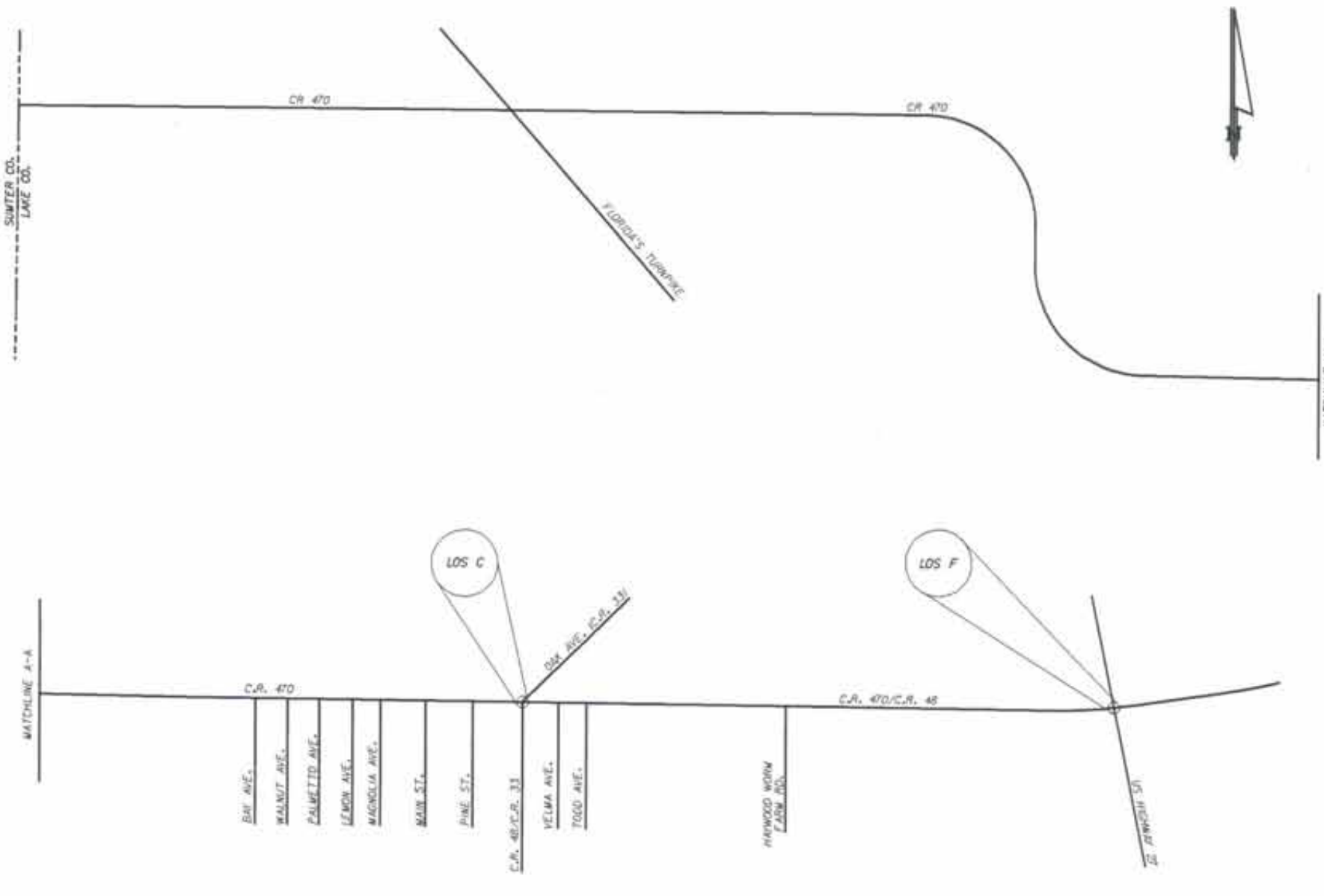
C.R. 470 - P.D. & E STUDY
2027 NO BUILD INTERSECTION LEVELS OF SERVICE (WITHOUT DEVELOPMENT)

Lake County

FIGURE NO. 35



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2017 AND 2027 BUILD LEVELS OF SERVICE (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 36



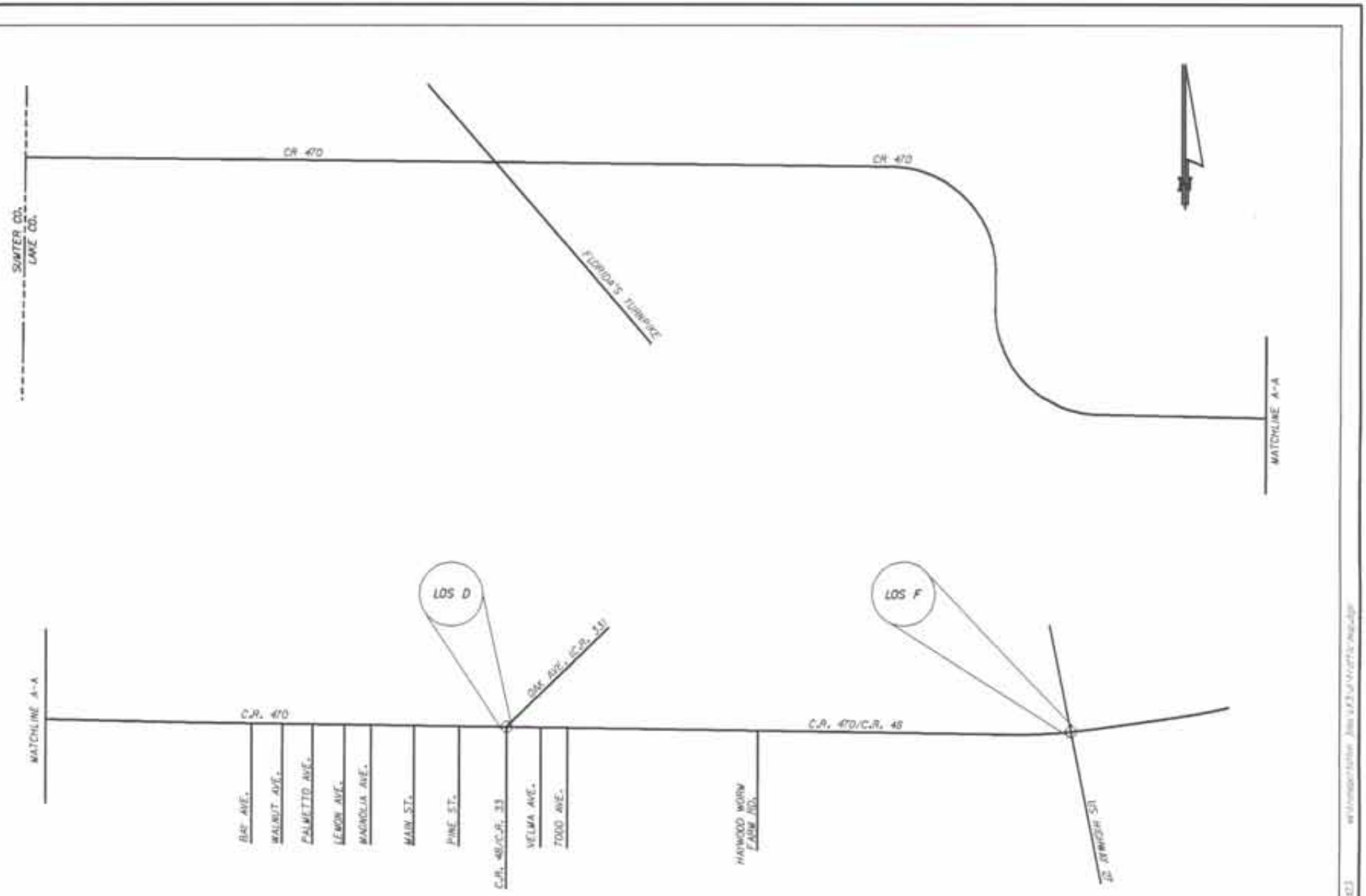
62-9

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 BUILD INTERSECTION LEVELS OF SERVICE (WITHOUT DEVELOPMENT)

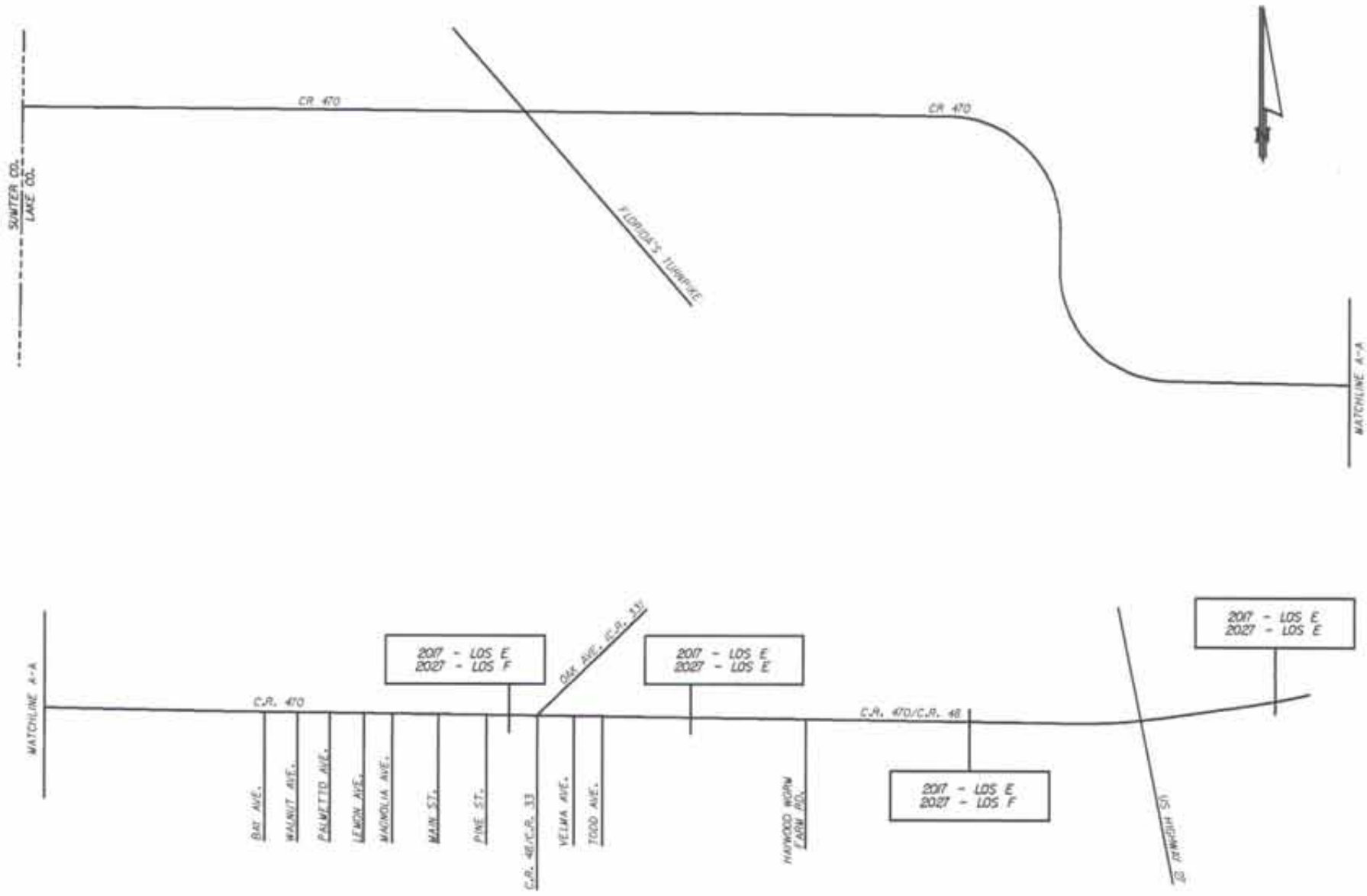
Lake County

FIGURE NO. 37



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY 2027 BUILD INTERSECTION LEVELS OF SERVICE (WITHOUT DEVELOPMENT)	Lake County	FIGURE NO. 38

6-30



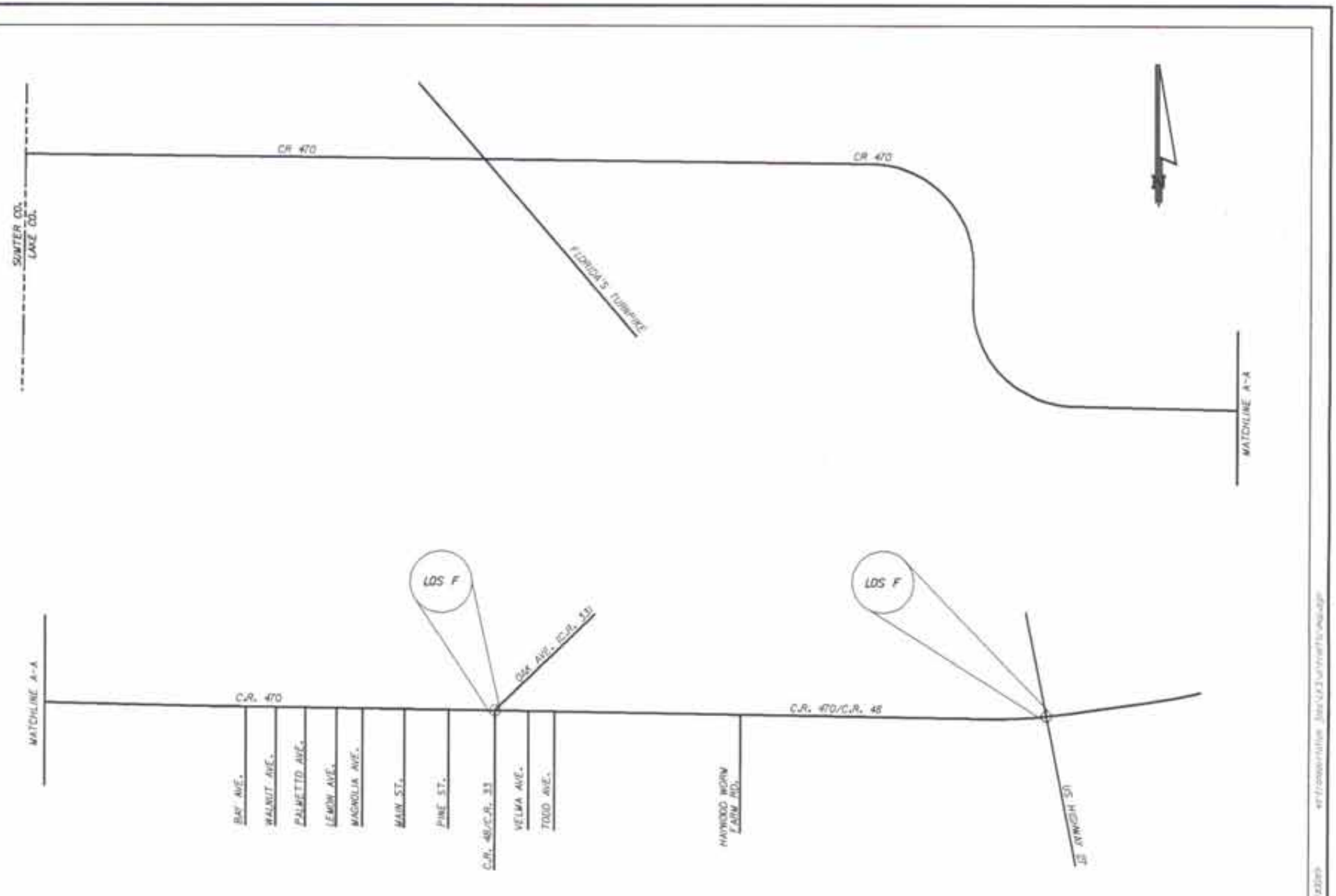
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 AND 2027 NO BUILD LEVELS OF SERVICE (WITH DEVELOPMENT)

Lake County

FIGURE NO. 39

6-31

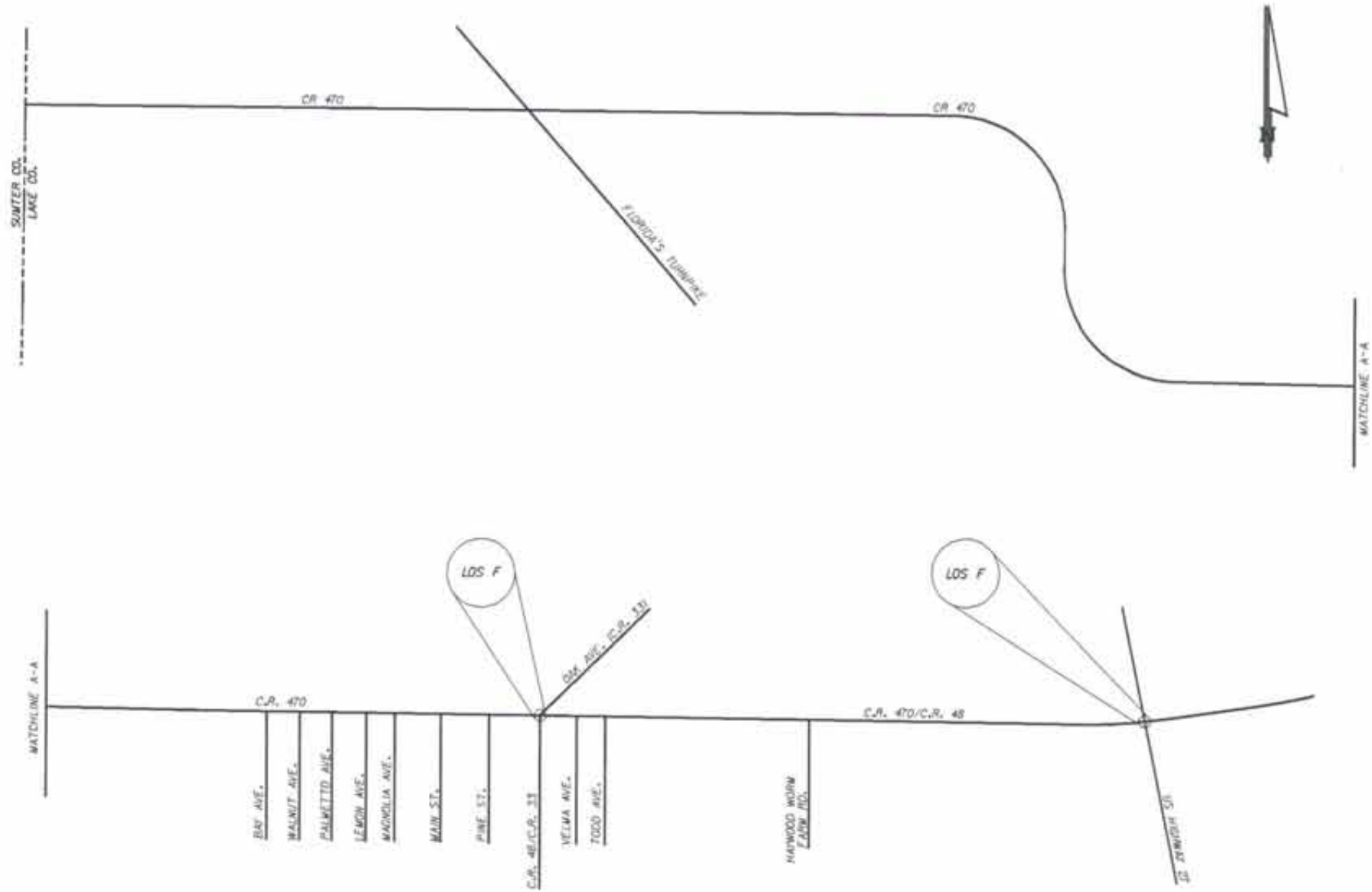


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 NO BUILD INTERSECTION LEVELS OF SERVICE (WITH DEVELOPMENT)

Lake County

FIGURE NO.
40

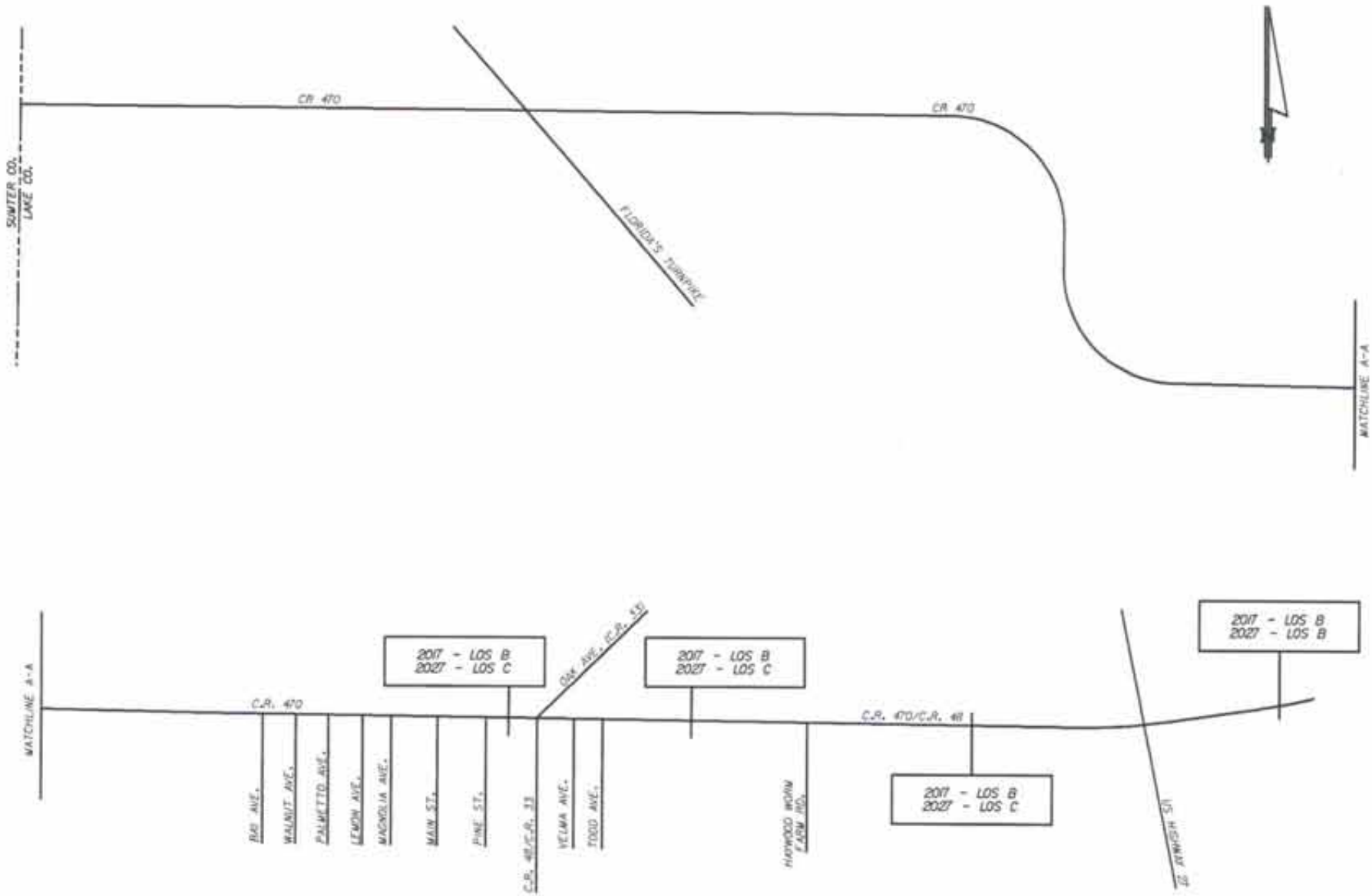


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2027 NO BUILD INTERSECTION LEVELS OF SERVICE (WITH DEVELOPMENT)

Lake County

FIGURE NO. **41**

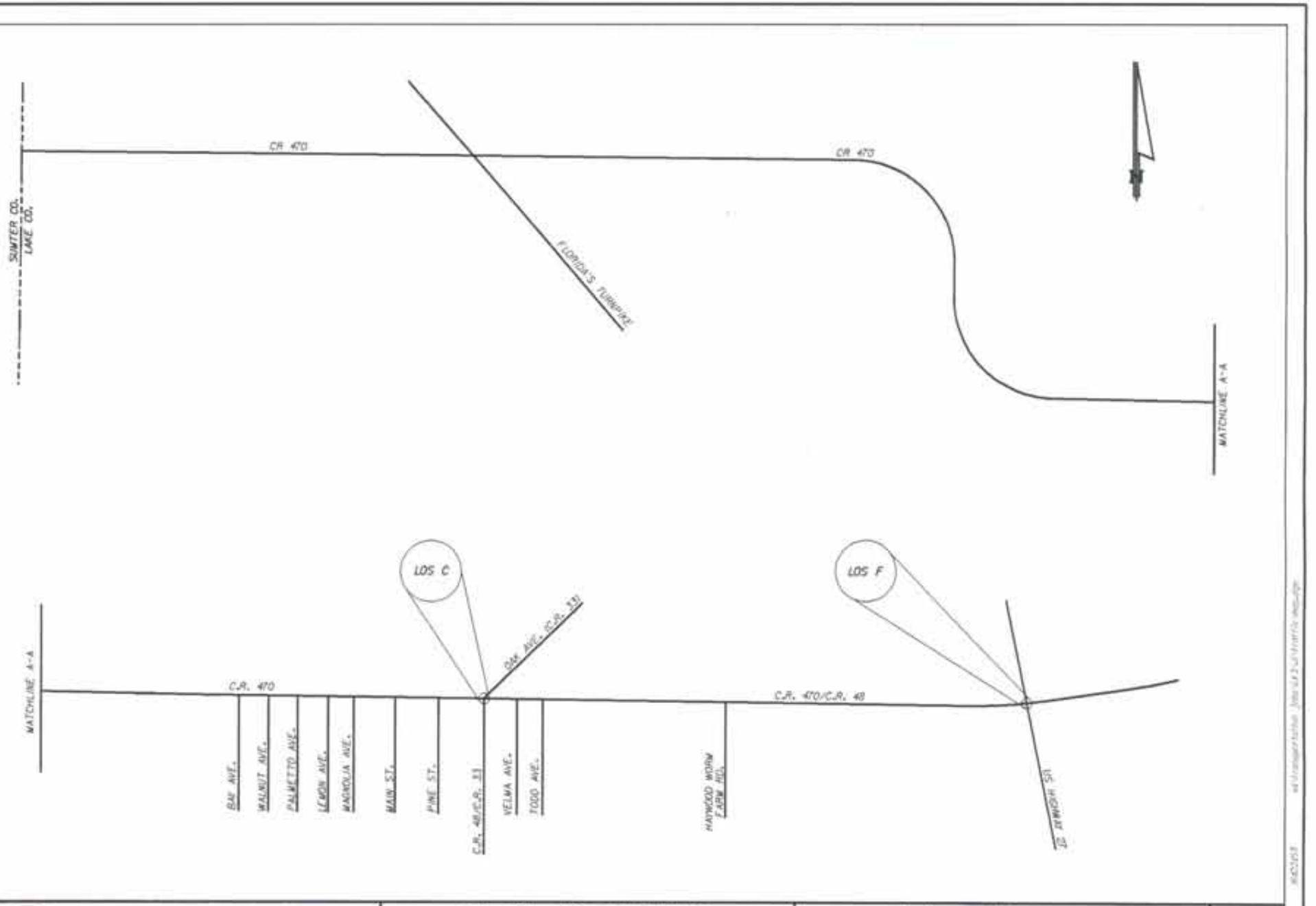


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 AND 2027 BUILD LEVELS OF SERVICE (WITH DEVELOPMENT)

Lake County

FIGURE NO. 42

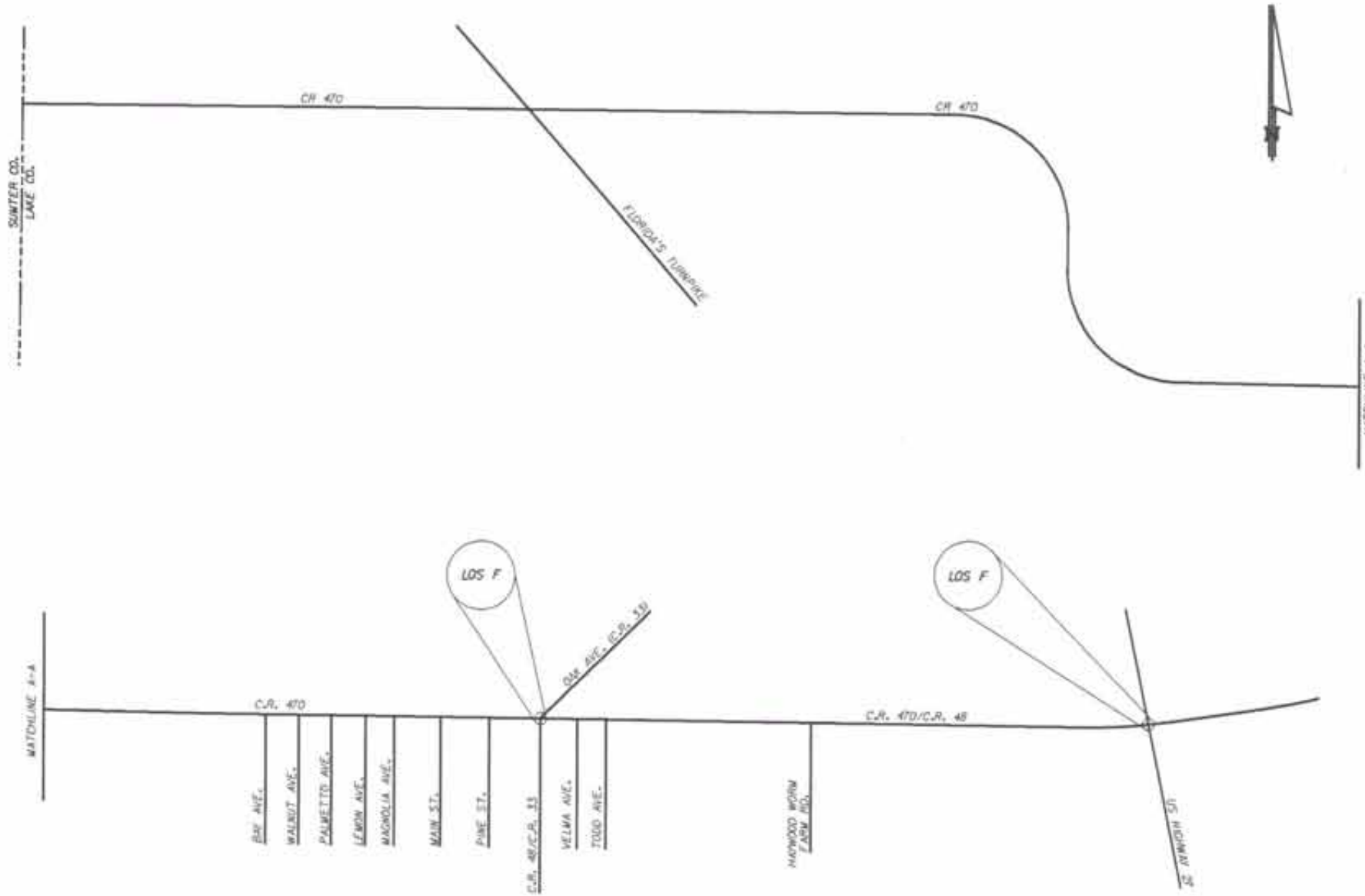


STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2017 BUILD INTERSECTION LEVELS OF SERVICE (WITH DEVELOPMENT)

Lake County

FIGURE NO. 13



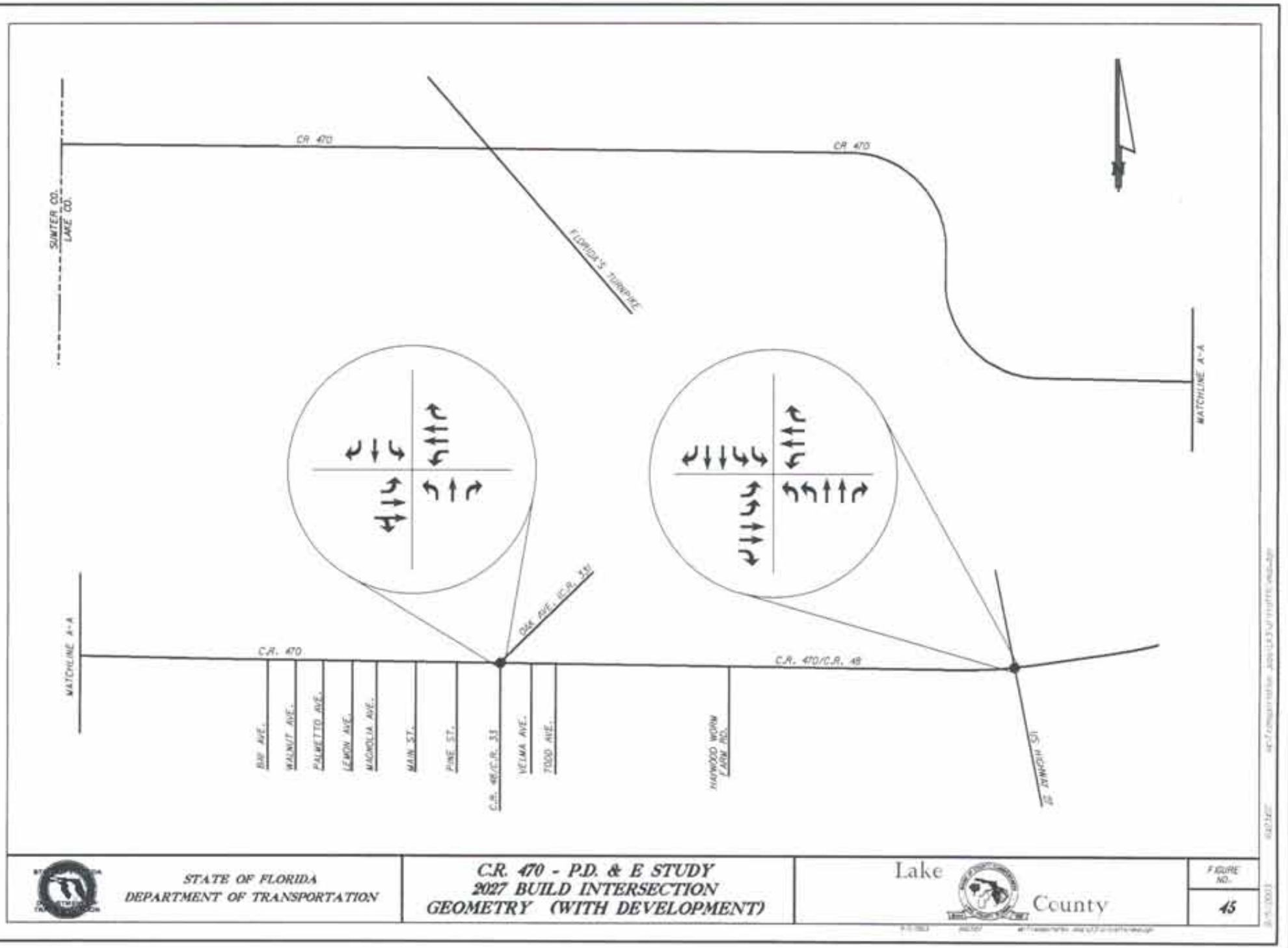
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2027 BUILD INTERSECTION LEVELS OF SERVICE (WITH DEVELOPMENT)

Lake County

FIGURE NO. 44

6-26



STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

C.R. 470 - P.D. & E STUDY
2027 BUILD INTERSECTION GEOMETRY (WITH DEVELOPMENT)

Lake County

FIGURE NO.
45

7.0 CORRIDOR ANALYSIS

The objective of the Corridor Analysis is to investigate alternate corridors that are cost-effective and acceptable to the community. The process involves the use of 1"=400' scale aerial photography in conjunction with a preliminary engineering and environmental resource overlays to develop preliminary alternative alignments that avoid significant environmental impact. Consideration is also given to identification of available right-of-way, through which an improved facility, providing an acceptable level of service, consistent with the transportation planning requirements could be developed.

7.1 Evaluation of Alternate Corridors

No alternate east-west corridors have been identified for this area. Any alternative corridor considered must include a connection to the Turnpike in order to provide the same network connectivity. There are no existing alternate east-west corridors that provide this function. New east-west corridors would be constrained by both the Turnpike connection and the increasing development along the area, especially with respect to an adequate connection to US 27. The existing corridor, with some realignment to flatten existing curves and improve safety, is the most feasible alternative and will be evaluated for improvements.

8.0 ALTERNATIVE ALIGNMENT ANALYSIS

Within the CR 470 corridor, the 'No-Build' concept, Transportation System Management concept and alternative alignments were considered. The results of this analysis were compared in an effort to select the most viable alignment in terms of social, economic, environmental and engineering impacts.

8.1 No-Build Alternative

The 'No-Build' alternative assumes that the CR 470 facility would remain as it is today. This scenario would allow the existing facility to remain, with only routine maintenance. Selection of this alternative would rely on other transportation improvements system-wide to handle traffic flow. The advantages of this alternative include:

- No right-of-way acquisition
- No relocations
- No inconvenience to the traveling public and property owners during construction, and
- No design, right-of-way and construction costs

However, the "No-Build" Alternative would offer no benefit to the future traffic conditions. The lack of any improvements would result in steadily increased traffic congestion and longer travel times for users of the CR 470 corridor. Consequently, deficiencies associated with providing the "No-Build" alternative include low travel speeds, lengthy vehicle queues, impaired traffic flow and higher accident rates. These deficiencies are contrary to the Lake County Long Range Transportation Plan. Nonetheless, the "No Build" alternative will remain a viable alternative until a final decision is made following the Public Hearing and all engineering and environmental documents have been evaluated.

8.2 Transportation System Management

The Transportation System Management (TSM) alternative includes those types of activities designed to maximize the use of the existing transportation system. A TSM project is a limited construction alternative that would use minor improvements to enhance the capacity of the CR 470 corridor. These strategies include intersection widening and improved signalization. The advantages of this alternative would be the limited expenditure of funds to relieve existing and future traffic congestion problems. While some increased efficiency might result from this alternative, the overall capacity restrictions of maintaining the existing roadway configuration would not allow improvement of the overall level of service to support future traffic demands. Therefore, provisions for the use of TSM improvements was eliminated from further consideration.

8.3 Study Alternatives

Since the “No-Build” alternative and the Transportation Systems Management alternative do not satisfy the project needs, additional alternatives were developed and evaluated. Study alternatives were developed by identifying possible typical sections and alignments applicable to this type of facility.

8.3.1 Typical Sections

Several typical sections were developed and studied for CR 470. Each alternative had different right-of-way requirements and facilities. Only those alternatives that provided an adequate Level of Service, access to side streets and adjacent properties, medians and left turn lanes, and pedestrian facilities were considered for this evaluation.

The addition of bicycle facilities was not included in the typical section. The CR 470 corridor is not an existing or planned bicycle facility as approved by Lake County. Lake County has an extensive network of existing and planned bicycle facilities. Within the CR 470 project study area, the CR 33 corridor has paved shoulders and is an existing bicycle facility. In addition, there is a commitment to add paved shoulders on US 27 from Dewey Robbins Road to CR 33 in Year 2005. Also, there is a proposed rails to trails project planned (Leesburg to Okahumpka Spur) along the abandoned railroad track that crosses CR 470 just west of CR 33. These bicycle facilities create several north-south routes in the area. Another planned rails to trails project (Howey-in-the-Hills to Okahumpka Spur) is located approximately one-half mile south of CR 470 and parallels the CR 470 corridor. This spur connects the Leesburg to Okahumpka Spur and the CR 33 bicycle corridor to the US 27 bicycle facility, creating the needed east-west route. The addition of a bicycle facility along CR 470 would also require the acquisition of additional right-of-way through the residential area of Okahumpka that has existing homes located in close proximity to the right-of-way, increasing project costs and impacts to the community.

The typical sections evaluated for this Report are as follows:

- **Typical Section 1** – Four-lane Urban (See **Figure 46**) with 12-foot travel lanes, Type E inside curb & gutter with a 22-foot raised grassed median, Type F outside curb & gutter, a 3-foot utility strip, 5-foot sidewalks on both sides of the road and a closed stormwater system for stormwater runoff. This option requires a minimum of 100 feet of right-of-way.

- **Typical Section 2** – Four-lane Suburban (See **Figure 47**) with 12-foot travel lanes, Type E inside curb and gutter with a 22-foot raised grassed median, 5-foot

paved shoulders, roadside swales for stormwater runoff and 5-foot sidewalks on both sides of the road. This option requires a minimum of 142 feet of right-of-way.

- **Typical Section 3** – Four-lane Rural (See **Figure 48**) with 12-foot travel lanes, a 40-foot grassed median, 5-foot paved shoulders, roadside swales for stormwater collection and 5-foot sidewalks on both sides of the road. This typical section requires a minimum of 160 feet of right-of-way.

Each typical section was reviewed to determine which was most compatible with land usage, design speeds and right-of-way along CR 470.

Typical sections form one component of the study alternative. The second component, which is equally important in evaluating the study alternative, is the alignment or location of the typical section within the project corridor. The combination of typical section and alignment identifies the right-of-way acquisition requirements and project impacts.

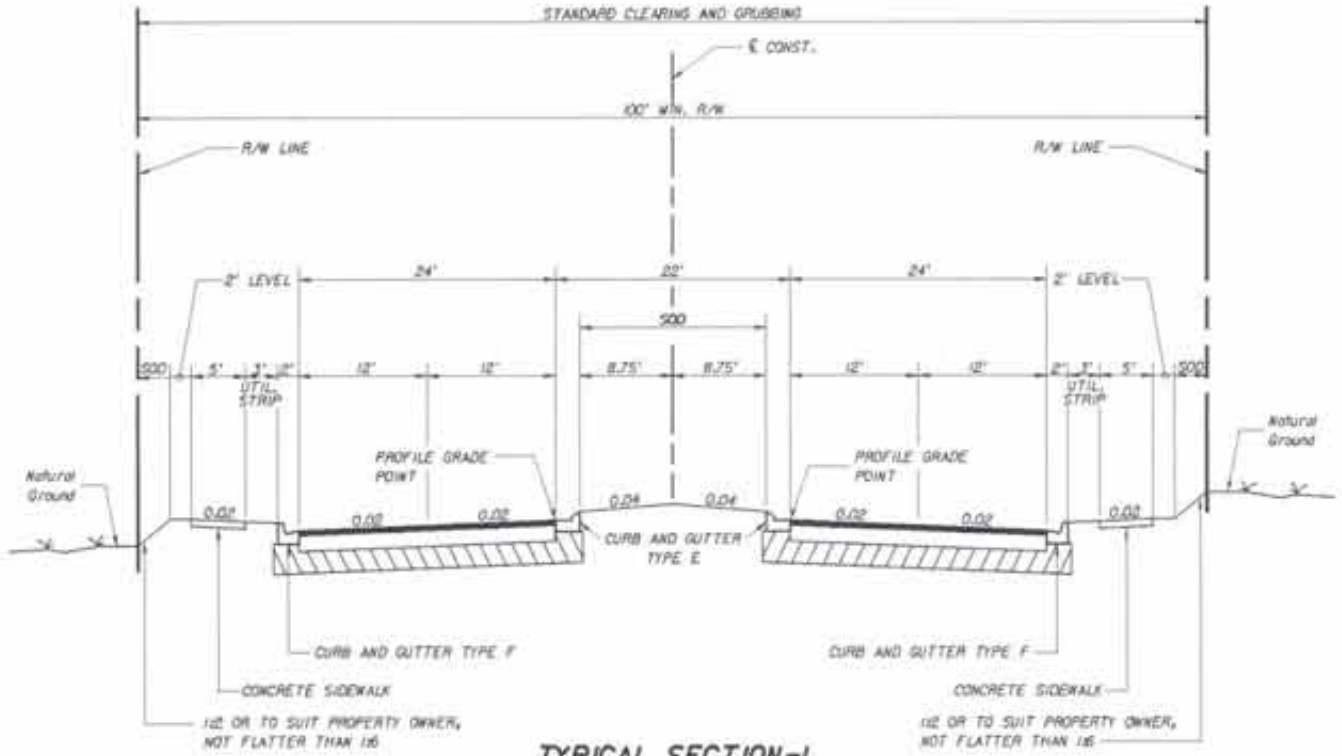
8.3.2 Alignment

The proposed horizontal alignment will generally follow or offset the existing road alignment and maximize the use of the existing right-of-way. However, after conducting a general study of the project area and geometry of the roadway, it was determined that a realignment of the reverse curves located east of the Turnpike was required to enhance safety and driver comfort. The current geometry, through the reverse curves, does not meet FDOT design standards for this type of facility and for the anticipated speed limits.

8.3.2.1 Curve Realignment

Three alternate alignments were studied for this segment of the roadway. All alternatives suggested re-aligning the existing reverse curves to meet current FDOT design standards. (**See Figure 49**).

Alternative No. 1 proposes a 3000-foot radius curve to the right with a length of 2400-feet, beginning just west of the existing curve, near the intersection of the proposed City of Leesburg access road, at approximately station 88+00. A 1200-foot tangent follows the first curve and leads into another 3000-foot radius curve to the left. The second curve is 2380-feet in length and intersects the existing roadway approximately 2690 feet south of the original alignment at station 156+10. The 3000-foot radius curves require a superelevation rate of 0.05%. This alternative aligns the

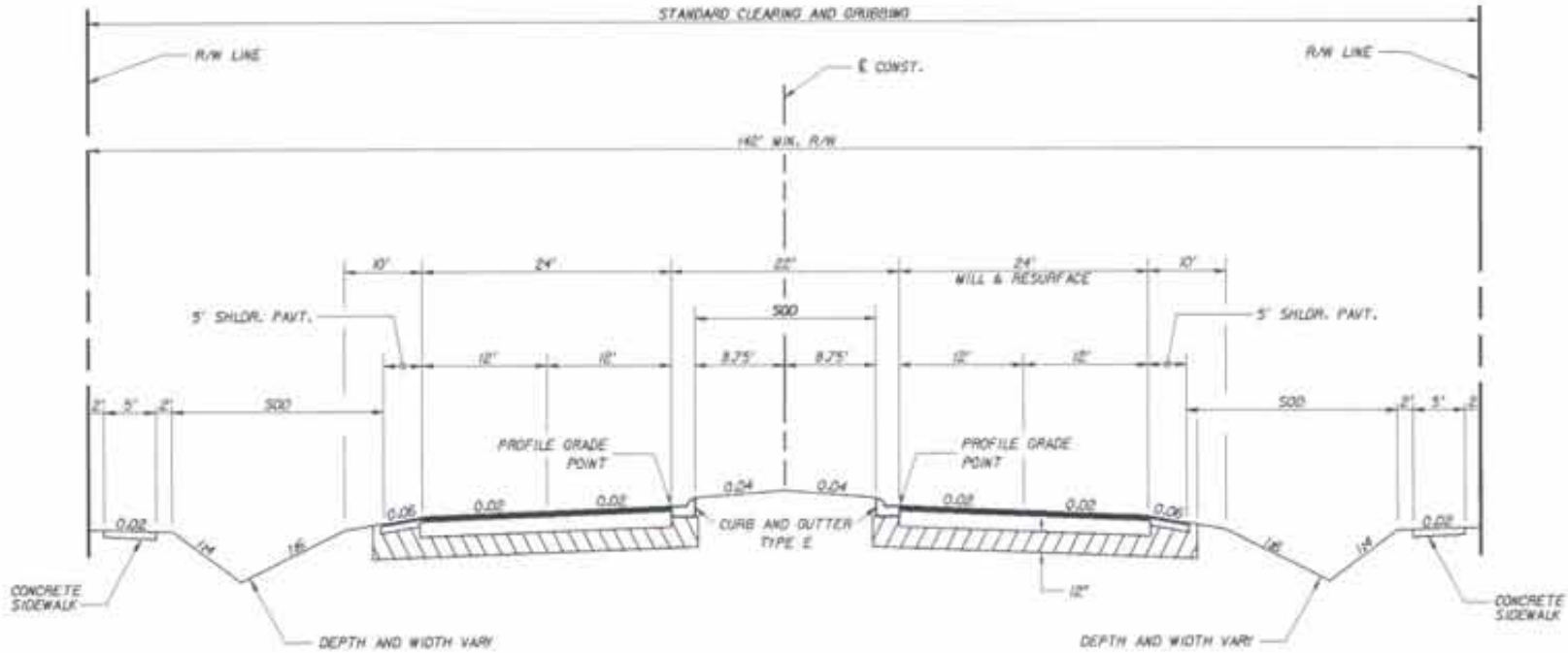


TYPICAL SECTION-1

4-LANE DIVIDED URBAN

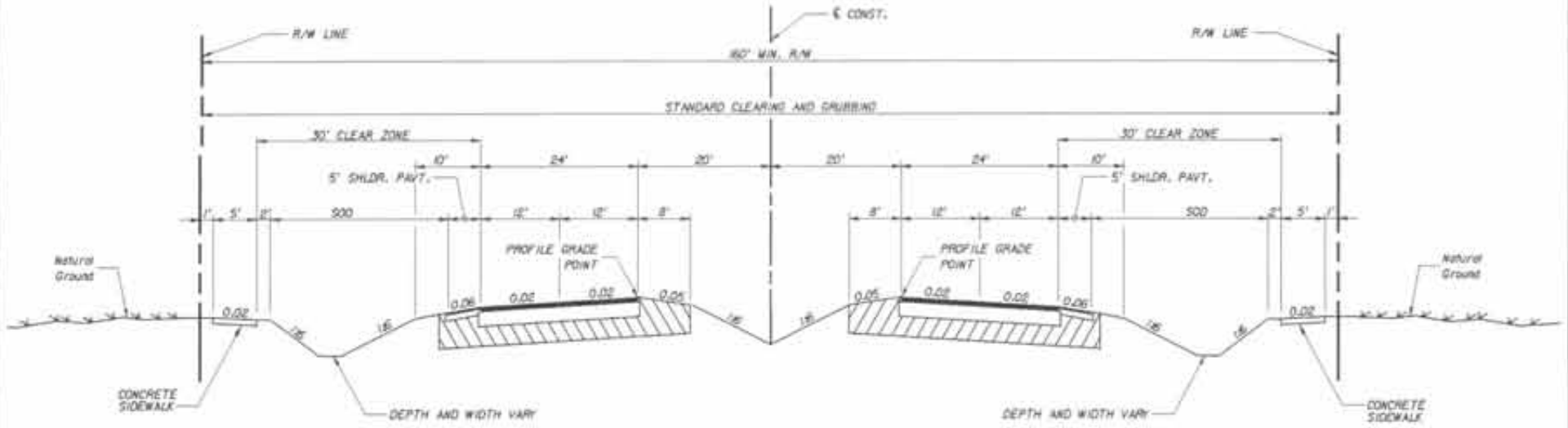
DESIGN SPEED 45 MPH

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY	Lake County	FIGURE NO. 46



TYPICAL SECTION-2
4-LANE DIVIDED SUBURBAN

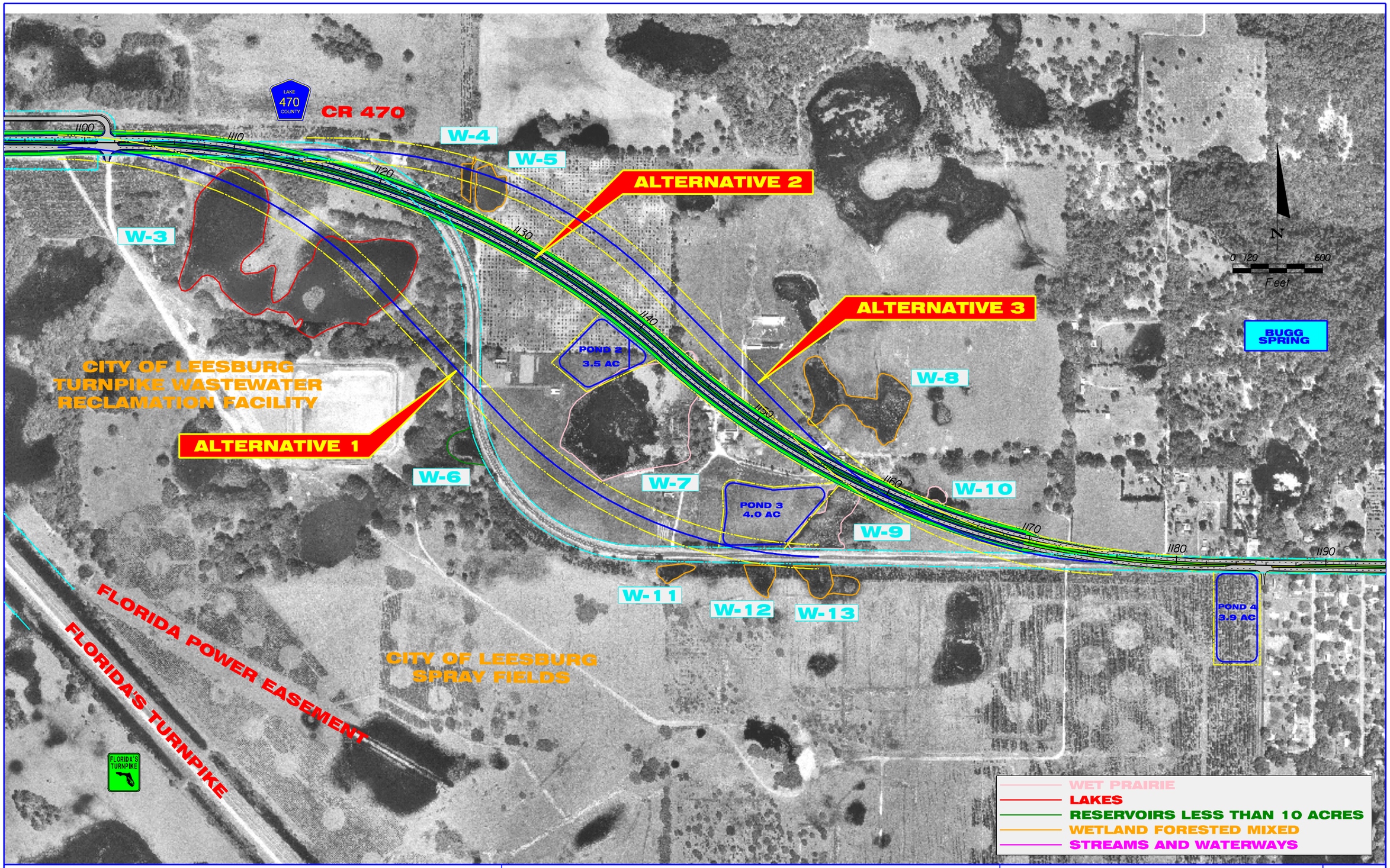
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY	Lake County	FIGURE NO. 47



TYPICAL SECTION-3
4-LANE DIVIDED RURAL
DESIGN SPEED 55 MPH

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY	Lake County	FIGURE NO. 48

9-8



STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

LAKE COUNTY

FIGURE 49
C.R. 470 - P.D. & E STUDY
CURVE REALIGNMENT ALTERNATIVES

SHEET NO.
8-7

$DATES $TIMES $FILES E:\Transportation Jobs\k3\j1\planrd13.dgn

roadway just north of the City of Leesburg's Turnpike Wastewater Reclamation Facility. This alignment traverses through several large wetland areas and creates some significant wetland impacts. However, this alignment has the shortest length of the alternatives, 5,980-feet, which decreases costs.

Alternative No. 2 incorporates a 3944-ft long curve with a radius of 5500-feet beginning at approximately station 93+00 followed by a reverse curve with a length of 3896-feet and a radius of 5500-feet; tying to the existing roadway alignment at station 181+70. This alignment traverses through the City of Leesburg's spray field property, but avoids major wetland or spray field impacts. The 5500-foot radius requires a superelevation rate of 0.032%. This alignment is 7,840 feet in length.

Alternative No. 3 introduces a 3000-ft radius curve to the right, east of the PC of the existing curve near station 107+00, followed by a 1386-foot tangent and another 3000-foot radius curve to the left. This alignment intersects the existing alignment just west of Okahumpka at station 175+75. This alignment has several wetland impacts and traverses several low lying areas. The 3000-foot radius requires a 0.05% superelevation rate. The total length of realignment is approximately 8,000 feet.

The City of Leesburg has purchased most of the parcels along both sides of the roadway, from the Turnpike to west of Okahumpka. Right-of-way, social, cultural and environmental impacts were quantified and tabulated for all alignment alternatives. Alignment No. 2 was chosen as the recommended alignment based on minimum impacts and feasibility.

8.3.2.2 Existing Roadway Widening

Following the analysis for the realignment of the roadway, key alignment issues were studied. A typical section had to be chosen for the corridor, and in doing so, additional right-of-way impacts for the rural and suburban options had to be estimated. Four other alignment options were studied to determine from where the additional right-of-way would be purchased.

- **Left Side Alignment** - The concept of the left side or west side roadway alignment is that most additional right-of-way is acquired from the left side, while maintaining the east side right-of-way line.

Right Side Alignment - With this alternative, most of the acquired right-of-way would be from the right side or east side of the road, while maintaining the west right-of-way line set.

- **Centered Alignment -** The concept of this alignment is that the proposed roadway typical section is centered on the existing right-of-way centerline. If necessary, additional right-of-way would be acquired from both sides of the road in equal measure.

- **Composite Alignment -** The concept of this alternative is to create an alignment that minimizes right-of-way, relocations and other impacts along the corridor. A composite alignment was only developed for the recommended typical section(s). This alignment may require right-of-way from both sides of the roadway.

8.3.3 Alternatives

The typical sections and alignments were combined to develop the design alternatives for CR 470. The combination of typical sections and alignments, along with the option of acquiring the additional right-of-way from either the left side, the right side or centered, created twenty-seven (27) alternatives.

All the alternatives were evaluated, however, some of them were not feasible and were not considered any further, for the intent of this study. These alternatives were the suburban and rural sections throughout the more urban areas, beginning west of Okahumpka and continuing to the end of the project corridor. The suburban and rural alternatives required an additional 42 feet and 60 feet, correspondingly, of additional right-of-way. Due to the proximity of residences and businesses to the existing right-of-way line, additional right-of-way taking would cause considerable social and environmental impacts along the corridor, and would have an adverse impact on the construction costs of this project.

Upon review of the corridor and the nature of the existing land usage, an additional alternative was developed. Because of the extremely rural character of the western segment of CR 470, the alternative that was developed provides a rural typical section along the western segments of the project and maintains an urban typical section on the eastern segment. The additional alternative is described as follows:

Composite Alternative

This Alternative utilizes curve realignment Alternative No. 2 and a rural typical section with 160 feet of right-of-way, from the Sumter County line to west of Okahumpka. The section would then transition to an urban section requiring 100 ft of right-of-way, beginning west of Okahumpka through the end of the project.

8.4 Evaluation Matrix

An evaluation matrix was developed to analyze and quantify the effects of each of the alternative alignments and typical sections. The matrix, shown in **Table 5**, quantifies the wetland impacts, relocations, and right-of-way requirements and also estimates the costs for construction.

8.5 Preferred Alternative

Based on the results of the engineering and environmental studies conducted for this project, and based upon input received from the public, the Composite Alternative (as described in Section 8.3 of this Report and illustrated in Appendix A has been selected as the Recommended Alternative. This alignment includes a rural, four-lane typical section with 160-feet of right-of-way at the west end of the project and an urban, four-lane divided typical section with 100-feet of right-of-way at the east end of the project. The recommended alternative utilizes Alternative No. 2 for the realignment within the reverse curve area. This recommended alternative was selected for the following reasons:

- Minimal right-of-way requirements
- One business relocation
- No residential relocations
- Minimal impacts to existing utilities
- Minimal wetland impacts

EVALUATION MATRIX-TABLE 5
(West of Turnpike to East of US 27)

Evaluation Factor	ALTERNATIVE 1									ALTERNATIVE 2									ALTERNATIVE 3									*COMPOSITE ALTERNATIVE 2
	RURAL			SUBURBAN			URBAN			RURAL			SUBURBAN			URBAN			RURAL			SUBURBAN			URBAN			
	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	LEFT	CENTER	RIGHT	CENTER
Total Non-Forested Wetlands and Surface Waters affected (ac)	5.55	5.72	6.00	4.61	4.78	5.06	3.01	2.85	2.92	2.97	2.96	3.09	2.17	2.39	2.52	1.26	1.25	1.32	2.59	2.66	2.80	2.02	2.22	2.28	1.12	1.10	1.18	2.90
Flood Plain Impacts	19.67	18.38	17.00	17.24	16.39	15.46	11.64	11.73	11.75	17.47	15.56	13.46	14.85	13.91	12.51	9.78	9.91	9.69	15.63	13.96	12.21	13.30	12.26	11.24	8.95	9.01	9.03	12.30
Noise Sensitive Site Impacts	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Archaeologic & Historic Features	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Potential Contamination Sites	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Parcels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	43	83	35	43	85	35	1	7	1	49	86	40	49	86	38	7	12	7	47	86	38	46	85	37	4	10	4	16
With Improvements	36	69	33	36	69	33	0	4	0	40	73	37	39	72	36	5	10	5	39	72	36	39	72	36	3	8	3	13
Number of Relocations	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Businesses	2	2	5	2	2	5	0	0	0	3	5	6	3	3	6	1	1	1	3	3	6	3	5	6	1	1	1	1
Residences	11	25	9	6	16	8	0	0	0	12	26	10	9	15	10	0	0	0	13	27	11	10	16	11	1	1	1	0
Agricultural Property Impacted (AC)	5.42	6.67	7.83	3.75	4.61	5.42	0.00	0.00	0.00	6.56	8.10	9.63	4.82	5.88	6.92	0.90	0.89	0.90	6.36	7.85	9.30	4.65	5.66	6.66	0.74	0.74	0.74	4.93
Post Office	0	1	1	0	1	1	0	0	0	0	1	1	0	1	1	0	0	0	0	1	1	0	1	1	0	0	0	0
Parking Loss (private)	3	6	3	3	6	3	0	0	0	3	6	3	3	6	3	0	0	0	3	6	3	3	6	3	0	0	0	0
Intersections with Signals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Existing Signals	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Proposed Signals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Signal Modifications	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Church Property Impacted (AC)	0.33	0.41	0.46	0.23	0.29	0.33	0.00	0.00	0.00	0.33	0.41	0.46	0.23	0.29	0.33	0.00	0.00	0.00	0.33	0.41	0.46	0.23	0.29	0.33	0.00	0.00	0.00	0.00
Right-of-Way Acqusition	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Roadway (AC)	35.87	35.03	34.36	27.66	27.32	26.67	11.01	11.14	11.01	38.70	37.52	36.63	30.42	29.12	28.93	14.19	14.35	14.19	37.11	36.92	36.75	29.39	29.29	29.33	12.51	12.55	12.51	30.55
Retention Sites (AC)	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70
Right-of-Way Costs ($ Millions)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Roadway	2.39	3.48	2.62	1.96	2.65	2.37	0.76	0.75	0.76	2.27	3.33	2.42	1.85	2.40	2.30	0.68	0.67	0.67	2.23	3.30	2.42	1.84	2.47	2.30	0.68	0.68	0.69	0.98
Retention Sites	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Right-of-Way Costs ($ Millions)	**2.49**	**3.58**	**2.71**	**2.06**	**2.75**	**2.47**	**0.86**	**0.85**	**0.86**	**2.37**	**3.42**	**2.52**	**1.95**	**2.50**	**2.40**	**0.78**	**0.77**	**0.77**	**2.33**	**3.40**	**2.52**	**1.94**	**2.57**	**2.40**	**0.78**	**0.78**	**0.79**	**1.08**
Construction Costs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Roadway	13.78	13.78	13.78	15.31	15.31	15.31	16.85	16.85	16.85	13.78	13.78	13.78	15.31	15.31	15.31	16.85	16.85	16.85	13.78	13.78	13.78	15.31	15.31	15.31	16.85	16.85	16.85	15.15
Retention Sites	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
Total Construction Costs ($ Millions)	**15.12**	**15.12**	**15.12**	**16.65**	**16.65**	**16.65**	**18.19**	**18.19**	**18.19**	**15.12**	**15.12**	**15.12**	**16.65**	**16.65**	**16.65**	**18.19**	**18.19**	**18.19**	**15.12**	**15.12**	**15.12**	**16.65**	**16.65**	**16.65**	**18.19**	**18.19**	**18.19**	**16.49**
Engineering Costs ($ Millions)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Preliminary Engineering	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Final Design	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Construction Engineering	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Engineering Costs ($ Millions)	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**	**2.88**
Total Construction, Engineering & R/W($ Mil)	**20.49**	**21.57**	**20.71**	**21.59**	**22.28**	**22.00**	**21.93**	**21.92**	**21.93**	**20.37**	**21.42**	**20.52**	**21.48**	**22.03**	**21.93**	**21.83**	**21.84**	**21.84**	**20.33**	**21.40**	**20.52**	**21.47**	**22.10**	**21.93**	**21.85**	**21.85**	**21.86**	**20.45**

9.0 PRELIMINARY DESIGN ANALYSIS

Based on the alternatives evaluation presented in the previous sections and a subsequent Public Hearing, Lake County recommends the Composite Alignment Alternative be carried forward into the final design phase. The recommended improvements consist of reconstruction CR 470 from the Sumter County Line to just east of US 27 to a four-lane divided roadway. The segment between the beginning of project and Bay Avenue will be a rural section with a 40-foot depressed grass median, twelve-foot travel lanes, paved shoulders, an open ditch drainage system and sidewalks located within a 160-foot right-of-way. The segment from Bay Avenue to east of US 27 will consist of a 22-foot raised median, twelve-foot travel lanes, curb and gutter, sidewalk and a closed, piped drainage system located within a 100-foot right-of-way. The following discussion presents the preliminary design analysis, which will be used to guide the designers in preparing final construction plans.

9.1 Design Traffic Volumes

Design hour traffic projections for CR 470 have been developed for the Opening and Design Years 2007 and 2027 to estimate corridor traffic forecasts. These traffic forecasts incorporate the proposed Turnpike/CR 470 interchange construction and the potential for expanding economic growth for the surrounding residential and commercial areas. Traffic projections clearly demonstrate the need for both corridor expansion and turn lane improvements to minimize congestion under future traffic demands.

The improved four-lane roadway configuration provides increased roadway capacity and provides a regional benefit to the surrounding areas through its proposed connection to the Turnpike. Without the recommended improvements, operations along CR 470 will degrade, increasing levels of congestion and increasing potential for accidents and travel delays.

The procedures and assumptions used to develop the design traffic volumes are contained within Section 6, Traffic Analysis of this Report.

9.2 Typical Sections

The traffic data and adjacent land usage were the key elements in selecting the typical sections for this project. The traffic analysis indicated the need for a four-lane facility by Year 2027.

A combination of a rural and urban typical roadway section was chosen because it fits the corridor needs. From the beginning of the project to just west of Okahumpka, the land usage is mainly agricultural with very few residential sites. Additionally, the design for the Turnpike interchange proposes a rural section for the limited access areas. For this reason, this study recommends a rural typical section for this portion of the project.

An urban typical section is recommended for the portion of the project beginning west of Okahumpka to the end of the project limits. This area of the project is more urbanized. Additional right-of-way takings, from the existing 100-foot right-of-way, would cause great impacts to residences and businesses in the area. Therefore, an urban typical section is more appropriate for this Segment.

The proposed typical sections for the recommended alternative are shown in Figures 46 and 48. The recommended design speed is 55 mph in the rural section and 45 mph in the urban section.

9.3 Intersection Concepts and Signal Analysis

There are no new signalized intersections proposed for CR 470 within the project limits. Signal improvements will be provided at the following existing signalized intersections:

- CR 470 / CR 33
- CR 470 / US 27

9.4 Alignment and Right-of-Way Needs

The horizontal alignment of the proposed project will, for the most part, follow or offset the existing alignment. The area of the existing reverse curves just east of the Florida's Turnpike and west of Okahumpka will be re-aligned in order to meet current Florida Department of Transportation design standards. The results of the alignment analysis provided right-of-way requirements for each alignment considered. The alignment analysis is described in detail in Section 8.3.2.

9.5 Relocation

The estimated number of relocations, for each alternative, is shown in **Table 5**. The recommended alignment requires zero residential and one potential business relocation.

9.6 Right-of-Way Costs

The estimated right-of-way acreage and costs for each alternative are shown in **Table 5**. The total cost includes land costs, administrative and support costs, and accountant and attorney fees. Right-of-way costs also include retention/detention pond sites, construction easements and intersection improvements.

The right-of-way acquisition required for the recommended alignment is estimated to include 30.69 acres for the roadway and 19.70 acres for retention ponds. The total right-of-way costs are estimated at $1,080,000.

9.7 Design and Construction Costs

Estimated design and construction costs for each alternative are shown in **Table 5**. The construction costs were calculated utilizing the Florida Department of Transportation average cost per mile for this type of facility. The construction costs include earthwork, paving, bridges, drainage, signing, signalization, intersection improvements and project mobilization. Potential utility relocation costs were not included. Total construction costs are estimated at $16,490,000.

Design costs include $275,000 for the preliminary engineering study. Final design fees are estimated at $1,600,000 and construction engineering and inspection costs are estimated at $1,000,000.

Total project costs, including right-of-way, construction and design are estimated at $20,445,000.

9.8 Recycling of Salvage Material

The opportunity to recycle any salvageable materials by the contractor is encouraged by Lake County. Such materials may include old asphalt pavement, base material, drainage structures, curb and gutter and sidewalks. The existing pavement may be milled for recycling during the construction of the project. Any other salvageable materials would be identified during the design of the project. If these materials should be removed from the construction site, it is to be done as specified in the current *FDOT Standard Specifications for Road and Bridge Construction*.

9.9 User Benefits

Implementation of these proposed four-lane typical sections would create benefits for all users of the roadway, including local residents, emergency vehicles and school buses.

The proposed improvements will allow motorists easier ingress and egress under safer conditions due to the improved roadway conditions and the addition of the median.

9.10 Pedestrian and Bicycle Facilities

The project was designed with special consideration for the needs of pedestrians. Therefore, 5-foot sidewalks have been incorporated along both sides of the project for pedestrian traffic. A five-foot paved shoulder has been included in the rural roadway section, which can be utilized by bicyclists. No provisions for bicyclists were included in the urban roadway section.

9.11 Safety

The proposed improvements to County Road 470 will improve the overall safety for the motorists and pedestrians. Safety related features have been incorporated into every aspect of the design in this project. Some of the design aspects that have been considered are listed:

- Effective clear zone widths have been factored into the typical sections.
- The non-standard reverse curves have been flattened to improve safety.
- Provisions for pedestrian walkways have been incorporated into the conceptual plans.
- Uses of appropriate taper, deceleration and storage lengths have been designed for turn lanes throughout the project.
- Adequate provisions for vertical and horizontal sight distances have been incorporated into the conceptual plans.
- Appropriate designs that meet driver expectancy have been incorporated into the conceptual plans.
- The design addresses access management standards that would increase the operational efficiency and safety throughout the corridor.

Final design of this project will be in accordance with the most current FDOT Criteria and Standards.

9.12 Economic and Community Development

The Lake County Growth Management Plan identifies CR 470 study area as a major transportation corridor. The future development plans for this area designates the corridor as Urban Residential, Urban Commercial and Interstate Activity Center. These types of developments will generate a major increase in traffic.

The City of Leesburg owns a significant amount of frontage along CR 470. They are currently performing a study to examine the feasibility of utilizing their property to develop a commercial/light industrial office park near the Turnpike interchange.

It is evident, therefore, that current and future developments would place additional traffic demands on this corridor. Improvements to expand the existing roadway are expected to enhance the future land use within the project corridor and to improve access to adjoining properties. Therefore, the proposed roadway improvements, would increase economic and community development potential in the CR 470 corridor.

9.13 Environmental Impacts

Environmental impacts throughout the project have been estimated and evaluated and are summarized in the following discussions. Further information regarding the anticipated environmental impacts of the recommended alternative can be found in the project reports submitted under separate cover.

9.13.1 Cultural Resources

9.13.1.1 Historic Sites

A Cultural Resource Assessment Survey (CRAS) of CR 470/48 from the Lake/Sumter County line to east of US 27 in Lake County, Florida was conducted to locate and identify any cultural resources within the project area and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). The historical/architectural survey occurred in May 2002 and the archaeological field survey was conducted in June 2002.

Research indicated that one NRHP-listed historic structure (50 years of age or older) was previously recorded within the project area. The Campbell House (8LA2243) was built in the 1880s, and is one of the last remaining pieces of evidence of the development of Okahumpka. The recommended alternative will not cause impacts to this property. A determination of effects letter has issued by the State Historic Preservation Office (See Appendix B). As a result of the field survey, eight historic structures (seven houses and one church) and one cemetery were recorded. Of these nine resources, none is considered potentially eligible for listing in the NRHP. See separately bound Cultural Resource Assessment Survey for a detailed report on these findings.

9.13.1.2 Archaeological Sites

Background research and a review of the Florida Master Site File (FMSF) indicated that no archaeological sites have been recorded within or adjacent to the CR 470/CR 48 project area. A review of relevant site location information for environmentally similar areas within Lake County indicated a moderate to high probability for the occurrence of prehistoric sites within the project area. The background research also indicated that sites, if present, would most likely be small lithic or artifact scatters. As a result of field survey for this project, seven archaeological sites and two archaeological occurrences were discovered. Neither the sites nor occurrences are considered eligible for listing in the National Registry of Historic Places (NRHP).

9.13.2 Wetlands

There are five wetland acres impacted by the recommended alignment for CR 470. Four wetlands are classified as wet prairie wetlands with a total impact of 2.67 acres. One wetland, at the Palatlakaha River is classified as an open water wetland with

impacts of 0.23 acres. Total wetland impacts for the recommended alternative are estimated at 2.90 acres.

9.13.3 Floodplains

The floodplain impacts associated with the CR 470 project will need to be mitigated. **Table 6** summarizes the estimated floodplain impact volume for each pond location. A more detailed analysis of the floodplain impacts will be required during the Final Design Phase. Floodplain impact calculations are in the separately bound Location Hydraulics Report.

Table 6

Summary of Estimated Floodplain Impacts

ASSOCIATED CROSS DRAIN	POND BASIN	STATION	ESTIMATED FLOODPLAIN IMPACT VOL. (Ac.-ft.)
1	1	17+33.57	1.4
2	NA	52+15.80	0.0
3	NA	81+20.87	0.0
4	2	100+23.20	1.2
5	2	115+62.00	0.8
6	2	130+91.30	3.1
7	3	154+14.40	4.1
8	3	171+04.00	0.7
9	4	188+00.80	5.5
10	5	210+64.00	0.2
11	5	213+00.00	0.4
12	5	214+63.30	0.0
13	6	243+59.50	3.0
14	7	273+20.20	2.2

9.13.4 Wildlife and Habitat

A field inspection and wildlife survey of the proposed project corridor was conducted. General wildlife observation includes visual sightings, scat, tracks, burrows, vocalizations, shed skins, rooting and scrapes. Wildlife observed within the roadway corridor during general field surveys of the project site included white-tailed deer, Sherman's fox squirrel, raccoon, gopher tortoise, Eastern indigo snake, alligator, unidentified snakes and turtles, and a variety of wading birds such as Florida sandhill crane, cattle egret, great egret, snowy egret and great blue heron. A variety of unidentified songbirds were also observed in several of the wetland areas.

The Florida Fish and Wildlife Conservation Commission (FFWCC) list the alligator as Threatened (T) by the United States Fish and Wildlife Service (USFWS) and as a Species of Special Concern (SSC). The federal listing is based on the similarity of appearance of the alligator with the American crocodile, which is listed as Endangered (E) at both the federal and state levels. The American crocodile is limited to south Florida marine and estuarine waters consequently; this project is expected to have no significant adverse impact upon the American crocodile.

The Florida sandhill crane is a subspecies of sandhill crane, which resides in Florida year-round. This subspecies is listed as Threatened (T) by state agencies. No active Florida sandhill crane nests were identified within the project area. This project is expected to have no significant adverse impact upon this species.

Sherman's fox squirrel has been identified within the southwest quadrant of this project of the CR 470/Turnpike interchange. This species is listed as an SSC by state agencies. This project is expected to have no significant adverse impact upon this species.

The gopher tortoise is an SSC within the state of Florida. Gopher tortoise burrows were identified within the southeast and southwest quadrants of the CR 470/Turnpike Interchange. No other gopher tortoise burrows have been identified within the project area. This project is expected to have no adverse impact upon this species, as habitat for this species will not be impacted.

A shed skin from an Eastern indigo snake was identified near the mouth of a gopher tortoise burrow within the southeast quadrant of the CR 470/ Turnpike interchange on May 2, 2001. This species is listed as Threatened (T) by both state and federal agencies. Future Roadway Construction Documents should include standard protection measures for this species.

The recommended alignment for the CR 470 improvements should not adversely impact any of the previously discussed species along the project corridor. A determination of involvement from both the FFWCC and USFWS is pending. The proposed action has met the requirements of the Endangered Species Act of 1978 and is expected to result in 'no effect' to any listed species.

9.13.5 Noise

In accordance with *Title 23 Code of Federal Regulations Part 772 (23 CFR Part 772)*, "Procedures for Abatement of Highway Traffic Noise and Construction Noise", and

the procedures outlined in the Florida Department of Transportation (FDOT) Project Development and Environment (PD&E) Manual (Part 2, Chapter 17), a noise impact study was conducted for the County Road (CR) 470 PD&E Study.

Twenty-six (26) receptor areas were chosen to represent 67 potential noise sensitive sites along the project corridor. Predicted noise levels for these receptor sites for the Existing Year 2002, and the Design Year 2027, No-Build and Build Alternatives were determined using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM).

The existing modeled noise levels and the predicted noise levels for the No-Build Alternative at the noise sensitive sites ranged from 51 dBA to 68 dBA. For the Recommended Build Alternative, fourteen (14) noise sensitive areas, including 36 residences and 1 church site, approached or exceeded the FHWA noise abatement criteria. The predicted noise levels at these sites ranged from 66 dBA to 75 dBA. Therefore, these sites warranted consideration of noise abatement measures.

Noise abatement measures were evaluated for the fourteen (14) noise sensitive areas, which approached or exceeded the FHWA noise abatement criteria. Noise abatement measures were not found feasible or reasonable at any of these sites. See separately bound CR 470 Noise Study Report.

9.13.6 Air

This air quality analysis was conducted to help determine the effect on air quality of the proposed improvement to CR 470 from the west of Florida's Turnpike to east of U.S. 27 in Lake County, Florida. An Air Quality Screening Test was conducted for the worst-case intersection per the requirements as outlined in the Florida Department of Transportation (FDOT) PD&E Manual, Part 2, Chapter 16. The intersection of CR 470 and CR 33 was determined the worst-case intersection because of the proximity of sensitive receptors. The closest reasonable receptors (R1, R2, and R3) are approximately 250 to 400 feet from this intersection. Based on the Florida Department of Transportation's Air Quality Screening Test for carbon monoxide (COSCREEN98-revised), the proposed project will not cause violations of the National Ambient Air Quality Standards (NAAQS) for carbon monoxide. Therefore, this project will not have a significant impact on air quality. See separately bound CR 470 Air Quality Report.

9.13.7 Contamination

- Information was obtained through observations made during on-site visits, interviews and review of the database information obtained from the FDEP and Lake County Environmental Management Division. An evaluation of four properties within the CR 470 corridor was conducted to evaluate if hazardous waste or hazardous materials may exist, which may impact future roadway construction. The evaluations included interviews with persons knowledgeable about the individual sites, inquiries to the Lake County Environmental Management Division and the FDEP. In addition, database research was developed resulting in an Environmental First Search Report.

Upon completion of the initial screening, a site ranking was established for all parcels evaluated. Two sites were given hazardous rankings of medium risk and the other two sites were given a ranking of high risk, based upon a detailed review of the existing database information available for those facilities and the proximity of the tank and/or dispenser areas to the right-of-way. **Figure 11** shows a site vicinity map indicating the assigned site numbers and site configuration. The separately bound Hazardous Materials Evaluation contains a listing of all sites reviewed with their associated assigned site number, hazardous ranking and the type of activity encountered on-site.

The following is a list of the sites assigned a hazardous ranking of low risk, medium risk or high risk. All of this information was provided by either Lake County or the FDEP.

Site No. 1 – Asphalt Production Plant – 110 County Road 470, Okahumpka (Medium Risk)
Site No. 2 – Leesburg City – Turnpike Wastewater Reclamation Facility – 1600 County Road 470, Leesburg (Medium Risk)
Site No. 3 – Island Food Store No. 312 – 3524 County Road 48, Okahumpka (High Risk)
Site No. 4 – Island Food Store No. 311 – 4601 County Road 48, Okahumpka (High Risk)

The MEDIUM and HIGH risk rankings may be adjusted depending upon the final alignment of roadway expansion and right-of-way requirements. Additional Phase II assessment activities are recommended for Sites 1, 2, 3 and 4, prior to construction to determine the potential impact from these facilities upon proposed construction activities.

9.14 Utility Impacts

As described in Section 4.1.12, there are numerous facilities that operate in the project area. Each of these utilities may be impacted in some way by the proposed project. The adjustments, relocation or removal of these utilities, will be addressed during the final design process, as none are critical issues in the project alignment. Potential utility relocation costs have not been included in the project cost estimates.

9.15 Traffic Control Plan

Traffic will be maintained along the corridor during the construction phase of the project. A Traffic Control Plan will be developed during the design phase of the project, detailing the stages of construction for the roadway, as well as for the bridge widening. The anticipated sequencing of construction is described as follows:

For the rural roadway section, traffic will be maintained on the existing roadway while one-half of the four-lane divided roadway is constructed. Two-way traffic will then be shifted onto the newly constructed pavement while the existing roadway is reconstructed.

For the urban roadway section, traffic will be maintained on the existing roadway while the outside new travel lanes are constructed in each direction. Traffic will then be shifted onto the newly constructed outside lanes and the inside lanes and median area constructed in each direction.

9.16 Results of Public Involvement Program

9.16.1 Public Involvement Plan

The intent of this program was to fully inform and involve all interested public officials, citizens and special interest groups in the development of transportation projects. This was consistent with the Federal Highway Administration (FHWA) National Policy Statement, which includes the policy to, “Actively encourage and facilitate the involvement of other Federal and State environmental/resource agencies, interest groups, citizens groups, and the general public early in the project development process.”

A detailed Public Involvement Program was developed for this project. This document summarizes the guidelines to follow in an order to ensure that the public and government officials are kept informed of the project progress and milestones. A copy of this document is contained in **Appendix B** of this Report.

9.16.2 Advance Notification

The Advance Notification (AN) package is a means through which other Federal, State and local agencies are informed of the proposed action by the Department of Transportation. It is also the process of giving notice of the Department's intent to apply for Federal-aid on a project. This process provides the initial opportunity for Federal, State, and local agencies to become involved early in the project development phase and share information with the Department concerning proposed action and the geographic area potentially impacted.

The Advanced Notification Package was mailed to the Florida State Clearinghouse and distributed to federal, state and local agencies. Responses were received from the following agencies:

- Florida Department of Environmental Protection
- United States Coast Guard
- St. Johns River Water Management District

The majority of comments received through the Advanced Notification process were related to respective agency permitting requirements and stressed avoidance and minimization of environmental impacts. There were no adverse comments regarding the proposed roadway improvements and all comments have been addressed in the appropriate sections of this report. A determination was given that the CR 470 project is consistent with the Florida Coastal Management Program.

9.16.3 Newsletters

Project Newsletters were mailed to all the property owners along CR 470 and within 300' of the corridor. These newsletters provided general information on the project. They also summarized previous Public Workshops discussions and provided information on up-coming Public Workshops for the project. They were very informative and crucial in providing all property owners with information regarding the progress of the project and contact information, in case they had any questions or comments.

- **April 2002 -** This Newsletter informed the public of the start of the project, included a discussion of the study process, included a project schedule and

informed them of the first Public Workshop scheduled for May 16, 2002. This issue also stated points of contact within the Department for the public to express their project comments and concerns.

- **September 2002 -** This Newsletter informed the public of an upcoming workshop scheduled for October 8, 2002. It presented Study Alternative Typical Sections and provided a Question/Answer section from the previous workshop.
- **May 2003 –** This Newsletter informed the public of the upcoming Public Hearing scheduled for June 10, 2003. It presented the recommended alignment and provided a Question/Answer section from the previous Public Workshop.

9.16.4 Public Information Workshops

The Public Information Workshops were beneficial to both, the general public and county staff. The Power Point presentations provided the public with a good understanding of the study process, what it entailed and what were the key issues to be evaluated during the study process and later presented in the Preliminary Engineering Report. The exhibits allowed the public to have an idea of what the roadway would look like once constructed. It also helped them identify their properties in relation to the road and were able to help County staff in identifying specific problems along the corridor. Some of the key issues presented by the residents were: stormwater runoff, access management, alignment, speed limits, etc.

The Public Workshops were completed on:

- May 16, 2002
- October 8, 2002

The first Public Information Workshop was conducted on May 16, 2002 at the St. Mark Lutheran Church in Leesburg. Lake County officials, City of Leesburg officials and residents along the corridor were invited to this workshop. There were 29 people in attendance. A list of attendees can be found in Appendix B. Study corridor aerials and alternative typical sections were in display for public viewing. The Project Manager gave a brief overview of the project and explained the PD& E process. Following the presentation, the floor was open to questions and/or comments.

On October 8, 2002, a second Public Information Workshop was held at the St. Mark Lutheran Church in Leesburg. A total of 19 people attended the meeting, including the public and Lake County staff. Preferred alignment exhibits were available for public viewing, as well as typical section alternatives and the project Matrix Analysis, which summarizes the costs and impacts for each of the study alternatives. The

Project Manager gave a presentation, summarizing the study findings and final recommendations.

9.16.5 Public Hearing

A public Hearing was held on June 10, 2003 at the St. Mark Lutheran Church. Approximately 47 people attended the hearing, including Lake County staff and concerned citizens. A summary of the study process and alternatives considered was presented. The preferred alternative was defined and the impacts associated with the improvements identified. The public hearing was transcribed verbatim, including comments from the public, to be incorporated into the public record (See Appendix B for Hearing Transcript). Two citizens made oral comments. A summary of these comments/questions is provided below.

- A business owner questioned whether the public involvement will continue through the design phase, especially in regards to the final location of median openings and driveways.
- A resident along CR 470 questioned why the Turnpike interchange was located at CR 470 rather than CR 468. She also questioned whether the project would reduce the volume of truck traffic through Okahumpka. She is concerned about increased runoff into the Okahumpka Swamp and had questions regarding the maintenance of traffic and construction sequencing. She is also concerned about the proximity of the homes to the roadway and whether landscaping or other buffers could be provided.

Responses were provided to the above questions verbally at the public hearing and are included in the transcript. There were no written comments received either at the meeting or within the comment period.

9.17 Drainage

The project lies within the St. Johns River Water Management District's Okahumpka, River Basin. Seven potential water retention pond sites were identified to address the drainage requirements for the proposed alternative. (See Concept Plans, Appendix A, for pond locations). **Table 7** summarizes the location and sizes of the proposed retention ponds. A detailed analysis of the retention ponds is included in the separately bound CR 470 Pond Siting Report.

Table 7

Summary of Pond Locations and Sizes

POND NO.	DRAINAGE BASIN BEGIN STATION	DRAINAGE BASIN END STATION	VOLUME (Ac.-ft.)	ASSUMED DEPTH (ft.)	POND AREA INCLUDE MAINT. BERMS (Ac.-ft.)
1	10+00.00	28+48.50	4.28	3	1.9
2	92+96.08	943 ft North of 150+87.66	8.3	3	3.5
3	943 ft North of 150+87.66	177+16.84	8.9	3	4.0
4	177+16.81	202+43.89	9.41	3	3.9
5	202+43.89	222+34.95	2.31	3	1.2
6	222+34.95	264+88.49	7.33	3	3.1
7	264+34.95	291+84.34	2.17	3	1.1

Existing cross drains will need to be extended or replaced for the widening of CR 470. There are 14 existing cross drains. The existing cross drains are in relatively good shape and show no signs of structural problems; however, the culverts will need to be de-silted prior to any construction. Thus, all of the existing cross drains can be extended and the new ones constructed. Although the runoff within the basins and the pipe lengths are being increased, the project will be designed with stormwater management facilities that will offset these impacts. Since any encroachments to the 100-year floodplain will be compensated in the proposed stormwater ponds, there will be no net impacts to the 100-year floodplain.

The construction of the drainage structures proposed for this project will cause changes in flood stage and flood limits. These changes will not result in any significant adverse impacts on the natural and beneficial floodplain values or any significant changes in flood risk or damage. There will not be significant change in the potential for interruption or termination of emergency service or emergency evacuation routes.

It has been determined, through consultation with local, state, and federal water resources and floodplain management agencies that there is no regulatory floodway involvement on the proposed project and that the project will not support base floodplain development that is incompatible with existing floodplain management programs. A detailed analysis of the cross drains is provided in a separately bound Location Hydraulics Report.

9.18 Bridge Analysis

Reconstruction and widening of CR 470 will include the widening the new Turnpike bridge, constructing a new parallel Turnpike bridge and widening the existing bridge over the Palatlakaha River.

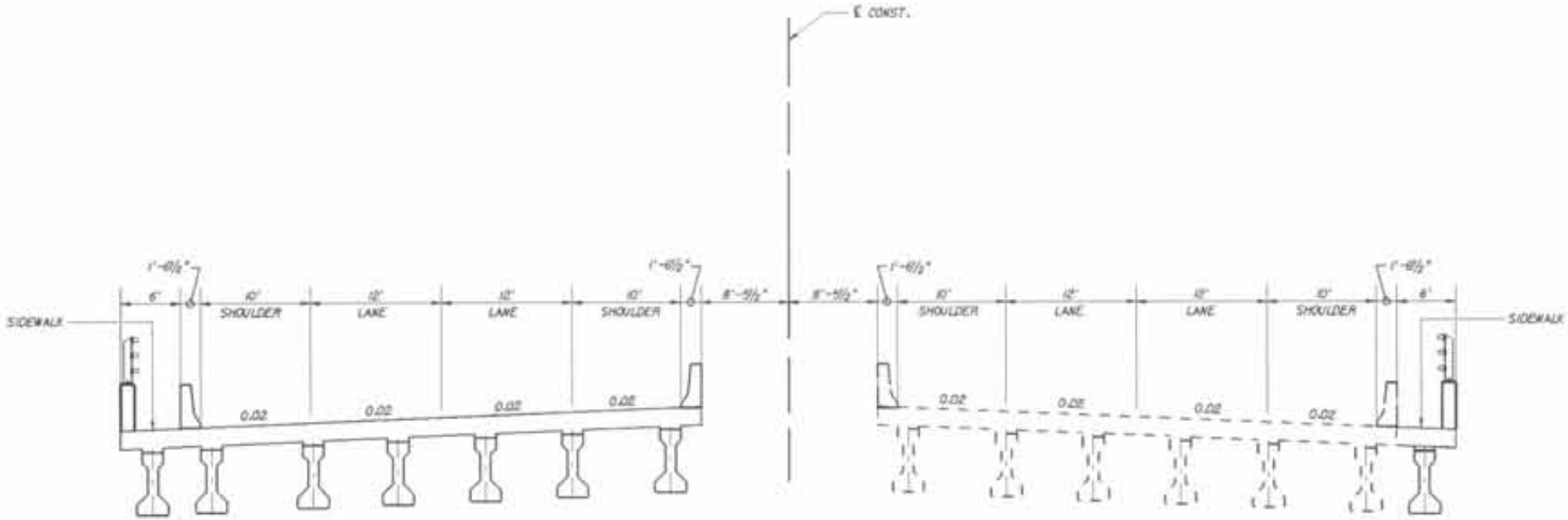
The Turnpike has designed a replacement bridge for CR 470 that will be constructed as a part of the new interchange. The new bridge will not include a sidewalk but provisions were made to allow for a future widening for the sidewalk. The piles, footer and walls were provided in the design. This bridge will be widened as a part of the CR 470 improvements to add the piers, beams and deck widening to provide the sidewalk. In addition, a new parallel bridge structure, with sidewalk, will be constructed to provide four-lanes across the Turnpike. **(See Figure 50)**

The existing bridge over the Palatlakaha River will be widened to accommodate the proposed urban typical section that includes four travel lanes, a raised median and sidewalks on both sides. The existing bridge is in good condition and provides adequate vertical clearance. As a result, the existing bridge is suitable for widening for the reconstruction of CR 470. Since the recommended roadway alignment in the vicinity of the bridge is centered on the existing bridge, and the recommended roadway typical section involves widening of the existing roadway to the outside, the existing bridge will need to be widened on both sides. Also, there is an existing City of Leesburg utility bridge spanning the river adjacent to the south side of the roadway bridge. Widening the roadway bridge will require removing this existing utility bridge. Therefore, the roadway bridge will be widened to provide a utility platform on which to relocate the sewer force main, water main and natural gas pipeline. An overall bridge width of approximately 102 feet will be required to accommodate the proposed typical section. **(See Figure 51)**

During the design phase, the Palatlakaha River structure should be re-evaluated based on current channel and structural conditions to insure a more accurate analysis.

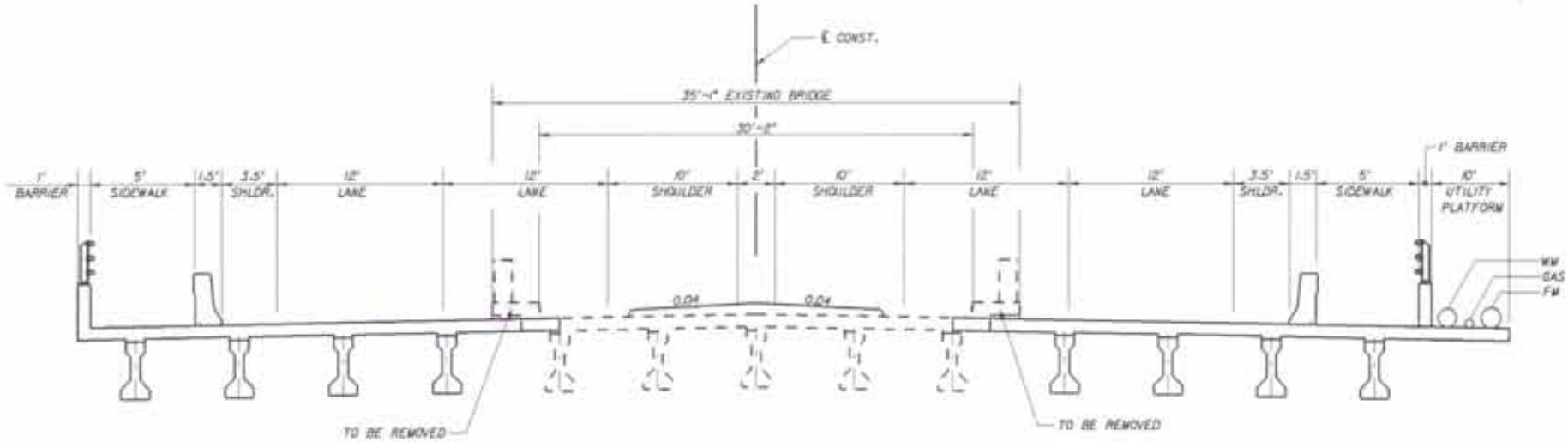
9.19 Access Management

Project conceptual design encompassed access management standards. Due to the nature of the area development, it was determined that Access Management Class 3 is appropriate for the proposed rural section of CR 470 from Florida's Turnpike to Bay Avenue. This classification provides for full median openings at minimum 2640-foot spacing and directional openings at 1320-foot spacing. Access Management Class 5 is appropriate for the urban section from Bay Avenue to US Highway 27. This classification provides for full median openings at minimum 1320-foot spacing and directional medians at 660-foot spacing. The proposed median openings are indicated in the concept plans.



TYPICAL SECTION
4-LANE DIVIDED RUAL
DESIGN SPEED 55 MPH

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY	Lake County	FIGURE NO. 50



PALATLAKAHA RIVER BRIDGE
TYPICAL SECTION
4-LANE DIVIDED URBAN
DESIGN SPEED 45 MPH

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	C.R. 470 - P.D. & E STUDY	Lake County	FIGURE NO. 51

II-6

9.20 Aesthetics and Landscaping

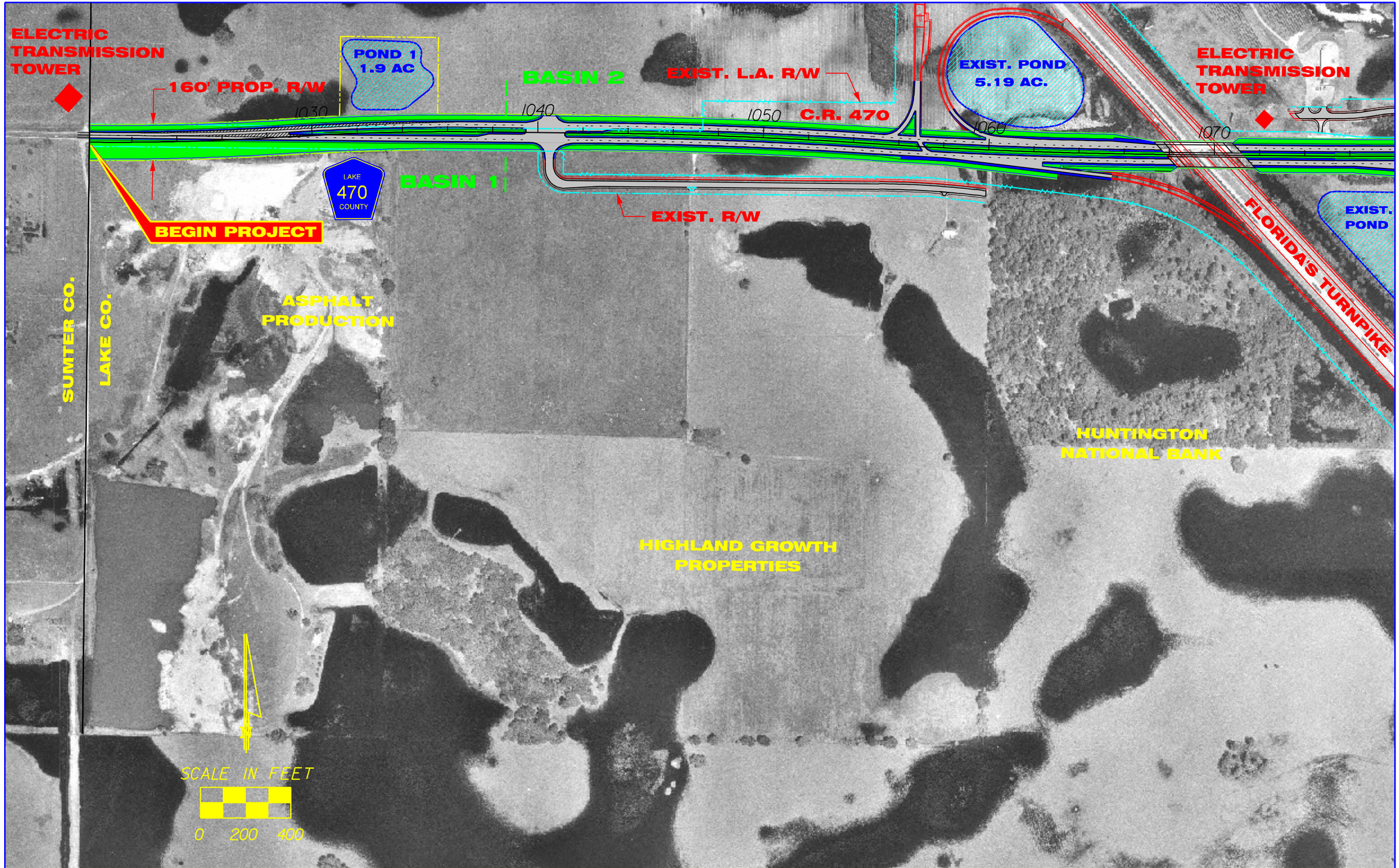
The proposed project and typical sections will enhance the aesthetics of the entire corridor. Through the urban section of the project, it will eliminate the roadside ditches along the side of the road by incorporating an underground stormwater management system. The proposed typical sections will also provide sidewalks on both sides of the road throughout the project lengths.

At this time, there are no plans for continuous landscaping along the project corridor. Landscaping will be provided only near the Campbell House to mitigate project impacts as committed to during the study process.

9.21 Evaluation Matrix

A matrix was established to quantify and evaluate the typical section and alignment concepts developed for CR 470. The Alternative Evaluation Matrix is shown in **Table 5**. This approach allows decision makers to understand the degree that each of the alternatives achieve different objectives, as well as providing an overall "bottom line" measure of the comparative advantages of the various alternatives.

Appendix A
CONCEPTUAL PLANS



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LAKE COUNTY

C.R. 470 - P.D. & E STUDY
PLAN SHEET

SHEET NO.
1 of 5

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LAKE COUNTY

C.R. 470 - P.D. & E STUDY

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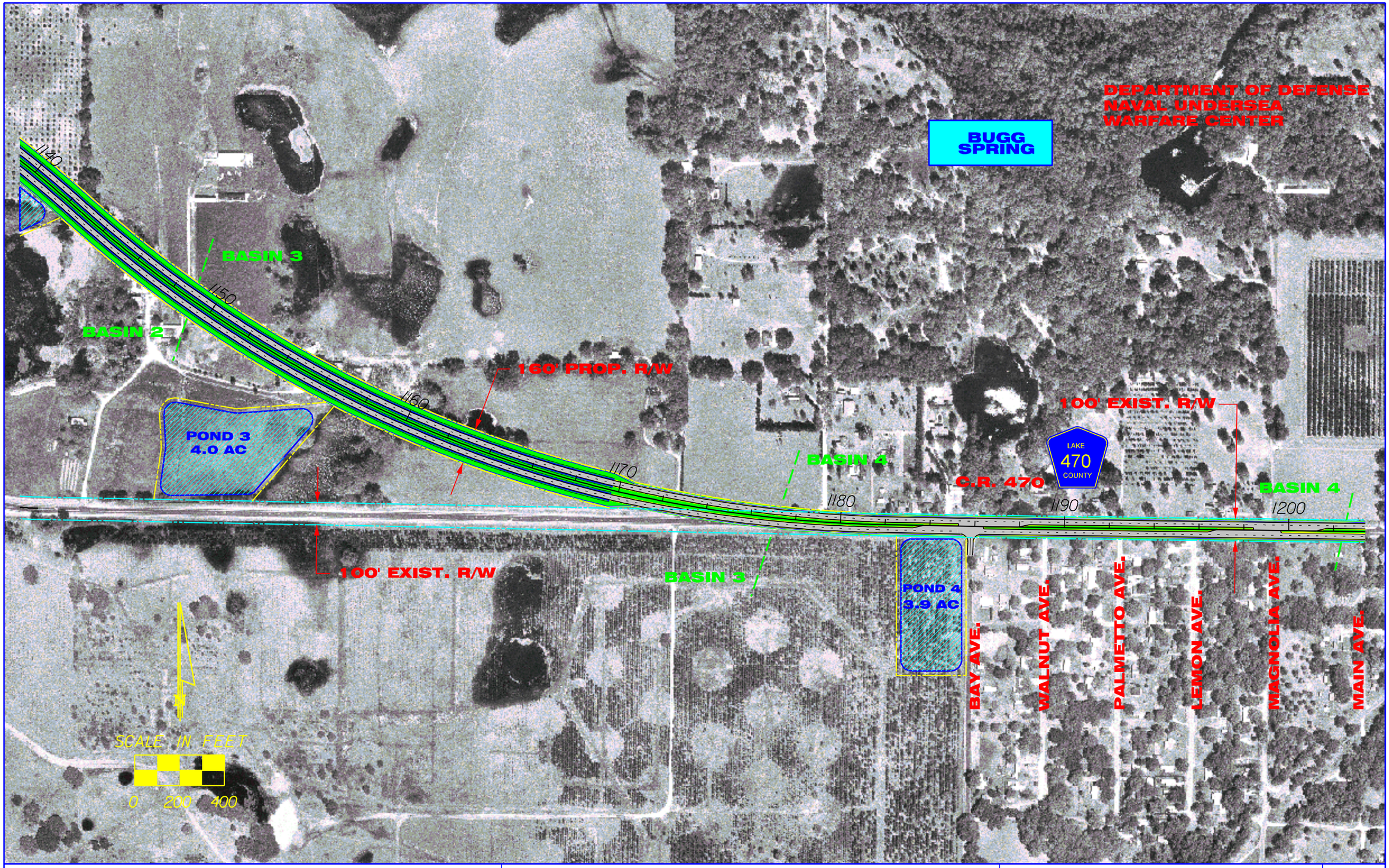

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LAKE COUNTY

C.R. 470 - P.D. & E STUDY

PLAN SHEET

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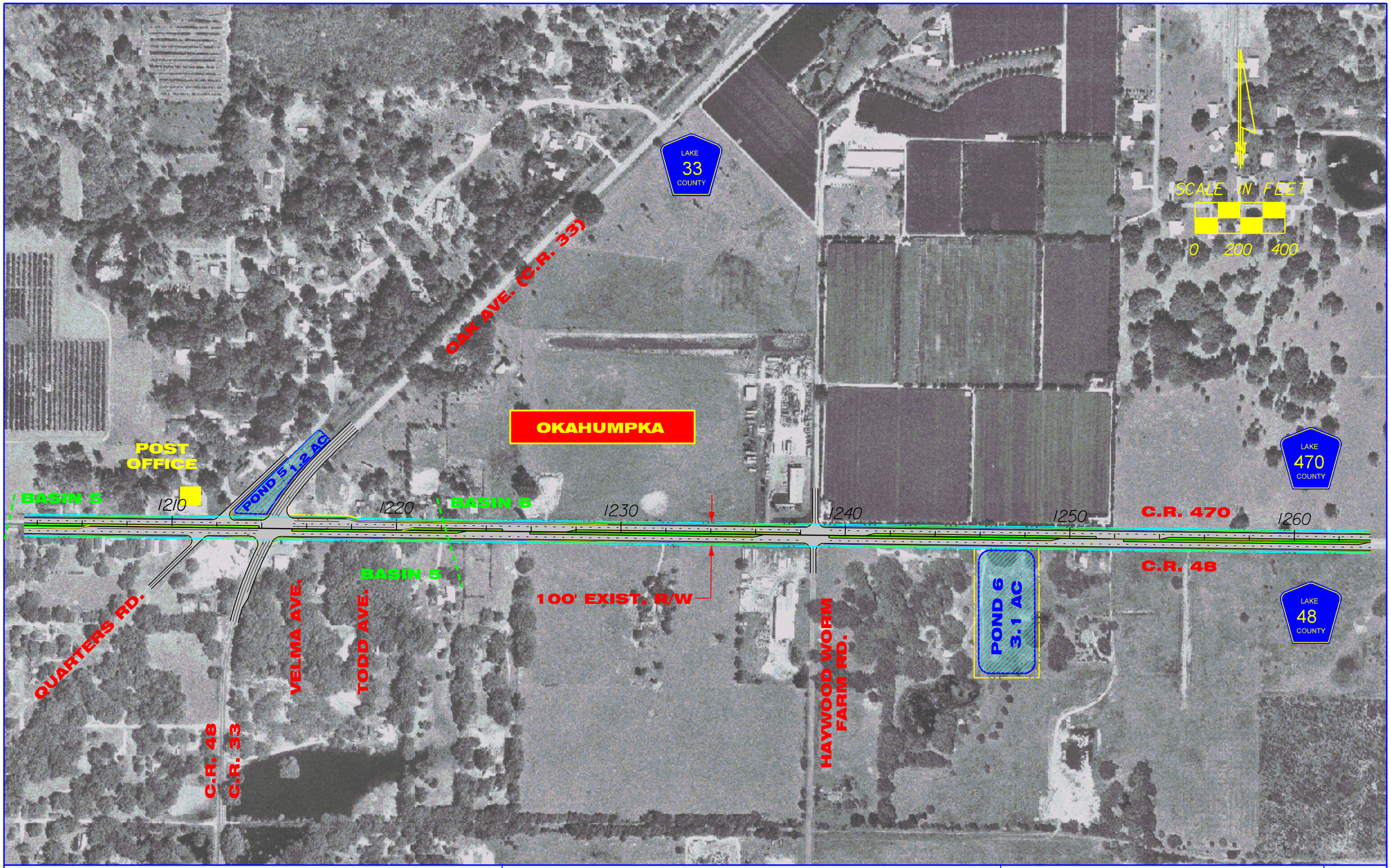

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C.R. 470 - P.D. & E STUDY
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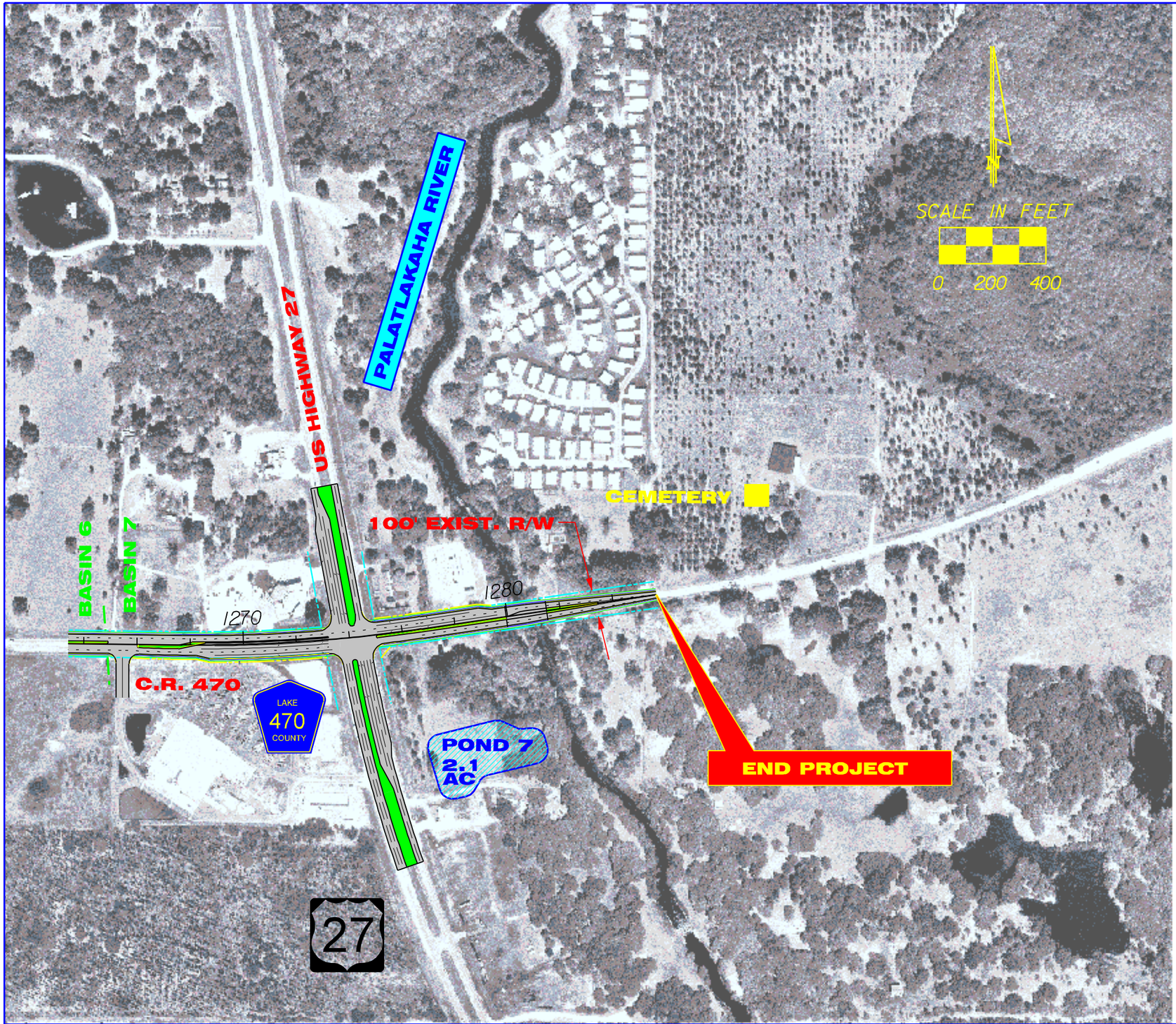

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LAKE COUNTY

C.R. 470 - P.D. & E STUDY
PLAN SHEET

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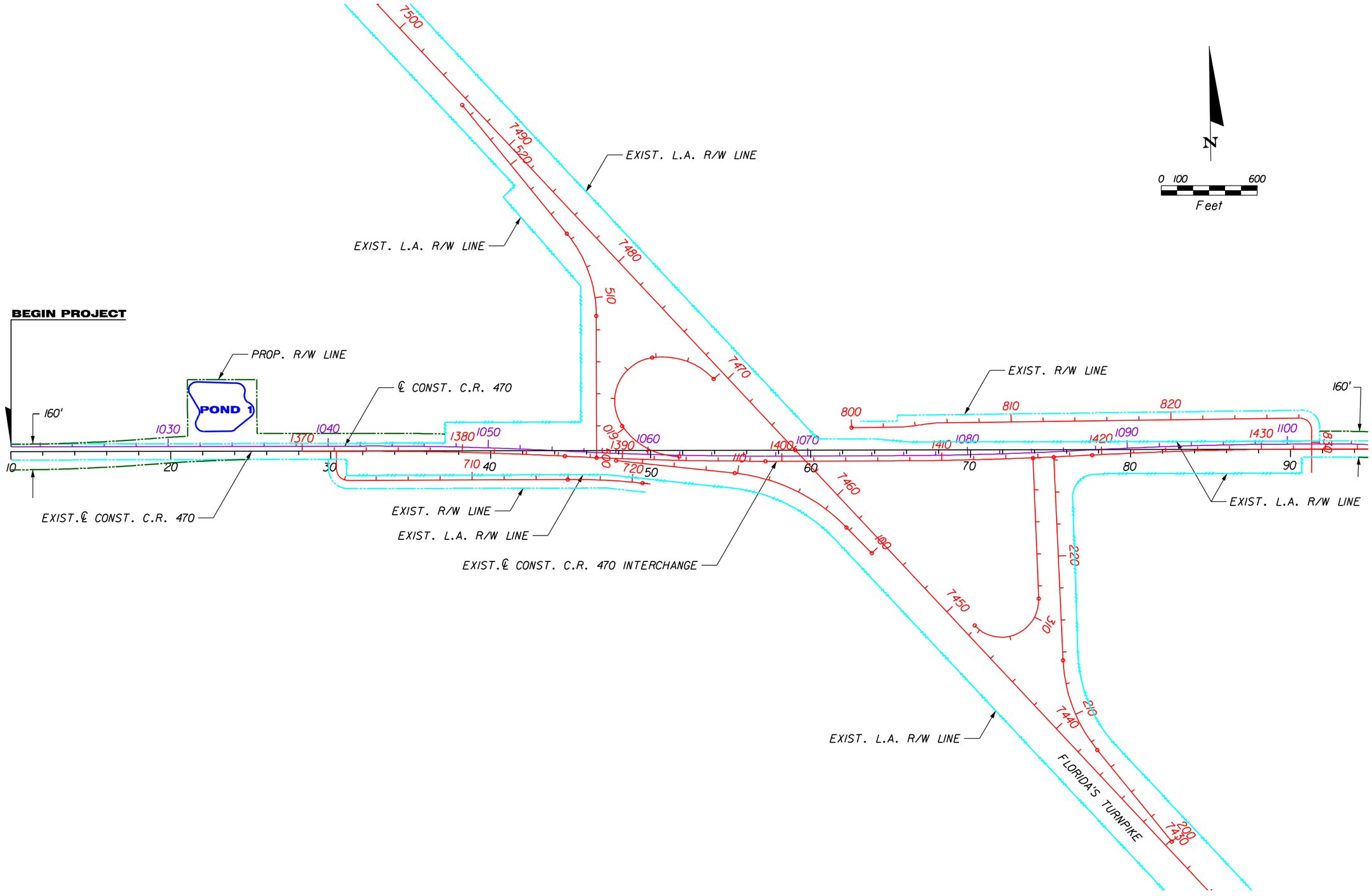

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	LAKE COUNTY	C.R. 470 - P.D. & E STUDY PROJECT LAYOUT	SHEET NO. 1 of 3

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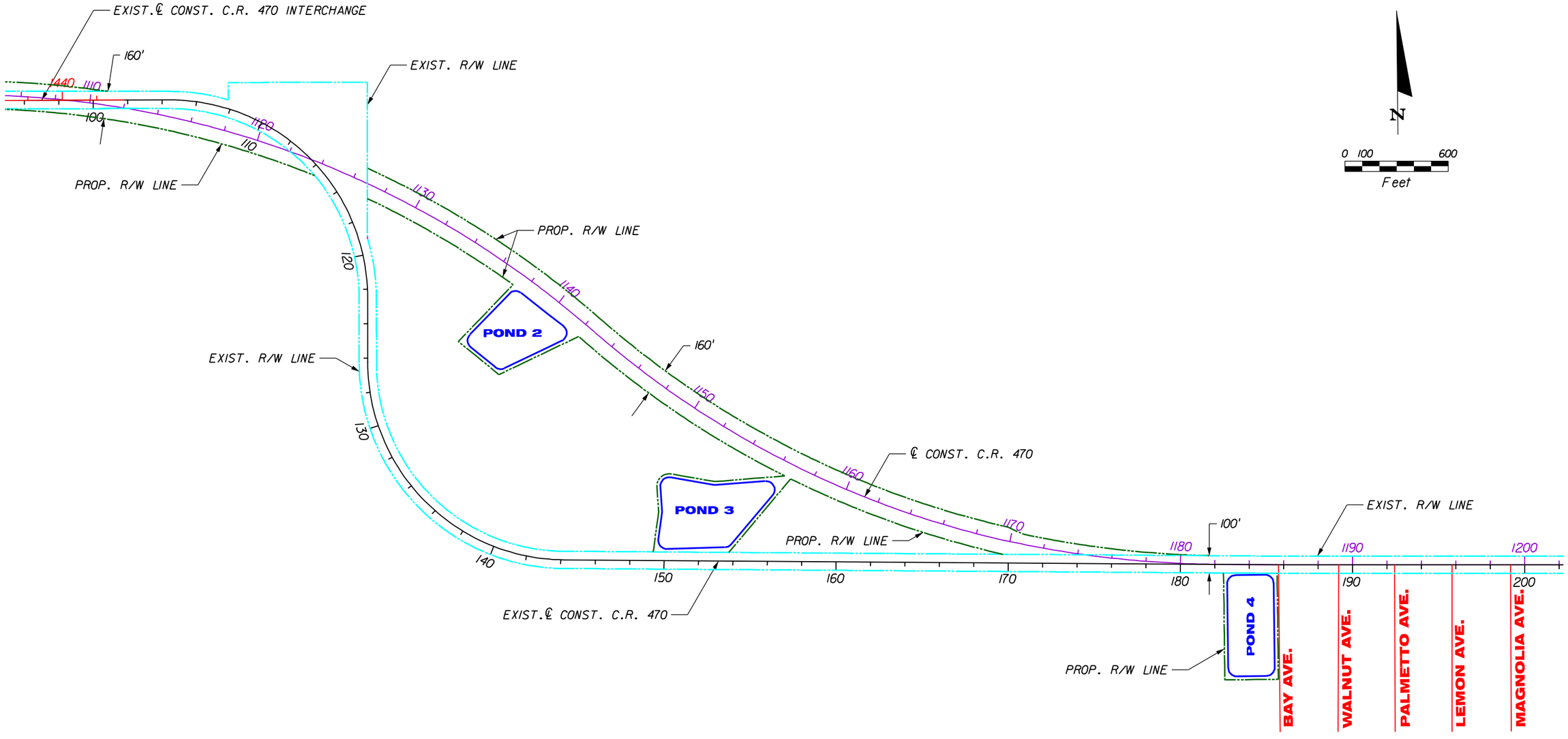

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LAKE COUNTY

C.R. 470 - P.D. & E STUDY
PROJECT LAYOUT

SHEET NO.
2 of 3

$DATE$ $TIME$ $FILE$

N

0 100 600

Feet

END PROJECT

OAK AVE. (C.R. 33)

POND 5

100'

PROP. R/W LINE

℄ CONST. C.R. 470

EXIST.℄ CONST. C.R. 470 & C.R. 48

EXIST. R/W LINE

US HIGHWAY 27

1210 1220 1230 1240 1250 1260 1270 1280 290

210 220 230 240 250 260 270 280

MAIN AVE.

QUARTERS RD.

C.R. 48
C.R. 33

VELMA AVE.

TODD AVE.

EXIST. R/W LINE

HAYWOOD WORM FARM RD.

POND 6

PROP. R/W LINE

PROP. R/W LINE

PROP. R/W LINE

POND 7

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

LAKE COUNTY

C.R. 470 - P.D. & E STUDY

PROJECT LAYOUT

SHEET NO.

3 of 3

$DATE$ $TIME$ $FILE$

BOWYER SINGLETON & ASSOCIATES, INCORPORATED

ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

Appendix B
PUBLIC INVOLVEMENT

October 28, 2002

Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 47
Tallahassee, Florida 32399-3000
Attn.: Ms. Cindy Cranick, Clearinghouse Coordinator

RE: **Advance Notification**
Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27
Fin: 410372-1
Financial Aid Project No.: 410372-1-5401 (for information only)
Lake County, Florida

Dear Ms. Cranick:

The attached Advance Notification Package is forwarded to your office for processing through appropriate State Agencies in accordance with Executive Order 95-359. Distribution to Local and Federal agencies is being made as noted.

Although more specific comments will be solicited during the permit coordination process, we request that permitting and permit reviewing agencies review the attached information and furnish us with whatever general comments they consider pertinent at this time.

This is a Federal- aid action and the Florida Department of Transportation, in consultation with the Federal Highway Administration, will determine what degree of environmental documentation will be necessary. The determination will be based upon in-house environmental evaluations and comments received through coordination with other agencies. Please provide a consistency review for this project in accordance with the State's Coastal Zone Management Program.

In addition, please review this improvement's consistency, to the maximum extent feasible, with the approved Comprehensive Plan of the local government jurisdiction(s) pursuant to Chapter 163, Florida Statutes.

We are looking forward to receiving your comments on the project within 45 days. Should additional review time be required, a written request for an extension of time must be submitted to our office within the initial 45-day comment period.

Your comments should be addressed to:

Mr. Robert Gleason
Environmental Administrator
Florida Department of Transportation
605 Suwannee Street
Tallahassee, Florida 32399-0450

Your expeditious handling of this notice will be appreciated.

Sincerely,

Robert Gleason
Environmental Administrator

\\admin\LK3\Corr\6010

Attachments: Advance Notification Fact Sheet (Form 650-040-08)
Advance Notification Mailing List
Application for Federal Assistance
Project Location map

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

County Road 470 from Florida's Turnpike to US Highway 27

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

County Road 470 From Florida's Turnpike to US Highway 27

1. NEED FOR PROJECT

Lake County is proposing a Project Development and Environmental study for the widening of CR 470 from Florida's Turnpike to US Highway 27. Traffic Studies conducted for the project limits show that with the construction of the proposed CR 470/Turnpike Interchange, traffic volumes will increase considerably. The existing facility will not be able to handle the projected traffic volumes and maintain an acceptable level of service. Capacity improvements are necessary to accommodate the future traffic demands.

Deficiencies can be found in the existing CR 470 typical section. These deficiencies include but are not limited to travel lanes, turn lanes, shoulder widths, pedestrian facilities and access management features.

CR 470 has a high percentage of truck traffic. Improvements to this corridor will provide greater capacity as well as increased safety to pedestrians and drivers. It will also enhance traffic movement along the roadway resulting in adequate levels of service. This study is consistent with Lake County's Comprehensive Plan.

2. DESCRIPTION OF THE PROJECT

The limits of County Road 470 extend from Florida's Turnpike to US Highway 27. This road has a predominantly east-west orientation. There is a horizontal offset in this alignment just west of the City of Okahumpka of approximately ½ mile south of its beginning, which is tied by a "S-shaped" curve. The project is approximately 4.5 miles in length. Within the project limits, CR 470 crosses the City of Leesburg, the Town of Okahumpka and Lake County.

CR 470 is a two-lane rural roadway, with paved shoulders and stormwater ditches on both sides of the road. These ditches collect and carry stormwater runoff from the roadway and off-site drainage to specific outfall locations. Turn lanes have been added at some locations along the roadway. The existing roadway is located within a standard 100-foot right-of-way. At the west end of the project, CR 470 spans over the Florida's Turnpike (SR 91) with a two-lane bridge. Construction plans are being finalized by the Turnpike for a new interchange at this location. A second bridge is located over the Palatlakaha River at the east end of the project. There are two signalized intersections; one is located at CR 33 and the second intersection is located at US 27.

The PD&E study will evaluate various typical sections for the corridor, which will incorporate four-lanes of traffic with medians, turn lanes and sidewalks. Alternatives will include rural, suburban and urban sections.

3. ENVIRONMENTAL INFORMATION

A. LAND USE

The land use adjacent to the roadway varies throughout the corridor. At the Sumter County/Lake County line, south of CR 470, there is an undeveloped low-density residential tract. Other areas adjacent to the roadway in this segment are undeveloped Open Land.

East of the Florida's Turnpike, the land use is mostly classified as Forest Regeneration areas and Freshwater Marshes. Approaching the area of Okahumpka, and through the rest of the project limits, there is a mixture of low-density residential and commercial, retail sales and service.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

County Road 470 from Florida's Turnpike to US Highway 27

B. WETLANDS

The proposed improvements suggest a realignment of the road at the location of the "S" curve. Three alternative alignments will be analyzed for this section of the road. There are potential wetland impacts on all three alignments.

A field visit, to verify preliminary wetland mapping, was conducted in March 2002. This delineation of jurisdictional wetlands was generally performed in accordance with methodologies prescribed by the State of Florida (Chapter 62-340, FAC). A description of the surface waters and wetland communities encountered within the project study area follows:

Streams and waterways (510) This category includes rivers, creeks, canals, and other linear water bodies, both natural and artificial.
Lakes (520): This category includes inland water bodies.
Reservoirs less than 10 acres (534): Artificial impoundments of water less than 10 acres in size.
Major springs (550): Natural phenomena easily identified as the point of origin of water welling from the ground.
Wetland forested mixed (630): The areal extent of the canopy within this community is ≥10%. This community is a mix of hardwoods and conifers in which neither achieves a 66% dominance of the crown canopy composition.
Scrub/shrub wetland (631): The areal extent of canopy class trees is ≤10% within this mapping class. Sub-canopy-sized tree and shrub species (dbh<4") dominate this community. The extent of inundation, and the density of the sub canopy typically limit ground cover.
Wet prairie (643): This community type is dominated by grassy vegetation on wet soils and is distinguished from marshes by having less water and shorter herbage. Although trees and shrubs may occasionally punctuate the landscape within this community type, their areal extent is less than 10%.
Emergent aquatic vegetation (644): This category of wetland plant species includes both floating vegetation and vegetation that is found either partially or completely above the water,
There are potential impacts on these types of wetlands for either one of the alignments.

C. FLOODPLAIN

The corridor contains multiple, smaller isolated floodplains and the floodplain associated with the Palatkalaha River. Most of the floodplains are designated "Zone A" which are areas of 100 year flood where base flood elevations and flood hazard factors are not determined. It should be noted that Lake County requires that all floodplain impacts be mitigated for on a "cup for cup" basis. There are no designated floodways within the project corridor.

D. WILDLIFE AND HABITAT

The historic agricultural use of the land surrounding CR 470 has limited utilization by listed plant and animal species. Florida sand skink (*Neoseps reynoldsi*) is reported at a location about ¼ mile north of CR 470 in Okahumpha. This species is endemic to sandhill scrubs and is largely restricted to these readily identified relic communities which are not within the project corridor. It is unlikely that this species would be impacted by the proposed road improvements. The Florida Natural Areas Inventory database does not depict any reported occurrences of listed species of wildlife, other than gopher tortoise, within the roadway corridor. The Florida Fish and Wildlife Conservation Commission regulate impacts to gopher tortoise (Gopherus polyphemus).

The alligator is listed as Threatened (T) by the United States Fish and Wildlife Service (FWS) and as a Species of Special Concern (SSC) by the Florida Fish and Wildlife Conservation Commission (FWC). The federal listing is based on the similarity of appearance of the alligator with the American crocodile, which is listed as Endangered (E) at both the federal and state levels. The American crocodile is limited to south Florida marine and estuarine waters consequently; this project is expected to have no significant adverse impact upon the American crocodile.

The Florida sandhill crane is a subspecies of sandhill crane, which resides in Florida year-round. This subspecies is listed as Threatened (T) by state agencies. Although this subspecies generally cannot be accurately distinguished from migratory sandhill cranes during the winter months, migratory cranes do not nest in Florida. No active Florida sandhill cane nests were identified within the project area. This project is expected to have no significant adverse impact upon this species.

Sherman's fox squirrel has been identified within the southwest quadrant of this project of the CR 470/Turnpike intersection. This species is listed as a SSC by state agencies. Fox squirrel habitat was identified within the southwest quadrant of the CR 470/Turnpike intersection. This project is expected to have no significant adverse impact upon this species.

The gopher tortoise is a SSC within the state of Florida. Gopher tortoise burrows were identified within the southeast and southwest quadrants of the CR 470/Turnpike intersection. No other gopher tortoise burrows have been identified within the project area. This project is expected to have no adverse impact upon this species, as habitat for this species will not be impacted.

A shed skin from an Eastern indigo snake was identified near the mouth of a gopher tortoise burrow within the southeast quadrant of the CR 470/ Turnpike intersection on 2 May 2001. This species is listed as Threatened (T) by both state and federal agencies. A snake may be relocated on-site or off-site once the required permits have been obtained.

A complete survey will be conducted for listed species of wildlife and plants within the project corridor and alternate pond locations. This information will be incorporated into the decision matrix related to the final alignment and pond site selection. Applicable information related to any impacts to listed animal species will be provided for preparation of a Biological Assessment for coordination with the Florida Fish and Wildlife Conservation Commission and the United States Fish and Wildlife Service.

E. OUTSTANDING FLORIDA WATERS

A review of Outstanding Florida Waters (OFW) listed in Chapter 17-302.700 of the Florida Administrative Code determined that there are no Outstanding Florida Waters within the project corridor.

F. AQUATIC PRESERVES

The project is not located within the boundaries of an aquatic preserve (Department of Natural Resources, Bureau of Land and Aquatic Resource Management)

G. COASTAL ZONE

A Coastal Zone Consistency Determination will be made.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

County Road 470 from Florida's Turnpike to US Highway 27

H. CULTURAL RESOURCES

Preliminary research indicates that one residence, a 1880s residence at 3147 CR 470, is listed in the National Register of Historic Places (NRHP). Ten to 12 additional structures may require recording in the Florida Site File, but none of these appear to be eligible for listing in the NRHP. Archaeological research indicates there is a moderate to high probability for finding small artifact and/or lithic scatter type-sites. These types of resources are rarely eligible for listing in the NRHP.

A detailed Cultural Resource Survey will be performed for this project.

I. COASTAL BARRIER RESOURCES

This project is not located near a coastal barrier area (Project Development & Environmental Guidelines, Part 2, Chapter 26).

J. CONTAMINATION

Based on a preliminary aerial review of the subject corridor, it appears that medium to high risk activities exist at the corridor. The presence of current or previous gasoline service stations and associated petroleum product storage tanks are evident at each major intersection of the corridor, and therefore constitute a medium to high hazardous risk ranking. The remainder of the corridor appears to consist of mainly undeveloped areas and constitutes mainly low to no risk activities.

K. SOLE SOURCE AQUIFER

There are no sole source aquifers within the project limits.

L. NOISE

A preliminary review of the project corridor identified the following potential noise sensitive sites: numerous residential areas and the First Baptist Church of Okahumpka. A detailed noise study will be performed for this project.

M. OTHER TOPICS

Funding:

The design and right-of-way portions of this project are currently funded. The total funds available for this phase of the project are in the amount of $1,000,000.00. These funds come from Lake County and the State, with the County contributing 65% and the State contributing 35% of the total amount.

Schedule:

County Road 470 is currently in the Project Development and Environment Study (PD&E) phase. The study is scheduled to be completed by late March, 2003. Design for this corridor is expected to begin in October, 2003.

4. NAVIGABLE WATERWAYS

The project does not involve a navigable waterway.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

County Road 470 from Florida's Turnpike to US Highway 27

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5. PERMITS REQUIRED

Various permit applications may be required to be filed and approved prior to construction. The list of potential agencies and permits required include, but may not be limited to the following:

- U.S. Army Corps of Engineers (COE)
- Florida Department of Environmental Protection (FDEP)
- St. John's River Water Management District (SJRWMD)
- U.S. Coast Guard (USCG)

Mailing List

Federal Highway Administration, Division Administrator (Federal-aid projects only)
Federal Emergency Management Agency-Natural Hazard Branch Chief
Federal Railroad Administration-Office of Economic Analysis, Director
Federal Aviation Administration-Airports District Office
U.S. Department of Interior-Bureau of Land Management, Eastern States Office
U.S. Department of Housing and Urban Development, Regional Environmental Officer
U.S. Department of Interior-U.S. Geological Survey Chief
U.S. Environmental Protection Agency – Regional IV, Regional Administrator
U.S. Department of Interior – Fish and Wildlife Service, Field Supervisor
U.S. Army Corps of Engineers – Regulatory Branch, District Engineer
U.S. Department of Commerce – National Marine Fisheries Service – Habitat Conservation Division
U.S. Department of Agriculture – Southern Region, Regional Forester
U.S. Department of Interior – National Park Service – Southeast Regional Office
U.S. Department of Interior – U.S. Fish and Wildlife Service, Endangered Species Field Office
U.S. Department of Interior – Fish and Wildlife Service, Field Supervisor
U.S. Department of Commerce – National Oceanic and Atmospheric Administration
U.S. Department of Health and Human Services – Center for Environmental Health and Injury Control
U.S. Coast Guard
U.S. Senator Bob Graham
U.S. Senator Bill Nelson
U.S. Representative Porter Goss
State Senator Burt L. Saunders
State Senator Steven A. Geller
State Representative Carole Green
State Representative J. Dudley Goodlette
State Representative Joseph R. Spratt
State Representative Cliff Stearns
Florida Game and Fresh Water Fish Commission – Office of Environmental Services
Florida Department of Environmental Protection – District Office
Florida Department of Agricultural and Consumer Services – Division of Plant Industry
Florida Department of Environmental Protection – LAAC Coordinator/Land Acquisition
Florida Department of Environmental Protection – Bureau of Land Management – Tallahassee
Florida Department of Environmental Protection – Marine Fisheries Commission
Division of Natural Resources Management – Department of Community Development
National Oceanic and Atmospheric Administration
Poarch Band of Creek Indians of Alabama
Muscogee (Creek) Nation of Oklahoma

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

County Road 470 from Florida's Turnpike to US Highway 27

Seminole Tribe of Florida
Miccosukee Tribe of Indians of Florida
Seminole Nation of Oklahoma
Regional Planning Council
Water Management District
Federal – Aid Program Coordinator
Manager, Environmental Management Office
Lake County Public Works Director - Jim Stivender
District 1 Commissioner Jennifer Hill
District 2 Commissioner Robert A. Pool
District 3 Commissioner Debbie Stivender
District 4 Commissioner Catherine C. Hanson
District 5 Commissioner Welton G. Cadwell
City of Leesburg, City Manager – Ron Stock
City of Leesburg Commissioner Ben Perry, District 1
City of Leesburg Commissioner David Connelly, District 2
City of Leesburg Commissioner Lewis Puckett, District 3
City of Leesburg Commissioner David Knowles, At Large
City of Leesburg Mayor/Commissioner Bob Lovell, At Large

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION:	2. DATE SUBMITTED	Applicant Identifier
Application / Preapplication	3. DATE RECEIVED BY STATE	State Application Identifier: 4103472-1-54-01
☐ Construction ☐ Construction	4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier
☐ Non-Construction ☐ Non-Construction		

5. APPLICANT INFORMATION

Legal Name: Lake County

Organizational Unit:

Address (give city, county, state, and zip code):
123 N. Sinclair Avenue
Tavares, Florida 32778

Name and telephone number of the person to be contacted on matters involving this application (give area code)
Noble Olasimbo
(352) 253-4986

6. EMPLOYER IDENTIFICATION NUMBER (EIN): 59-6000695

7. TYPE OF APPLICANT: (enter appropriate letter in box) B

A. State
B. County
C. Municipal
D. Township
E. Interstate
F. Intermunicipal
G. Special District
H. Independent School Dist.
I. State Controlled Institution of Higher Learning
J. Private University
K. Indian Tribe
L. Individual
M. Profit Organization
N. Other (Specify) _____

8. TYPE OF APPLICATION:

☒ New ☐ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in box(es) ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other (specify):

9. NAME OF FEDERAL AGENCY:

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: ☐☐ – ☐☐☐

TITLE:

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
Project Development and Environmental Study for County Road 470 from Sumter County line to 1/4 mile east of U.S. Highway 27.

12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.):
Lake County, City of Okahumpka, City of Leesburg

13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF:	
Start Date	Ending Date	a. Applicant	b. Project
11/30/02	4/30/03		

15. ESTIMATED FUNDING:		
a. Federal	$	.00
b. Applicant	$ 178,750	.00
c. State	$ 96,250	.00
d. Local	$	.00
e. Other	$	.00
f. Program Income	$	.00
g. TOTAL	$ 275,000	.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. NO. ☐ PROGRAM IS NOT COVERED BY E.O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☐ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative	b. Title	c. Telephone Number
Noble Olasimbo	Project Manager	(352) 253-4986
d. Signature of Authorized Representative		e. Date Signed: 4/30/02

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Standard Form 424 (Rev. 4-92)
Prescribed by OMB Circular A-102

Department of
Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

January 23, 2003

Mr. Bob Gleason, District Manager
Florida DOT – District Five
719 South Woodland Blvd., MS 501
Deland, Florida 32720

RE: U.S. Department of Transportation – Highway Planning and Construction – Advanced Notification – Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 – Financial Item No. 410372-1 – Financial Aid Project No. 410372-1-54-1 (For Information Only) – Lake County
SAI: FL200211273113C

Dear Mr. Gleason:

The Florida State Clearinghouse, pursuant to Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated the review of the above-referenced notification.

The Department of Environmental Protection (DEP) indicates that the proposed project will require a modification to the existing public easement at the bridge spanning the Palatlakaha River. The entity responsible for processing this authorization is the St. Johns River Management Water Management District (SJRWMD).

Subsection 303(d) of the Clean Water Act and Section 403.067, F.S., require the state to prepare a list of surface waters that do not meet applicable water quality standards (impaired waters) and to establish Total Maximum Daily Loads (TMDLs) for those waters on a prioritized schedule. During the five-year watershed management planning cycle, TMDLs for surface waters not meeting water quality standards will be developed, and a management plan implemented. The project corridor lies within the Ocklawaha River watershed, a Year 1 basin. TMDLs will be developed during 2003 for some of the segments of the Ocklawaha watershed. However, it appears that TMDLs for the Palatlakaha River will not be developed until 2007. For further information, please contact Barbara Bess, in the FDEP Central District Office in Orlando, at 407/893-3984.

The Department also notes that the Lake County Waste-to-Energy facility, which routinely accepts and incinerates both solid and biomedical waste, is located within one mile of the proposed project.

The St. Johns River Water Management District (SJRWMD) states that an Environmental Resources Permit (ERP) will be required for the proposed activities, pursuant to subsection 40-C 4.041 (1), F.A.C. A more detailed review of the project will be made at the time of permit application, with the proposed project reviewed according to the criteria set forth in the ERP Applicants Handbook (A.H.), Sections 10, 11, and 12. The project is in the Ocklawaha River Basin and is subject to Special Basin criteria 40C-41.063(2)(a) and 40C-41.063(2)(b).

The District notes that there are potential wetland impacts for all three proposed road alignments. They indicate that the project does not appear to have a Formal Wetland Determination (FWD). Wetlands and/or surface waters located in portions of the project not currently permitted for regulated activities are subject to verification at time of permit application submittal. Please refer to the enclosed SJRWMD comments.

Based on the information contained in the referenced notification and the comments provided by our reviewing agencies, as summarized above and enclosed, the state has determined that the above-referenced project is consistent with the Florida Coastal Management Program.

Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Suzanne E. Ray at 850/245-2172.

Yours sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/ser

Enclosures

cc: Barbara Bess, DEP Central District
Geoffrey Sample, SJRWMD

TO: Florida State Clearinghouse

FROM: Suzanne E. Ray, Environmental Specialist
Office of Intergovernmental Programs

DATE: January 23, 2003

PROJECT: U.S. Department of Transportation – Highway Planning and Construction – Advanced Notification – Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 – Financial Item No. 410372-1 – Financial Aid Project No. 410372-1-54-1 (For Information Only) – Lake County

SAI: FL 200211273113C

The Department has reviewed the above-referenced project and offers the following comments.

The Department of Environmental Protection (DEP) indicates that the proposed project will require a modification to the existing public easement at the bridge spanning the Palatlakaha River. The entity responsible for processing this authorization is the St. Johns River Management Water Management District (SJRWMD).

Subsection 303(d) of the Clean Water Act and Section 403.067, F.S., require the state to prepare a list of surface waters that do not meet applicable water quality standards (impaired waters) and to establish Total Maximum Daily Loads (TMDLs) for those waters on a prioritized schedule. During the five-year watershed management planning cycle, TMDLs for surface waters not meeting water quality standards will be developed, and a management plan implemented. The project corridor lies within the Ocklawaha River watershed, a Year 1 basin. TMDLs will be developed during 2003 for some of the segments of the Ocklawaha watershed. However, it appears that TMDLs for the Palatlakaha River will not be developed until 2007. For further information, please contact Barbara Bess, in the FDEP Central District Office in Orlando, at 407/893-3984.

The Department also notes that the Lake County Waste-to-Energy facility, which routinely accepts and incinerates both solid and biomedical waste, is located within one mile of the proposed project.

TO: Florida State Clearinghouse

FROM: Suzanne E. Ray, Environmental Specialist
Office of Intergovernmental Programs

DATE: January 23, 2003

PROJECT: U.S. Department of Transportation – Highway Planning and Construction – Advanced Notification – Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 – Financial Item No. 410372-1 – Financial Aid Project No. 410372-1-54-1 (For Information Only) – Lake County

SAI: FL 200211273113C

The Department has reviewed the above-referenced project and offers the following comments.

The Department of Environmental Protection (DEP) indicates that the proposed project will require a modification to the existing public easement at the bridge spanning the Palatlakaha River. The entity responsible for processing this authorization is the St. Johns River Management Water Management District (SJRWMD).

Subsection 303(d) of the Clean Water Act and Section 403.067, F.S., require the state to prepare a list of surface waters that do not meet applicable water quality standards (impaired waters) and to establish Total Maximum Daily Loads (TMDLs) for those waters on a prioritized schedule. During the five-year watershed management planning cycle, TMDLs for surface waters not meeting water quality standards will be developed, and a management plan implemented. The project corridor lies within the Ocklawaha River watershed, a Year 1 basin. TMDLs will be developed during 2003 for some of the segments of the Ocklawaha watershed. However, it appears that TMDLs for the Palatlakaha River will not be developed until 2007. For further information, please contact Barbara Bess, in the FDEP Central District Office in Orlando, at 407/893-3984.

The Department also notes that the Lake County Waste-to-Energy facility, which routinely accepts and incinerates both solid and biomedical waste, is located within one mile of the proposed project.

STATE CLEARINGHOUSE

The following comment was entered into the State Clearinghouse on-line database on the date shown.

OCGA Item #: 2293

SAI #: FL200211273113C

Comment Entered On-line: 12/19/2002

Comment: SJRWMD

An Environmental Resources Permit (ERP) is required for the proposed activities by SJRWMD, pursuant to subsection 40-C 4.041 (1), F.A.C. A more detailed review of the project will be made at the time of permit application, with the proposed project reviewed according to the criteria set forth in the ERP Applicants Handbook (A.H.), Sections 10, 11, and 12. Please note that the project is in the Ocklawaha River Basin and is subject to Special Basin criteria 40C-41.063(2)(a) and 40C-41.063(2)(b).

There are potential wetland impacts for all three proposed road alignments. Based on a cursory review of files, this project does not appear to have a Formal Wetland Determination (FWD). Wetlands and/or surface waters located in portions of the project not currently permitted for regulated activities are subject to verification at time of permit application submittal.

Design modifications to reduce or eliminate adverse wetland/surface water impacts must be explored, as described in subsection 12.2.1.1, ERP A.H. The District will review the road alignment to determine if all options available to eliminate or reduce impacts to wetlands/surface waters have been researched and substantively evaluated. Mitigation for wetland/surface water impacts can only be approved after the elimination and reduction criteria have been adequately addressed.

The wetlands provide habitat for fish and wildlife and may potentially provide nesting or significant foraging habitat for listed species. The applicant will be required to address direct, secondary, and cumulative impacts to fish and wildlife resulting from the proposed project. We suggest that the right-of-way footprint not be viewed in isolation when reviewing it for habitat value for wetland dependent species. These wetlands are for the most part, a portion of a mosaic of wetlands that provide a corridor for feeding, shelter and movement from surface waters to other wetland and upland habitats. At the time of application, please consider the following, and how impacts can be avoided, minimized and/or offset:

(a) The direct loss of habitat or other ecological functions provided to aquatic and wetland dependent species, including (potentially) listed species;

(b) The secondary and cumulative loss, to the drainage basin, of wetland habitat and the ecological functions that they provide, resulting from the proposed road widening (e.g., loss of wildlife habitat and wildlife loss through increased traffic mortality).

(Tim Wetzel and Ken Lewis/GCS)

STATE CLEARINGHOUSE

User: Suzanne E. Ray, Environmental Specialist III, ENVIRONMENTAL PROTECTION

Project Information

Project:	FL200211273113C
Description:	Department of Transportation - Highway Planning and Construction - Advance Notification - Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 - Financial Item No. 410372-1 - Financial Aid Project No. 410372-1-54-1 (For Information Only) - Lake County, Florida.
Keywords:	DOT - Adv Not - Widening of CR 470 - Lake Co.
Program:	20.205

Review Comments

Reviewer:	FISH and WILDLIFE COMMISSION
Date:	12/04/2002
Description:	NC by Steve Lau.
Comment Type:	(•) Draft ( ) Final

SR

JNTY: LAKE

DATE: 11/27/02
COMMENTS DUE DATE: 12/27/02
CLEARANCE DUE DATE: 1/26/03
SAI#: FL200211273113C

/lessage:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
AGRICULTURE OTTED X COMMUNITY AFFAIRS FISH and WILDLIFE COMMISSION STATE TRANSPORTATION ENVIRONMENTAL PROTECTION	SOUTHWEST FLORIDA WMD ST. JOHNS RIVER WMD	ENVIRONMENTAL POLICY UNIT

RECEIVED
3 2002
DEPT. OF COMM. AFFAIRS DCP

he attached document requires a Coastal Zone Management Act/Florida :oastal Management Program consistency evalutation and is categorized s one of the following:

X Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

— Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

— Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

— Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

Department of Transportation - Highway Planning and Construction - Advance Notification - Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 - Financial Item No. 410372-1 - Financial Aid Project No. 410372-1-54-1 (For Information Only) - Lake County, Florida.

RECEIVED
JAN 13 2003
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To: **Florida State Clearinghouse**
AGENCY CONTACT AND COORDINATOR (SCH)
2555 SHUMARD OAK BLVD
TALLAHASSEE, FLORIDA 32399-2100
(850) 414-6580 (SC 994-6580)
(850) 414-0479

EO. 12372/NEPA
- [x] No Comment
- [ ] Comment Attached
- [ ] Not Applicable

Federal Consistency
- [ ] No Comment/Consistent
- [ ] Consistent/Comments Attached
- [ ] Inconsistent/Comments Attached
- [x] Not Applicable

From:
Division/Bureau: DCA/DCP
Reviewer:
Date: 11/07/03

COUNTY: LAKE

DATE: 11/27/02
COMMENTS DUE DATE: 12/27/02
CLEARANCE DUE DATE: 1/26/03
SAI#: FL200211273113C

Message:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
AGRICULTURE OTTED COMMUNITY AFFAIRS FISH and WILDLIFE COMMISSION X STATE TRANSPORTATION ENVIRONMENTAL PROTECTION	SOUTHWEST FLORIDA WMD ST. JOHNS RIVER WMD	ENVIRONMENTAL POLICY UNIT Lake SAI - DOT 2002 - 11270

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DEC 30 2002
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TALLAHASSEE, FLORIDA 32399-2100
(850) 414-6580 (SC 994-6580)
(850) 414-0479

EO. 12372/NEPA
☒ No Comment
☐ Comment Attached
☐ Not Applicable

Federal Consistency
☒ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☐ Not Applicable

Barbara E. Mattick, Deputy SHPO 12/23/02

From:
Division/Bureau: Division of Historical Resources / Bureau of Historic Preservation
Reviewer: SARAH A. ALVING
Date: 12/19/02

12/12/02

COUNTY: LAKE

DATE: 11/27/02
COMMENTS DUE DATE: 12/27/02
CLEARANCE DUE DATE: 1/26/03
SAI#: FL200211273113C

Message:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
AGRICULTURE X OTTED COMMUNITY AFFAIRS FISH and WILDLIFE COMMISSION STATE TRANSPORTATION ENVIRONMENTAL PROTECTION	SOUTHWEST FLORIDA WMD ST. JOHNS RIVER WMD	ENVIRONMENTAL POLICY UNIT

RECEIVED
DEC 16 2002
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Project Description:

Department of Transportation - Highway Planning and Construction - Advance Notification - Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 - Financial Item No. 410372-1 - Financial Aid Project No. 410372-1-54-1 (For Information Only) - Lake County, Florida.

To: **Florida State Clearinghouse**
AGENCY CONTACT AND COORDINATOR (SCH)
2555 SHUMARD OAK BLVD
TALLAHASSEE, FLORIDA 32399-2100
(850) 414-6580 (SC 994-6580)
(850) 414-0479

EO. 12372/NEPA
- ☒ No Comment
- ☐ Comment Attached
- ☐ Not Applicable

Federal Consistency
- ☒ No Comment/~~Consistent~~
- ☐ Consistent/Comments Attached
- ☐ Inconsistent/Comments Attached
- ☐ Not Applicable

From:
Division/Bureau: M Bakeley
Reviewer: OTTED
Date: 12/5/02

SK

Southwest Florida
Water Management District

An Equal Opportunity Employer

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)
On the Internet at: WaterMatters.org

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)
SUNCOM 578-2070

Bartow Service Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)
SUNCOM 572-6200

Sarasota Service Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)
SUNCOM 531-6900

Lecanto Service Office
3600 West Sovereign Path
Suite 226
Lecanto, Florida 34461-8070
(352) 527-8131
SUNCOM 667-3271

December 6, 2002

Cindy Cranick
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 47
Tallahassee, Florida 32399-3000

Subject: Department of Transportation – Highway Planning and Construction – Advance Notification – Proposed Widening of CR 470 from Florida's Turnpike to US Highway 27 – Financial Item No. 410372-1 – Financial Aid Project No. 410372-1-54-1 – Lake County
SAI#: FL200211273113C

Dear Ms. Cranick:

The staff of the Southwest Florida Water Management District has reviewed the materials for the above referenced project. Please note that the proposed project is located within the jurisdiction of the St. Johns River Water Management District, therefore, we have no comments at this time. If you have any questions or if I can be of further assistance, please contact me in the District's Planning Department at extension 4421.

Sincerely,

Joseph P. Quinn, AICP
Government Planning Coordinator

LK3-1-44

KEK
MLP
Permit
FILE

U.S. Department of Homeland Security

United States Coast Guard

Commander
Seventh Coast Guard District

909 SE First Avenue
Miami, FL 33131-3050
Staff Symbol: (obr)
Phone: (305) 415-6766
Fax: (305) 415-6763
Email: dtompkins@d7.uscg.mil

16211/FL
Serial: 1065
July 31, 2003

RECEIVED
AUG 06 2003
BOWYER - SINGLETON

Mr. Christian Miller, P.W.S.
Senior Environmental Scientist
Bowyer-Singleton & Associates, Incorporated
520 South Magnolia Avenue
Orlando, Florida 32801

Dear Sir:

This responds to your letter regarding the proposed bridge replacement project at CR 470/CR 48 across the Palatlakaha River at Leesburg, Lake County, Florida.

Please be advised that a Coast Guard bridge permit will not be required for the proposed project

Based on a previous determination, it is our understanding that the waterway -

a. Is not subject to tidal influence;

b. Is not used, either by itself or in connection with other waterways, for substantial interstate or foreign commerce; and

c. Is not susceptible to such use, either in its natural condition or by reasonable improvement.

If you should have any questions concerning this matter, please call Mr. Darayl Tompkins at (305) 415-6766.

Sincerely,

D. TOMPKINS
Bridge Management Specialist
U.S. Coast Guard
By direction

C.R. 470
SUMTER COUNTY LINE TO U.S. 27
PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY

PREPARED BY:

BOWYER-SINGLETON & ASSOCIATES, INCORPORATED

ENGINEERING PLANNING SURVEYING ENVIRONMENTAL

Lake County, Florida

CR 470 News

CR 470 Project Development and Environmental Study (PD&E)

Issue 1 April 2002

Lake County Initiates Study for Improvements to CR 470

On January 22, 2002, Lake County began a Project Development and Environmental (PD&E) study for County Road 470 from the Sumter County line to one-quarter mile east of US 27. The purpose of this study is to identify and evaluate alignment and typical section alternatives for the corridor, which will meet future traffic demands.

Traffic projections show that the existing two-lane facility may not be able to handle future traffic volumes and maintain an acceptable level of service. The future construction of the full access interchange between CR 470 and the Turnpike will play a major role in the increase of traffic volumes for County Road 470.

Currently, construction plans are being developed for this interchange. Construction of the interchange is scheduled for September 2003 and will continue thru July 2005.

A four-lane divided facility is anticipated for the corridor. Pedestrian facilities, access management and various typical sections will be evaluated for this roadway. It is Lake County's objective to minimize social and environmental impacts with the implementation of this project. Lake County will coordinate closely with government agencies and citizens; and will make them part of the study process.

Roads... "people places"

Roads provide functions well beyond just mobilizing traffic. Historically roads have been places of commercial development and human interaction. For this reason, public involvement will play a major role in the development of this PD&E study.

The County has developed a pro-active public involvement program for CR 470. This program will enable residents to participate in the process; and share their knowledge of the corridor with County staff and engineers. Residents, business owners, local and state organizations will be invited to participate in these workshops. County staff and Consulting Engineers will be available to answer questions and to take notes of any suggestions.

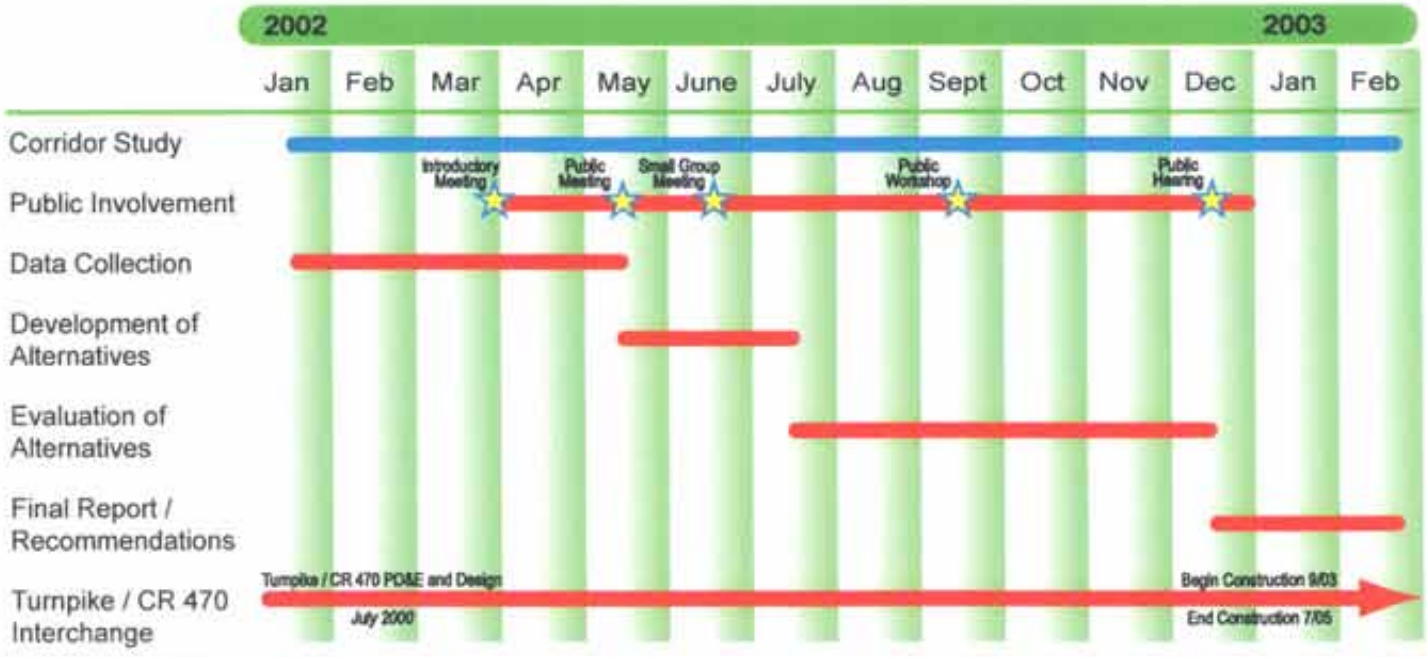
Key Study Issues

Upon review of the existing corridor and initial data collection efforts, several key issues have been identified, which will be addressed during the study:

- Corridor Analysis
- Traffic impacts with the construction of the interchange at the Turnpike
- Minimizing environmental impacts
- Drainage issues
- Access management
- Typical section

Project Schedule

The study will require 13 months to complete. The schedule for this project closely follows the FDOT schedule for the CR 470/Turnpike interchange.



Informational Workshop

Lake County has scheduled the first public information workshop for May 16, 2002 at the St. Marks Lutheran Church located at 28215 South US Highway 27, Leesburg, Florida. The workshop will be held from 6-8 pm.

The purpose of this meeting is to provide the local residents and business owners with general information about the project. The format of this workshop will be informal. Aerial based conceptual plans and project-related information will be available for review. Following the presentation, the floor will be open to questions and any comments, concerns, or suggestions the public may have about the project. Any suggestions and/or information regarding the corridor will be compiled and considered in the development of alternatives.

Please note that this is not a public hearing; a formal public hearing will be held later in the study process, in keeping with State and Federal requirements.

Project Team

Mr. Noble Olasimbo, AICP, is the Lake County Project Manager for this project. If you have any questions or would like additional information, he can be reached at:

Telephone: (352) 253-4983

Fax: (352) 253-4915

E-Mail: nolasimbo@co.lake.fl.us

Mail: Lake County Public Works
123 North Sinclair Avenue
Tavares, Florida 32778

Bowyer-Singleton and Associates will provide Engineering Consulting services under the direction of Kevin E. Knudsen, P.E. as Project Manager. Mr. Knudsen can be reached at:

Telephone: (407) 843-5120

Fax: (407) 481-2841

E-Mail: kknudsen@bsaorl.com

Mail: Bowyer-Singleton & Associates, Inc.
520 South Magnolia Avenue
Orlando, Florida 32801

Address Correction Requested

Mr. Noble Olasimbo, AICP
Lake County Works
123 North Sinclair Avenue
Tavares, Florida 32778

Lake County, Florida

CR 470 News

Public Information Workshop

St. Mark's Lutheran Church

Leesburg, Florida

May 16, 2002 at 6:00 pm

PUBLIC INFORMATION WORKSHOP

Project Development
&
Environmental Study

Improvements to County Road 470
Lake County

Public Information Workshop

Tuesday, October 8, 2002
6:00 p.m. to 8:00 p.m.

St. Marks Lutheran Church
28215 South US Highway 27
Leesburg, Florida 34748

The Lake County Public Works Department has scheduled a public information workshop regarding proposed improvements to County Road 470, from the Sumter County line to ¼ mile east of US 27. The Project Development and Environmental (PD & E) Study will look at the possible widening and partial realignment of County Road 470.

The format of the meeting will be informal, with Lake County Representatives and Consulting Engineers present between the hours of 6:00 p.m. and 8:00 p.m. to discuss the proposed improvements, receive public comments and answer questions. At 7:00 p.m., there will be a brief presentation explaining the process of the study and the preferred alternative. Conceptual Plans, a Draft Preliminary Engineering report and other project information will be on display at the workshop. Comments regarding the proposed improvements can be made by submitting them in writing either at the meeting or mailed and postmarked by October 15, 2002. Comment forms will be provide at the workshop.

Please note, this is not a public hearing; a formal public hearing will be held later in the study process, in keeping with State and Federal requirements.

Persons with disabilities who may need special accommodations at the workshop under the Americans with Disabilities Act of 1990 should contact Mr. Noble Olasimbo, Lake County Project Manager at (352) 253-4986 at least 7 days before the workshop.

BOARD OF COUNTY COMMISSIONERS · LAKE COUNTY, FLORIDA · 1887

CR 470 PD&E

Public Information Workshop
Lake County, Florida

Lake County, Florida

CR 470 News

CR 470 Project Development and Environmental Study (PD&E)

Issue 2 September 2002

CR 470 Project Need and Process

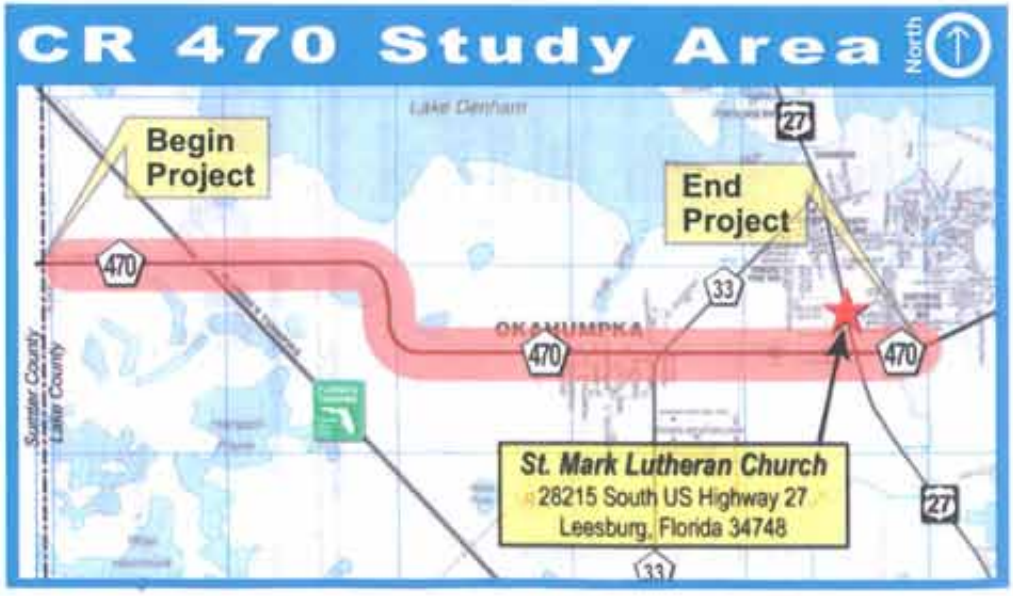
The need to improve County Road 470, from the Sumter County line to east of US Highway 27, is a top priority to Lake County. The Project Development and Environmental Study began in January 2002. The PD&E was developed in order to meet the requirements of the National Environmental Policy Act (NEPA), allowing a project to become eligible for federal funding. The intent of the PD&E is to identify and evaluate alternative alignments and typical sections for the corridor, that will meet future traffic demands, and estimate social and environmental impacts associated with each of these alternatives.

The proposed full access interchange between the Turnpike and County Road 470 will play a major part in the proposed alternatives and final outcome of this project. At the conclusion of this study, a recommendation will be made for the best improvement option for County Road 470.

Public Information Workshop Scheduled

The Lake County Public Works Department will conduct a Public Information Workshop for the County Road 470 Project Development and Environmental Study. ***The workshop will be held on Tuesday, October 8, 2002 at the St. Marks Lutheran Church, located at 28215 US Highway 27, Leesburg. The workshop will be held from 6:00 p.m. to 8:00 p.m.***

This workshop will allow interested persons the opportunity to express their ideas and/or concerns regarding the conceptual design, social, economic, and environmental effects of the proposed improvements. Lake County representatives will be present during the meeting to answer questions and discuss the project. Please note that this is not a Public Hearing; a formal public hearing will be held later in the study process, in keeping with State and Federal Requirements.



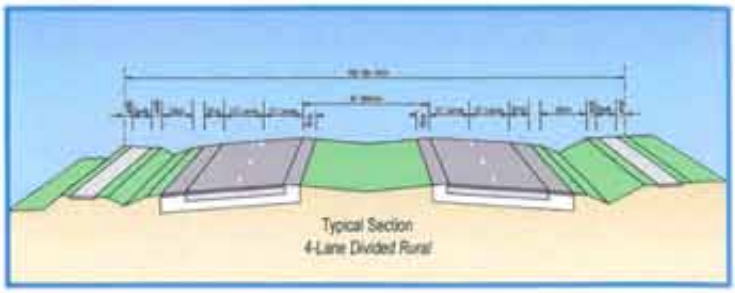
Progress...

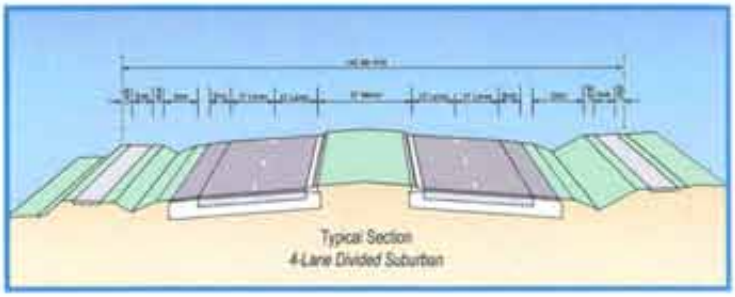
Since the first Public Information Workshop on May 16, 2002, there has been substantial progress in the development of the PD&E study. Lake County Public Works has been coordinating with the City of Leesburg, the Florida Department of Transportation (FDOT) and Sumter County in the development of alternative alignments and typical sections for this project.

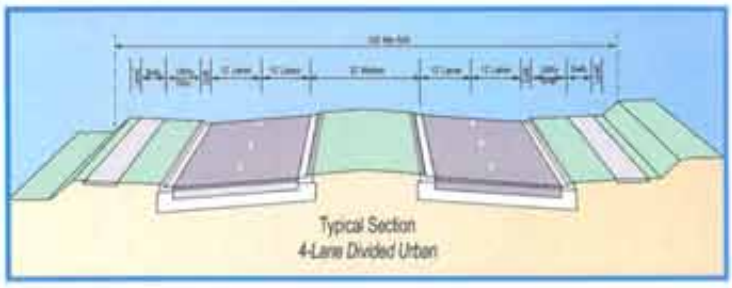
Three different alternative alignments have been developed and studied for the portion of the road between the reverse curves. Additionally, three (3) different typical sections have been evaluated for the corridor. The different typical sections include a rural section, a suburban section and an urban section.

Study Alternatives

Typical Section & Right-of-Way Requirements

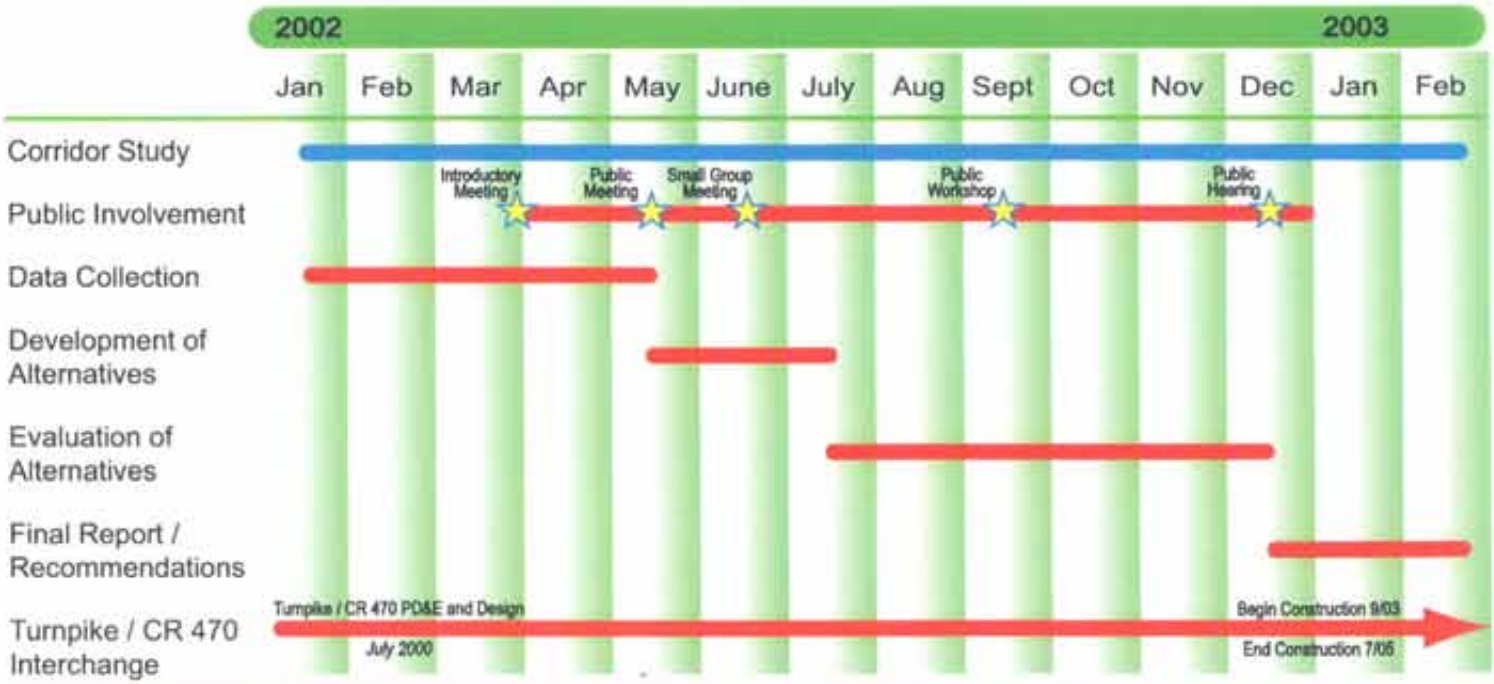






Project Schedule

The study will require 13 months to complete. The schedule for this project closely follows the FDOT schedule for the CR 470/Turnpike interchange.



Questions and Answers

During the first Public Workshop, a number of questions were asked by those in attendance. Following is a summary of the concerns and responses to those questions:

Q: What is your program for coordinating with Sumter County?

A: We have acquired the Sumter County land use plans to aid us with the Traffic analysis for the corridor and we have been in contact with Gary Breeden the Public Works Director at Sumter County.

Q: What is the website address?

A: The website is www.cr470.bsaorl.com and is currently up and running. We will be updating it as we continue with the study.

Q: How will traffic be controlled at the US 27 and CR 470 intersection? Is the only way to do that with the traffic light?

A: Based on traffic forecast right now, the signal will suffice for the 20-year traffic; it doesn't require an interchange.

Q: Has there been any thought to just straightening up the whole road?

A: FDOT (Florida Department of Transportation) has already performed a study and is currently designing the interchange with Florida's Turnpike at its existing location. A realignment of CR 470 is not feasible at this point.

Q: I notice the access roads near the interchange. Are these for the City of Leesburg? Are there plans for some to their road. The limited access points extend outward from the interchange. Frontage roads are built in order to provide access to adjoining properties.

A: The Turnpike has very strict criteria when they develop an interchange. They pay a premium to acquire the access rights along the roadway.

Q: What's in that vacant area (next to the "S" curves)?

A: The City of Leesburg has recently acquired some of this property. There is an abandoned orange grove, some abandoned buildings and a residence.

Q: How old is that aerial? Even the Publix is not on there and they've been there a year or more.

A: This aerial photograph was taken in March 1998. I believe the Publix is the only major change that has occurred... truthfully, aerials help, but most of our work is done off the tax maps and off the field analysis.

Your Input...

We want to know what you are thinking. Your comments and ideas can become part of this study. We encourage you to attend the next Public Workshop Meeting on October 8, 2002.

If you have any questions about this public meeting, would like to be added to the mailing list or schedule a speaker for your group's meeting, please contact:

Mr. Noble Olasimbo, AICP

Lake County Public Works
123 North Sinclair Avenue
Tavares, Florida 32778

Phone: (352) 253-4983
E-Mail: nolasimbo@co.lake.fl.us
Fax: (352) 253-4915

You can also visit our project website at: http://www.cr470.bsaorl.com

Address Correction Requested

Mr. Noble Olasimbo, AICP
Lake County Works
123 North Sinclair Avenue
Tavares, Florida 32778

Lake County, Florida

CR 470 News

Public Information Workshop

St. Mark's Lutheran Church

Leesburg, Florida

Tuesday, October 8, 2002

6:00 pm to 8:00 pm

Commissioner Ben Perry
City of Leesburg
PO Box 490630
Leesburg, Florida 34749

Commissioner Jennifer Hill
Lake County Government
315 West Main Street
Tavares, Florida 32778

Commissioner Welton Cadwell
Lake County Government
315 West Main Street
Tavares, Florida 32778

Commissioner Catherine Hanson
Lake County Government
315 West Main Street
Tavares, Florida 32778

Tom Percival
Florida Department of Transportation (FDOT)
District 5
719 S. Woodland Boulevard
Deland, Florida 32720

Mr. Ed Havill
Property Appraiser
317 West Main Street
Tavares, Florida 32778

Commissioner Robert Pool
Lake County Government
315 West Main Street
Tavares, Florida 32778

Commissioner Debbie Stivender
Lake County Government
315 West Main Street
Tavares, Florida 32778

Mr. Fred Schneider, P.E.
Lake County Department of Public Works
Post Office Box 7800
123 North Sinclair Avenue
Tavares, Florida 32778-7800

Mr. George E. Knupp
Lake County Sheriff
360 West Ruby Street
Tavares, Florida 32778

Commissioner Lewis Puckett
City of Leesburg
PO Box 490630
Leesburg, Florida 34749

Commissioner David Knowles
City of Leesburg
PO Box 490630
Leesburg, Florida 34749

Ms. Susana Gibson
Chair, Lake County Citizens Advisory Committee
12310 Sunshine Drive
Clermont, Florida 34711

Mr. Desmond Byrne
Vice Chair, Lake County Citizens Advisory Committee
36631 E. Eldorado Lake Drive
Eustis, Florida 32736

Ms. Lorraine Johnson
Lake County Citizens Advisory Committee
36529 Rolling Acres Road
Fruitland Park, Florida 34731

Mr. David Jordan
Lake County Citizens Advisory Committee
34645 Buckingham Road
Fruitland Park, Florida 34731

Ms. Jan Miller
Lake County Citizens Advisory Committee
304 Laurel Cove Court
Clermont, Florida 34711

Dr. Marcella Vogelmann-Peper
Lake County Citizens Advisory Committee
12608 Lake Ridge Circle
Clermont, Florida 34711

Ms. Eloise Fisher
Lake County Citizens Advisory Committee
327 Laura Lane
Mount Dora, Florida 32757

Mr. Tom Winn
Lake County Citizens Advisory Committee
33215 Lakeshore Drive
Tavares, Florida 32778

Mr. Elmer Webb
Lake County Citizens Advisory Committee
35526 Estes Road
Eustis, Florida 32736

Mr. Joe Shipes
Lake County Citizens Advisory Committee
425 Guerrant Street
Umatilla, Florida 32784

Mr. Gerald Wayne
Lake County Citizens Advisory Committee
1201 Sheman Avenue
Tavares, Florida 32778

Mr. Douglas Harrison
Director of Public Works, City of Astatula
Lake County Technical Advisory Committee
Post Office Box 609
Astatula, Florida 34705

Mr. Barry Brown
Director of Planning, City of Clermont
Lake County Technical Advisory Committee
Post Office Box 120219
Clermont, Florida 34712

Ms. Linda Rodrick
City Manager, City of Fruitland Park
Lake County Technical Advisory Committee
506 West Beackman Street
Fruitland Park, Florida 34731

Mr. Jason Yarborough
City Manager, City of Groveland
Lake County Technical Advisory Committee
156 South Lake Avenue
Groveland, Florida 34736

The Honorable Gregory Bitner
Mayor, Town of Howey in the Hills
Lake County Technical Advisory Committee
Post Office Box 67
Howey in the Hills, Florida 34737

Mr. Lanny Harker
Director of Planning, Town of Lady Lake
Lake County Technical Advisory Committee
224 West Guave Street
Lady Lake, Florida 32159

Mr. Bill Wiley
Planning Director, City of Leesburg
Post Office Box 490630
Leesburg, Florida 34749

Mr. Lee Hokr
Lake County Citizens Advisory Committee
1621 Lauren Lane
Lady Lake, Florida 32159

Mr. Thomas Reid
Lake County Citizens Advisory Committee
1509 Texas Court
Tavares, Florida 32778

The Honorable James Elrodt
Mayor, City of Astatula
Lake County Technical Advisory Committee
Post Office Box 609
Astatula, Florida 34705

Mr. Wayne Saunders
City Manager, City of Clermont
Lake County Technical Advisory Committee
Post Office Box 120219
Clermont, Florida 34712

Mr. James C. Watkins
Clerk of the Courts
Post Office Box 7800
Tavares, Florida 32778

Mr. Ken Keogh
Director of Public Works, City of Fruitland Park
Lake County Technical Advisory Committee
506 West Beackman Street
Fruitland Park, Florida 34731

Mr. Larry Walker
Director of Public Works, City of Groveland
Lake County Technical Advisory Committee
156 South Lake Avenue
Groveland, Florida 34736

Mr. James S. Coleman
Town Manager, Town of Lady Lake
Lake County Technical Advisory Committee
224 West Guave Street
Lady Lake, Florida 32159

Mr. Ronald Stock
City Manager, City of Leesburg
Lake County Technical Advisory Committee
Post Office Box 490630
Leesburg, Florida 34749

The Honorable Stanley Sloan
Mayor, City of Mascotte
Lake County Technical Advisory Committee
Post Office Box 56
Mascotte, Florida 34753

The Honorable Glen Irby
Mayor, City of Minneola
Lake County Technical Advisory Committee
Post Office Box 678
Minneola, Florida 34755

The Honorable Helen Pearce
Mayor, Town of Montverde
Lake County Technical Advisory Committee
Post Office Box 8
Montverde, Florida 34753

Ms. Bernice Brinson
City Manager, City of Mount Dora
Lake County Technical Advisory Committee
Post Office Box 176
Mount Dora, Florida 32757

Ms. Dottie Keedy
City Administrator, City of Tavares
Lake County Technical Advisory Committee
Post Office Box 1068
Tavares, Florida 32778

Mr. Alex Nixon
City Administrator, City of Umatilla
Lake County Technical Advisory Committee
Post Office Box 2286
Umatilla, Florida 32784

Mr. Charlie Weller
Manager, Leesburg Regional Airport
Lake County Technical Advisory Committee
600 Orange Street
Leesburg, Florida 34748

Mr. Garry Breeden
Director
Sumter County Public Works
319 E. Anderson Avenue
Bushnell, Florida 33513

Mr. James C. Watkins
Clerk of the Courts
Post Office Box 7800
Tavares, Florida 32778

Mr. Bob McKee
Tax Collector
317 West Main Street
Tavares, Florida 32778

Mr. Max Forgey
Lake County Planning
315 W. Main Street
Tavares, Florida 32778

Mr. Sylvester Julien
Deputy, City of Minneola
Lake County Technical Advisory Committee
Post Office Box 678
Minneola, Florida 34755

Mr. Marlin Burden
Director of Public Works, Town of Montverde
Lake County Technical Advisory Committee
Post Office Box 8
Montverde, Florida 34753

Mr. Mark Regentin
Director of Planning, City of Mount Dora
Lake County Technical Advisory Committee
Post Office Box 176
Mount Dora, Florida 32757

Mr. Aaron Mercer
Interim Planner, City of Tavares
Lake County Technical Advisory Committee
Post Office Box 1068
Tavares, Florida 32778

Mr. Dave Fusell
Director of Public Works, City of Umatilla
Lake County Technical Advisory Committee
Post Office Box 2286
Umatilla, Florida 32784

Mr. David Marsh
Florida Department of Transportation
District Five
Orlando Urban Office
133 South Semoran Boulevard
Orlando, Florida 32807

Emogene Stegall
Supervisor of Elections
Post Office Box 7800
Tavares, Florida 32778

Mr. George E. Knupp
Lake County Sheriff
360 West Ruby Street
Tavares, Florida 32778

Mr. Tim Scobie
City Administrator
City of Umatilla
P O Box 2286
Umatilla, Florida 32784

Katherine Homelius and Victoria Blocker
PO Box 268
Okahumpka, Florida 34762

Charles Jones
PO Box 791
Okahumpka, Florida 34762

Charles Proctor
PO Box 793
Okahumpka, Florida 34762

Island Food Stores LTD
4315 Pablo Oaks Ct #2
Jacksonville, Florida 32224

Robert Blocker
PO Box 97
Okahumpka, Florida 34762

Lenora Brockington
PO Box 75
Okahumpka, Florida 34762

Harold and Jeannette Rhoades
PO Box 397
Okahumpka, Florida 34762

Linda Sue Rednour Tranor
PO Box 206
Okahumpka, Florida 34762

Ray Dolly
PO Box 683
Okahumpka, Florida 34762

Hawthorne Res Co-op Association Inc.
PO Box 491700
Leesburg, Florida 34749

Irvin and Gayle Smart
PO Box 423
Okahumpka, Florida 34762

Katherine Phillips
PO Box General Delivery
Okahumpka, Florida 34762

Carroll Charles Sr. Estate
PO Box 414
Okahumpka, Florida 34762

Paul and Cynthia Mako
PO Box 106
Okahumpka, Florida 34762

Carlton Blake ESQ Trustee
1215 SE 2nd Avenue
Fort Lauderdale, Florida 33316

Ray and Martha Dolly
PO Box 683
Okahumpka, Florida 34762

Charles Proctor
PO Box 793
Okahumpka, Florida 34762

David and Kimberlee Ough
PO Box 105
Okahumpka, Florida 34762

Jacky Atchley
PO Box 207
Okahumpka, Florida 34762

Harold Smith
2225 Lake Nallywoods Drive
Gotha, Florida 34734

Marie Sullivan
PO Box 801
Okahumpka, Florida 34762

Robert Lewis
PO Box 245
Okahumpka, Florida 34762

Betty Hurlburt
27831 N. Pelican Isle
Leesburg, Florida 34748

Joseph and Margaret Branham
PO Box 38
Okahumpka, Florida 34762

Frederick and Virginia Gomes
3043 County Road 470
Okahumpka, Florida 34762

Emery and Cathie Knighten
PO Box 623
Okahumpka, Florida 34762

Ronald and Patricia MacLarty
3101 County Road 470
Okahumpka, Florida 34762

Jacky Atchley
PO Box 207
Okahumpka, Florida 34762

Darrel and Nancy Hallauer
PO Box 813
Summerfield, Florida 34492

Lemuel Philip and Debra La Flam
PO Box 345
Okahumpka, Florida 34762

Lester and Rene Bass
PO Box 495
Okahumpka, Florida 34762

Faye Bennett Trustee
1917 Helms Avenue
Leesburg, Florida 34748

Joseph Burke Trustee
PO Box 398
Fruitland Park, Florida 34731

Dovie Eugene Smith and Mary Smith Rocella
PO Box 172
Okahumpka, Florida 34762

Security Groves Inc.
PO Box 1505
Winter Haven, Florida 33880

Dorothy Thompson
PO Box 455
Okahumpka, Florida 34762

John Fetes
3005 County Road 470 W.
Okahumpka, Florida 32726

Oveta Maddox Trustee
1915 Salt Myrtle Lane
Orange Park, Florida 32003

Charles and Phillip Bosserman Co-Trustees
2041 Forest Club Drive
Orlando, Florida 32804

Phillip and Lena La Flam Trustees
PO Box 53
Okahumpka, Florida 34762

First Federal Savings Bank of Lake County
PO Box 490420
Leesburg, Florida 34749

Huntington National Bank
PO Box 182334
Columbus, OH 43218

Larry King
PO Box 490453
Leesburg, Florida 34749

Benarr Levandoski
PO Box 490086
Leesburg, Florida 34749

Felipe and Herminia Estrada
1935 County Road 470
Okahumpka, Florida 34762

Willie and Lucille Lynch
PO Box 43
Okahumpka, Florida 34762

City of Leesburg
PO Box 490630
Leesburg, Florida 34749

Platt Farms Inc.
PO Box 2263
Orlando, Florida 32802

Shirley Works
PO Box 421
Okahumpka, Florida 34762

James and Susan Baker
2949 County Road 470
Okahumpka, Florida 34762

Thomas and Bobbie Goodman
27534 Debbie Road
Okahumpka, Florida 34762

Oliver Cook
PO Box 613
Okahumpka, Florida 34762

Roy and Tammy Brown
2847 County Road 470
Okahumpka, Florida 34762

Mary Lux Stewart
PO Box 117
Yalaha, Florida 34797

Charles Joseph Knowles Trustee
1079 Island Way
Leesburg, Florida 34748

Algerine and Alice Loyd
PO Box 114
Okahumpka, Florida 34762

Gene Buckner
PO Box 491468
Leesburg, Florida 34749

Joann Anderson
PO Box 864
Okahumpka, Florida 34762

Geraldine Lakes
PO Box 291
Okahumpka, Florida 34762

Mr. James Ratliff, Planner
WilsonMiller, Inc.
1101 Channelside Drive
Suite 400N
Tampa, Florida 33618

Andrew Graham
4040 County Road 48
Okahumpka, Florida 34762

Charles Fields and Dailey Recha
1605 West Main Street
El Dorado, AR 71730

United Telephone Company of Florida
Attn: Keri Sullivan
PO Box 12913
Shawnee Mission, KS 66282

Island Food Stores LTD.
4315 Pablo Oaks Ct #2
Jacksonville, Florida 32224

Clyde and Sylvia Gentry
PO Box 13
Okahumpka, Florida 34762

Johnny Walk Real Estate Inc.
PO Box 37
Weirsdale, Florida 32195

Charles Carroll Jr.
PO Box 414
Okahumpka, Florida 34762

Shawn William Thomas Murray
PO Box 413
Lewis Run, PA 16738

George and Edith Bailey
PO Box 253
Okahumpka, Florida 34762

William Smith
PO Box 341
Okahumpka, Florida 34762

Devon Karl and Esther Thomas
4101 Empire Church Rd.
Groveland, Florida 34736

Mary Fields
4218 County Road 48
Okahumpka, Florida 34762

WL and Helen Beach
PO Box 365
Okahumpka, Florida 34762

Joanne Anderson
PO Box 864
Okahumpka, Florida 34762

Mark and Rita Humek
PO Box 546
Okahumpka, Florida 34762

Roger and Debra Fleckenstein
PO Box 54
Okahumpka, Florida 34762

Aubrey and Ruby Westmoreland
206 S. Thompson Street
Butler, MO 64730

Kenneth and Louise Shively
PO Box 225
Okahumpka, Florida 34762

William Kelsey and Gwen Smith
PO Box 341
Okahumpka, Florida 34762

Mary Smith
C/O Edith Bailey
PO Box 253
Okahumpka, Florida 34762

TIITF/State of Florida Public Lands
3900 Commonwealth Blvd.
Tallahassee, Florida 32399

United Southern Bank
PO Box 1925
Eustis, Florida 32727

J O and Odessa Gentry
27432 Todd Ave.
Okahumpka, Florida 34762

Benjamin Smith
PO Box 242
Okahumpka, Florida 34762

Charles Knowles
1079 Island Way
Leesburg, Florida 34748

Ada Tyndell
PO box 142
Okahumpka, Florida 34762

George Allen
PO Box 122
Okahumpka, Florida 34762

John Sink
Architect-Administrative Services
P. O. Box 9999592
Mid-Florida, Florida 32799-9592

Baptist Church of Okahumpka
PO Box 117
Okahumpka, Florida 34762

David Barcus and Beverly Ohnstad Trustee
113 Lakeshore Drive
Leesburg, Florida 34748

Howard Hewitt
PO Box 490697
Leesburg, Florida 34749

Leroy and Mary Rood
4811 County Road 48
Okahumpka, Florida 34762

Aston Black
PO Box 282
Okahumpka, Florida 34762

First Baptist Church of Okahumpka Inc.
PO Box 117
Okahumpka, Florida 34762

R M Crum Construction Company
PO Box 606
Niceville, Florida 32588

Frank and Denise Gibbs
PO Box 834
Okahumpka, Florida 34762

Katrenia Gentry
27432 Todd Ave.
Okahumpka, Florida 34762

CSX Transportation Inc.
500 Water Street
Jacksonville, Florida 32202

Publix Supermarkets Inc.
1936 George Jenkins Boulevard
Lakeland, Florida 33801

Uniflora Overseas Florida Inc.
PO Box 56
Okahumpka, Florida 34762

Mr. Archie Maclarty
3031 CR 470
Okahumpka, Florida 34762

Florida Power Corporation
Tax Dept CX1G
PO Box 14042
St. Petersburg, Florida 33733

Island Food Store LTD.
4315 Pablo Oaks Ct #2
Jacksonville, Florida 32224

Alphonso Tyndell
4207 Charley Forest Street
Olney, MD 20832

Mamie Rowell and Ollie Fields
2117 W. Woodland Boulevard
Leesburg, Florida 34748

Tim Walker
4315 Pablo Oaks Court
Suite 2
Jacksonville, Florida 32224

Ken Bosserman
3504 Finch Street
Orlando, Florida 32803

Ronald and Sandra Richard
PO Box 895547
Leesburg, Florida 34789

Larry Szgmon
8129 CR 44
Leesburg, Florida 34748

United Southern Bank
PO Drawer 29
Umatilla, Florida 32784

SunTrust Bank Central Florida NA
200 South Orange Ave. MC-0-2032
Orlando, Florida 32801

FRA Investments LTD
125-A Marks Street E
Orlando, Florida 32803

David Ohnstad
Post Office Box 490025
Leesburg, Florida 34749

Philip LaFlaur, Sr.
3718 East Highway
#48
Okahumpka, Florida 334762

Gene Buckner
Post Office Box 491468
Leesburg, Florida 34749

Mr. Jeff Richardson
Lake County Planning
315 W. Main Street
Tavares, Florida 32778

The Honorable Walter Taylor
Mayor, City of Astatula
P. O. Box 609
Astatula, Florida 34705

Mr. Steve Green
City of Eustis
P. O. Box 68
Eustis, Florida 32727-0068

The Honorable Scott Kearney
Mayor, City of Eustis
P. O. Box 67
Howey-In-The-Hills, Florida 34737

The Honorable William Balanoff
Mayor, Town of Minneola
Post Office Box 678
Minneola, Florida 34755

Ms Susan Jackson
Director of Community Services
City of Tavares
P O Box 1068
Tavares, Florida 32778

Mr. Noble Olasimbo, AICP
Lake County Department of Public Works
Post Office Box 7800
123 North Sinclair Avenue
Tavares, Florida 32778-7800

Mr. Jim Stivender
Lake County Department of Public Works
Post Office Box 7800
123 North Sinclair Avenue
Tavares, Florida 32778-7800

Ms. Letitia Neal
Florida Department of Transportation
District 5
719 S. Woodland Boulevard
Deland, Florida 32720

Mr. Michael Snyder
District Secretary
Florida Department of Transportation
District 5
719 S. Woodland Boulevard
Deland, Florida 32720

The Honorable David Connelly
Mayor, City of Leesburg
PO Box 490630
Leesburg, Florida 34749

Mr. Robert Johnson
Deputy City Manager, City of Leesburg
501 West Meadow Street
Leesburg, Florida 34748

Honorable Carey Baker
Florida Representative
District Office
301 West Ward Avenue
Eustis, Florida 32726-4024

Honorable Anna P. Cowin
Florida Senator
District Office
716 W. Magnolia Street
Leesburg, Florida 34748

Mr. Larry Walker
Director of Public Works, City of Groveland
Lake County Technical Advisory Committee
156 South Lake Avenue
Groveland, FL 34736

The Honorable Mr. Gregory Bitner
Mayor, Town of Howey in the Hills
Lake County Technical Advisory Committee
P.O. Box 67
Howey in the Hills, FL 34737

Mr. James S. Coleman
Town Manager, Town of Lady Lake
Lake County Technical Advisory Committee
224 West Guave Street
Lady Lake, FL 32159

Mr. Lanny Harker
Director of Planning, Town of Lady Lake
Lake County Technical Advisory Committee
224 West Guave Street
Lady Lake, FL 32159

Mr. Ronald Stock
Interim City Manager, City of Leesburg
Lake County Technical Advisory Committee
P.O. Box 490630
Leesburg, FL 34749

Mr. Bill Wiley
Planning Director, City of Leesburg
P.O. Box 490630
Leesburg, FL 34749

The Honorable Mr. Stanley Sloan
Mayor, City of Mascotte
Lake County Technical Advisory Committee
P.O. Box 56
Mascotte, FL 34753

The Honorable Mr. Glen Irby
Mayor, City of Minneola
Lake County Technical Advisory Committee
P.O. Box 678
Minneola, FL 34755

Mr. Sylvester Julien
Deputy, City of Minneola
Lake County Technical Adisory Committee
P.O. Box 678
Minneola, FL 34755

The Honorable Ms. Helen Pearce
Mayor, Town of Montverde
Lake County Technical Advisory Committee
P.O. Box 8
Montverde, FL 34753

Mr. Marlin Burden
Director of Public Works, Town of Montverde
Lake County Technical Advisory Committee
P.O. Box 8
Montverde, FL 34753

Ms. Bernice Brinson
City Manager, City of Mount Dora
Lake County Technical Advisory Committee
P.O. Box 176
Mount Dora, FL 32757

Mr. Mark Regentin
Director of Planning, City of Mount Dora
Lake County Technical Advisory Committee
P.O. Box 176
Mount Dora, FL 32757

Ms. Dottie Keedy
City Administrator, City of Tavares
Lake County Technical Advisory Committee
P.O. Box 1068
Tavares, FL 32778

Mr. Aaron Mercer
Intrim Planner, City of Tavares
Lake County Technical Advisory Committee
P.O. Box 1068
Tavares, FL 32778

Mr. Alex Nixon
City Administrator, City of Umatilla
Lake County Technical Advisory Committee
P.O. Box 2286
Umatilla, FL 32784

Mr. Dave Fusell
Director of Public Works, City of Umatilla
Lake County Tecnical Advisory Committee
P.O. Box 2286
Umatilla, FL 32784

Mr. Charlie Weller
Manager, Leesburg Regional Airport
Lake County Technical Advisory Committee
600 Orange Street
Leesburg, FL 34748

Mr. David Marsh
FDOT
133 South Semoran Blvd.
Orlando, FL 32807

Mr. Jeff Richardson
Lake County Planning
Lake County Technical Advisory Committee
315 West Main Street P.O. Box 7800
Tavares, FL 32778

County Road 470 PD&E Study

October 8, 2002

Public Involvement Workshop

SIGN-IN SHEET

NAME	ADDRESS	PHONE
EMERY KNIGHTEN	3015 C.R. 470	728-8370
Dan Gordan	Hawthorne	787-1000
PHIL MAGGIO	6762 E. CR 470 SUMTERVILLE	(352) 568-3371
JOHN MARUNIAK	LAKE CO PUBLIC WORKS	253-4981
Roy & Tammy Brown	2547 CR 470	303-5511
Denise Johnson	426 Bradshaw Terrace Okl.	

NAME	ADDRESS	PHONE
Jim & Susan Baker	2949 CR 470 Okahumpka	787-5970
David Olmstad	Box 490025 Leesburg 34749	787-7400
Nanette Moroni	Lake County Planning	x5984
[illegible]	PO Box 86 Okahumpka FL 34762	787/1482
[illegible]	3031 Hwy 470 Okahumpka	360-1174
Chris & Mary Stewart	POB 117 Yalaha, Fl. 34797	324-0174
Royce & Lillian Taylor	2925 + 2915 Hwy 470 Okahumpka 34762	787-2921
Margaret Branham	3147 CR 470, Okahumpka, FL	787-5893
Joseph W. Branham	PO Box 38 27745 Bugg Sp. Rd Okahumpka	787-5893
[illegible] Bailey	305 W. Mirror Lake Dr Fruitland Park, FL 34731	323-9008
Jim Stivender Jr	Lake County	253-4905
Scott Seck	6500 All American Blvd Orlando, Fl. 32810	522-7570
Andrew Graham	CR 48 #4040	728 6582

COUNTY ROAD 470 PD&E STUDY
PUBLIC INFORMATION WORKSHOP

OCTOBER 8, 2002

QUESTIONS AND COMMENTS

Per Comment Forms:

Questions from Workshop:

1. **Q.** Please clarify what you are calling right-of-way. Are you referring to streets as driveways?

   A. Driveways refer to driveway into a home.

   COMMENT: There are very few driveways, but there are a number of streets that are presently little gravel roads.

   RESPONSE: The County is required to provide access where access is. Therefore, existing driveways and existing side streets have to access maintained.

2. **Q.** East of 27, Palatlakaha River. Does your study include widening the bridge?

   A. We are looking at widening that bridge. Basically, the project is anticipated to take the 4-lane section far enough to develop all the turn lane geometry and everything needed for the intersection and then transition back to a 2-lane section. We are comfortable that is going across the bridge and require some improvements to the bridge. Whether it is a widening or replacement or whatever. We are looking at the bridge inspection reports, at the hydrology of the Palatlakaha River to see if the existing bridge is high enough and provides enough of an opening. We are doing all these things to see whether a replacement or a widening makes the most sense, but we do anticipate that we're going to have to do something to the bridge.

3. **Q.** In the median, will there be left turn stacking lanes?

   A. Yes.

4. **Q.** Will there be any vegetation besides grass? For example, trees or shrubs?

   A. The Commissioner of this District has requested that there be landscaping along the project that comes up in the design phase and have to be funded by the County or whoever funds the project. We are anticipating that there will be landscaping along the project.

   Q. Will there be landscaping in the median?

A. At least, yes. The rural section is a little harder to landscape because it actually used as drainage conveyance. The raised median is much easier to landscape because it is raised and the water flows off of it and out into the ponds. The type of landscaping and the density of it all has to do with the type of typical selected and also the funding for it.

5. **Q.** I've heard that there is going to be a connector road between CR48 and CR470 coming into the City of Leesburg property. Is that true and when will that go in?

A. We heard that also. No specifics yet.

6. **Q.** Some weeks ago, the City of Leesburg had an article in the *Daily Commercial* saying that, on the Turnpike, the overpass will have in bold letters written across the entire length of the overpass, **City of Leesburg.** This proposes as the gateway to the city of Leesburg and does traffic through Okahumpka and take this as an affront to the citizens of Okahumpka. I really hope that somebody can scratch that somewhere along the line. I believe it is a waste of money to appropriate $680K to beautify an overpass like that is totally unnecessary.

A. We met with the Turnpike last week and we will have internal meetings also. This is under discussion. They are in preliminary stages of discussion.

7. **Q.** I am a homeowner. There is not a whole lot of space where I live; it is close to the highway. Will you start in the middle of the highway and go equal distances on both sides of the highway, or how it will you go?

A. We are recommending a 100' right-of-way in this section—which is the existing right-of-way. We are not even looking at acquiring additional right-of-way in that area. The one that is recommended is one that fits inside the existing right-of-way.

8. **Q.** When you do start the widening project, are you going to start from the Turnpike end or start from Route 27 end?

A. I think they are going to design this as one segment and let it out as one construction project. How the contractor builds it, it is usually left up to him, because he usually knows the best way to try to build it. We really don't know at this point in time, nor could we control, how he does his construction.

9. **Q.** When will you know?

A. Probably in final design when we come up with a maintenance of traffic plan and how to maintain traffic while we are trying to do these improvements. We may not know until after a contractor actually bids the job and submits his work schedule to the County.

10. **Q.** With your study of traffic flow, as it exists right now, how many cars and trucks go by each day on CR 470?

A. Right now, on most of corridor, the existing traffic is around 7,000 cars/trucks as day. Truck traffic is about 7-8%.

11. **Q.** Do you anticipate traffic will triple?

A. Projected traffic volumes are in the mid 25,000 range, so they will go from 7,000-25,000 in the next 20 years. If the interchange gets constructed and the land use is developed the way

the highest potential of the property. Future land use will change so we try to take that into account to get a realistic traffic projection. Typically, traffic in a developed area doubles every 20 years. This area has a lot more potential impacts, especially with the interchange being opened up, so we're a little over that with our traffic projections for the next 20 years. That easily supports putting a 4-lane facility out there.

\\admin\LK3\Corr\publicworkshopquestions1

PUBLIC INFORMATION WORKSHOP

Project Development
&
Environmental Study

Improvements to County Road 470
Lake County

Public Information Workshop

Thursday, May 16, 2002
6:00 p.m. to 8:00 p.m.

St. Marks Lutheran Church
28215 South US Highway 27
Leesburg, Florida 34748

The Lake County Public Works Department has scheduled a public information workshop regarding proposed improvements to County Road 470, from the Sumter County line to ¼ mile east of US 27. The Project Development and Environmental (PD & E) Study will look at the possible widening of County Road 470 and partial realignment.

The format of the meeting will be informal, with Lake County Representatives and Consulting Engineers present between the hours of 6:00 p.m. and 8:00 p.m. to discuss the proposed improvements, receive public comments and answer questions. At 7:00 p.m., there will be a brief presentation describing the project and outlining the study objectives. Conceptual Plans and other project information will be on display at the workshop. Comments regarding the proposed improvements can be made by submitting them in writing either at the meeting or mailed and postmarked by May 23, 2002. Comment forms will be provide at the workshop.

Please note, this is not a public hearing; a formal public hearing will be held later in the study process, in keeping with State and Federal requirements.

Persons with disabilities who may need special accommodations at the workshop under the Americans with Disabilities Act of 1990 should contact Mr. Noble Olasimbo, Lake County Project Manager at (352) 253-4986 at least 7 days before the workshop.

CR 470 PD&E
Public Information Workshop
Lake County, Florida

County Road 470 PD&E Study

May 16, 2002

SIGN-IN SHEET

NAME	ADDRESS	PHONE
✓ Tim Walker	4315 Pablo Oaks Ct. Suite 2, Jacksonville Fl 32224	1-888-730-2666 1-904-730-2660
✓ Philip [illegible]	3718 East Hiway Okahumpka #48	728-5167
✓ Jim & Susan Baker	2949 CR470 Okahumpka, Fl. 34762	787-5770
✓ Gene Buckner	P.O. Box 491468 Leesburg 34749	787-4055
✓ John Maruniak	Lake Co. Public Wks	253-4981
✓ David Ohnstad	Box 490025 Leesburg	787-7400
✓ Fred Schneider	Lake Co Public Works	
✓ Debbie Stivender	County Commissioner	343-9850
✓ Lee Hohn	advisory Committee	753-5864
✓ Mary Huffine	Grand	753-5864
✓ B Lewandoski	Leesburg	728-3131
✓ Gregg Welstead	Tavares	253-0701

N/A

LM

NAME	ADDRESS	PHONE
√ Rick Bosserman	125 A East Marks St. Orlando Fl 32804	407/423 7700
√ ~~Jim Stedman~~	~~TAVARES, FL~~	WRONG # ~~352-252-4905~~
~~[illegible]~~	~~[illegible] REPRESENTING PARENTS [illegible]~~	~~728-5858~~
√ [illegible]	P.O. Box 37 Weirsdale	821-8748
√ Ken Bosserman	3504 Finch St. Orlando, Fla. 32803	(407)896-3664

County Road 470 PD&E Study

May 16, 2002

SIGN-IN SHEET

LK3

NAME	ADDRESS	PHONE
John Palmer	98 Opal Way	(352) 728-1205 N/A
Manning Sylvia	25234 U.S. 27	
Royce I. Taylor	2950 Hwy 470	352-787-2921
Lillian V. Taylor	2950 Hwy 470	
Tex A. Merritt	P.O. Box 86, Okahumpka	787-1482
Judy Merritt	P.O. Box 86, Okahumpka	787-1482
David Marsh	133 S. Semoran Blvd Orlando, FL 32807 (FDOT-D5)	(407) 482-7878
Jonathan Sylvia	2826 Holland Rd Okahumpka FL 34762	352-728-8720
Don Buckner	3702 Roger Okahumpka	728-2222
DAVID OROZCO	15831 GREEN COVE BLVD CLERMONT, FL 34711	352-242-9938
PHIL MAGGIO	LAKE CO. DEPT. PUBLIC WORKS 123 N. SINCLAIR AVE. TAVARES	352 253-4951
LARRY SIGMON	8125 CR 44, LEESBURG, FL 34748	728-5858

BOWYER-SINGLETON
& ASSOCIATES, INCORPORATED
ENGINEERING · PLANNING · SURVEYING · ENVIRONMENTAL

520 SOUTH MAGNOLIA AVENUE • ORLANDO, FLORIDA 32801
407-843-5120 • FAX 407-649-8664

COUNTY ROAD 470 PD&E STUDY
PUBLIC INFORMATION WORKSHOP

MAY 16, 2002

QUESTIONS AND COMMENTS

Per Comment Forms:

1. Ms. B. Levandoski
P. O. Box 490086
Leesburg, FL 34749

I'm happy to see that this project is getting underway. It is definitely needed. The curves are dangerous and need to be realigned. The intersection of 470-33 and 48 in Okahumpka needs to be improved.

Questions from Workshop:

1. Q. What is your program for coordinating with Sumter County, which I think is the most important part of this thing? Are you in touch with them? Are you having meetings with them? What has transpired between the two counties?

A. Our study is just getting started. We have acquired the Sumter County land use plans and we have been in contact with Gary Breeden, the Public Works Director, at Sumter County. We are starting the data collection process to help us put the traffic numbers and other issues together.

COMMENT: Because it doesn't make sense for you guys to have four-lane highways and for them (Sumter County) to have no plans to improve the roadway within Sumter County.

RESPONSE: We understand that. We are fundamentally starting at the Sumter County line because that's where the funding requirements are, but we definitely understand that what Sumter County has planned on their side of the county line will have significant impact on what the future traffic of 470 in this area.

COMMENT: In most cases, when you have a 100' right-of-way, the road is usually right in the middle. So if you try to build it within the 100' roadway, then the existing lanes cannot be utilized. But if you go to 160' roadway,, then you can use the empty lane while you build the parallel lanes.

RESPONSE: Yes. Actually the old could stay and be rehabilitated and act as part of the roadway. That's one of the issues we have to look at. That's one of those "what's it going to take to buy or acquire the extra 60' of right-of-way". How much is it going to cost and what kind of impacts would that have versus the additional cost of tearing out the existing road and rebuilding the travel lanes. So that is just one of the things we will have to consider when we are going through the process.

2. Q. What is the web site address?

A. It is www.cr470.bsaorl.com. We will make sure that it gets on all future newsletters and documentation from now on. It is up and running now. We will be updating it as we continue with the study.

3. Q. Do you know approximately how wide the yellow corridor is there on each of the road now?

A. I believe the corridor is one 300' wide.

COMMENT: So it is 150' from the center of the road both ways? You could go to your 160' either way?

RESPONSE: That's just a general idea. We're looking at data collection, wetland and wildlife within this corridor. We're looking outside the corridor, but it's more critical inside the corridor.

COMMENT: Makes sense.

4. Q. How will traffic be controlled at the US 27 and CR 470 intersection? Is the only way to do that is with the traffic light?

A. Based on the traffic forecast right now, yes. The signal will suffice for 20-year traffic; it doesn't require an interchange. There may be improvements as far as dual left turn lanes and maybe in the future US 27 may have some sort of coordinated timing system, some signal interconnection and things like that. Those are kinds of operational management-type things we can design. But as far as traffic forecast, yes, a regular signalized intersection will suffice for future traffic volumes.

5. Q. Has there been any thought to just straightening the whole thing up?

A. Unfortunately, the interchange is located here, so the only way to straighten it out would be to go to the north where there are the springs and conservation lands.

Q. How about straightening out the bottom?

A. FDOT has already made performed a study and design to have the interchange located at its existing location.

This is pretty much a fixed location based on all the design that has already been done on the interchange.

6. Q. I notice the access roads near the interchange. Are these for the City of Leesburg? Are there plans for some development there?

A. The FDOT has very strict criteria when they develop an interchange, especially a new one, on what they're limited access limits are going to be. What they do when they purchase property for an access like this or for any interstate facility for the turnpike, they buy access rights. It's not like a regular roadway project where they buy the right-of-way from you and you go ask for a permit and still make a connection to it. They pay a premium; they actually acquire the access rights. As part of this interchange, because of the connector ramps and because of the toll facilities, they extended the limited access points outward. They don't want to access directly off CR 470 within the confines of the interchange, so they're building access because they don't want the conflicts of having driveways and property connections within the interchange area.

7. Q. What is in that area preventing you from making a "slopey" curve than what you have there? What's in that vacant area?

A. Right now this parcel is an orange grove, although it doesn't look as though its thriving that well. The rest of this property, as I understand it, the City of Leesburg has recently acquired some of this property. I haven't confirmed that through the tax maps but it not I believe there are a few homes back in here, some barns and some maintenance type facilities of some type. I don't know if they have to do with the City or that has to do with land operations.

8. Q. How old is that aerial? Even the Publix is not on there and they've been there a year or more.

A. March 1998 aerial.
A Fred Schneider: we are using a March 1998 aerial because I believe that the Publix is the only major change that has occurred, and it doesn't make a lot of sense to us to spend a whole lot of money flying just so that we can show the Publix on there. We are going to use the aerials we already paid for.
A. KEK: Truthfully, the aerials help, but most of our work is done off the tax maps and off the field analysis. You will probably see our archeological people, our geotechnical people, and our environmental people out there. They have been out on the corridor and your will probably see them off the sides of the roads. We are just beginning the analysis and going out and collecting the information.

P5160001.JPG

P5160002.JPG

P5160003.JPG

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Lake County, Florida

CR 470 News

CR 470 Project Development and Environmental Study (PD&E)

Issue 3 May 2003

CR 470 Project Need and Process

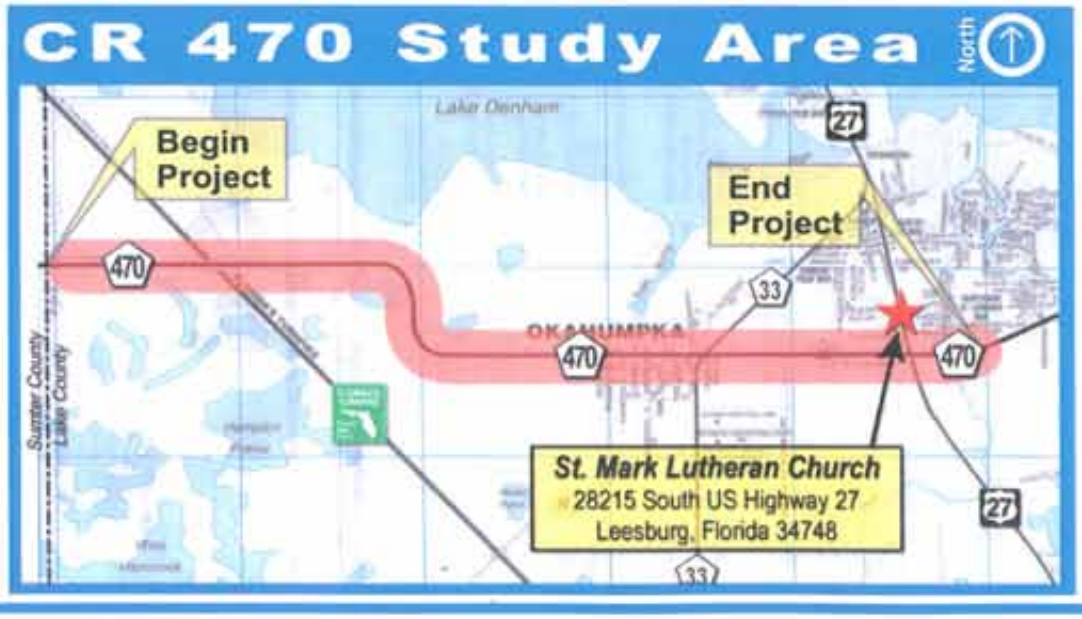
The need to improve County Road 470, from the Sumter County line to east of US Highway 27, is of top priority to Lake County. The Project Development and Environment Study began in January 2002. The PD&E was developed in order to meet the requirements of the National Environmental Policy Act (NEPA), allowing a project to become eligible for federal funding. The intent of the PD&E is to identify and evaluate alternative alignments and typical sections for the corridor, that will meet future traffic demands, and estimate social and environmental impacts associated with each of these alternatives.

The proposed full access interchange between the Turnpike and County Road 470 will play a major part in the proposed alternatives and final outcome of this project.

Public Hearing Scheduled

The Lake County Public Works Department will conduct a Public Hearing for the County Road 470 Project Development and Environment Study. The hearing will be held on Tuesday, June 10, 2003 at the St. Mark Lutheran Church, located at 28215 US Highway 27, Leesburg from 6:00 p.m. to 8:00 p.m. There will be a presentation beginning at 7:00 p.m.

This hearing will allow interested persons the opportunity to express their ideas and/or concerns regarding the conceptual design, social, economic, and environmental effects of the proposed improvements. Lake County representatives will be present during the meeting to answer questions and discuss the project.



Progress...

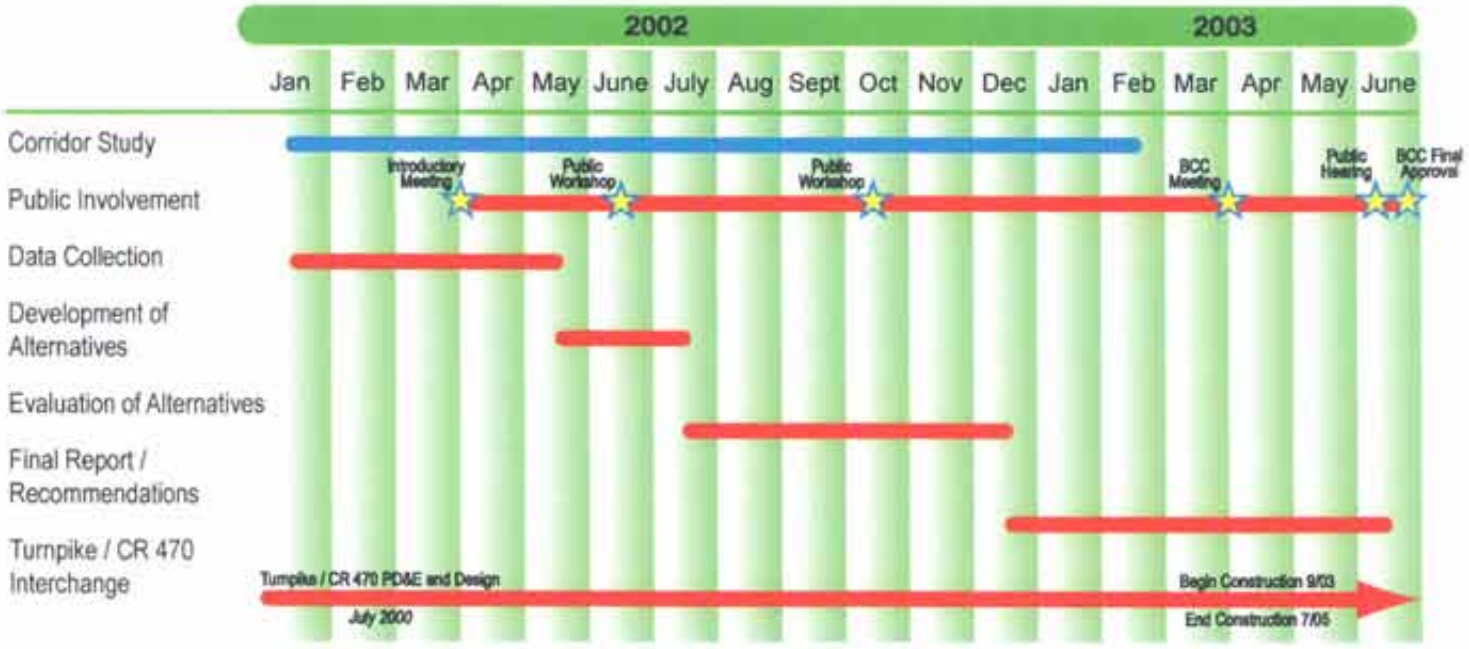
The first Public Information Workshop was held in June 2002. At this meeting, general information regarding the project was presented and public input as to the type of improvements and concerns of residents was solicited. Based on public input and results of the engineering and environmental studies, several alternative alignments and typical roadway sections were identified for the corridor. These alternatives were presented to the public at our second Public Information Workshop on October 8, 2002.

At this workshop, a preferred alternative was identified. The preferred alternative includes a rural four-lane divided typical section from the Sumter County Line to Bay Avenue. This typical section is consistent with the typical section proposed for the CR470/Turnpike Interchange. Within this segment, the existing reverse curves will be realigned to flatten the curves and improve safety. From Bay Avenue to the end of the project east of US 27, the roadway will be a four-lane divided urban section with curb and gutter and a closed drainage system. Retention ponds will be required to treat and attenuate stormwater runoff from the roadway. *(See enclosed map.)*

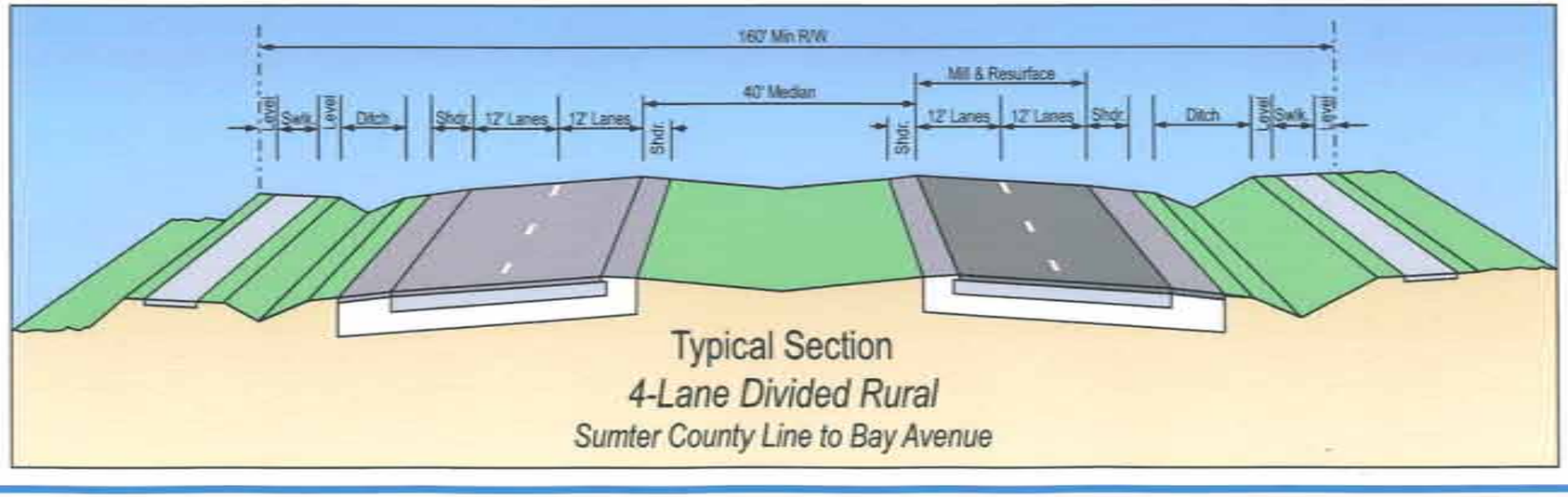
Since the second Public Information Workshop, the preferred alternative has been refined and reports finalized. A presentation has been made to both the Lake County Board of County Commissioners and Leesburg City Commission to define the preferred alternative and solicit additional input. The scheduled Public Hearing and subsequent approval of the study will complete the project.

Project Schedule

The schedule for this project closely follows the FDOT schedule for the CR 470/Turnpike interchange.



COUNTY ROAD 470 - PD&E STUDY

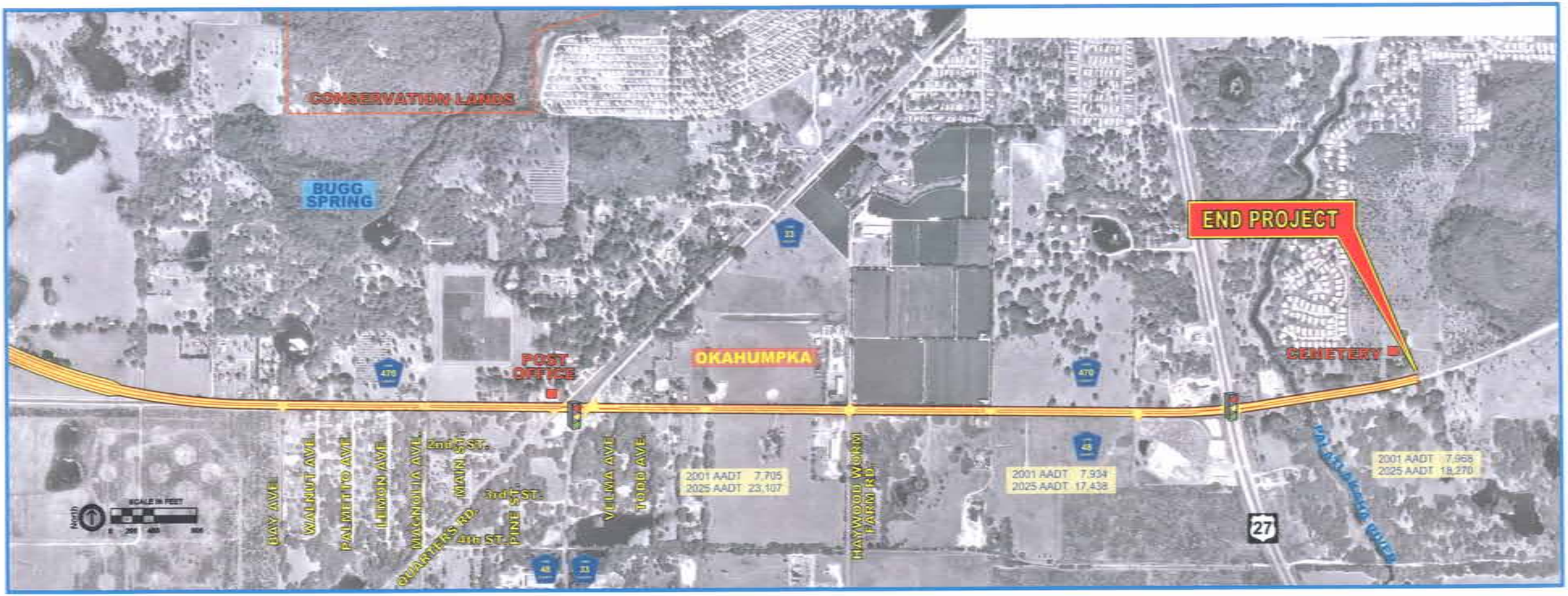


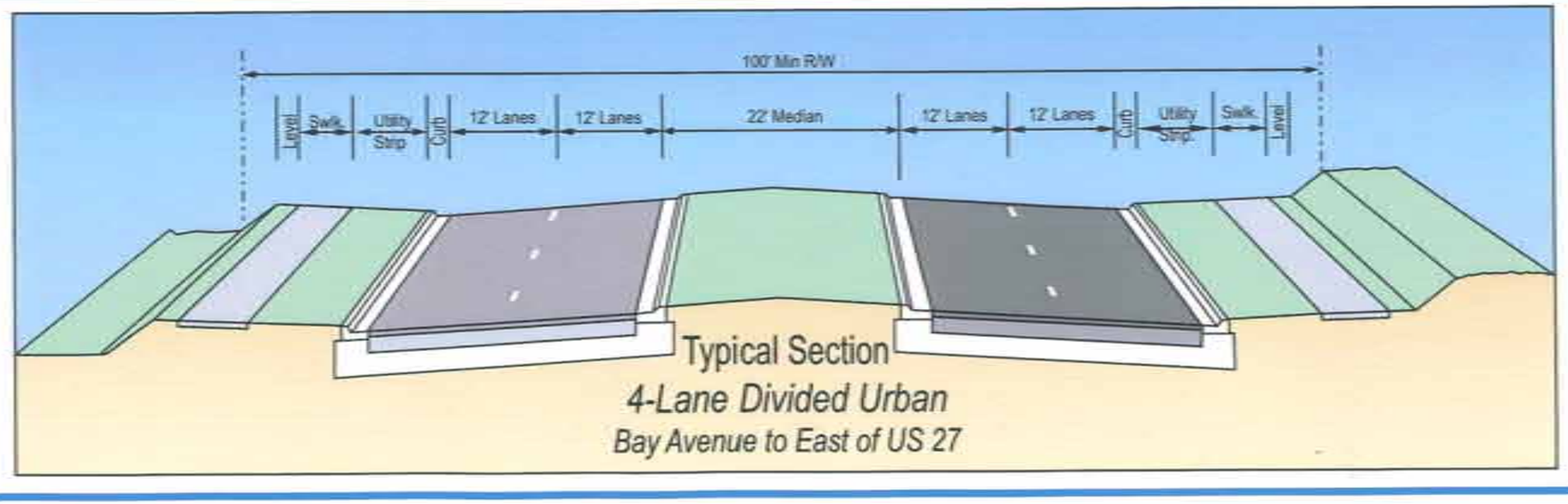
Typical Section

4-Lane Divided Rural

Sumter County Line to Bay Avenue

COUNTY ROAD 470 - PD&E STUDY





Typical Section

4-Lane Divided Urban

Bay Avenue to East of US 27

Questions and Answers

During the second Public Workshop, a number of questions were asked. Following is a summary of the concerns and responses to those questions:

Q: In the median, will there be left turn stacking lanes?

A: Yes.

Q: Will there be any vegetation besides grass? For example, trees or shrubs?

A: The Commissioner of this District has requested that there be landscaping along the project that comes up in the design phase and have to be funded by the County or whoever funds the project. We are anticipating that there will be landscaping along the project.

Q: Will there be landscaping in the median?

A: Probably, the rural section is a little harder to landscape because it is actually used as drainage conveyance. The raised median is much easier to landscape because it is raised and the water flows off of it and out into the ponds. The type of landscaping and the density of it all has to do with the type of typical selected and also the funding.

Q: I am a homeowner. There is not a whole lot of space where I live; it is close to the highway. Will you start in the middle of the highway and go equal distances on both sides of the highway, or how will it go?

A: We are recommending a 100' right-of-way in this section, which is the existing right-of-way. We are not looking at acquiring additional right-of-way in that area. The typical section that is recommended is one that fits inside the existing right-of-way.

Q: When you do start the widening project, are you going to start from the Turnpike end or start from the Route 27 end?

A: I think they are going to design this as one segment and let it out as one construction project. How the contractor builds it, it is usually left up to him, because he usually knows the best way to try to build it. We really don't know at this point in time, nor could we control, how he does his construction.

Q: When will you know?

A: Probably in final design when we come up with a maintenance of traffic plan and how to maintain traffic while we are trying to do these improvements. We may not know until after a contractor actually bids the job and submits his work schedule to the County.

Q: With your study of traffic flow, as it exists right now, how many cars and trucks go by each day on CR 470?

A: Right now, on most of corridor, the existing traffic is around 7,000 cars/trucks as day. Truck traffic is about 7-8%.

Q: Do you anticipate traffic will triple?

A: Projected traffic volumes are in the mid 25,000 range, so they will go from 7,000-25,000 in the next 20 years. If the interchange gets constructed and the land use is developed to the highest potential of the property. Future land use will change so we try to take that into account to get a realistic traffic projection. Typically, traffic in a developed area doubles every 20 years. This area has a lot more potential impacts, especially with the interchange being opened up, so we're a little over that with our traffic projections for the next 20 years. That easily supports putting a 4-lane facility out there.

Your Input...

We want to know what you are thinking. Your comments and ideas can become part of this study. We encourage you to attend the Public Hearing on Tuesday, June 10, 2003.

If you have any questions about this public meeting, would like to be added to the mailing list or schedule a speaker for your group's meeting, please contact:

Mr. Noble Olasimbo, AICP

Lake County Public Works
123 North Sinclair Avenue
Tavares, Florida 32778

Phone: (352) 253-4983
E-Mail: nolasimbo@co.lake.fl.us
Fax: (352) 253-4915

You can also visit our project website at: http://www.cr470.bsaorl.com

Address Correction Requested

Mr. Noble Olasimbo, AICP
Lake County Works
123 North Sinclair Avenue
Tavares, Florida 32778

Lake County, Florida

CR 470 News

Public Hearing

St. Mark Lutheran Church

Leesburg, Florida

Tuesday, June 10, 2003

6:00 pm to 8:00 pm

NOTICE
PUBLIC HEARING
COUNTY ROAD 470 IMPROVEMENTS

Project Development
&
Environmental Study

Improvements to County Road 470 *Lake County*

Public Hearing

Tuesday, June 10, 2003
6:00 p.m. to 8:00 p.m.

St. Mark Lutheran Church
28215 South US Highway 27
Leesburg, Florida 34748

The Lake County Board of County Commissioners Department of Public Works invites you to attend a public hearing on Tuesday, June 10, 2003 at 6:00 p.m. at the St. Mark Lutheran Church, 28215 South US Highway 27, Leesburg, Florida.

This hearing is being conducted to afford interested persons the opportunity of expressing their views concerning the location aspect, design concepts, and social, economic and environmental effects of the proposed improvements to County Road 470, from the Sumter County Line to ¼ mile east of US 27 in Lake County, Florida. The proposed improvements include the construction of a four-lane divided roadway and a partial realignment of the existing facility. Potential encroachment on wetlands and floodplains may be given special consideration under Executive Orders 11990 and 11988.

This hearing will consist of a presentation by the County on the project and its associated impacts; a short break for informal questions; and a public testimony period. Prior to and after the hearing, County representatives will be available to answer questions.

Maps, drawings, the environmental document and other pertinent information developed by the County, together with written views received from other agencies or public officials, will be available at the public hearing location from 6:00 p.m. until after the public hearing on June 10, 2003.

Noble Olasimbo, Project Manager, may be contacted for information concerning the project or the hearing at the Lake County Public Works Office, telephone number (352) 253-4983.

In compliance with Title VI of the Civil Rights Act of 1964 and applicable Federal and State regulations, it is the policy of the Lake County Board of County Commissioners to provide all transportation services without regard to race, color, sex, age, national origin, religion, or disability.

In compliance with the Americans with Disabilities Act, the County, if requested, will provide special assistance at the public hearing for those persons who are disabled. Those persons requiring special assistance must send written notification to the County at least seven days prior to the public hearing, to Noble Olasimbo, Lake County Department of Public Works, 123 North Sinclair Avenue, Tavares, Florida 32778.

Persons who wish to submit written statements and other exhibits in lieu of or in addition to oral statements may do so at the hearing or they can mail them to the Lake County Department of Public Works, Attention: Noble Olasimbo, at the above referenced address. All written comments received by June 20, 2003 will become a part of the public hearing record.

CR 470
PUBLIC HEARING
Lake County, Florida

CR 470 Project Development & Environment Study

Public Hearing Handout

June 10, 2003

Executive Summary

The Lake County Public Works Department has conducted a Project Development and Environment (PD&E) Study that addresses the proposed roadway improvements to County Road 470 (CR 470) in Lake County, Florida. The project extends from west of the Florida's Turnpike easterly to east of US 27, a distance of approximately 5.3 miles.

The objective of this PD&E Study was to document the environmental and engineering analysis used by Lake County to reach a decision on the type, location and conceptual design of the required improvements to CR 470. The proposed improvements are required to accommodate future traffic demand safely and efficiently while serving the local needs of the community. The proposed improvements consist of widening CR 470 to a four-lane divided roadway throughout the project limits.

The driving force behind the expanded roadway is the planned interchange between CR 470 and the Florida's Turnpike. The Turnpike Enterprise has performed a PD&E Study for the interchange area and has completed final plans for a full access interchange at CR 470. Construction of this interchange will begin in the Summer of 2003 and be completed in 2005. The interchange will increase traffic on CR 470 between the Turnpike and US 27 and also will likely promote development along the corridor.

Existing CR 470 is a two-lane rural roadway. In 2002, traffic volumes along the roadway were approximately 8,000 vehicles per day. These volumes are projected to increase over the next 20 years. By the Year 2017, traffic volumes are projected to approach 18,000 vehicles per day. By the design year of 2027, traffic is projected to be 25,000 vehicles per day. The plan to improve CR 470 to a four-lane roadway is consistent with the Lake County Growth Management Plan.

Public Involvement

In an effort to keep the public informed and obtain their input on the CR 470 project, Lake County organized a number of meetings and presentations as part of the Public Involvement Plan. The first presentation was conducted at the Lake County Commissioner's Chamber on March 2002. The purpose of this presentation was to give a brief overview of the proposed project and explain the Project Development and Environmental Study (PD&E) process to the Board of County Commissioners and general public.

The first Public Information Workshop was conducted on May 16, 2002 at the St. Mark Lutheran Church in Leesburg. Lake County officials, City of Leesburg officials and residents along the corridor were invited to this workshop. There were 29 people in attendance. Study corridor aerials and alternative typical sections were in display for public viewing. A brief overview of the project was presented and the PD& E process was outlined. Following the presentation, the floor was open to questions and/or comments.

On October 8, 2002, a second Public Information Workshop was held at the St. Mark Lutheran Church in Leesburg. A total of 19 people attended the meeting, including the public and Lake County staff. Alternative alignment exhibits were available for public viewing, as well as typical section alternatives and the project Matrix Analysis, which summarizes the costs and impacts for each of the study alternatives. The Project Manager gave a presentation, summarizing the study findings and recommendations.

In addition to the meetings, three newsletters were mailed to residents along the corridor outlining the study progress and advising citizens of upcoming meetings. A project website was also created to keep the public abreast of the project status. Presentations have been made to the Lake County Board of County Commissioners and City of Leesburg to update them on the project findings and recommendations.

Preferred Alternative

The preferred typical section consists of a four-lane divided roadway. From the beginning of the project to Bay Avenue, the typical section will be a rural section with two twelve-foot travel lanes and five-foot paved shoulders in each direction. The travel lanes will be divided by a 40-foot wide depressed, grassed median and sidewalks will be provided along both sides. Drainage will be provided by roadway swales and conveyed to retention ponds. This typical section requires 160-feet of right-of-way. This typical section is consistent with the CR 470 typical section developed by the Turnpike for the interchange project.

From Bay Avenue to the project terminus, a four-lane divided urban roadway section is preferred. This typical consists of two twelve-foot travel lanes in each direction separated by a raised 22-foot wide median and Type E curb and gutter. A Type F raised curb and gutter and sidewalks are provided along both sides of the roadway. Stormwater runoff is collected in curb inlets and conveyed underground in pipes to retention ponds. This typical section requires a total of 100 feet of right-of-way.

In addition, a partial realignment of the roadway just east of the Turnpike is recommended. This realignment will flatten out the existing unsafe roadway curvature in this area. The majority of property within this realignment is owned by the City of Leesburg. Coordination of the roadway improvements and realignment has been ongoing with the City. This realignment will create a safer roadway and will meet criteria for the proposed design speed.

The PD&E Study reviewed and analyzed several typical section and alignment alternatives. The impacts, costs, advantages, and disadvantages of each of the alternatives were identified and quantified. Based on this analysis, the above-stated alternative was recommended. The impacts of this alternative are summarized below.

- No Residential Relocations
- One Business Relocation
- 50.4 Acres of Additional Right-of-Way to be Acquired
    - 30.7 Acres for Roadway
    - 19.7 Acres for Ponds
- 12.3 Acres of Floodplain Impacts
- No 100-Year Floodway Impacts
- 2.9 Acres of Wetland Impacts
- No Adverse Impacts to Threatened or Endangered Species
- No Adverse Impact on Air Quality
- 14 Areas Impacted by Noise, Abatement Measures are Not Feasible or Reasonable
- Four Possible Contamination Sites
- One Significant Historic Resource, Campbell House – No Impacts from Roadway Improvements
- Total Estimated Costs - $ 17.57 Million
    - $ 1.08 Million – Right-of-Way
    - $ 16.49 Million – Construction

The recommended alternative for improvements to CR 470 will be presented to the public at a Public Hearing on June 10, 2003 at St. Mark Lutheran Church. Then, on June 24, 2003, the final recommendation to approve the study and submit to FDOT and FHWA will be presented to the Lake County Board of County Commissioners. If approved, Lake County will advance the project to the design and right-of-way acquisition phase.

Improvements to CR 470
Public Hearing
St. Mark Lutheran Church
June 10, 2003

SIGN-IN SHEET

NAME	REPRESENTING	ADDRESS	PHONE
Joe/ Margaret Rankam	Self	CR470 #3147 and 27715 SR 45 Bugg Spring Rd.	787-5893
IRVIN S. SMART	FL. WILBERT INC	CR. 48 27439 Haywood Worm Farm Rd.	728-3531 Bus
Helen Beach		3402 CR 470. PO Box 365 Okahumpka Fla 34762	
MYRA MONREAL	self	PO Box [illegible] Orlando, FL 328[illegible]	
DAVID OHNSTAD	SELF	BOX 490025 LEESBURG, FL 34749-0025	787-7940
Phil Latham	Self	~~[illegible]~~ 3718 E hiway 48	728-5167

Improvements to CR 470
Public Hearing
St. Mark Lutheran Church
June 10, 2003

SIGN-IN SHEET

NAME	REPRESENTING	ADDRESS	PHONE
Royce + Lillian Taylor	2925 + 2915 Hwy 470 Okahumpka Fla 34762 POB 145		787-2921
Chuck + Linda Jones	27428 magnolia ave okahumpka fla 34762		3231371
Mary & Chris Stewart Ben Lux	Self	POB 117 Yalaha, Fl. 34797	324-0174
Betty Hurlbert	Self	27831 N Pelican Isle Dr Leesburg, Fl. 34748	435-4688
Jesse Forst	RS+H	3670 Maguire Blvd. Suite 300 Orlando, FL 32803	407-893-5834
Peter Tarby		301 N Baker St Ste 102 Mt. Dora Fla 32757	352-383-4030

Improvements to CR 470
Public Hearing
St. Mark Lutheran Church
June 10, 2003

SIGN-IN SHEET

NAME	REPRESENTING	ADDRESS	PHONE
Walter & Kay Sandberg	themselves	5523 Dewey Leesburg	
Noble Olasimbo	Lake County BCC	123 N. Sinclair Ave	
Jim + Susan Baker		2949 CR 470 Oklahumpka	787 5220
Fred Schneider	Lake Co. Public Works		
Garry Balogh	FDOT	DeLand, FL	389 943-5393
Bill Clarke	DFSA	2700 Penn Ave Wildwood FL	—

Improvements to CR 470
Public Hearing
St. Mark Lutheran Church
June 10, 2003

SIGN-IN SHEET

NAME	REPRESENTING	ADDRESS	PHONE
Richard Boblitz	Jacobs	5750 Major Blvd. Orlando, FL 32819	407 903-5192
Roger F. Fleckenstein	~~Kand~~	27441 Walnut Av.	352-365-1088
Norma M Martin	Mick: Blackburn Realty	211 N. Market Blvd Webster 450 E. Hwy 50 Ste 1 Clermont	394-6611 303-4919
Larry & Brenda Sigmon	Aubrey Westmoreland	8125-CR 44 Leesburg, Fl. 34788	728-5858
Letitia Neal	FDOT	719 S Woodland Deland	386-943-5396
[illegible]		3031 CR 470 Okahumpka Fl	352-360-1174
Ken Bosserman	Property Owner	3504 Finch St.	407 896 3664

Improvements to CR 470
Public Hearing
St. Mark Lutheran Church
June 10, 2003

SIGN-IN SHEET

NAME	REPRESENTING	ADDRESS	PHONE
Paul Horn	Fla. DOT	Deland	386 934-5047
Jim Clark	FDOT	Deland	386-943-5099
Scott Tape			
Dinayne Darbonne	Jacobs	5750 Motor Blvd Orlando, FL	407-803-5230
Mark & Rita Humek		27446 Lemon Ave	352 326-3011
Tim Walker	Island Food Stores	4315 Pablo Oaks Ct Suite 2 Jacksonville Fl 32224	904 482-1100
Ray Fleckenstein		27437 Walnut Ave Okahumpka	352-365-0650

Improvements to CR 470
Public Hearing
St. Mark Lutheran Church
June 10, 2003

SIGN-IN SHEET

NAME	REPRESENTING	ADDRESS	PHONE
Diane Knight-Cummins Norman Cummins	UNIFLORA (SELF) HUSTATY	P.O. Box 56 OKAHUMPKA, FL 34762	728-2047
Jim Avitabile	RS+H	3670 Maguire Blvd suite 300 Orlando FL	407-839-5800
Chuck Carsner	BSA		
Kevin Knudsen	BSA		
DeBorah Hulke	BSA		

County Road 470

Project Development & Environmental Study

Summary Report

TABLE OF CONTENTS

BOWYER SINGLETON & ASSOCIATES, INCORPORATED

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

Introduction

The Lake County Public Works Department has conducted a Project Development and Environment (PD&E) Study that addresses the proposed roadway improvements to County Road 470 (CR 470) in Lake County, Florida. The project extends from west of the Florida's Turnpike easterly to east of US 27, a distance of approximately 5.3 miles.

The objective of this PD&E Study was to document the environmental and engineering analysis used by Lake County to reach a decision on the type, location and conceptual design of the required improvements to CR 470. The proposed improvements are required to accommodate future traffic demand safely and efficiently while serving the local needs of the community. The proposed improvements consist of widening CR 470 to a four-lane divided roadway throughout the project limits.

The driving force behind the expanded roadway is the planned interchange between CR 470 and the Florida's Turnpike. The Turnpike Enterprise has performed a PD&E Study for the interchange area and has completed final plans for a full access interchange at CR 470. Construction of this interchange will begin in the Summer of 2003 and be completed in 2005. The interchange will increase traffic on CR 470 between the Turnpike and US 27 and also will likely promote development along the corridor.

Study Process

The CR 470 PD&E Study was conducted in accordance with Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA) guidelines. The study documented the existing physical features of the roadway and the existing environmental characteristics of the project corridor. The study identified the deficiencies in the existing facility and developed alternative improvement alternatives that provided adequate roadway service commensurate with social, economic and environmental impacts. The study identified the need for the improvements, including the analysis of existing and projected traffic conditions and related roadway level of service. Based on the analysis and input from local agencies and the public, a preferred alternative was selected and approved by the Lake County Board of County Commissioners.

Public Involvement

In an effort to keep the public informed and obtain their input on the CR 470 project, Lake County organized a number of meetings and presentations as part of the Public Involvement Plan. The first presentation was conducted at the Lake County Commissioner's Chamber on March 2002. The purpose of this presentation was to give a brief overview of the proposed project and explain the Project Development and Environmental Study (PD&E) process to the Board of County Commissioners and general public.

The first Public Information Workshop was conducted on May 16, 2002 at the St. Mark Lutheran Church in Leesburg. Lake County officials, City of Leesburg officials and residents along the corridor were invited to this workshop. There were 29 people in attendance. Study corridor aerials and alternative typical sections were in display for public viewing. A brief overview of the project was presented and the PD& E process was outlined. Following the presentation, the floor was open to questions and/or comments.

On October 8, 2002, a second Public Information Workshop was held at the St. Mark Lutheran Church in Leesburg. A total of 19 people attended the meeting, including the public and Lake County staff. Alternative alignment exhibits were available for public viewing, as well as typical section alternatives and the project Matrix Analysis, which summarizes the costs and impacts for each of the study alternatives. A brief presentation, summarizing the study findings and recommendations was presented and public input received.

In addition to the meetings, three newsletters were mailed to residents along the corridor outlining the study progress and advising citizens of upcoming meetings. A project website was also created to keep the public abreast of the project status. Additional presentations were made to the Lake County Board of County Commissioners and City of Leesburg to update them on the project findings and recommendations.

A public hearing was held on at the St. Mark Lutheran Church in Leesburg on June 10, 2003. A total of 47 people attended the public hearing, including Lake County staff and concerned citizens. A summary of the study process and alternatives considered was presented. The preferred alternative was defined and the impacts associated with the improvements identified. The public hearing was transcribed verbatim, including comments from the public, to be incorporated as part of the public record. Two citizens commented on the project and their concerns were addressed verbally at the meeting.

On June 24, 2003, an additional public hearing was held at the Lake County Board of County Commissioners chambers in Tavares. The preferred alternative, associated impacts and costs were presented to the Board. The Board unanimously approved the study findings and recommendations. The project will now advance into the design and right-of-way acquisition phase.

Recommended Improvements

Existing CR 470 is a two-lane rural roadway located within a 100-foot wide right-of-way. In 2002, traffic volumes along the roadway were approximately 8,000 vehicles per day. These volumes are projected to increase over the next 20 years. By the Year 2017, traffic volumes are projected to approach 18,000 vehicles per day. By the design year of 2027, traffic is projected to be 25,000 vehicles per day.

The preferred typical section consists of a four-lane divided roadway. From the beginning of the project to Bay Avenue, the typical section will be a rural section with two twelve-foot travel lanes and five-foot paved shoulders in each direction. The travel lanes will be divided by a 40-foot wide depressed, grassed median and sidewalks will be provided along both sides. Drainage will be provided by roadway swales and conveyed to retention ponds. This typical section requires 160-feet of right-of-way. This typical section is consistent with the CR 470 typical section developed by the Turnpike for the interchange project.

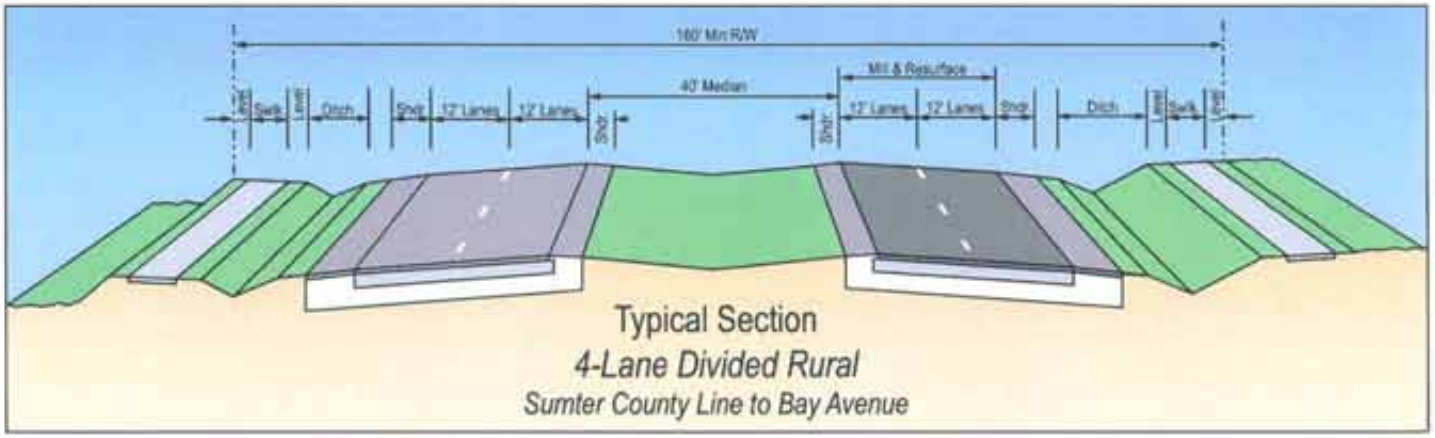
From Bay Avenue to the project terminus, a four-lane divided urban roadway section is preferred. This typical consists of two twelve-foot travel lanes in each direction separated by a raised 22-foot wide median and Type E curb and gutter. A Type F raised curb and gutter and sidewalks are provided along both sides of the roadway. Stormwater runoff is collected in curb inlets and conveyed underground in pipes to retention ponds. This typical section requires a total of 100 feet of right-of-way.

In addition, a partial realignment of the roadway just east of the Turnpike is recommended. This realignment will flatten out the existing unsafe roadway curvature in this area. The majority of property within this realignment is owned by the City of Leesburg. Coordination of the roadway improvements and realignment has been ongoing with the City. This realignment will create a safer roadway and will meet criteria for the proposed design speed.

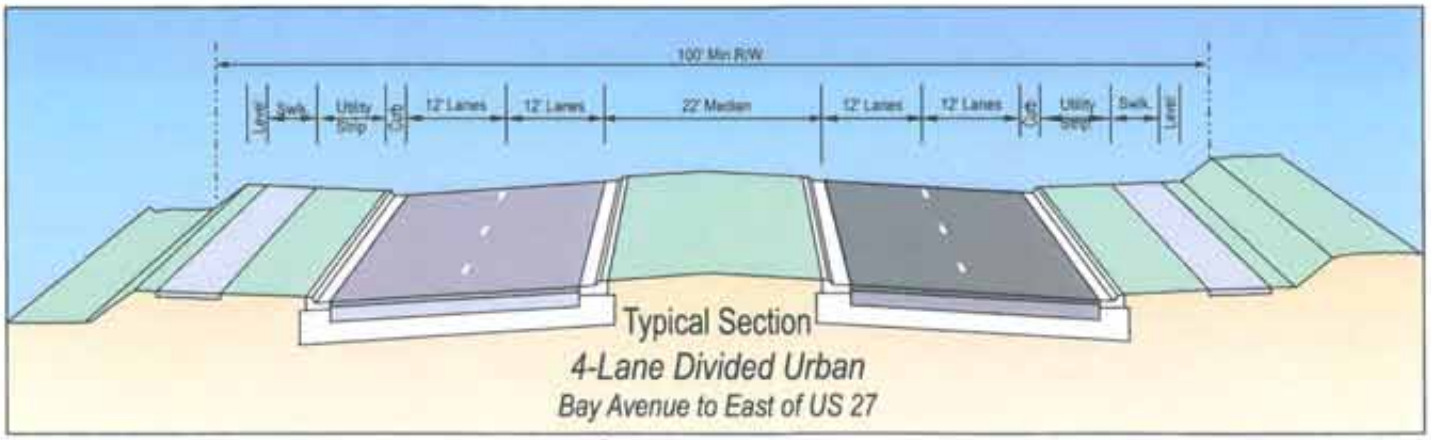
The PD&E Study reviewed and analyzed several typical section and alignment alternatives. The impacts, costs, advantages, and disadvantages of each of the alternatives were identified and quantified. Based on this analysis, the preferred alternative was recommended. The impacts of the preferred alternative are summarized below.

- No Residential Relocations
- One Potential Business Relocation
- 50.4 Acres of Additional Right-of-Way to be Acquired
    - 30.7 Acres for Roadway
    - 19.7 Acres for Ponds
- 12.3 Acres of Floodplain Impacts
- 2.9 Acres of Wetland Impacts
- No Adverse Impacts to Threatened or Endangered Species
- No Adverse Impact on Air Quality
- 14 Areas Impacted by Noise (Abatement Measures are Not Feasible or Reasonable)
- Four Possible Contamination Sites
- One Significant Historic Resource, Campbell House - No Impacts from Roadway Improvements
- Total Estimated Costs - $ 20.45 Million
    - $ 0.28 Million - Preliminary Engineering Study
    - $ 1.08 Million - Right-of-Way
    - $ 16.49 Million - Construction
    - $ 1.60 Million - Design
    - $ 1.00 Million - Construction Engineering & Inspection

Typical Sections



Typical Section
4-Lane Divided Rural
Sumter County Line to Bay Avenue



Typical Section
4-Lane Divided Urban
Bay Avenue to East of US 27

Address Correction Requested

Mr. Noble Olasimbo, AICP
Lake County Works
123 North Sinclair Avenue
Tavares, Florida 32778

For additional information, please contact:

Mr. Noble Olasimbo, AICP

Lake County Public Works
123 North Sinclair Avenue
Tavares, Florida 32778
Phone: (352) 253-4983
E-Mail: nolasimbo@co.lake.fl.us
Fax: (352) 253-4915

This summary report was designed and written for Lake County and the Florida Department of Transportation by:

Bowyer-Singleton & Associates, Inc.

520 South Magnolia Avenue
Orlando, Florida 32801
Phone: (407) 843-5120
E-Mail: kknudsen@bsaorl.com
Fax: (407) 649-8664

STATE OF FLORIDA
CITY OF ORLANDO
PUBLIC INFORMATION MEETING

IN THE MATTER OF:

CR 470 PD&E Study, Lake County, Florida
Public Hearing

DATE: Tuesday, June 10, 2003
TIME: 6:00 o'clock p.m.

PLACE: St. Mark Lutheran Church
28215 South US Highway 27
Leesburg, Florida

ORIGINAL

REPORTER: Rita M. Mott, CVR

APPEARANCES:

Kevin E. Knudsen, P.E.
Bowyer-Singleton
520 South Magnolia Avenue
Orlando, Florida 32801
Director of Transportation

Noble L. Olasimbo, AICP
Transportation Planning Section Manager
Lake County Public Works Department
123 North Sinclair Avenue
Tavares, Florida 32778

Fred Schneider, Director of Engineering
Lake County Department of Public Works
123 North Sinclair Avenue
Tavares, Florida 32778

Rita M. Mott, CVR
Certified Verbatim Reporter
1901 Hinckley Road
Orlando, FL 32818
(407) 295-1156
Fax: (407) 295-0906

SPEAKERS

FOR YOUR INFORMATION

Within this transcript:

--- At the end of a question or answer indicates an interruption;

... Indicates a trail-off by the speaker;

Uh-huh or um-hmm indicates an affirmative sound;

Huh-uh or huh-hmm indicates a negative sound.

* * * * * * * * *

PROCEEDINGS

MR. KNUDSEN: The Lake County Public Works Department has conducted an environmental study.

We have several staff members and county representatives and DOT representatives here tonight. We have Fred Schneider and Noble Olasimbo from Lake County. We have Jim Clark and Paul from DOT's Right-of-Way group. And we have Patricia Neil and ---

(Inaudible)

MR. KNUDSEN: --- from the DOT's project management group. So they're all available to answer your questions.

Also, from my firm, Bowyer-Singleton, we have Chuck Carswell and Debra Hulke. They'll be able to help you, also, with anything that you need tonight.

This public hearing is being conducted by Lake County in coordination with the Florida Department of Transportation and the Federal Highway Administration. It's being held to

give members of the community an opportunity to comment on the proposed improvement to County Road 470 and its potential social, economic, and environmental effects along the corridor.

A verbatim transcript of this hearing is being recorded for the public record. We will accept your comments later.

The public hearing is being held in accordance with requirements spelled out in several laws and regulations. We have to go through this. These include the Federal Highway Act of 1998 -- I mean, 1968, as amended; the United States Code, Volume 23, Section 128; the Code of Federal Regulations, Volume 40, Sections 1500 to 1508, and Volume 23, Sections 770, Air Quality Considerations, and 771, Environmental Impact and Related Procedures; and with the Americans with Disabilities Act of 1990; as well as Florida Statutes, Section 339.155, Executive Orders 11990, 11988, and 12898.

These executive orders require that opportunity be offered for early public review and comment on projects that affect wetlands, flood plains, or environmental justice.

This PD&E study is also being developed in accordance with the Civil Rights Act of 1964 and 1968, as amended.

Anyone who feels they've been discriminated against during this study because of race, color, religion, sex, age, national origin, handicap, or family status may complete and

submit a formal complaint. Copies of the appropriate complaint forms can be made available if requested.

Lake County is requesting -- proposing improvements to a five-mile section of County Road 470, basically from west of Florida's Turnpike to just east of US 27.

The improvements include widening the roadway to a four-lane divided facility with sidewalks along the corridor. The roadway includes both urban and rural roadway sections. And improvements have been coordinated with the proposed improvements to the Florida's Turnpike/County Road 470 intersection.

The purpose of the County Road 470 PD&E study is to analyze the most appropriate location and conceptual design for the proposed improvements, and to determine the potential impacts associated with the alternative that we've developed.

Tonight's hearing is part of our public involvement program. We will be taking public comment and putting it in for the public record.

Today, this section of County Road 470 exists as a two-lane rural section. Basically, it has two approximately 12-foot lanes in either direction. It has open ditch drainage. It's included in about a hundred foot of right-of-way.

In 2002, the existing traffic volumes along the roadway average about 8,000 vehicles per day. It's anticipated that by the year 2017 that there will be 18,000 vehicles per day

on the corridor. And by our design year, which is year 2027, there will be approximately 25,000 vehicles per day on the roadway.

These improvements that are proposed are consistent with the Lake County Growth Management Plan. And the project is basically being driven by the future interchange being proposed by the Turnpike at the Turnpike and 470 intersection.

With the need established for the project through our traffic studies and other issues, we have -- we basically went through a corridor analysis and looked at alternative east-west routes along the corridor to see if there were any potential other corridors that could be improved to help alleviate the traffic in the future.

The study examined several different east-west routes and compared them with the existing roadway alignment. Based on connectivity and logical termini, improvements to the County Road 470 corridor, it was determined that was the only feasible corridor for the project.

In other words, there would be no other corridor that could be improved that would give the same benefit as the County Road 470 project.

With this direction, the PD&E study, we started identifying the best improvements. We looked at doing data collection along the corridor. The study began with

extensive engineering, traffic and environmental analysis, and data collection, followed by the development of several different widening alternatives.

We looked at numerous alternatives for the corridor. They're back there on some of the exhibits that we have. And the results of those evaluations are shown. We're going to go through tonight and discuss with you recommended alternatives.

Also, the results of the study, we had two different public workshops out here at this same location. The first one was in May 2002. We addressed some areas of concern that the citizens had. And then the second public meeting was in October 2002. And again, we took public input and used that to solidify our recommendations as to what improvements are required along the corridor, trying to take the public input into account.

Based on the traffic projections along the corridor, basically we decided that a four-lane section was needed, four travel lanes to handle future traffic. In addition, several different intersection improvements will be required, and sidewalks will be provided for pedestrians along the entire corridor.

Based on coordination with local officials, on the comments we received on our previous public workshops, and in coordination with Lake County and the DOT, we've come up with

a preferred build alternative for the corridor.

And although the alternative is preferred, a final recommendation will not be made to the Board of County Commissioners and to DOT until after the comments are received from our public hearing tonight. They will be received and analyzed, answered, and put in as part of the public record.

Based on land usage, we divided the project into two basic corridors, two segments. One was a segment from, basically, the county line over to Bay Avenue, which is kind of the beginning of the developed area of Okahumpka.

For this area, the preferred Build Alternative included a four-lane urban section with a depressed -- I'm sorry.

We looked at a four-lane divided rural section in this area with a depressed 40-foot grass median. We'd have two travel lanes in each direction. We have outside swale ditch drainage, sidewalks along both sides.

This section requires 160 foot of right-of-way. Typically, along the corridor right now there is existing a hundred feet of right-of-way. So for this proposed typical section from the county line over to Bay Avenue we're looking at acquiring an additional 60 feet of right-of-way.

In addition to the recommended typical section, we also looked at realigning the existing S-curves that are located just east of the Turnpike. Those curves are unsafe in the

design speed for the roadway corridor.

So we looked at three different alternatives for realigning those. Alternative one basically went through the City of Leesburg reclamation facility property and went down and tied in before we got to Bay Avenue.

Alternative two, which ended up being the recommended Alternative, basically goes through the City of Leesburg property, but farther north.

And then Alternative three was even farther north. This Alternative was selected because it had the least environmental impact and was one of the shorter corridors.

For the segment between Bay Avenue to east of US 27 we looked at developing a four-lane urban section. An urban section basically means we'd have two lanes in each direction separated by a 22-foot raised grass median. We'd have curb and gutter on the outside and the drains would be collected in inlets and put underground into storm sewer pipes and conveyed to stormwater ponds.

This section can be constructed in -- with a hundred foot of right-of-way, the typical section you see here. There is an existing hundred feet of right-of-way. So for the area that we're talking about, which is basically from Bay Avenue up to the end of the project, we anticipate being able to construct that within the existing right-of-way.

There will be some areas, due to grades and some other

features, that we may need to buy a little additional right-of-way to build the project. But we are typically going to keep it inside the existing right-of-way. The only right-of-way acquisition that will occur through there will be for retention ponds.

Also, we looked at a No Build Alternative, which is basically to do nothing along the corridor. The No Build Alternative has several different advantages.

The first advantage is there will be no new construction along the corridor. There will be no disruption of the traffic. And there will be no additional right-of-way acquisition along the entire corridor. Basically, just to leave it like it is.

The disadvantages to the No Build Alternative are that it's going to increase traffic congestion.

Traffic volumes are going to increase with or without the roadway improvements, especially with the construction of the interchange project. Also, it increases road user costs because you're going to spend more time in traffic along the roadway. It will take you longer to get where you need to go.

It's also going to increase response time for emergency vehicles, and would increase maintenance costs for the County and the citizens, since they pay for it, because the roadway will slowly degrade over time and have to continually be

improved because of the traffic volumes on a substandard facility.

For our preferred alternative there are several advantages.

One, it provides adequate capacity for the future traffic volumes. In other words, the roadway will be improved to handle traffic volumes that are projected up through the year 2027.

It increases the level of service, which is basically how congested the roadway is. You'll be able to travel the roadway, even in a 20-year period, at a fairly consistent pace with little congestion.

And it will be a much safer corridor because you will have a separate -- you'll separate traffic with a median. And we're going to realign the existing unsafe curves along the corridor.

There are disadvantages to our preferred alternative.

There are the construction and right-of-way costs associated with having to build the project and make the improvements. And also, there will be some inconvenience to the residents during the construction phase while the roadway is being constructed.

I'm going to go through some of the project impacts based on our preferred Build Alternative. These were the impacts that were identified for going through and improving

the roadway as we just discussed.

There will be right-of-way required for the project. Approximately 50.4 acres of right-of-way will be required. Additional right-of-way will be required for the project: 30.7 acres of those for roadway improvements and 19.7 acres for ponds. However, there are no residential relocations proposed. We're not proposing to take anyone's home. And there's one potential business relocation, which is located up here right by the curve toward -- over toward the Turnpike.

There will be some floodplain involvement also on the project. There would be 12.3 acres of floodplain impacts. Those will be mitigated through our retention ponds so that there's no increased water-surface level, flooding levels along the corridor.

There are no Hundred-Year Floodway impacts. There are no floodways out there that are basically flow paths for the water.

We will be -- we did a pond siting report for the study. We determined essentially how many ponds we were going to need, their approximate size and location. They will be constructed along the corridor. Those serve two purposes. One will be water treatment. The water that runs off the roadway will be treated before it's discharged into another water body.

And also, it provides attenuation. It helps the flooding issues out on the project. It will retain the water and release it at a controlled rate.

There are 2.9 acres of wetlands that will be affected by the project. These will be mitigated by either creation of participation in a banking operation where there's already credits, or the impact will be mitigated some other way.

We did a very extensive threatened and endangered species evaluation along the corridor.

There are some threatened and endangered species habitat and some have been sited along the corridor. However, the results of our study were there would be no adverse impact for doing the roadway improvements to any threatened or endangered species.

Air quality. The proposed project does not exceed the National Ambient Air Quality Standards for carbon monoxide. Therefore, it has been determined there are no adverse impacts to air quality associated with this project. It will be in conformance with the State of Florida Implementation Plan because it will not cause violation of the National Standards.

There was a noise study done on the project. The results of that noise study indicated that there are 14 noise sensitive areas that exceed the threshold of 66 decibels for the project. However, none of these meet the criteria for

mitigation of impacts or for noise abatement procedures. And they're not considered feasible for the project.

There was a contamination assessment study done. There were four contamination -- potential contamination sites identified along the corridor. The asphalt production plant that's located over toward the Sumter County line, the City of Leesburg Maintenance facility, and two Island Food stores located at 33 and 27.

Those were just identified off public records as far as having the potential for impacts. It does not say there are contamination impacts with those properties. It will be studied in more detail during the design phase.

We did a cultural and archaeological resource study for the project.

One significant historic resource was identified, the Campbell House, which is located approximately in front of Bugg Springs. It's on the National Register of Historic Places. The County is making commitments within the study not to impact that national historic resource. So there are no -- because of that, we are anticipating no impacts to any cultural resources.

Also, there was an archaeological study done and there are no significant archaeological impacts associated with the project.

The estimated cost for the project, we estimate there

will be $1.08 million required for right-of-way acquisition. Construction will approximately cost $16.5 million. For a total estimated project cost of around $17.5 million for the project. That includes a parallel bridge over the Turnpike and improvements through the Turnpike interchange that the Turnpike is not going to do with their initial construction.

The next steps for the project, the project typically contains these four steps. We're nearly complete with the PD&E study. After our meeting tonight, we will be going to the Board of County Commissioners for final approval.

Once we finish the study, we will move into the final design phase of the project. That's where we'll do a detailed survey and detailed design. Right now we're more in the conceptual design. That design will clearly locate the alignment, the pond locations, and will do the final design features for the roadway.

After that, the project will roll into the right-of-way acquisition phase, which is the phase where the County will go out and purchase the property needed to build the roadway. And then we'll move into the project construction phase.

This is all dependent on funding for the project being in place at the time that we get to those different steps and levels. But these are what the anticipated schedule for the project goes to.

I'll tell you a little bit about our comment procedures tonight.

We're definitely interested in hearing your comments about this project and the results of our PD&E study.

If you'd like to make a verbal comment for the record, you can do so by filling out a speaker card. We're going to have a little short break when I finish.

If you'll fill out a speaker card and give it to one of the representatives here, then we'll reconvene in a few minutes. You can be able to come up and give your statement. It will be taken by the court reporter and put on the public record.

If you don't want to make an oral comment, you can do written comments. We have comment cards back there. You can fill them out tonight, leave them with us, or you can fill them out and mail them in.

We have ten days to receive comments for the public record. So they will be transcribed into the public record, just like your oral comments will be. So if you feel more comfortable doing it with the written format, you can feel free to do that.

All comments, whether received written or oral, will become part of the public record, as long as they're received within the ten-day time period.

And with that, this concludes the formal part of our public hearing.

In a few minutes, you know, if you fill out the speaker cards, we'll start the public testimony portion of the project.

In the meantime, if you have any questions, feel free to grab one of the people and ask them.

And I thank you for your participation in our PD&E study. And we'll reconvene in about five minutes. Thank you.

(Recess taken from 6:40 p.m. to 6:55 p.m., after which the proceeding continued as follows:)

MR. KNUDSEN: I only have one card. We'll try to go through this.

Whose card is this?

MS. BRANHAM: It's my card.

MR. KNUDSEN: Yours?

MS. BRANHAM: Um-hmm.

MR. KNUDSEN: Would you like to read it or do you want me to do it?

MS. BRANHAM: I'll read it.

MR. KNUDSEN: Okay. You want to use the microphone or do you think you can talk loud enough?

MARGARET BRANHAM

MS. BRANHAM: There's only one other thing that I wanted

to ask you about on the map.

You talk about ponds and basins and they're numbered. You have a pond three and then a pond -- a basin three, a basin four, basin three, basin five.

What are the differences? What's the difference between the basins and the ponds?

MR. KNUDSEN: Basically, along the corridor of the roadways they've got some contour to it. It goes up and down. So we define the roadway basin by basically where the water's contained within two high points into a low.

MS. BRANHAM: Um-hmm.

MR. KNUDSEN: So within each of those basins, rather than try to take the water across a high point in the roadway ---

MS. BRANHAM: Um-hmm.

MR. KNUDSEN: --- we're basically going to try to put a pond site for each of the basins.

So along the corridor here there are seven different basins ---

MS. BRANHAM: Um-hmm.

MR. KNUDSEN: --- identified, just based, really, on contour maps and the existing topography.

When we get to final design, some of the ponds may get combined, or we may need additional ponds. But for the initial pond siting in our initial study, the data we have,

we basically identified that between here and here is a basin, with a low spot basically somewhere in the middle.

MS. BRANHAM: That is a very low spot.

MR. KNUDSEN: Right.

MS. BRANHAM: It's frequently a lake.

MR. KNUDSEN: Right. And so what we looked at is for each of those basins that we'd try to find a pond site for the low area that we can construct to take the storm water.

MS. BRANHAM: And I wanted to know why the Turnpike...

You may not know the answer to this question.

MR. KNUDSEN: Can you state your name and address and everything for the public record?

MS. BRANHAM: Oh, I'm Margaret -- I'm Margaret Branham and I live back here by the Springs.

MR. KNUDSEN: Okay.

MS. BRANHAM: But we also own this house that's identified as the Campbell House, which is on the road, and which an historic home.

And by the way, Campbell was a postmaster in Okahumpka. And Okahumpka is one of the oldest post offices in the state, 1845.

But why was the Turnpike interchange put at County Road 470 rather than County Road 468, I think it is, which is north, north, closer to The Villages?

MR. KNUDSEN: Well, the Turnpike actually did the study

for the siting of the interchange.

MS. BRANHAM: Yeah.

MR. KNUDSEN: And they're the ones who chose the 470 interchange.

MS. BRANHAM: Because they ---

MR. KNUDSEN: It was logical reasoning. I mean, I wasn't involved in that study. But I think the most logical reason why they chose that would be because the federal prison is located along 470 to the -- basically, to the west.

MS. BRANHAM: Well, why are they improving the road that runs -- 520, the road that runs between those two roads just the other side of the prison? What is the number of the road that ---

MALE VOICE: 521.

FEMALE VOICE: 521.

MALE VOICE: 501.

MR. SCHNEIDER: In Sumter County.

MS. BRANHAM: 501. Why are they improving that road so much?

MR. KNUDSEN: Is that a county road or is that the ---

MR. SCHNEIDER: Sumter County.

MR. KNUDSEN: Sumter County?

MS. BRANHAM: It's in Sumter County.

MR. KNUDSEN: Okay. Every county -- right. Every

county has their own agenda and their own road programs and everything based on their needs. So I mean, we really can't speak for Sumter County because we didn't really look at that study. So I don't know if I really know why that project is funded at this point in time.

We did coordinate with Sumter County for any potential improvements they had to this corridor. At this time they don't have any future improvements planned.

MS. BRANHAM: In other words, the right hand doesn't know what the left hand is doing, which is frequently the case. My comment. Sorry.

Does your study predict that the truck traffic from Dixie Mine and Rock will get immediately on the Turnpike, since they'll have that interchange close at hand, rather than coming all the way east and coming through Okahumpka?

In other words, will we have less truck traffic through Okahumpka? Or have you studied that?

MR. KNUDSEN: The actual physical going from one place to another place was not studied. So looking at the trucks coming -- generated from one specific location to another specific location were not.

All I can tell you is from working in -- doing traffic projections over the last twenty years, that the truckers will take the path that will get them there the quickest. Okay?

So I would assume that if they're hauling rock further north, they will probably come onto 27 and go north. If they're going south and there's an interchange that they can get to, they'll take the Turnpike.

So it's probably just going to be a factor of where they're going.

MS. BRANHAM: Okay. So we don't know whether there's going to be more of that ---

MR. KNUDSEN: No.

MS. BRANHAM: --- those 22,000-some-odd cars that are coming into our future.

MR. KNUDSEN: No. We anticipate the percentage of trucks will stay fairly constant. Okay?

MS. BRANHAM: Okay. Which end of the project are you going to start on first?

MR. KNUDSEN: You want to answer that one, Fred, or...

MR. SCHNEIDER: Right now, we're considering phasing in the project depending on funding.

MS. BRANHAM: Um-hmm.

MR. SCHNEIDER: We don't have funding identified for construction. We're giving cost expense right now to four-laning the entire segment.

So, we are considering two things. One is the opportunity of working with the City of Leesburg, working through those reverse curves. Because they own ninety-nine

percent of the property. And we've been working with the City of Leesburg for that realignment through those curves. So that could come sooner.

The other option is on the eastern end of the project, from the 27 intersection coming west to a certain point. That segment of roadway has the higher amount of traffic count right now. We expect that segment of roadway to increase with its traffic counts maybe even faster than out the 470.

So there may not be enough money to build the whole four lane at once, at one time. But as the traffic projection showed in the study, we're looking out twenty-three, twenty-four years.

MS. BRANHAM: Um-hmm.

MR. SCHNEIDER: So we may not see significant construction on the western end for about ten years or so in our project.

MS. BRANHAM: The best news tonight.

Okay. When you start construction, for instance, on the 27 end, are you going to have one lane open most of the time, with cars moving and trucks moving either east or west through it, with a flagman controlling everything? Or are you going to build some other lanes, you know, as they frequently do, temporary lanes?

MR. KNUDSEN: I can answer that one.

No. There will be two lanes of traffic open at all times. Okay?

MS. BRANHAM: At all times.

MR. KNUDSEN: The only time that there may not be will be off-peak hours, you know, nighttime, late at night when they may need to close one of the two lanes. But during the daytime hours there will be two lanes open.

They may have to do a temporary widening to one side, you know, shift traffic over a little bit, and then build two new lanes. And we'll put the traffic on those two new lanes and then rebuild the whole rest of it. So...

MS. BRANHAM: Are you going to work at night then?

MR. KNUDSEN: They may work at night, depending on different factors.

Usually what happens is we do a lane closure analysis that tells us when we can close lanes, what hours of the day the traffic is the lowest and still not -- have least impacts on the residents.

So when we get to the final design phase and we do a maintenance traffic plan, that all will be looked at.

MS. BRANHAM: Okay.

MR. KNUDSEN: So we don't preclude nighttime operations, especially when you do have to close -- narrow down to one lane. You want to do it when there's the least amount of traffic.

MR. SCHNEIDER: But there may be segments that we don't allow nighttime traffic. But specifically where there's residences.

MR. KNUDSEN: Right.

MS. BRANHAM: And the pond water that you're going to collect, which is the flow from the -- that would be going into the ditches that we currently have, Mr. Olasimbo told me that that's going to a swale and then be -- somehow or other being piped off to these ponds that you're going to construct. Is that right?

MR. KNUDSEN: Well, within the rural section there will be ditches along the roadway.

MS. BRANHAM: There will be?

MR. KNUDSEN: Kind of similar to what there are today.

MS. BRANHAM: But not in the sections, then, where it narrows ---

MR. KNUDSEN: In the early section there will be pipes buried underground ---

MS. BRANHAM: Yeah.

MR. KNUDSEN: --- and water will go directly into those pipes and be taken to the ponds.

MS. BRANHAM: Okay. Now, water in the ponds, where is that going to be? You said that would be transferred to another site.

Will that be the Okahumpka marsh?

MR. KNUDSEN: Most of these basins out here are what we call closed basins. They don't really discharge anywhere.

MS. BRANHAM: Um-hmm.

MR. KNUDSEN: So most of the ponds out there will be designed for the Hundred-Year storm events. So they'll mostly just contain all the water. It won't necessarily go anywhere. Okay?

It really depends on whether they have an existing discharge point. In other words, all these low areas out here really don't flow or go anywhere. The pond that's next to the Palatkaha River, for example, will probably discharge into that river.

What happens is if you can discharge the water, then the pond can be smaller. If you have to hold all of it, the pond has to get bigger.

MS. BRANHAM: Um-hmm.

MR. KNUDSEN: But most of these are planned to be closed basins, so the water will not discharge out of the pond anywhere.

MS. BRANHAM: And finally, those people whose homes are right smack on the highway and there is no appreciable property remaining between that extra lane on either side, the extra two lanes, what are you going to do for them by way of landscaping to sort of mitigate the noise that's going to come into their homes? Are you going to do any trees or

shrubs or anything like that? Or is that part of your modus of operation?

MR. KNUDSEN: Handle that one, Fred?

MR. SCHNEIDER: Until we get into final design, we don't really know what those impacts are because the engineers have not gone out and done physical surveying and topography. But we can guess whether we're higher than the homes, lower than the homes, or kind of the same elevation. That will tell us where we need the additional right-of-way.

We could leave those cross sections and build a sidewalk.

If we can work out some kind of agreement with the property owners for landscaping, then that's something that we'd look into for the permanent property owners.

MS. BRANHAM: I see a tremendous impact along the 48 part of the road between 27 and 33. Isn't that right? Yeah. Where those homes are really low. They're lower now than the highway. That's going to be a tremendous impact on those people.

You know, you should have something there, you know, to make it a little bit more pleasant. Because a lot of water's going to go in that direction. Water moves off of paved surfaces.

MR. SCHNEIDER: That's something we'll take into account when we look at the design, landscaping along the project.

MS. BRANHAM: Thank you.

MR. KNUDSEN: All right. We have one more. Norman Cummings.

NORMAN CUMMINS

MR. CUMMINS: I'm representing my wife. She owns the Fern Shed and asked about the intersection, when they get ready for the design phase, the DOT wants to notify us, because she has trucks coming either direction there. We certainly don't want to be shut off.

MR. KNUDSEN: Basically, that's going to...

Are we're going to have any public involvement during the design phase?

MR. SCHNEIDER: Yes. When we get into the design phase, we'd like to have another public workshop, give people a better idea of the potential impacts once we get through all the surveying and those kind of things. Sure.

MR. KNUDSEN: Anyone else have any comments?

(No response from those present)

MR. KNUDSEN: Okay. With that, we'll close the public hearing. And thank you very much for coming.

(Whereupon, on Tuesday, June 10, 2003, at 7:10 p.m., the foregoing proceeding was concluded.)

* * * * *

CERTIFICATE OF REPORTER

STATE OF FLORIDA:
ss:
COUNTY OF ORANGE:

I, RITA M. MOTT, Certified Verbatim Reporter and Notary Public for the State of Florida at Large, do hereby certify that I was authorized to and did report by Stenomask the foregoing proceedings at the time and place herein designated; that my tape was reduced to typewritten form under my supervision, and that the transcript herein contained is a true and complete record of that tape.

I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor do I have an financial interest in the outcome of the action.

Dated this 22nd day of June, 2003.

RITA M. MOTT, CVR