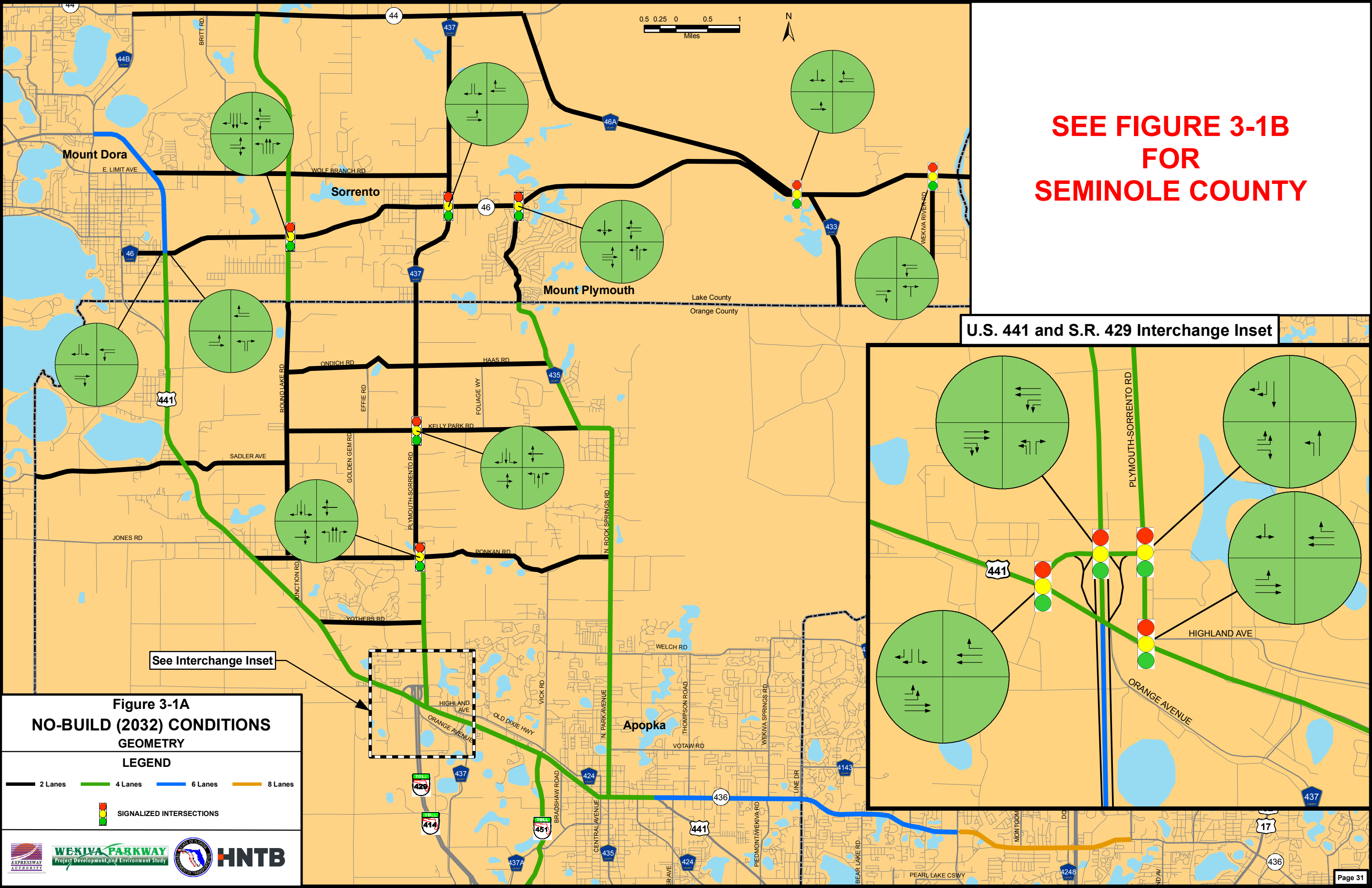


3.0 No-Build Traffic Conditions

This section evaluates the traffic operations in the future analysis years for the No-Build conditions. As typical with a No-Build alternative, future year land use and planned and programmed improvements were included in the study area, but this scenario does not include the Wekiva Parkway or SR 46 Bypass projects. The No-Build roadway network and lane configuration within the project area of influence is shown in Figures 3-1A (Orange and Lake Counties) and 3-1B (Seminole County).

3.1 Description of No-Build Roadway Network

The 2025 LRTPs for METROPLAN ORLANDO, Lake-Sumter MPO, and the Volusia County MPO were reviewed to determine planned and programmed improvements within the study area that would impact the development of traffic projections. These improvements are presented in Tables 3.1 and 3.2 and were incorporated into an updated OUATS model for the analysis of No-Build conditions for the years 2012, 2022 and 2032. The extension of SR 429/414 from SR 451 to US 441 north of Apopka was included as a programmed project in this analysis as it is in the current FY 2010-FY 2014 OCEA Five-Year Work Program when this study began. This portion of SR 429/414 is necessary for the connection of SR 429 and SR 414 to Wekiva Parkway and is included in both the No-Build and Build Scenarios.



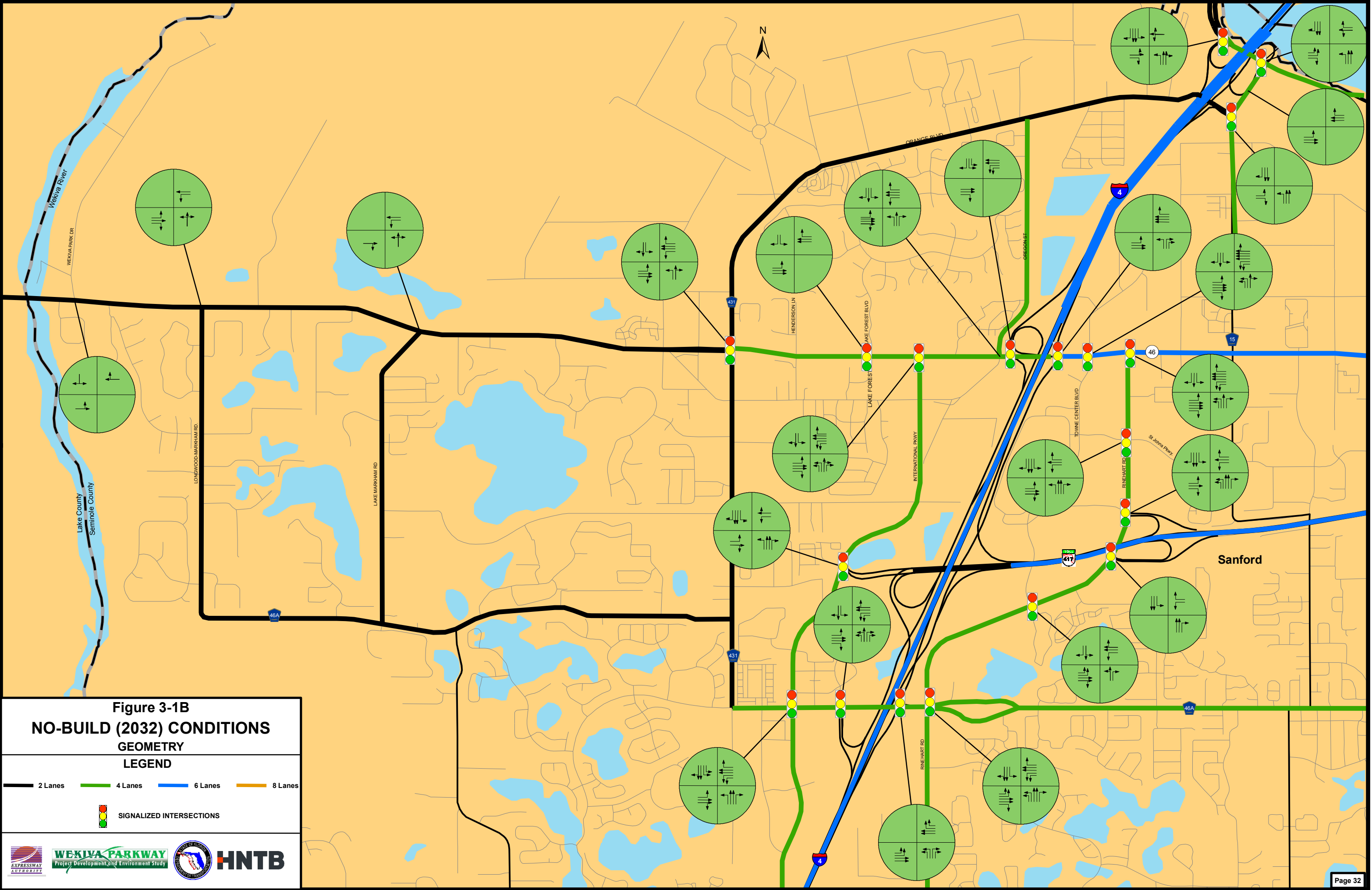


TABLE 3.1 PROGRAMMED ROADWAY IMPROVEMENTS (2003-2010)

Roadway	From	To	Improvement
Orange County			
All American Blvd.	Clarcona-Ocoee Rd.	Kennedy Blvd.	Realign/Widen to 4 lanes
Apopka-Vineland Rd.	SR 50	A.D. Mims Rd.	Widen to 4 lanes, New 4 lane road
Clarcona-Ocoee Rd.	Ocoee-Apopka Rd.	Hiawassee Rd.	Widen to 4 lanes
Edgewater Dr.	Pine Hills Rd.	Clarcona-Ocoee Rd.	Widen to 4 lanes
Florida's Turnpike	SR 528	I-4	Widen to 8 lanes
Florida's Turnpike	I-4	SR 429	Widen to 8 lanes
Florida's Turnpike	SR 408		Interchange modifications
Keller Rd.	Kennedy Blvd.	Fennel St.	Widen to 4 lanes
Kennedy Blvd.	Forest City Rd.	Wymore Rd.	Widen to 4 lanes
Rock Springs Rd.	Ponkan Rd.	Kelly Park Rd.	Widen to 4 lanes
Silver Star Rd.	W of Clarke Rd.	Apopka-Vineland Rd.	Widen to 4 lanes
Silver Star Rd.	Apopka-Vineland Rd.	Hiawassee Rd.	Widen to 6 lanes
SR 408	SR 50	Hiawassee Rd.	Widen to 6 Lanes
SR 408	Good Homes Rd.		Add Ramps t/f West
SR 408	Hiawassee Rd.	I-4	Widen to 6 Lanes
SR 408	I-4	SR 417	Widen to 8 Lanes
SR 414 (Maitland Blvd. Ext.)	SR 429	US 441 at Maitland Blvd.	New 6 lane expressway
SR 429 (Part C)	Seidel Rd.	CR 535	New 4 lane expressway
SR 429 (Part C)	I-4	Seidel Rd.	New 4 lane expressway
Wymore Rd.	Fairbanks Ave.	Kennedy Blvd.	Widen to 3 lanes
Yothers Rd. Extension	Plymouth Sorrento Rd.	Lester Rd.	New 2-lane roadway
Lake County			
SR 44 (formerly CR 44B)	US 441	Orange Ave.	Widen to 4 lanes
US 441	Lake Eustis Dr.	SR 44	Widen to 6 lanes
Seminole County			
Bunnell Rd.	Eden Park Rd.	West Town Pkwy.	Widen to 3 lanes
CR 427	SR 436	North St.	Widen to 4 lanes
I-4	W of Lake Mary Blvd.	W of US 17/92	Widen to 6 lanes
Lake Emma Rd.	Sand Pond Rd.	Longwood Hills Rd.	Widen to 4 lanes
Sand Lake Rd.	W Lake Brantley Rd.	SR 434	Widen to 4 lanes
SR 434	Montgomery Rd.	Rangeline Rd.	Widen to 6 Lanes
SR 434 (Forest City Rd.)	Maitland Blvd.	SR 436	Widen to 6 Lanes
US 17/92	Lake Triplet Dr.	Shepard Rd.	Widen to 6 lanes
Volusia County			
I-4	W of US 17/92	SR 472	Widen to 6 lanes
I-4	SR 472	SR 44	Widen to 6 lanes

TABLE 3.2 PLANNED ROADWAY IMPROVEMENTS (2010-2025)

Roadway	From	To	Improvement
Orange County			
Apopka Blvd.	Hiawassee Rd.	US 441	Widen to 4 Lanes
Apopka-Vineland Rd.	AD Mims Rd.	Clarcona-Ocoee Rd.	Widen to 4 Lanes
Clarcona Rd.	Clarcona-Ocoee Rd.	Orange Blossom Tr.	Widen to 4 Lanes
Clarke Rd.	SR 50	Silver Star Rd.	Widen to 6 Lanes
Clarke Rd.	AD Mims Rd.	Clarcona-Ocoee Rd.	Widen to 4 Lanes
Clarke Rd.	Clarcona-Ocoee Rd.	McCormick Rd.	New 4 Lane
Florida's Turnpike	SR 429	SR 50	Widen to 8 lanes
Good Homes Rd.	West SR 50	Silver Star Rd.	Widen to 4 Lanes
I-4	Kirkman Rd.	US 441	6+Special Use Lanes
I-4	US 441	S. of Ivanhoe Blvd.	6+Special Use Lanes
I-4	S. of Ivanhoe Blvd.	Maitland Blvd.	6+Special Use Lanes
Mount Plymouth Rd.	Kelly Park Rd.	Orange/Lake Co. Line	Widen to 4 Lanes
Ocoee-Apopka Rd.	Silver Star Rd.	Clarcona Ocoee Rd.	Widen to 4 Lanes
Pine Hills Rd. Ext. (Overland Rd.)	Beggs Rd.	US 441	Widen to 4 Lanes (Overland Rd.)
Plymouth Sorrento Rd. ¹	US 441	Ponkan Rd.	Widen to 4 Lanes
SR 414 (Maitland Blvd.)	Maitland Concourse	Maitland Ave.	Widen to 6 Lanes
SR 423 (John Young Pkwy.)	SR 50	Shader Rd.	Widen to 6 Lanes
SR 423 (John Young Pkwy.)	Shader Rd.	Edgewater Dr.	Widen/New 6 Lane Road with Grade Sep. @ US 441
SR 434 (Forest City Rd.)	Edgewater Dr.	Maitland Blvd.	Widen to 6 Lanes
SR 438	Dillard St.	Western Expressway/SR 429	Widen to 4 Lanes
SR 451 Extension	US 441	Old Dixie Hwy/Vick Rd.	New 4 Lane
SR 50	Lake/Orange Co. Line	E. Ramps of FL Turnpike	Widen to 6 Lanes
SR 50	Florida's Turnpike	Pine Hills Rd.	Widen to 6 Lanes
SR 528	I-4	Sand Lake Rd.	Widen to 8 Lanes
Wymore Rd.	Kennedy Blvd./Lake Ave.	Orange/Seminole Co. Line	Widen to 4 Lanes
Lake County			
CR 437	Lake/Orange County Line	SR 46	2 Lane Realignment
CR 439	SR 44	CR 44A	Widen to 4 Lanes
Ranch Rd.	Wolf Branch Rd.	SR 44	New 4 Lane
Round Lake Rd.	Lake/Orange County Line	Wolf Branch Rd.	Widen to 4 Lanes
SR 46 ²	US 441	Lake/Seminole Co. Line	Widen to 4 Lanes
US 441	Lake/Orange County Line	CR 44B	Widen to 6 Lanes

1- This Plymouth Sorrento Rd improvement is anticipated to be built by Orange County and is independent of the Wekiva Parkway project.

2- These SR 46 widening projects are planned LRTP improvements that are not included in the No-Build Alternative.

TABLE 3.2 PLANNED ROADWAY IMPROVEMENTS (2010-2025) CONTINUED

Roadway	From	To	Improvement
Seminole County			
I-4	SR 46 Interchange		Interchange Modifications
Lake Mary Blvd.	Markham Woods Rd.	I-4	Widen to 6 Lanes
Lake Mary Blvd.	Rinehart Rd.	Country Club Rd.	Widen to 6 Lanes
Markham Woods Rd.	Springs Landing Blvd.	EE Williamson Blvd.	Widen to 3 Lanes
SR 417	Orange/Seminole Co. Line	I-4	Widen to 6 Lanes
SR 417 Extension	I-4	International Pkwy.	New Ramps
SR 434	Rangeline Rd.	CR 427	Widen to 6 Lanes
SR 46 ²	Lake/Seminole Co. Line	Orange Blvd.	Widen to 4 Lanes
SR 46	CR 425/Sanford Ave.	SR 415	Widen to 4 Lanes

1- This Plymouth Sorrento Rd improvement is anticipated to be built by Orange County and is independent of the Wekiva Parkway project.

2- These SR 46 widening projects are planned LRTP improvements that are not included in the No-Build Alternative.

3.1.1 No-Build Traffic Volumes and Level of Service

Traffic conditions for the No-Build Scenario were analyzed for three analysis years:

- Opening Year - 2012
- Mid Year - 2022
- Design Year - 2032

For each analysis year, AADTs and DDHVs were developed reflecting a No-Build condition within the project study area. Operational and LOS analysis was performed on study area roadway segments, intersections, and ramp junctions for each analysis year.

3.1.2 Traffic Volume Projections

Travel demand forecasts for the project were developed utilizing the OUATS model as the foundation. Since the 2000 base year of the current version did not include the portion of the SR 417 from US 17/92 to I-4, these road segments were added into the OUATS model to reflect the existing regional roadway network for the year 2003. Socio-economic data for the project area of influence and surrounding region was updated based on available data provided by METROPLAN ORLANDO, Lake-Sumter MPO and the Volusia County MPO. A validation effort at the project level was conducted utilizing current 2003 traffic count data from the FDOT, Orange, Lake and Seminole Counties and other data resources available. This exercise verified that a reasonable level of traffic volumes were being replicated by the model based on the available data utilized for the network model updates. The model's performance within the influence area at the individual roadway segment level was also verified based on a link-by-link analysis. The resulting validated model was used as a basis for developing the future year travel demand forecasts.

An OUATS forecast model was developed for the year 2025. Minor revisions from the 2003 base year project level validation were incorporated into the forecast model for consistency. Both No-Build and Build scenarios were tested with the 2025 OUATS Model. The No-Build scenario included the interchange modifications at the SR 46 and

I-4 ramp intersections, the extension of SR 417 from the I-4 interchange west to International Parkway and the other changes to the network as presented in Tables 3.1. and 3.2. Initial 2025 AADT volumes were derived by applying the appropriate Model Output Conversion Factor (MOCF) to the model output. The design year 2032 AADT forecasts were then developed by projecting up the initial 2025 AADTs using an annual growth rate. The AADT volumes were then balanced throughout the system for consistency.

Table 3.3 below identifies 2.7% as the annual growth rate that was calculated from the average historical growth rate along roadways within the study area. The detail data for the locations used in the growth rate calculation is located in Appendix A.

TABLE 3.3 HISTORICAL GROWTH RATE

Roadway	From	To	% Historical Annual Growth
U.S. 441	C.R. 424	S.R. 414	1.1%
	S.R. 414	S.R. 436	0.7%
	S.R. 436	C.R. 435	0.6%
	C.R. 435	S.R. 429	1.7%
	S.R. 429	C.R. 437	1.8%
	C.R. 437	Ponkan Rd.	1.7%
	Ponkan Rd.	Sadler Ave.	1.7%
	Sadler Ave.	S.R. 46	4.2%
	S.R. 46	C.R. 44B	5.1%
S.R. 46	U.S. 441	C.R. 437	3.4%
	C.R. 437	C.R. 435	3.2%
	C.R. 435	Lake County Line	7.7%
	Lake County Line	C.R. 431	8.4%
	C.R. 431	International Pkwy.	14.3%
	International Pkwy.	Interstate 4	3.1%
	Interstate 4	C.R. 431B	-7.2%
S.R. 429	C.R. 437A	U.S. 441	27.4%
S.R. 436	U.S. 441	Piedmont-Wekiva Rd.	3.6%
	Piedmont-Wekiva Rd.	Seminole County Line	0.2%
	Seminole County Line	S.R. 434	-0.5%
	S.R. 434	Interstate 4	0.7%
	Interstate 4	Palm Springs Rd.	2.0%
Average			2.7%

While the PD&E models were validated to 2003 conditions, new count data became available as the study was underway. The known 2005 and 2006 AADT volumes derived from count data and the design year 2032 forecasts for the project were the basis for interpolating the 2012 and 2022 AADTs along the roadways within the study area.

The segment AADTs along with the recommended design characteristics and existing counts were used to develop DDHV's and design hour turning movements at the intersections. The AADTs for analysis years 2012, 2022 and 2032 are shown in Figures 3-2, 3-5 and 3-8, respectively. The DDHVs were developed from the daily traffic forecasts and are provided in Figures 3-3, 3-6 and 3-9 for the years 2012, 2022 and 2032, respectively. The projected intersection turning movements were developed based on the existing K_{30} and D_{30} and existing PM peak hour turning movement percentages developed from the collected count data. It should be noted that future year turn volumes were also adjusted as necessary based on projected AADT flows developed from the OUATS model and could cause annual growth to slightly fluctuate in order to balance turning volumes. The projected turning movement volumes are depicted for the years 2012, 2022 and 2032 in Figures 3-4, 3-7 and 3-10, respectively.

3.2. Operational Analysis

The projected operating levels of service for the mainline roadway, ramps and intersections were analyzed for opening (2012), interim (2022) and design (2032) years under the No-Build Condition. The roadway segments were analyzed using FDOT LOS standards, the freeway elements and intersections were analyzed using HCS+ Version 5.2, and some Seminole County intersections were analyzed using the Synchro 6.0 analysis software. The roadway characteristics information also used to determine the segment LOS is in Appendix E. Intersection signal timing and phasing provided by Orange, Lake and Seminole Counties were optimized to analyze the future No-Build conditions.

3.2.1 No-Build 2012

The LOS analyses for Year 2012 are presented in this section. The results of the roadway segment LOS analyses are summarized in Tables 3.4, 3.5 and 3.6 for Orange, Lake and Seminole Counties, respectively. The two sections below highlight the roadway segments that are expected to operate below the LOS D standard, specifically at LOS E and LOS F. All other roadway segments in the project area are expected to operate at LOS D or better for peak hour, peak direction traffic conditions.

3.2.1.1 Roadway Segments Operating at LOS E

While most of the roadways shown in the following tables are projected to operate at LOS D or better during the peak hour, several segments are expected to operate at capacity with LOS E for peak hour, peak direction traffic primarily due to heavy congestion:

Orange County

- Vick Road from Martin Street to Old Dixie Highway

Lake County

- Wolf Branch Road from US 441 to Round Lake Road

Seminole County

- I-4 from SR 434 to Lake Mary Blvd
- SR 46 from International Parkway to Oregon St./Wayside Drive

- SR 46 from I-4 to Town Center Blvd.

3.2.1.2 Roadway Segments Operating at LOS F

The following roadway segments are expected to fail at LOS F for peak hour peak direction traffic due to overcapacity conditions:

Orange County

- US 441 from SR 436 to CR 437
- US 441 from SR 414/SR 429 to Sadler Road
- SR 436 from Piedmont-Wekiva Road to Seminole County line
- CR 435 from US 441 (Orange Blossom Trail) to Votaw Road

Lake County

- SR 46 from CR 437 (Plymouth-Sorrento Road) to Seminole County line

Seminole County

- I-4 from SR 436 to SR 434
- SR 417 from International Parkway to I-4
- US 17/92 from the I-4 WB on ramp to CR 15
- SR 46 from Lake County line to CR 431 (Orange Blvd.)
- SR 46 from Lake Forest Road to International Parkway
- SR 46 from Oregon St./Wayside Dr. to I-4
- SR 436 from Orange/Seminole County Line to SR 434
- SR 436 from I-4 to Palm Springs Road
- CR 46A from International Parkway to Rinehart Road
- Rinehart Road from Anderson Lane to CR 46A

TABLE 3.4 No-BUILD (2012) ROADWAY SEGMENT LOS SUMMARY - ORANGE COUNTY

Roadway	From	To	LOS
S.R. 414	U.S. 441	Hiawassee Rd.	B
	Hiawassee Rd.	Keene Rd.	A
	Keene Rd.	S.R. 451	A
S.R. 414/S.R. 429	S.R. 451	U.S. 441	B
S.R. 451	S.R. 414	U.S. 441	B
U.S. 441	S.R. 436	C.R. 435	F
	C.R. 435	S.R. 451	F
	S.R. 451	C.R. 437	F
	C.R. 437	S.R. 414/S.R. 429	D
	S.R. 414/S.R. 429	Ponkan Rd.	F
	Ponkan Rd.	Sadler Ave.	F
	Sadler Ave.	S.R. 46	C
S.R. 436	U.S. 441	Piedmont-Wekiva Rd.	C
	Piedmont-Wekiva Rd.	Seminole County Line	F
C.R. 435	U.S. 441	Votaw Rd.	F
	Votaw Rd.	Welch Rd.	D
	Welch Rd.	Ponkan Rd.	D
	Ponkan Rd.	Kelly Park Rd.	C
	Kelly Park Rd.	Lake County Line	C
C.R. 437	U.S. 441	Ponkan Rd.	C
	Ponkan Rd.	Kelly Park Rd.	D
	Kelly Park Rd.	Lake County Line	D
Round Lake Rd.	Ponkan Rd.	Sadler Ave.	C
	Sadler Ave.	Kelly Park Rd.	D
	Kelly Park Rd.	Ondich Rd.	D
	Ondich Rd.	Lake County Line	D
Ponkan Rd.	U.S. 441	Round Lake Rd.	D
	Round Lake Rd.	C.R. 437	D
	C.R. 437	C.R. 435	D
Kelly Park Rd.	Round Lake Rd.	C.R. 437	D
	C.R. 437	C.R. 435	D
Sadler Ave.	Lake County Line	U.S. 441	D
	U.S. 441	Round Lake Rd.	C

Table 3.4 No-Build (2012) Roadway Segment LOS Summary - Orange County
(Continued)

Roadway	From	To	LOS
Ondich Rd.	Round Lake Rd.	C.R. 437	C
Haas Rd.	C.R. 437	C.R. 435	C
Vick Rd.	Ponkan Rd.	Lester Rd.	C
	Lester Rd.	Welch Rd.	D
	Welch Rd.	Martin St.	D
	Martin St.	Old Dixie Hwy.	E
Old Dixie Highway	C.R. 437	Errol Pkwy.	C
	Errol Pkwy.	C.R. 435	D
Yothers Rd.	U.S. 441	C.R. 437	C

TABLE 3.5 NO-BUILD (2012) ROADWAY SEGMENT LOS SUMMARY - LAKE COUNTY

Roadway	From	To	LOS
U.S. 441	S.R. 46	C.R. 44B	B
S.R. 46	C.R. 500A	U.S. 441	C
	U.S. 441	Round Lake Rd.	C
	Round Lake Rd.	C.R. 437	C
	C.R. 437	C.R. 435	F
	C.R. 435	C.R. 46A	F
	C.R. 46A	Lake County Line	F
S.R. 44	S.R. 19	C.R. 46A	D
C.R. 437	Lake County Line	S.R. 46	D
	S.R. 46	S.R. 44	D
C.R. 435	Lake County Line	S.R. 46	D
C.R. 46A	S.R. 44	S.R. 46	D
C.R. 433	S.R. 46	South of S.R. 46	C
Round Lake Rd.	Lake County Line	S.R. 46	C
	S.R. 46	Wolf Branch Rd.	C
Wolf Branch Rd.	U.S. 441	Round Lake Rd.	E
	Round Lake Rd.	C.R. 437	D
Wekiva River Rd.	S.R. 46	South of S.R. 46	C

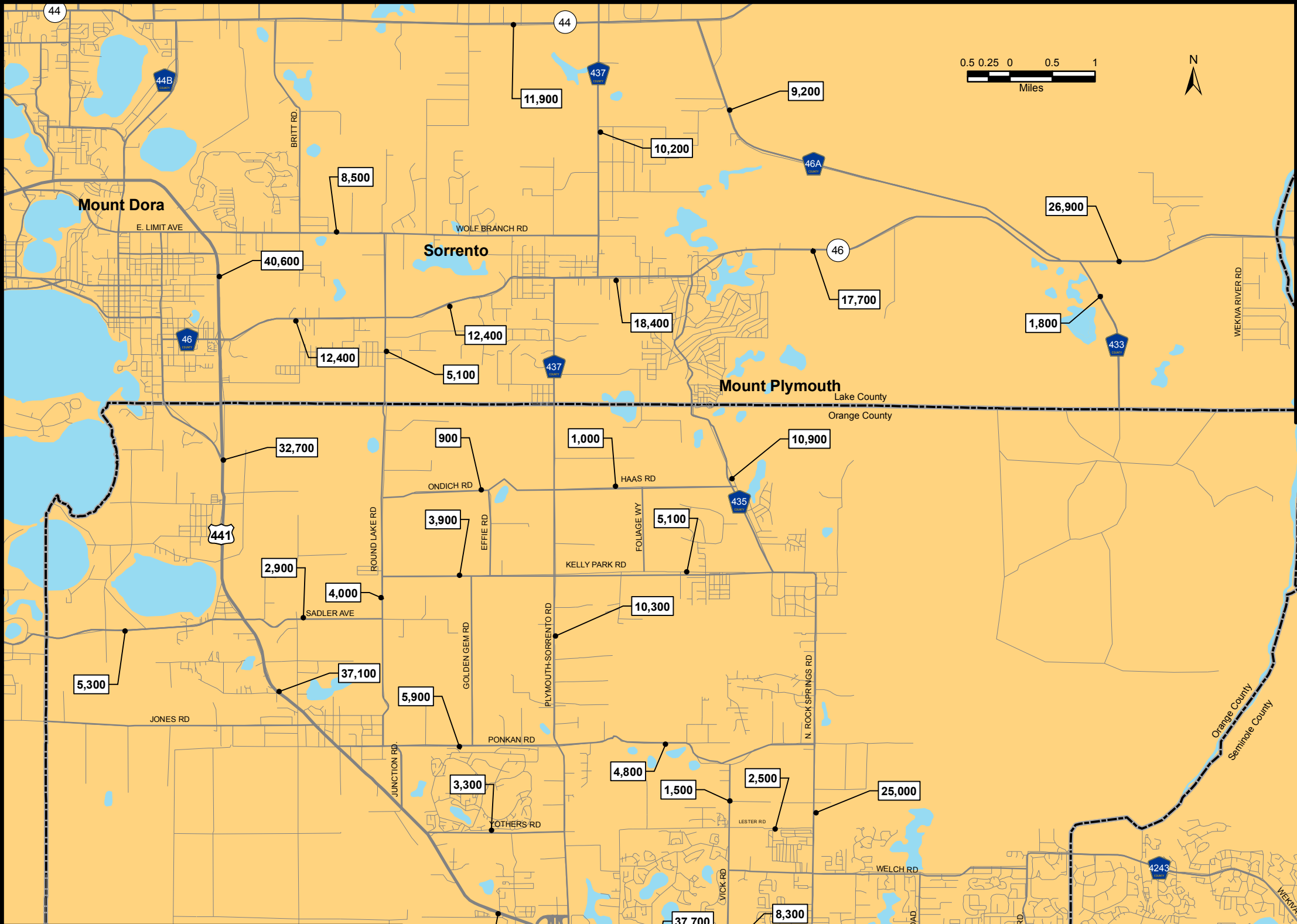
TABLE 3.6 NO-BUILD (2012) ROADWAY SEGMENT LOS SUMMARY - SEMINOLE COUNTY

Roadway	From	To	LOS
Interstate 4	S.R. 436	S.R. 434	F
	S.R. 434	Lake Mary Blvd.	E
	Lake Mary Blvd.	C.R. 46A / S.R. 417	D
	C.R. 46A / S.R. 417	S.R. 46	C
	S.R. 46	U.S. 17/92	C
	U.S. 17/92	North of U.S. 17/92	D
S.R. 417	North of Interstate 4	Interstate 4	F
	Interstate 4	Rinehart Rd.	B
	Rinehart Rd.	C.R. 46A	B
U.S. 17/92	North of I-4 WB on ramp	I-4 WB on Ramp	C
	I-4 WB on Ramp	CR 15	F
	CR 15	South of CR 15	D
S.R. 46	Lake County Line	Longwood Markham Rd.	F
	Longwood-Markham Rd.	Lake Markham Rd.	F
	Lake Markham Rd.	C.R. 431	F
	C.R. 431	Lake Forest Blvd.	D
	Lake Forest Blvd.	International Pkwy.	F
	International Pkwy.	Oregon St/Wayside Dr	E
	Oregon St/Wayside Dr	Interstate 4	F
	Interstate 4	Town Center Blvd	E
	Town Center Blvd	C.R. 431B	C
S.R. 436	Seminole County Line	S.R. 434	F
	S.R. 434	Interstate 4	D
	Interstate 4	Palm Springs Rd.	F
C.R. 46A	Orange Blvd.	International Pkwy.	C
	International Pkwy.	Colonial Center Pkwy.	F
	Colonial Center Pkwy.	Interstate 4	F
	Interstate 4	Rinehart Rd	F
	Rinehart Rd	C.R. 15	D
C.R. 431	C.R. 46A	Markham Rd	D
	Markham Rd.	S.R. 46	C
	S.R. 46	Interstate 4	C
	I-4	CR 15	C
C.R. 15	South of CR 431	CR 431	C
	CR 431	I-4 EB on Ramp	D
	I-4 EB on Ramp	U.S. 17/92	C
Rinehart Rd	Anderson Lane	CR 46A	F
	CR 46A	Town Center Blvd	D
	Town Center Blvd	SR 417	D
	SR 417	St Johns Pkwy	D
	St Johns Pkwy	SR 46	C

**Table 3.6 No-Build (2012) Roadway Segment LOS Summary - Seminole County
(Continued)**

Roadway	From	To	LOS
International Parkway	Lake Mary Blvd.	C.R. 46A	D
	C.R. 46A	SR 417 Ramps	C
	SR 417 Ramps	S.R. 46	C
Markham Road	Longwood-Markham Rd.	Markham Woods Rd.	D
	Markham Woods Rd.	Orange Blvd.	C
Longwood-Markham Rd.	S.R. 46	C.R. 46A	C
Wekiva Park Dr.	North of S.R. 46	S.R. 46	C
Lake Markham Rd.	S.R. 46	C.R. 46A	C
N Oregon Street	North of S.R. 46	S.R. 46	D
Wayside Drive	South of S.R. 46	S.R. 46	C

Figures 3-2A (Orange and Lake Counties) and 3-2B (Seminole County) show the 2012 No-Build AADTs that were used to determine the 2012 No-Build DDHVs in Figures 3-3A and 3-3B. The LOS for the roadway elements along with the DDHVs that were used to determine the LOS is illustrated in Figures 3-3A (Orange and Lake Counties) and 3-3B (Seminole County).



SEE FIGURE 3-2B
FOR
SEMINOLE COUNTY

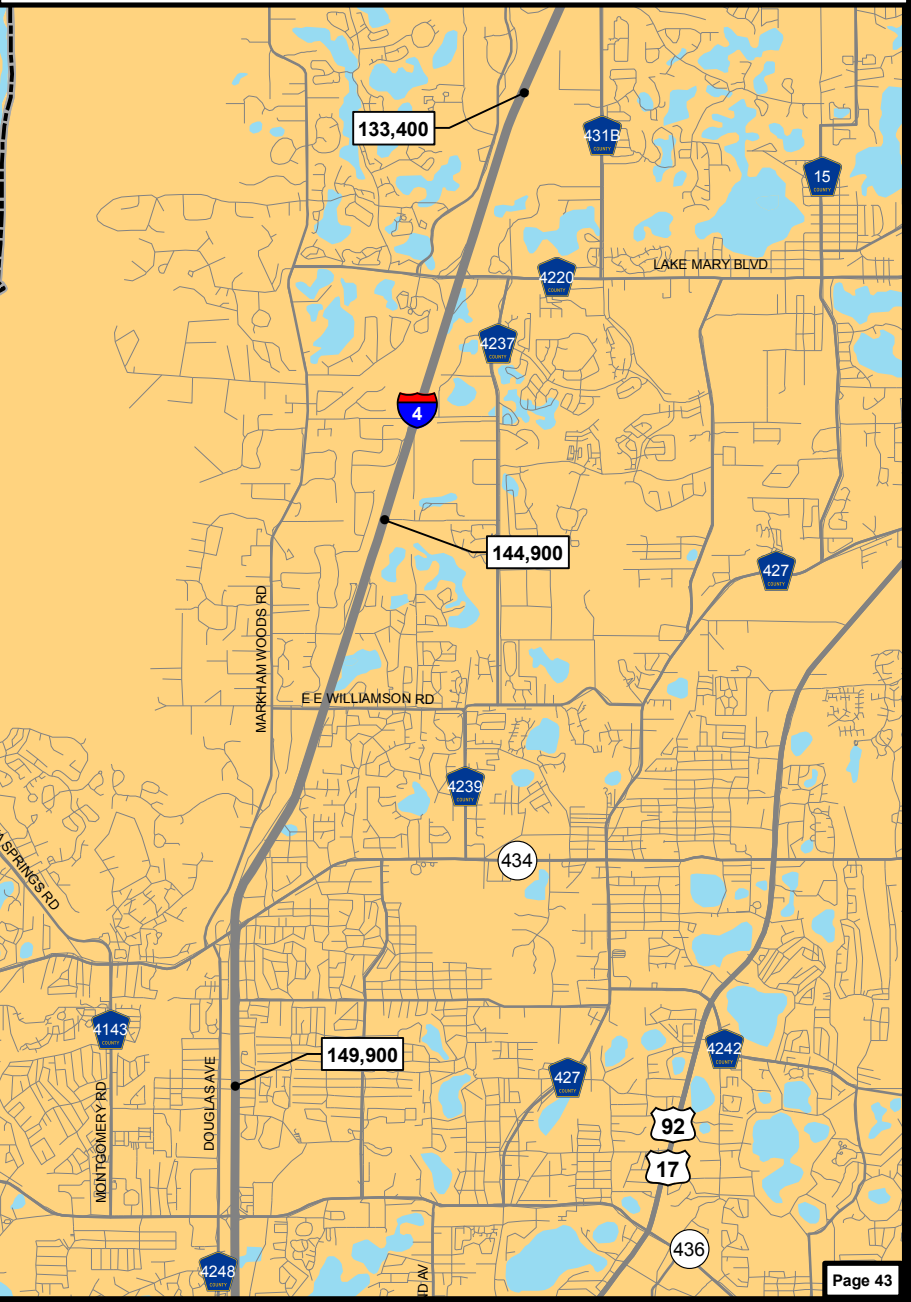
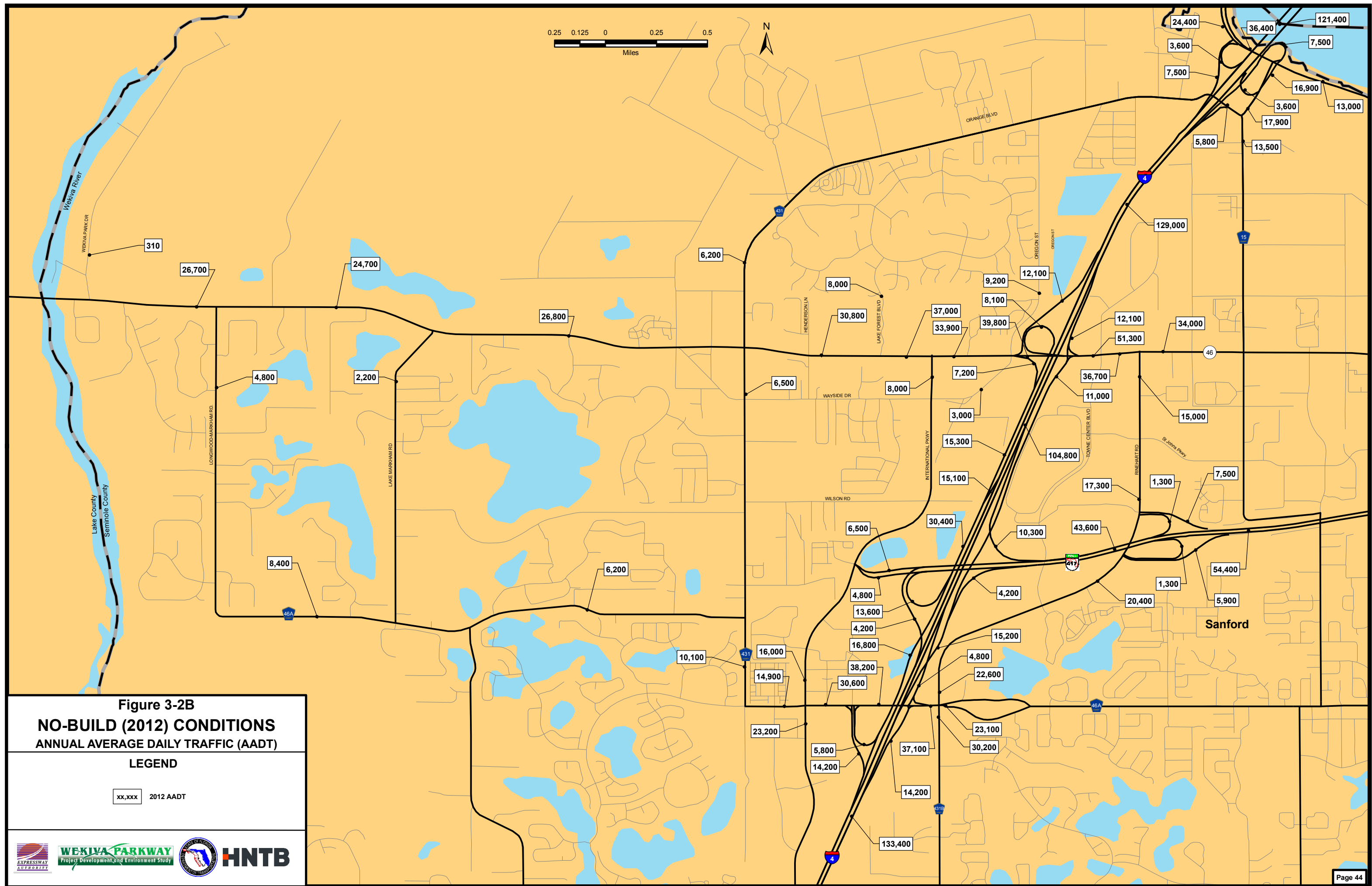
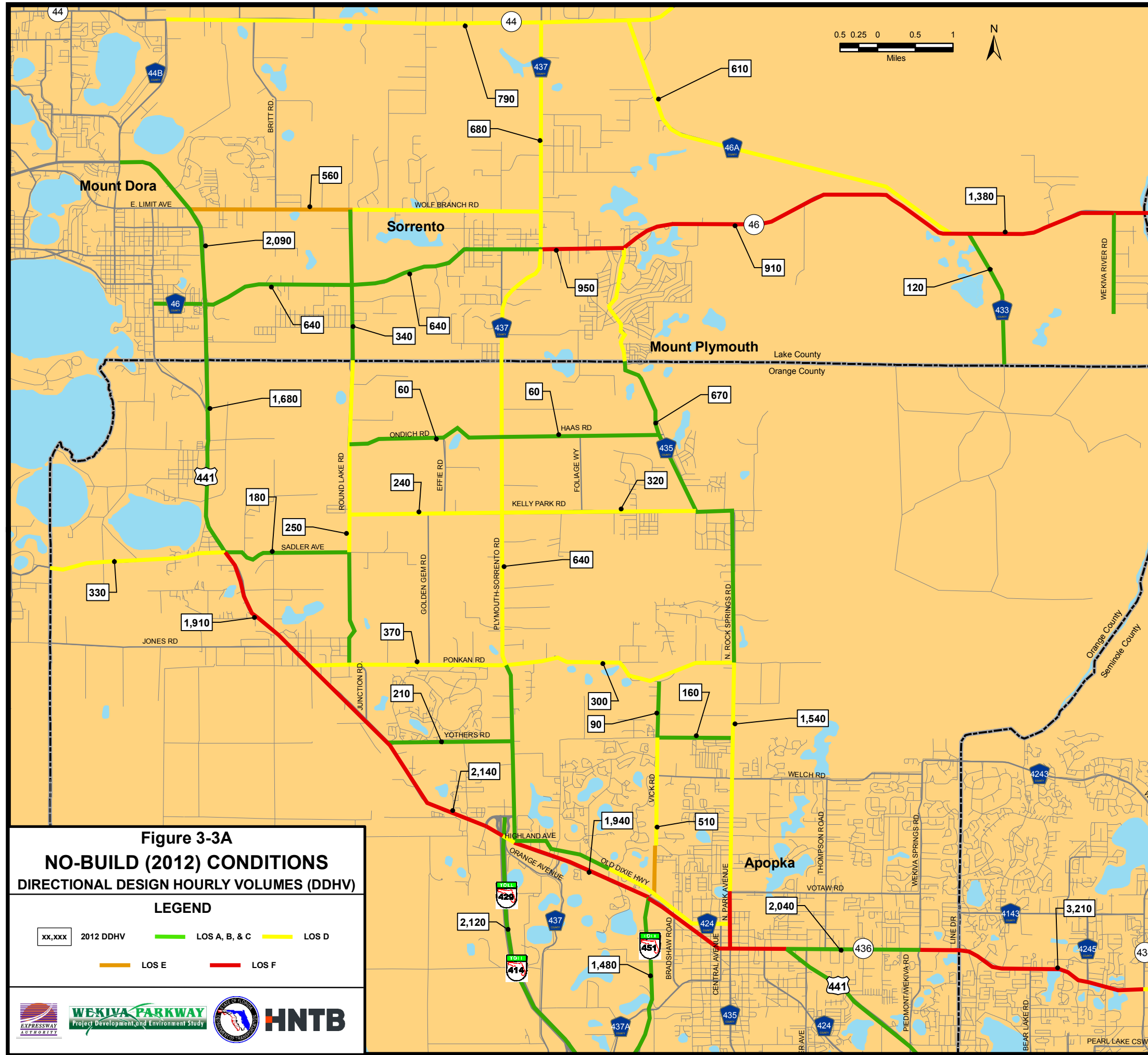


Figure 3-2A
NO-BUILD (2012) CONDITIONS
ANNUAL AVERAGE DAILY TRAFFIC (AADT)

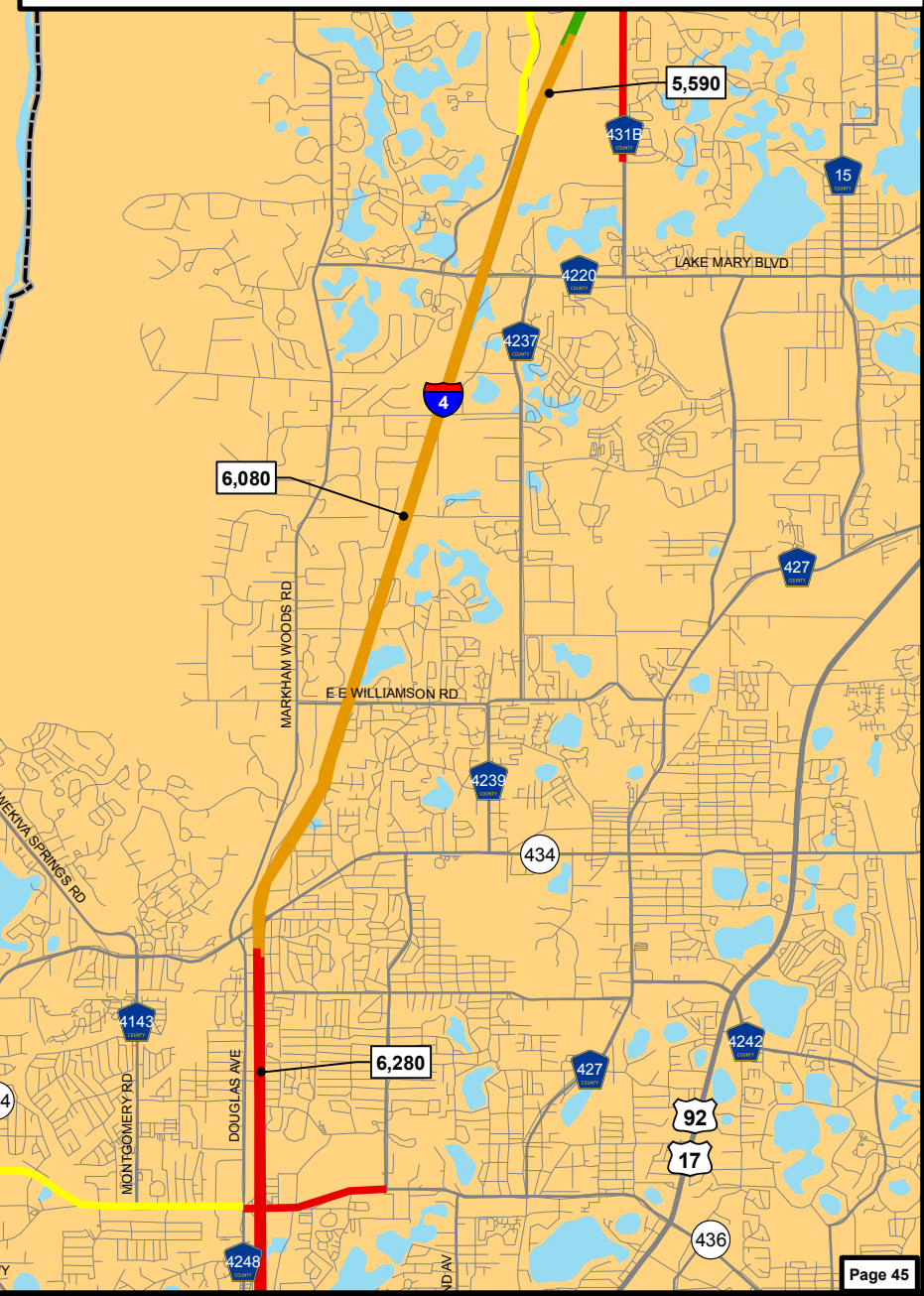
LEGEND

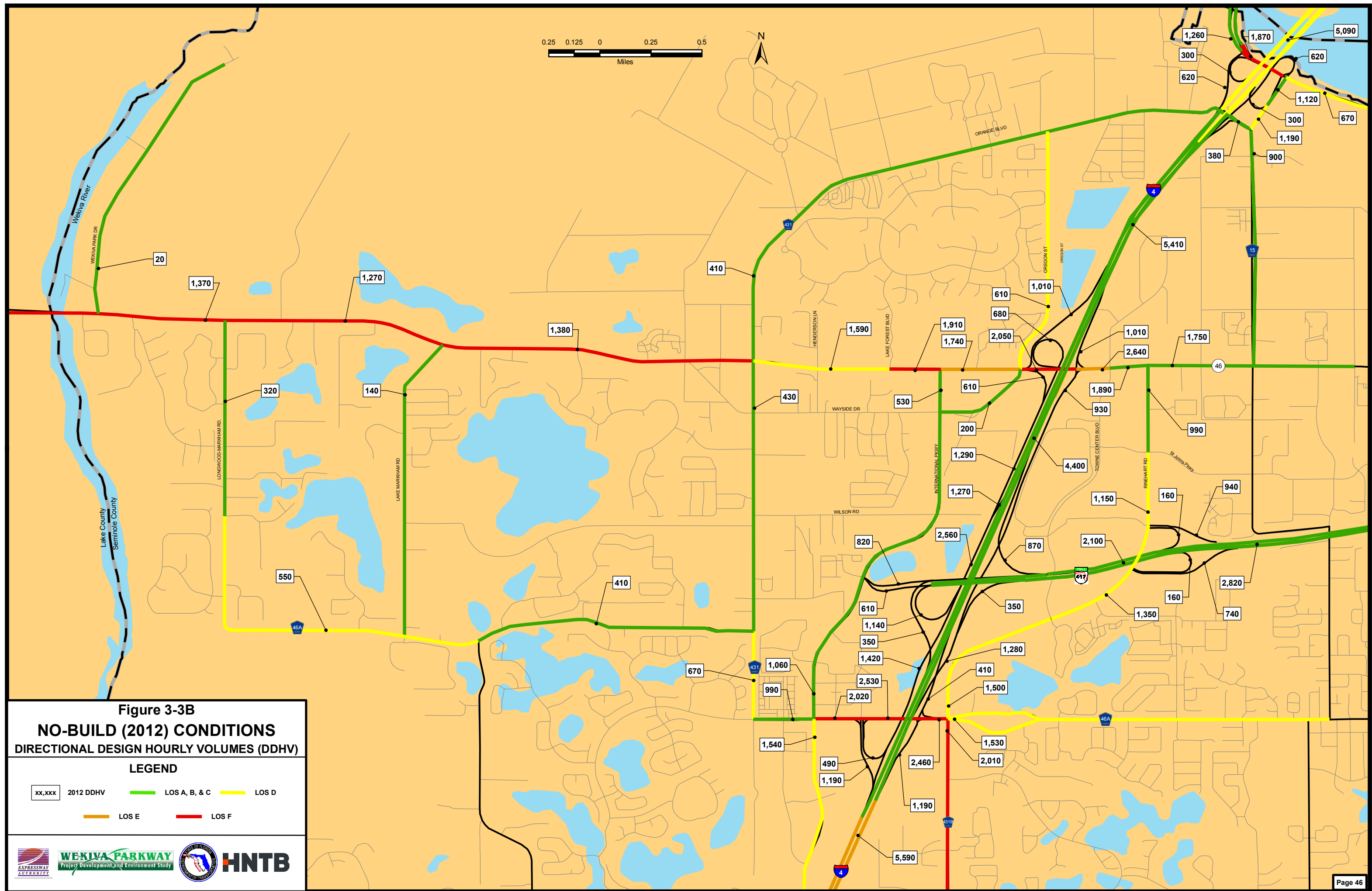
xx,xxx 2012 AADT





**SEE FIGURE 3-3B
 FOR
 SEMINOLE COUNTY**





3.2.1.3 Ramp Analyses

In the No-Build Scenario, ramp merge/diverge junction analyses were performed at interchange locations along I-4 and SR 417 in Seminole County. The results of the ramp merge/diverge junctions analyses are summarized in Table 3.7 for the interchanges in Seminole County. Table 3.7 shows that all of the freeway elements along I-4 and SR 417 in the project area are expected to operate at LOS D or better during Year 2012 peak hour traffic conditions. The weaving analysis completed for the I-4 westbound Collector-Distributor (CD) road shows that it should operate at LOS B in the Year 2012.

TABLE 3.7 NO-BUILD (2012) FREEWAY AND RAMP LOS SUMMARY

Interchange Ramps	Ramp Description	Volume (vph)	Merge Analysis		Diverge Analysis	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
I-4 at U.S. 17/92	I-4 EB Off Ramp to U.S. 17/92	620	-	-	4.2	A
	I-4 WB On Ramp from U.S. 17/92	620	24.5	C	-	-
	I-4 EB On Ramp from U.S. 17/92	300	29.9	D	-	-
	I-4 WB Off Ramp to U.S. 17/92	300	-	-	29.8	D
I-4 at SR 46	I-4 EB Off Ramp to SR 46 (through I-4 EB CD)	930	-	-	12.3	B
	I-4 WB On Ramp from SR 46 WB (through I-4 WB CD)	680	13.4	B	-	-
	I-4 WB On Ramp from SR 46 EB (through I-4 WB CD)	610	13.4	B	-	-
	I-4 EB On Ramp from SR 46	1,010	33.8	D	-	-
	I-4 WB Off Ramp to SR 46	1,010	-	-	20.9	C
SR 417 at Rinehart Rd	SR 417 WB off Ramp to Rinehart Rd	940	-	-	20.6	C
	SR 417 EB on Ramp from Rinehart Rd	740	18.8	B	-	-
	SR 417 WB on Ramp from Rinehart Rd	160	13.9	B	-	-
	SR 417 EB off Ramp to Rinehart Rd	160	-	-	14.5	B
I-4 at SR 417	I-4 EB Off Ramp to SR 417 SB	350	20.8	C	12.3	B
	I-4 WB On Ramp from SR 417 NB	350	19.5	B	2.8	A
	I-4 EB On Ramp from SR 417 NB	870	28.1	D	2.0	A
	I-4 WB Off Ramp to SR 417 SB	1,140	15.7	B	24.8	C
I-4 at CR 46A	I-4 EB Off Ramp to CR 46A	1,190	-	-	13.6	B
	I-4 WB On Ramp from CR 46A (through I-4 WB CD)	1,190	20.5	C	-	-
	I-4 EB On Ramp from CR 46A	410	16.6	B	-	-
	I-4 WB Off Ramp to CR 46A (through I-4 WB CD)	490	-	-	13.6	B
I-4 EB CD Rd.	I-4 EB Off Ramp to SR 417 SB and SR 46	1,280	-	-	14.9	B
I-4 WB CD Rd.	I-4 WB Off Ramp to SR 417 SB and CR 46A	1,270	3.0	A	16.9	B
	I-4 WB On Ramp from CR 46A and SR 46	2,120	U/C	C	-	-
SR 417 at International Pkwy.	SR 417 NB Off Ramp to International Pkwy.	820	-	-	2.8	A
	SR 417 SB On Ramp from International Pkwy.	610	15.7	B	-	-

U/C = ramp operates under capacity

Table 3.7 No-Build (2012) Freeway and LOS Summary (Continued)

Weaving Analysis				
Weaving Segment	Ramp Description	Volume (vph)	Density (pc/mi/ln)	LOS
I-4 WB CD Rd.	I-4 WB Off Ramp to CR 46A	410	21.69	B
	I-4 WB Off Ramp to SR 417 SB	860		
	SR 46 EB and WB Ramps to CR 46A and I-4 WB	1,010		
	SR 46 EB and WB Ramps to SR 417 SB	280		

3.2.1.4 Intersection Analyses

Table 3.8 shows that one signalized intersections along CR 437 in Orange County is projected to operate at LOS F conditions in Year 2012. The intersection of CR 437 and US 441 would operate at capacity with LOS F primarily due to heavy left turn traffic from CR 437. In Lake County, all of the intersections along SR 46 will operate at LOS D or better for the PM peak traffic conditions. The intersections of SR 46 at CR 435 and at CR 437 are expected to operate at LOS D during the PM peak period due to heavy traffic volumes on SR 46. A significant decrease in delays along SR 46 would occur if the facility is widened to 4 lanes from US 441 to the Lake/Seminole County Line. Results also show that a traffic signal may be needed at the intersection of SR 46 and Wekiva River Road for the No-Build condition.

In Seminole County, twenty out of the twenty-three intersections in the project area operate at LOS D or better whereas the remainder operates at LOS F during the PM peak period. All of the intersections along CR 46A are expected to operate at LOS E or worse during the PM peak period primarily due to overcapacity conditions. Results for the No-Build condition also show that a traffic signal may be needed at the intersections of SR 46 with Wekiva Park Drive, Longwood Markham Road and Lake Markham Road.

SimTraffic simulation confirmed the LOS failures and capacity deficiencies along CR 46A and SR 46, showing overcapacity and failing conditions in the Year 2012.

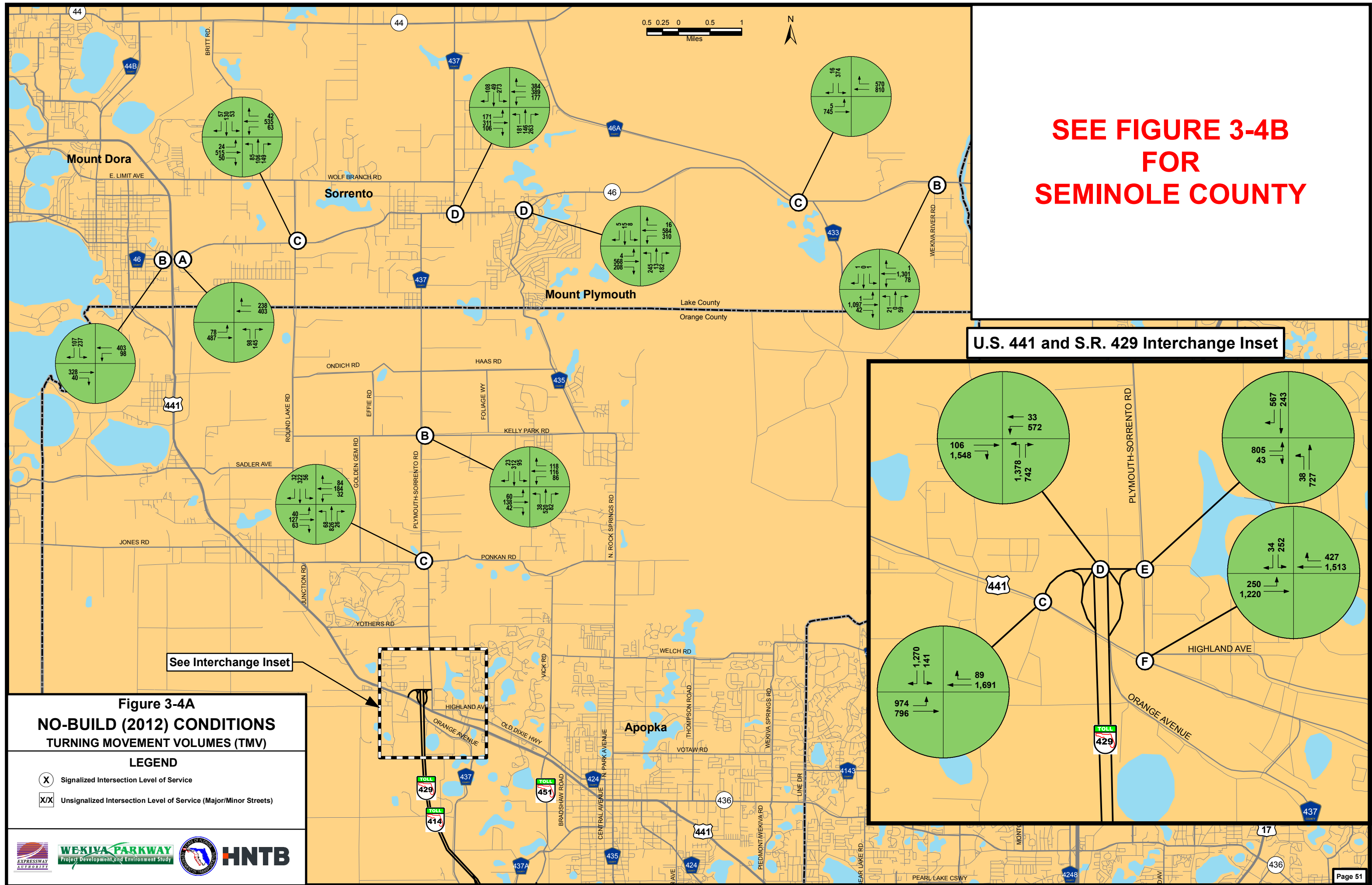
TABLE 3.8 NO-BUILD (2012) INTERSECTION LOS SUMMARY

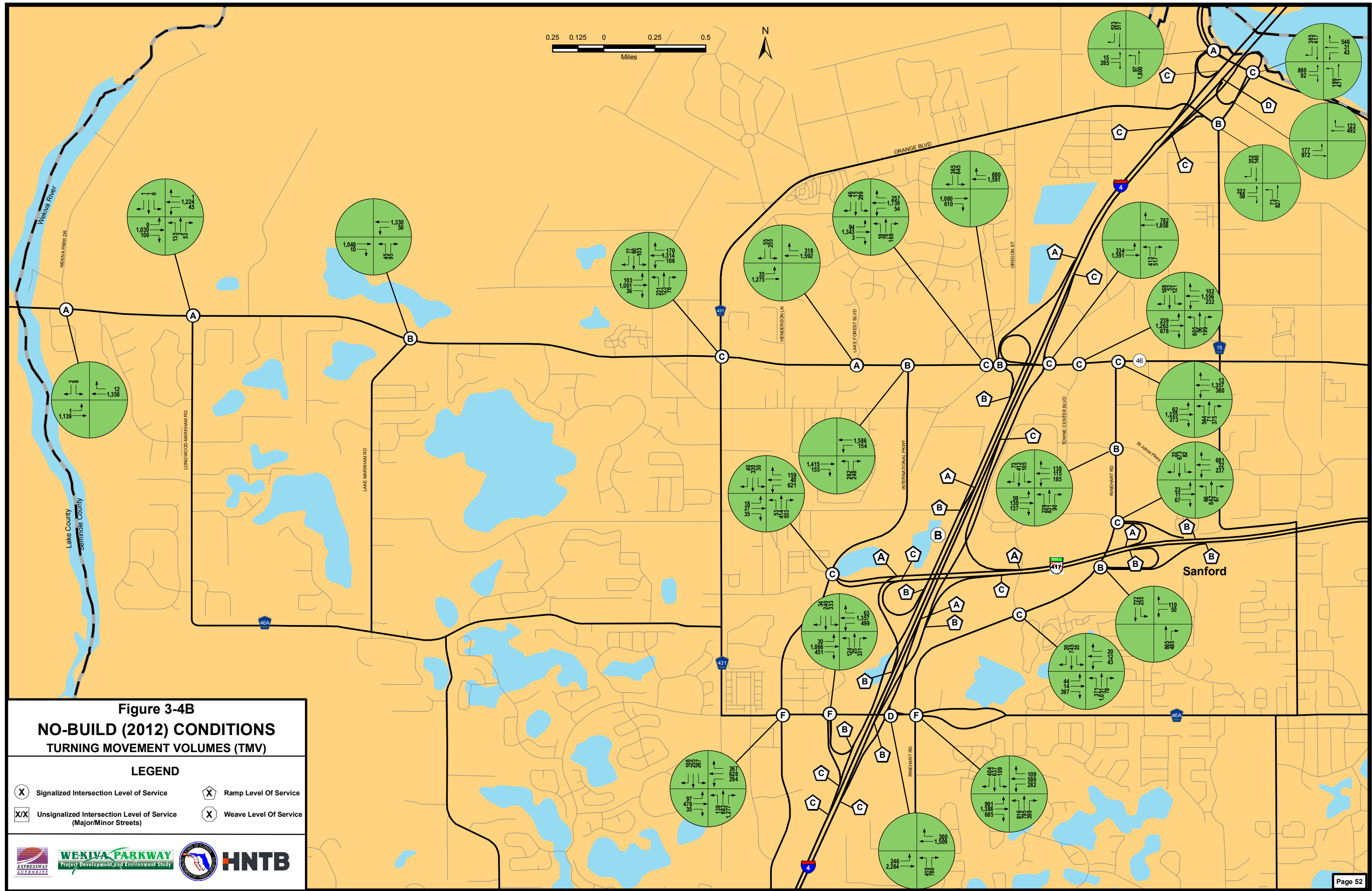
Intersection	Control Type	PM Peak	
		Delay (sec/veh)	LOS
Orange County			
US 441 and Connector Road	Signal	30.8	C
Connector Road and SR 429/414	Signal	44.0	D
US 441 and CR 437	Signal	82.1	F
CR 437 and Connector Road	Signal	78.8	E
CR 437 and Ponkan Rd	Signal	34.4	C
CR 437 and Kelly Park Rd	Signal	19.6	B
Lake County			
SR 46 and US 441 SB Ramps	Signal	16.8	B
SR 46 and US 441 NB Ramps	Signal	9.9	A
SR 46 and Round Lake Rd	Signal	27.0	C
SR 46 and CR 437	Signal	47.5	D
SR 46 and CR 435/Niles St	Signal	47.2	D
SR 46 and CR 46A	Signal	21.7	C
SR 46 and Wekiva River Rd	Signal	14.0	B
Seminole County			
U.S. 17/92 and I-4 WB Ramps	Signal	8.2	A
U.S. 17/92 and I-4 EB Ramps/CR 15	Signal	29.9	C
SR 46 and Wekiva Park Dr	Signal	6.6	A
SR 46 and Longwood Markham Rd	Signal	9.9	A
SR 46 and Lake Markham Rd	Signal	15.3	B
SR 46 and CR 431 (Orange Blvd)	Signal	31.4	C

Table 3.8 No-Build (2012) Intersection LOS Summary (Continued)

Intersection	Control Type	PM Peak	
		Delay (sec/veh)	LOS
Seminole County			
SR 46 and Lake Forest Blvd	Signal	9.3	A
SR 46 and International Pkwy	Signal	17.4	B
SR 46 and N Oregon Ave/Wayside Dr	Signal	21.7	C
SR 46 and I-4 WB Ramps	Signal	15.5	B
SR 46 and I-4 EB Ramps	Signal	21.1	C
SR 46 and Town Center Blvd	Signal	34.9	C
SR 46 and Rinehart Rd	Signal	31.3	C
CR 46A and International Pkwy	Signal	120.3	F
CR 46A and I-4 WB Ramps	Signal	87.4	F
CR 46A and I-4 EB Ramps	Signal	41.3	D
CR 46A and Rinehart Rd	Signal	84.9	F
CR 15 and CR 431	Signal	18.2	B
Rinehart Rd and St Johns Pkwy	Signal	18.2	B
Rinehart Rd and SR 417 NB Ramps	Signal	28.2	C
Rinehart Rd and SR 417 SB Ramps	Signal	10.2	B
Rinehart Rd and Town Center Blvd	Signal	29.7	C
International Pkwy and SR 417	Signal	28.9	C

The LOS for the freeway elements, the projected turning movement volumes and intersections are illustrated in Figures 3-4A (Orange and Lake Counties) and 3-4B (Seminole County).





3.2.2 No-Build 2022

The LOS analyses for Year 2022 are presented in this section. The results of the roadway segment LOS analyses are summarized in Tables 3.9, 3.10 and 3.11 for Orange, Lake and Seminole Counties, respectively. The two sections below highlight the roadway segments that are expected to operate below the LOS D standard, specifically at LOS E and LOS F. All other roadway segments in the project area are expected to operate at LOS D or better for peak hour, peak direction traffic conditions.

3.2.2.1 Roadway Segments Operating at LOS E

The tables show that the following roadway segments that were operating at LOS D or better in the 2012 No-Build conditions are expected to operate at capacity with LOS E for peak hour, peak direction for the 2022 No-Build condition primarily due to heavy congestion.

Orange County

- Ponkan Road from Round Lake Road to CR 437

Seminole County

- I-4 from Lake Mary Blvd. to CR 46A
- I-4 from US 17/92 to north of US 17/92
- CR 431 from CR 46A to Markham Rd
- Rinehart Road from Town Center Blvd. to SR 417

3.2.2.2 Roadway Segments Operating at LOS F

The following roadway segments were operating at LOS D or better in the Year 2012 No-Build condition. In addition to the failing roadway segments listed in the 2012 No-Build conditions, these roadway segments are expected to fail at LOS F for peak hour peak direction traffic due to overcapacity conditions in the Year 2022:

Orange County

- US 441 from CR 437 to SR 414/SR 429
- US 441 from Sadler Road to SR 46
- CR 435 from Votaw Rd to Ponkan Road
- CR 437 from Ponkan Rd to the Lake County Line
- Round Lake Rd. from Kelly Park Rd. to the Lake County Line
- Vick Road from Welch Road to Martin Street

Lake County

- SR 46 from Round Lake Rd to CR 437
- SR 44 from SR 19 to CR 46A
- CR 435 from Lake County Line to SR 46

Seminole County

- SR 46 from CR 431 to Lake Forest Blvd.
- SR 436 from SR 434 to I-4

- CR 46A from Rinehart Road to CR 15
- Rinehart Road from CR46A to Town Center Blvd.
- International Parkway from Lake Mary Blvd. to CR 46A
- Markham Road from Longwood-Markham Road to Markham Woods Road

The following roadway segments were operating at LOS E in the 2012 No-Build conditions, but are expected to fail at LOS F for peak hour peak direction traffic due to overcapacity conditions in the Year 2022:

Orange County

- Vick Road from Martin Street to Old Dixie Highway

Lake County

- Wolf Branch Road from US 441 to Round Lake Road

Seminole County

- I-4 from SR 434 to CR 46A/SR 417
- SR 46 from International Parkway to Oregon St./Wayside Drive
- SR 46 from I-4 to Town Center Blvd.

In the Year 2022 the following entire roadways in the project area are expected to operate at failing conditions:

Orange County

- US 441 from SR 436 to SR 46

Lake County

- SR 44 from SR 19 to CR 46A
- CR 435 from the Lake County line to SR 46

Seminole County

- SR 436 from the Seminole County line to Palm Springs Road

TABLE 3.9 No-BUILD (2022) ROADWAY SEGMENT LOS SUMMARY - ORANGE COUNTY

Roadway	From	To	LOS
S.R. 414	U.S. 441	Hiawassee Rd.	C
	Hiawassee Rd.	Keene Rd.	C
	Keene Rd.	S.R. 451	B
S.R. 414/S.R. 429	S.R. 451	U.S. 441	B
S.R. 451	S.R. 414	U.S. 441	B
U.S. 441	S.R. 436	C.R. 435	F
	C.R. 435	S.R. 451	F
	S.R. 451	C.R. 437	F
	C.R. 437	S.R. 414/S.R. 429	F
	S.R. 414/S.R. 429	Ponkan Rd.	F
	Ponkan Rd.	Sadler Ave.	F
	Sadler Ave.	S.R. 46	F
S.R. 436	U.S. 441	Piedmont-Wekiva Rd.	D
	Piedmont-Wekiva Rd.	Seminole County Line	F
C.R. 435	U.S. 441	Votaw Rd.	F
	Votaw Rd.	Welch Rd.	F
	Welch Rd.	Ponkan Rd.	F
	Ponkan Rd.	Kelly Park Rd.	D
	Kelly Park Rd.	Lake County Line	C
C.R. 437	U.S. 441	Ponkan Rd.	D
	Ponkan Rd.	Kelly Park Rd.	F
	Kelly Park Rd.	Lake County Line	F
Round Lake Rd.	Ponkan Rd.	Sadler Ave.	D
	Sadler Ave.	Kelly Park Rd.	D
	Kelly Park Rd.	Ondich Rd.	F
	Ondich Rd.	Lake County Line	F
Ponkan Rd.	U.S. 441	Round Lake Rd.	D
	Round Lake Rd.	C.R. 437	E
	C.R. 437	C.R. 435	D
Kelly Park Rd.	Round Lake Rd.	C.R. 437	D
	C.R. 437	C.R. 435	D
Sadler Ave.	Lake County Line	U.S. 441	D
	U.S. 441	Round Lake Rd.	D
Ondich Rd.	Round Lake Rd.	C.R. 437	C
Haas Rd.	C.R. 437	C.R. 435	C
Vick Rd.	Ponkan Rd.	Lester Rd.	C
	Lester Rd.	Welch Rd.	D
	Welch Rd.	Martin St.	F
	Martin St.	Old Dixie Hwy.	F
Old Dixie Highway	C.R. 437	Errol Pkwy.	C
	Errol Pkwy.	C.R. 435	D
Lester Rd.	C.R. 437	C.R. 435	D
Yothers Rd.	U.S. 441	C.R. 437	D

TABLE 3.10 NO-BUILD (2022) ROADWAY SEGMENT LOS SUMMARY - LAKE COUNTY

Roadway	From	To	LOS
U.S. 441	S.R. 46	C.R. 44B	C
S.R. 46	C.R. 500A	U.S. 441	C
	U.S. 441	Round Lake Rd.	D
	Round Lake Rd.	C.R. 437	D
	C.R. 437	C.R. 435	F
	C.R. 435	C.R. 46A	F
	C.R. 46A	Lake County Line	F
S.R. 44	S.R. 19	C.R. 46A	F
C.R. 437	Lake County Line	S.R. 46	D
	S.R. 46	S.R. 44	D
C.R. 435	Lake County Line	S.R. 46	F
C.R. 46A	S.R. 44	S.R. 46	D
C.R. 433	S.R. 46	South of S.R. 46	C
Round Lake Rd.	Lake County Line	S.R. 46	D
	S.R. 46	Wolf Branch Rd.	D
Wolf Branch Rd.	U.S. 441	Round Lake Rd.	F
	Round Lake Rd.	C.R. 437	D
Wekiva River Rd.	S.R. 46	South of S.R. 46	C

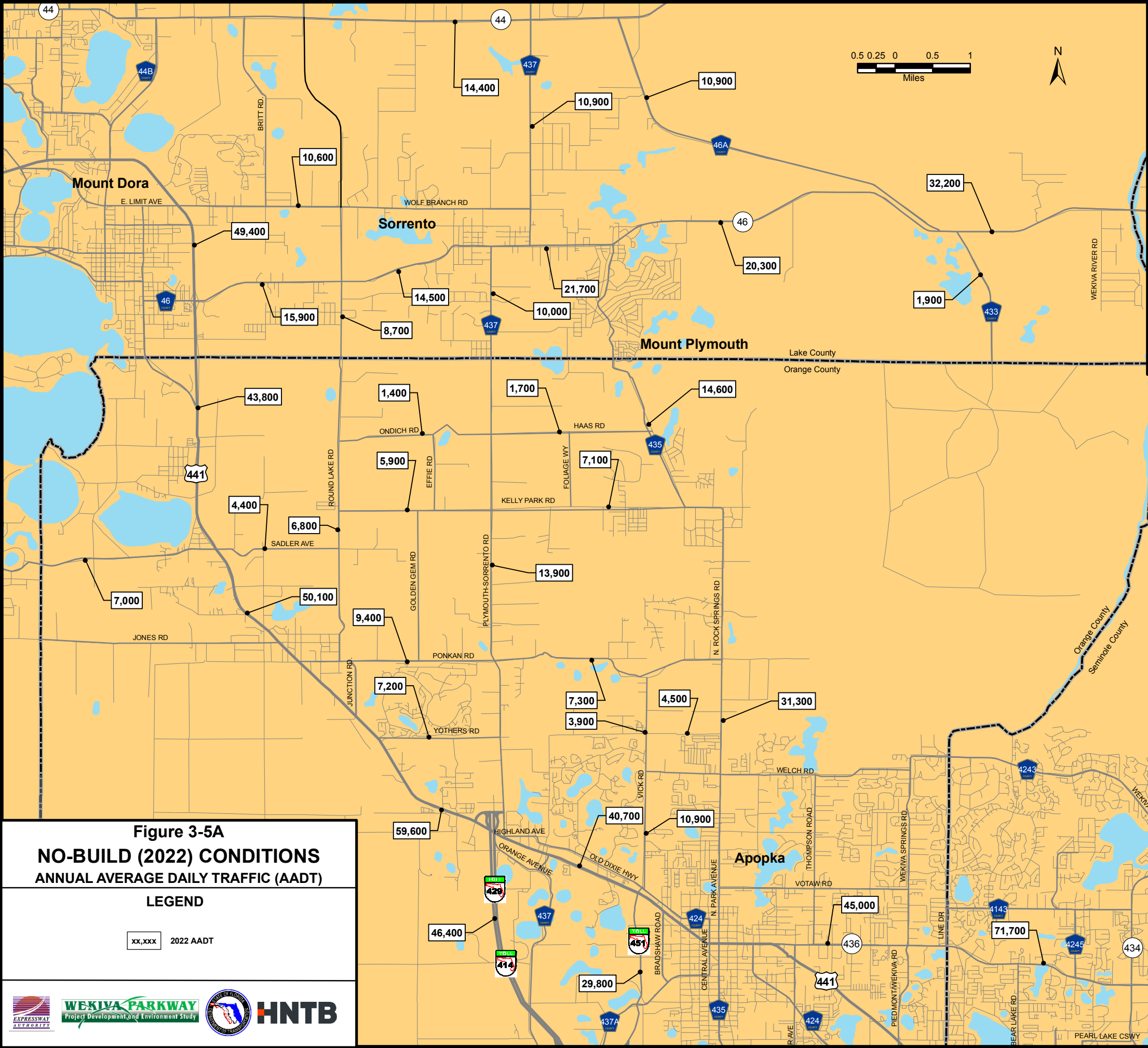
TABLE 3.11 NO-BUILD (2022) ROADWAY SEGMENT LOS SUMMARY - SEMINOLE COUNTY

Roadway	From	To	LOS
Interstate 4	S.R. 436	S.R. 434	F
	S.R. 434	Lake Mary Blvd.	F
	Lake Mary Blvd.	C.R. 46A / S.R. 417	E
	C.R. 46A / S.R. 417	S.R. 46	D
	S.R. 46	U.S. 17/92	C
	U.S. 17/92	North of U.S. 17/92	E
S.R. 417	North of Interstate 4	Interstate 4	F
	Interstate 4	Rinehart Rd.	B
	Rinehart Rd.	C.R. 46A	C
U.S. 17/92	North of I-4 WB on ramp	I-4 WB on Ramp	D
	I-4 WB on Ramp	CR 15	F
	CR 15	South of CR 15	D
S.R. 46	Lake County Line	Longwood Markham Rd.	F
	Longwood-Markham Rd.	Lake Markham Rd.	F
	Lake Markham Rd.	C.R. 431	F
	C.R. 431	Lake Forest Blvd.	F
	Lake Forest Blvd.	International Pkwy.	F
	International Pkwy.	Oregon St/Wayside Dr	F
	Oregon St/Wayside Dr	Interstate 4	F
	Interstate 4	Town Center Blvd	F
	Town Center Blvd	C.R. 431B	D
	C.R. 431B	C.R. 15	D

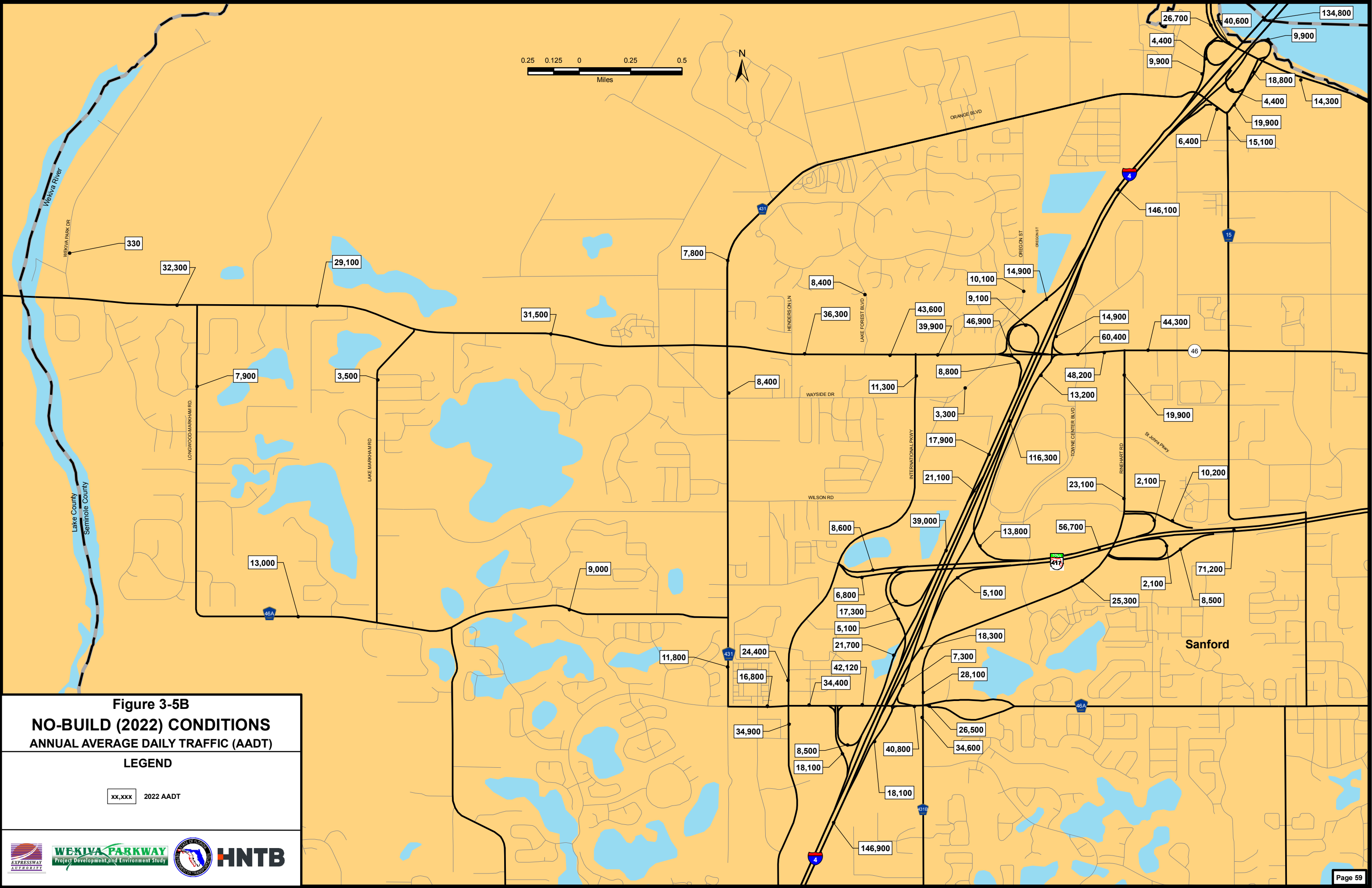
Table 3.11 No-Build (2022) Roadway Segment LOS Summary - Seminole County
Continued

Roadway	From	To	LOS
S.R. 436	Seminole County Line	S.R. 434	F
	S.R. 434	Interstate 4	F
	Interstate 4	Palm Springs Rd.	F
C.R. 46A	Orange Blvd.	International Pkwy.	C
	International Pkwy.	Colonial Center Pkwy.	F
	Colonial Center Pkwy.	Interstate 4	F
	Interstate 4	Rinehart Rd	F
	Rinehart Rd	C.R. 15	F
C.R. 431	C.R. 46A	Markham Rd.	E
	Markham Rd.	S.R. 46	D
	S.R. 46	Interstate 4	D
	I-4	CR 15	C
C.R. 15	South of CR 431	CR 431	C
	CR 431	I-4 EB on Ramp	D
	I-4 EB on Ramp	U.S. 17/92	D
Rinehart Rd	Anderson Lane	CR 46A	F
	CR 46A	Town Center Blvd	F
	Town Center Blvd	SR 417	E
	SR 417	St Johns Pkwy	D
	St Johns Pkwy	SR 46	D
International Parkway	Lake Mary Blvd.	C.R. 46A	F
	C.R. 46A	SR 417 Ramps	D
	SR 417 Ramps	S.R. 46	C
Markham Road	Longwood-Markham Rd.	Markham Woods Rd.	F
	Markham Woods Rd.	Orange Blvd.	D
Longwood-Markham Rd.	S.R. 46	C.R. 46A	D
Wekiva Park Dr.	North of S.R. 46	S.R. 46	C
Lake Markham Rd.	S.R. 46	C.R. 46A	C
N Oregon Street	North of S.R. 46	S.R. 46	D
Wayside Drive	South of S.R. 46	S.R. 46	C

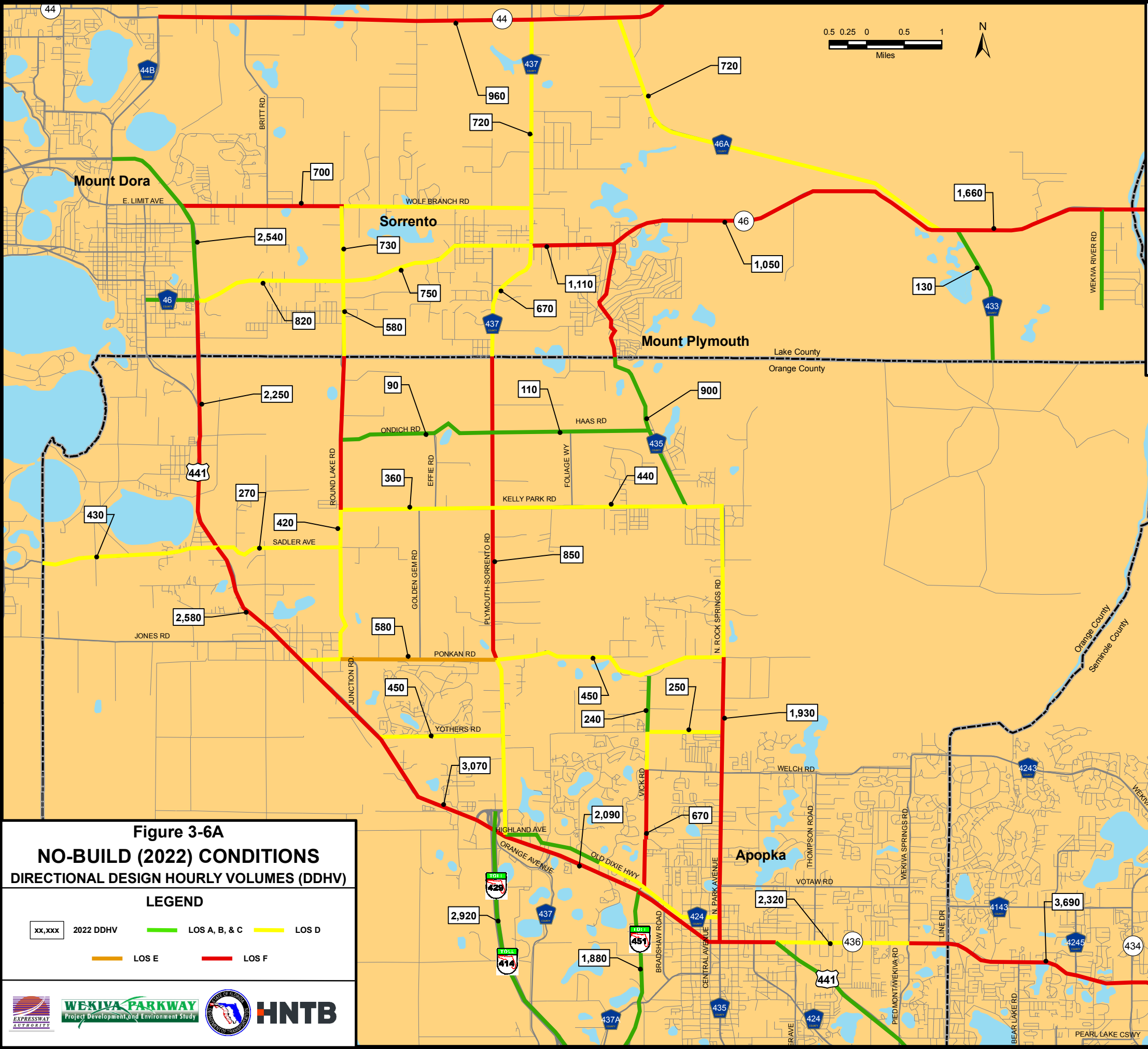
Figures 3-5A (Orange and Lake Counties) and 3-5B (Seminole County) show the 2022 No-Build AADTs that were used to determine the 2022 No-Build DDHVs in Figures 3-6A and 3-6B. The LOS for the roadway elements along with the DDHVs that were used to determine the LOS is illustrated in Figures 3-6A (Orange and Lake Counties) and 3-6B (Seminole County).



**SEE FIGURE 3-5B
FOR
SEMINOLE COUNTY**



HNTB



SEE FIGURE 3-6B
FOR
SEMINOLE COUNTY

Figure 3-6A

NO-BUILD (2022) CONDITIONS

DIRECTIONAL DESIGN HOURLY VOLUMES (DDHV)

LEGEND

xx,xxx

2022 DDHV

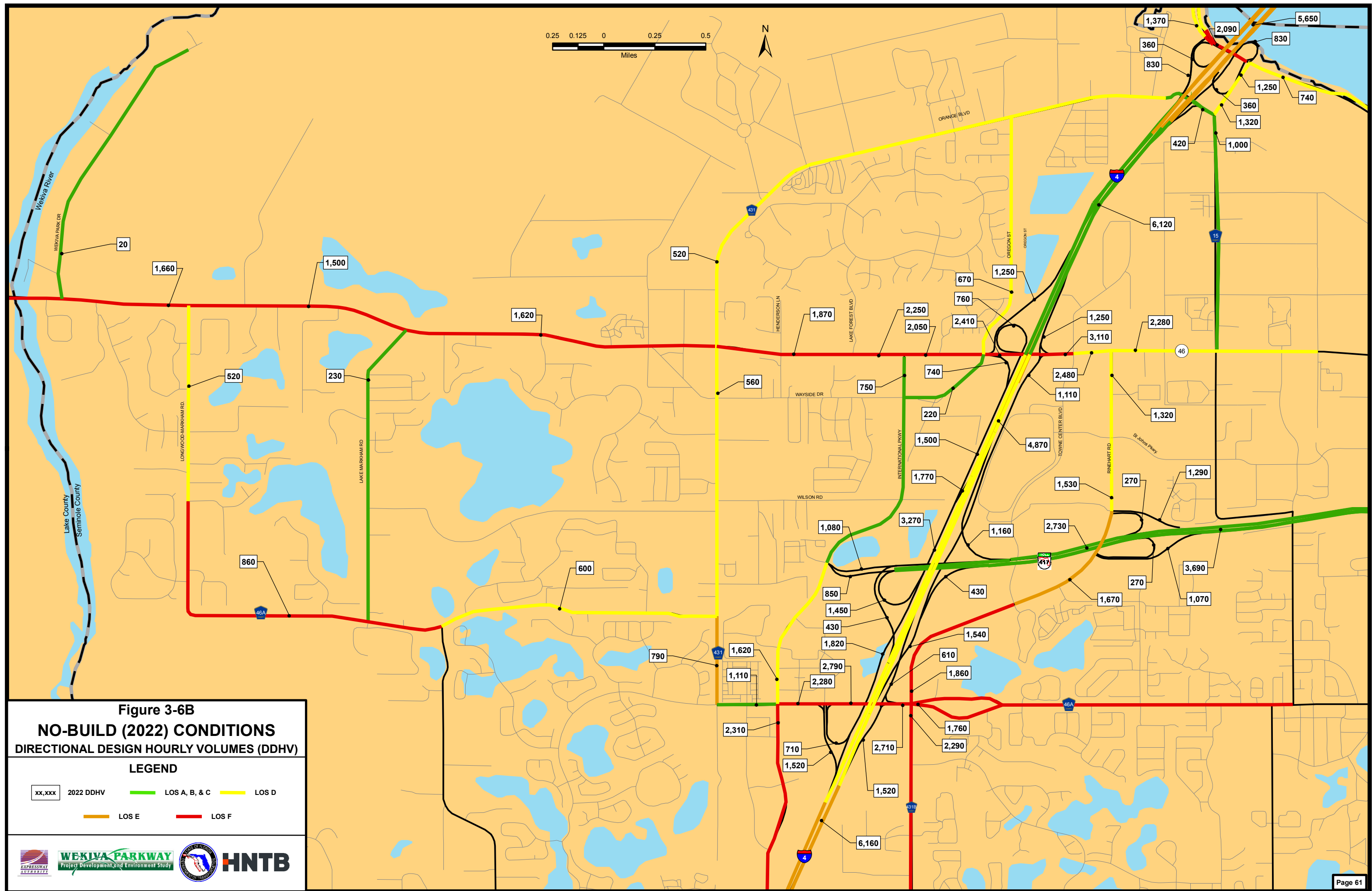
LOS A, B, & C

LOS D

LOS E

LOS F

Page 60



3.2.2.3 Ramp Analyses

The results of the 2022 ramp merge/diverge junctions analyses are summarized in Table 3.12 for the interchanges in Seminole County. Table 3.12 shows that all of the freeway elements along I-4 and SR 417 in the project area are expected to operate at LOS D or better during peak hour traffic conditions, except for the EB on ramp at SR 46. The weaving analysis done for the I-4 westbound C-D road shows that it operates at LOS C in the Year 2022.

TABLE 3.12 NO-BUILD (2022) FREEWAY AND RAMP LOS SUMMARY

Interchange Ramps	Ramp Description	Volume (vph)	Merge Analysis		Diverge Analysis	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
I-4 at U.S. 17/92	I-4 EB Off Ramp to U.S. 17/92	830	-	-	4.7	A
	I-4 WB On Ramp from U.S. 17/92	830	28.0	D	-	-
	I-4 EB On Ramp from U.S. 17/92	360	33.1	D	-	-
	I-4 WB Off Ramp to U.S. 17/92	360	-	-	32.4	D
I-4 at SR 46	I-4 EB Off Ramp to SR 46 (through I-4 EB C-D)	1,110	-	-	14.8	B
	I-4 WB On Ramp from SR 46 WB (through I-4 WB C-D)	760	15.2	B	-	-
	I-4 WB On Ramp from SR 46 EB (through I-4 WB C-D)	740	15.2	B	-	-
	I-4 EB On Ramp from SR 46	1,250	38.3	F	-	-
	I-4 WB Off Ramp to SR 46	1,250	-	-	24.3	C
SR 417 at Rinehart Rd	SR 417 WB off Ramp to Rinehart Rd	1,290	-	-	26.2	C
	SR 417 EB on Ramp from Rinehart Rd	1,070	24.3	C	-	-
	SR 417 WB on Ramp from Rinehart Rd	270	17.6	B	-	-
	SR 417 EB off Ramp to Rinehart Rd	270	-	-	18.5	B
I-4 at SR 417	I-4 EB Off Ramp to SR 417 SB	430	20.1	C	14.8	B
	I-4 WB On Ramp from SR 417 NB	430	20.0	B	6.2	A
	I-4 EB On Ramp from SR 417 NB	1,160	31.5	D	6.4	A
	I-4 WB Off Ramp to SR 417 SB	1,450	20.4	C	31.7	D
I-4 at CR 46A	I-4 EB Off Ramp to CR 46A	1,520	-	-	17.4	B
	I-4 WB On Ramp from CR 46A (through I-4 WB C-D)	1,520	24.9	C	-	-
	I-4 EB On Ramp from CR 46A	610	18.2	B	-	-
	I-4 WB Off Ramp to CR 46A (through I-4 WB C-D)	710	-	-	17.5	B
I-4 EB C-D Rd.	I-4 EB Off Ramp to SR 417 SB and SR 46	1,540	-	-	17.4	B
I-4 WB C-D Rd.	I-4 WB Off Ramp to SR 417 SB and CR 46A	1,770	9.1	A	21.7	C
	I-4 WB On Ramp from CR 46A and SR 46	2,630	U/C	D	-	-
SR 417 at International Pkw.	SR 417 NB Off Ramp to International Pkw.	1,080	-	-	6.2	A
	SR 417 SB On Ramp from International Pkw.	850	20.4	C	-	-
Weaving Analysis						
Weaving Segment	Ramp Description	Volume (vph)	Density (pc/mi/ln)		LOS	
I-4 WB C-D Rd.	I-4 WB Off Ramp to CR 46A	610	29.39		C	
	I-4 WB Off Ramp to SR 417 SB	1,160				
	SR 46 EB and WB Ramps to CR 46A and I-4 WB	1,210				
	SR 46 EB and WB Ramps to SR 417 SB	290				

U/C = ramp operates under capacity

3.2.2.4 Intersection Analyses

The PM peak hour intersection analyses are summarized in Table 3.13. Table 3.13 shows that there are 3 intersections in Orange County expected to operate above LOS F conditions. The intersections are US 441 and SR 429/SR 414 extension, US 441 and CR 437 and CR 437 and Connector Road. In Lake County, the intersection of SR 46 at CR 437 will continue to operate at the same LOS D in the Years 2022 and 2012. The SR 46 and CR 435 intersection will operate at LOS F in the Year 2022. The intersections on SR 46 at Round Lake Road and Wekiva River Road will operate at LOS E and F, respectively in the Year 2022. These intersections were operating at LOS C or better in the Year 2012. As mentioned earlier, a significant decrease in delays along SR 46 would occur if the facility is widened to 4 lanes from US 441 to Lake/Seminole County line because it would allow more through capacity at these intersections.

In Seminole County, nineteen out of the twenty-three intersections in the project area are expected to operate at LOS D or better. In the Year 2012 twenty intersections were operating at LOS D or better. The CR 46A and I-4 EB ramps intersection is expected to operate worse than LOS D in the Year 2022, but operated at LOS D or better in the Year 2012.

As of the Year 2022 all of the intersections along CR 46A are expected to operate at LOS F during the PM peak period primarily due to overcapacity conditions. SimTraffic simulation confirmed the LOS failures and capacity deficiencies along CR 46A which would be overcapacity and would fail before the year 2022.

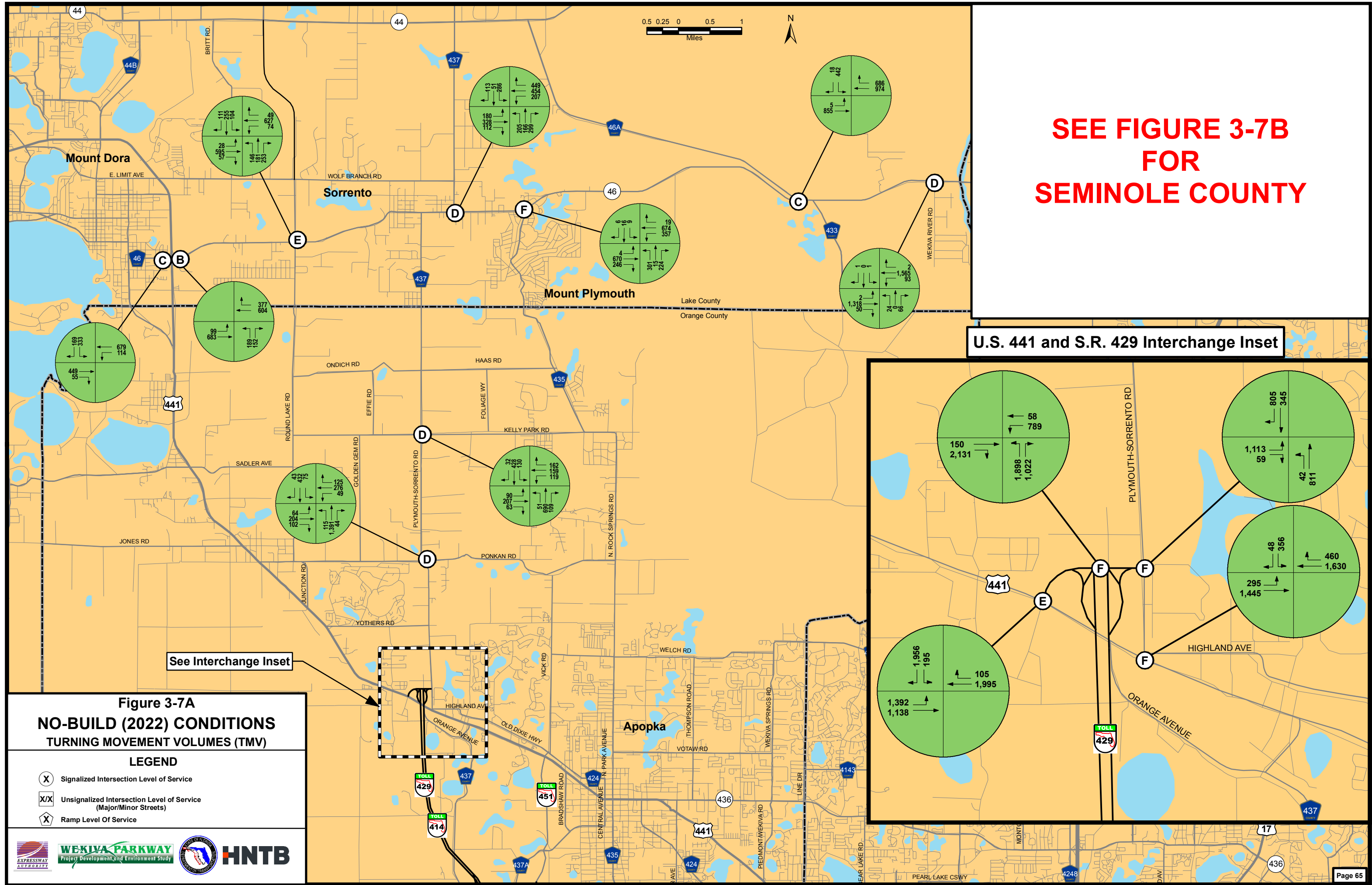
TABLE 3.13 NO-BUILD (2022) INTERSECTION LOS SUMMARY

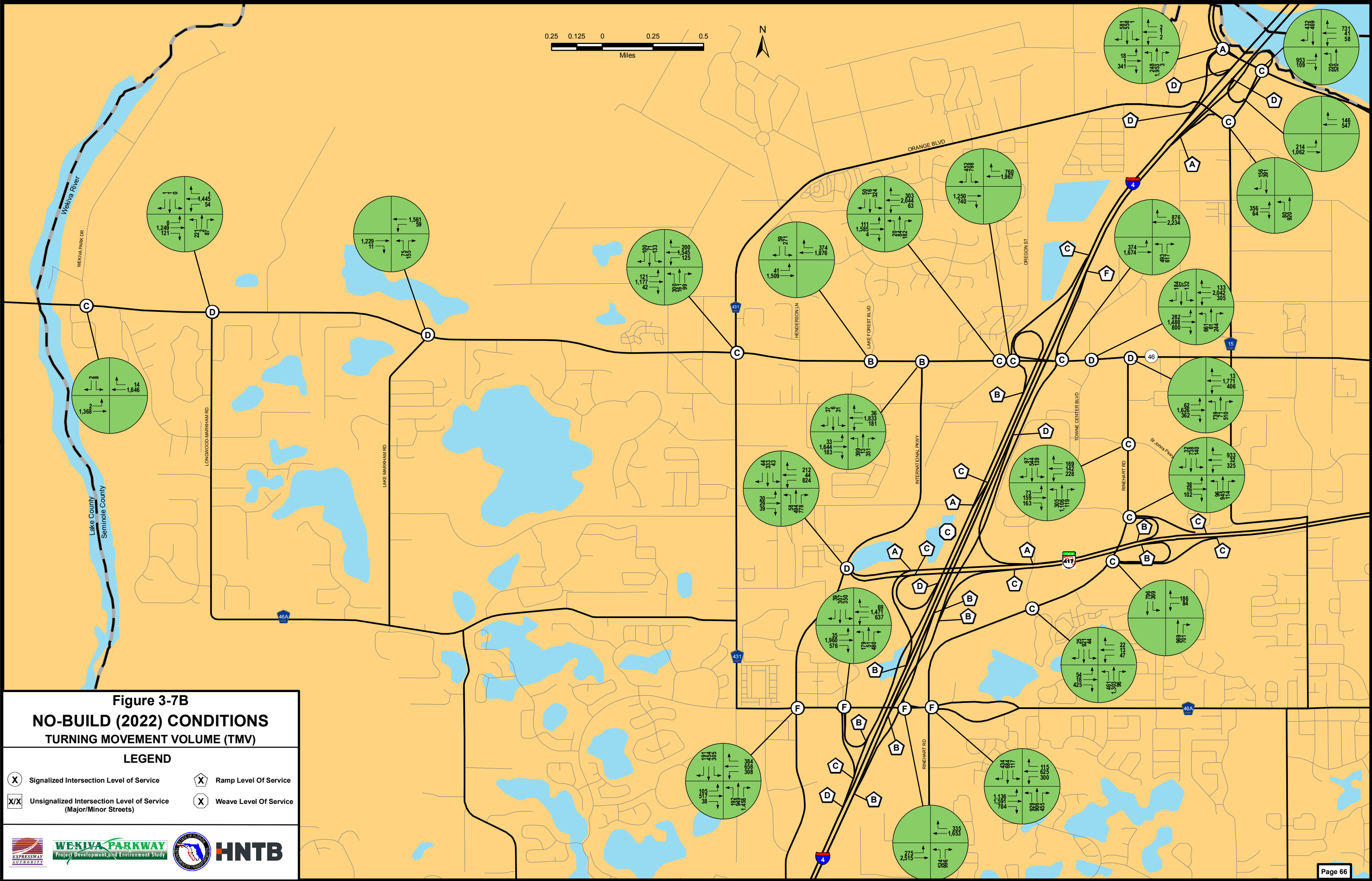
Intersection	Control Type	PM Peak	
		Delay (sec/veh)	LOS
Orange County			
US 441 and Connector Road	Signal	58.6	E
Connector Road and SR 429/414	Signal	147.9	F
US 441 and CR 437	Signal	110.4	F
CR 437 and Connector Road	Signal	168.5	F
CR 437 and Ponkan Rd	Signal	50.4	D
CR 437 and Kelly Park Rd	Signal	54.1	D
Lake County			
SR 46 and US 441 SB Ramps	Signal	20.5	C
SR 46 and US 441 NB Ramps	Signal	13.7	B
SR 46 and Round Lake Rd	Signal	57.3	E
SR 46 and CR 437	Signal	54.5	D
SR 46 and CR 435/Niles St	Signal	92.0	F
SR 46 and CR 46A	Signal	33.2	C
SR 46 and Wekiva River Rd	Signal	46.7	D

Table 3.13 No-Build (2022) Intersection LOS Summary- Continued

Intersection	Control Type	PM Peak	
		Delay (sec/veh)	LOS
Seminole County			
U.S. 17/92 and I-4 WB Ramps	Signal	9.3	A
U.S. 17/92 and I-4 EB Ramps/CR 15	Signal	33.3	C
SR 46 and Wekiva Park Dr	Signal	25.0	C
SR 46 and Longwood Markham Rd	Signal	37.7	D
SR 46 and Lake Markham Rd	Signal	35.3	D
SR 46 and CR 431 (Orange Blvd)	Signal	30.2	C
SR 46 and Lake Forest Blvd.	Signal	11.7	B
SR 46 and International Pkwy	Signal	19.9	B
SR 46 and N Oregon Ave/Wayside Dr	Signal	29.3	C
SR 46 and I-4 WB Ramps	Signal	24.0	C
SR 46 and I-4 EB Ramps	Signal	27.3	C
SR 46 and Town Center Blvd	Signal	42.7	D
SR 46 and Rinehart Rd	Signal	38.6	D
CR 46A and International Pkwy	Signal	148.5	F
CR 46A and I-4 WB Ramps	Signal	118.5	F
CR 46A and I-4 EB Ramps	Signal	85.1	F
CR 46A and Rinehart Rd	Signal	121.4	F
CR 15 and CR 431	Signal	21.2	C
Rinehart Rd and St Johns Pkwy	Signal	25.2	C
Rinehart Rd and SR 417 NB Ramps	Signal	33.1	C
Rinehart Rd and SR 417 SB Ramps	Signal	25.4	C
Rinehart Rd and Town Center Blvd	Signal	23.2	C
International Pkwy and SR 417	Signal	43.2	D

The LOS for the freeway elements, the projected turning movement volumes and intersections are illustrated in Figures 3-7A (Orange and Lake Counties) and 3-7B (Seminole County).





3.2.3 No-Build 2032

The LOS analyses for Year 2032 are presented in this section. The results of the roadway segment LOS analyses are summarized in Tables 3.14, 3.15 and 3.16 for Orange, Lake and Seminole Counties, respectively. The two sections below highlight the roadway segments that are expected to operate below the LOS D standard, specifically at LOS E and LOS F. All other roadway segments in the project area are expected to operate at LOS D or better for peak hour, peak direction traffic conditions.

3.2.3.1 Roadway Segments Operating at LOS E

The tables show that the following roadway segments that were operating at LOS D or better in the 2022 No-Build conditions are expected to operate at capacity with LOS E for peak hour, peak direction for the 2032 No-Build condition primarily due to heavy congestion:

Orange County

- SR 414 from US 441 to Hiawasse Rd
- SR 436 from US 441 to Piedmont-Wekiva Road
- Round Lake Road from Sadler Road to Kelly Park Road
- Ponkan Road from CR 437 to CR 435
- Kelly Park Road from CR 437 to CR 435
- Sadler Avenue from Lake County Line to US 441
- Vick Road from Lester Road to Welch Road

Lake County

- SR 46 from Round Lake Road to CR 437
- CR 437 from Lake County Line to SR 44
- Round Lake Road from SR 46 to Wolf Branch Road
- Wolf Branch Road from Round Lake Road to CR 437

Seminole County

- Rinehart Road from St. Johns Parkway to SR 46
- Markham Road from Markham Woods Road to Orange Blvd.

3.2.3.2 Roadway Segments Operating at LOS F

The following roadway segments were operating at LOS D or better in the Year 2022 No-Build condition. In addition to the failing roadway segments listed in the 2022 No-Build conditions, these roadway segments are expected to begin to fail at LOS F for peak hour peak direction traffic due to overcapacity conditions in the Year 2032:

Orange County

- CR 435 from Ponkan Road to Kelly Park Road
- CR 437 from US 441 to Ponkan Road
- Yothers Road from US 441 to CR 437

Lake County

- US 441 from SR 46 to CR 44B
- SR 46 from US 441 to Round Lake Road
- CR 46A from SR 44 to SR 46

Seminole County

- SR 46 from Town Center Blvd to CR 15
- Rinehart Road from SR 417 to St. Johns Parkway
- International Parkway from CR 46A to SR 417 Ramps

The following roadway segments were operating at LOS E in the 2022 No-Build conditions, but are expected to fail at LOS F for peak hour peak direction traffic due to overcapacity conditions in the Year 2032:

Orange County

- Ponkan Road from Round Lake Road to CR 437

Seminole County

- I-4 from Lake Mary Blvd. to CR 46A
- CR 431 from CR 46A to Markham Rd.
- Rinehart Road from Town Center Blvd. to SR 417

In addition to the roadways listed for the Year 2022, the following entire roadways in the project area are expected to operate at failing conditions in Year 2032. In the 2032 No-Build condition those roadways are:

Orange County

- CR 437 from US 441 to the Lake County line
- Yothers Road from US 441 to CR 437

Lake County

- US 441 from SR 46 to CR 44B
- CR 46A from SR 44 to SR 46

Seminole County

- SR 46 from the Lake County Line to CR 15

TABLE 3.14 NO-BUILD (2032) ROADWAY SEGMENT LOS SUMMARY - ORANGE COUNTY

Roadway	From	To	LOS
S.R. 414	U.S. 441	Hiawassee Rd.	E
	Hiawassee Rd.	Keene Rd.	D
	Keene Rd.	S.R. 451	C
S.R. 414/S.R. 429	S.R. 451	U.S. 441	C
S.R. 451	S.R. 414	U.S. 441	C
U.S. 441	S.R. 436	C.R. 435	F
	C.R. 435	S.R. 451	F
	S.R. 451	C.R. 437	F
	C.R. 437	S.R. 414/S.R. 429	F
	S.R. 414/S.R. 429	Ponkan Rd.	F
	Ponkan Rd.	Sadler Ave.	F
	Sadler Ave.	S.R. 46	F
S.R. 436	U.S. 441	Piedmont-Wekiva Rd.	E
	Piedmont-Wekiva Rd.	Seminole County Line	F
C.R. 435	U.S. 441	Votaw Rd.	F
	Votaw Rd.	Welch Rd.	F
	Welch Rd.	Ponkan Rd.	F
	Ponkan Rd.	Kelly Park Rd.	F
	Kelly Park Rd.	Lake County Line	D
C.R. 437	U.S. 441	Ponkan Rd.	F
	Ponkan Rd.	Kelly Park Rd.	F
	Kelly Park Rd.	Lake County Line	F
Round Lake Rd.	Ponkan Rd.	Sadler Ave.	D
	Sadler Ave.	Kelly Park Rd.	E
	Kelly Park Rd.	Ondich Rd.	F
	Ondich Rd.	Lake County Line	F
Ponkan Rd.	U.S. 441	Round Lake Rd.	D
	Round Lake Rd.	C.R. 437	F
	C.R. 437	C.R. 435	E
Kelly Park Rd.	Round Lake Rd.	C.R. 437	D
	C.R. 437	C.R. 435	E
Sadler Ave.	Lake County Line	U.S. 441	E
	U.S. 441	Round Lake Rd.	D
Ondich Rd.	Round Lake Rd.	C.R. 437	C
Haas Rd.	C.R. 437	C.R. 435	C
Vick Rd.	Ponkan Rd.	Lester Rd.	D
	Lester Rd.	Welch Rd.	E
	Welch Rd.	Martin St.	F
	Martin St.	Old Dixie Hwy.	F
Old Dixie Highway	C.R. 437	Errol Pkwy.	C
	Errol Pkwy.	C.R. 435	D
Lester Rd.	C.R. 437	C.R. 435	D
Yothers Rd.	U.S. 441	C.R. 437	F

TABLE 3.15 NO-BUILD (2032) ROADWAY SEGMENT LOS SUMMARY - LAKE COUNTY

Roadway	From	To	LOS
U.S. 441	S.R. 46	C.R. 44B	F
S.R. 46	C.R. 500A	U.S. 441	D
	U.S. 441	Round Lake Rd.	F
	Round Lake Rd.	C.R. 437	E
	C.R. 437	C.R. 435	F
	C.R. 435	C.R. 46A	F
	C.R. 46A	Lake County Line	F
S.R. 44	S.R. 19	C.R. 46A	F
C.R. 437	Lake County Line	S.R. 46	E
	S.R. 46	S.R. 44	E
C.R. 435	Lake County Line	S.R. 46	F
C.R. 46A	S.R. 44	S.R. 46	F
C.R. 433	S.R. 46	South of S.R. 46	C
Round Lake Rd.	Lake County Line	S.R. 46	D
	S.R. 46	Wolf Branch Rd.	E
Wolf Branch Rd.	U.S. 441	Round Lake Rd.	F
	Round Lake Rd.	C.R. 437	E
Wekiva River Rd.	S.R. 46	South of S.R. 46	C

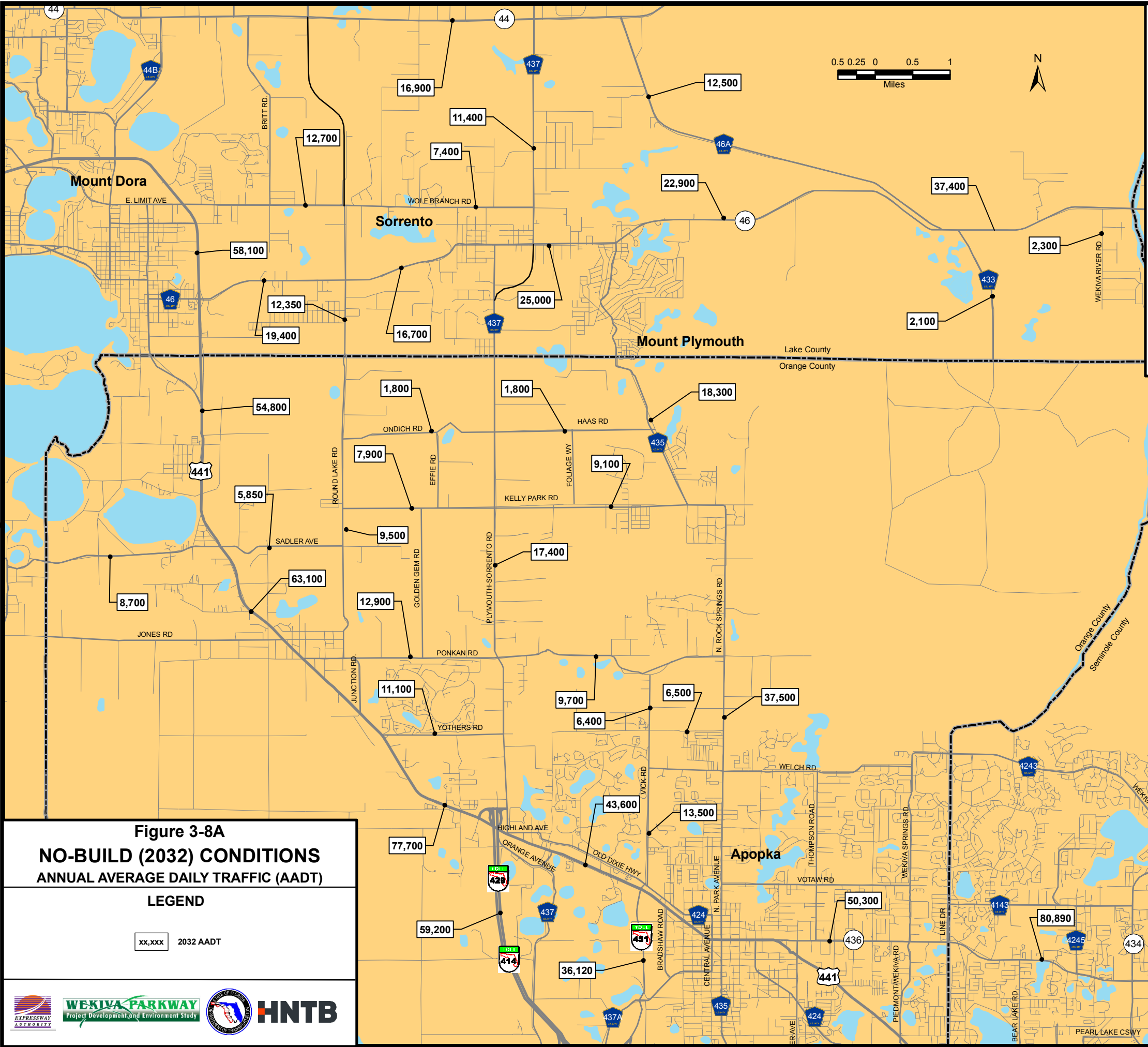
TABLE 3.16 NO-BUILD (2032) ROADWAY SEGMENT LOS SUMMARY - SEMINOLE COUNTY

Roadway	From	To	LOS
Interstate 4	S.R. 436	S.R. 434	F
	S.R. 434	Lake Mary Blvd.	F
	Lake Mary Blvd.	C.R. 46A / S.R. 417	F
	C.R. 46A / S.R. 417	S.R. 46	D
	S.R. 46	U.S. 17/92	D
	U.S. 17/92	North of U.S. 17/92	E
S.R. 417	North of Interstate 4	Interstate 4	F
	Interstate 4	Rinehart Rd.	C
	Rinehart Rd.	C.R. 46A	C
U.S. 17/92	North of I-4 WB on ramp	I-4 WB on Ramp	D
	I-4 WB on Ramp	CR 15	F
	CR 15	South of CR 15	D
S.R. 46	Lake County Line	Longwood Markham Rd.	F
	Longwood-Markham Rd.	Lake Markham Rd.	F
	Lake Markham Rd.	C.R. 431	F
	C.R. 431	Lake Forest Blvd.	F
	Lake Forest Blvd.	International Pkwy.	F
	International Pkwy.	Oregon St/Wayside Dr	F
	Oregon St/Wayside Dr	Interstate 4	F
	Interstate 4	Town Center Blvd	F

Table 3.16 No-Build (2032) Roadway Segment LOS Summary - Seminole County
(Continued)

Roadway	From	To	LOS
S.R. 46	Town Center Blvd	C.R. 431B	F
	C.R. 431B	C.R. 15	F
S.R. 436	Seminole County Line	S.R. 434	F
	S.R. 434	Interstate 4	F
	Interstate 4	Palm Springs Rd.	F
C.R. 46A	Orange Blvd.	International Pkwy.	D
	International Pkwy.	Colonial Center Pkwy.	F
	Colonial Center Pkwy.	Interstate 4	F
	Interstate 4	Rinehart Rd	F
C.R. 431	Rinehart Rd	C.R. 15	F
	C.R. 46A	Markham Rd.	F
	Markham Rd.	S.R. 46	D
	S.R. 46	Interstate 4	D
C.R. 15	I-4	CR 15	C
	South of CR 431	CR 431	C
	CR 431	I-4 EB on Ramp	D
Rinehart Rd.	I-4 EB on Ramp	U.S. 17/92	D
	Anderson Lane	CR 46A	F
	CR 46A	Town Center Blvd	F
	Town Center Blvd	SR 417	F
	SR 417	St Johns Pkwy	F
	St Johns Pkwy	SR 46	E
International Parkway	Lake Mary Blvd.	C.R. 46A	F
	C.R. 46A	SR 417 Ramps	F
	SR 417 Ramps	S.R. 46	C
Markham Road	Longwood-Markham Rd.	Markham Woods Rd.	F
	Markham Woods Rd.	Orange Blvd.	E
Longwood-Markham Rd.	S.R. 46	C.R. 46A	D
Wekiva Park Dr.	North of S.R. 46	S.R. 46	C
Lake Markham Rd.	S.R. 46	C.R. 46A	D
N Oregon Street	North of S.R. 46	S.R. 46	D
Wayside Drive	South of S.R. 46	S.R. 46	C

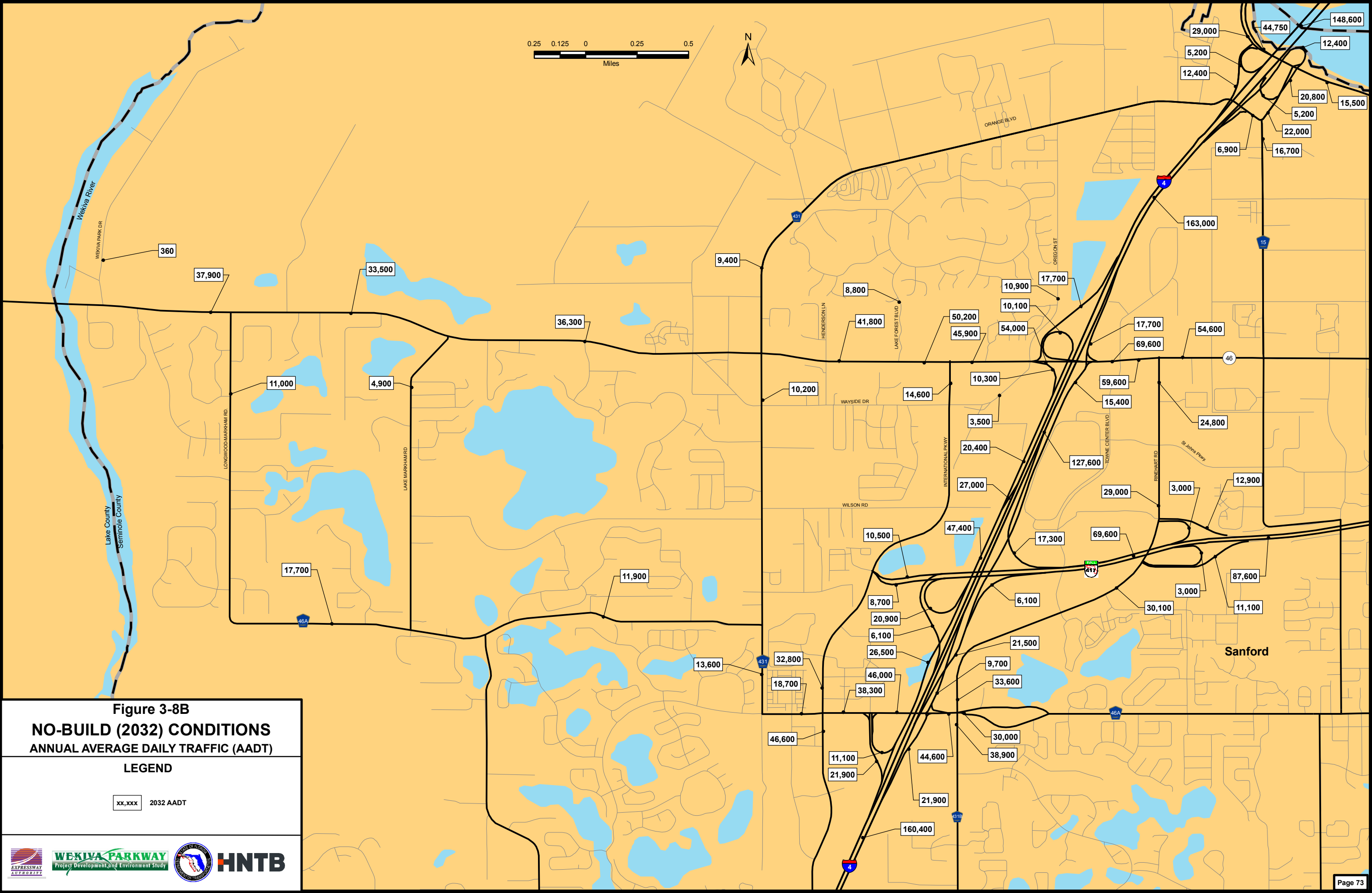
Figures 3-8A (Orange and Lake Counties) and 3-8B (Seminole County) show the 2032 No-Build AADTs that were used to determine the 2032 No-Build DDHVs. The LOS for the roadway elements along with the DDHVs that were used to determine the level of service is illustrated in Figures 3-9A (Orange and Lake Counties) and 3-9B (Seminole County).

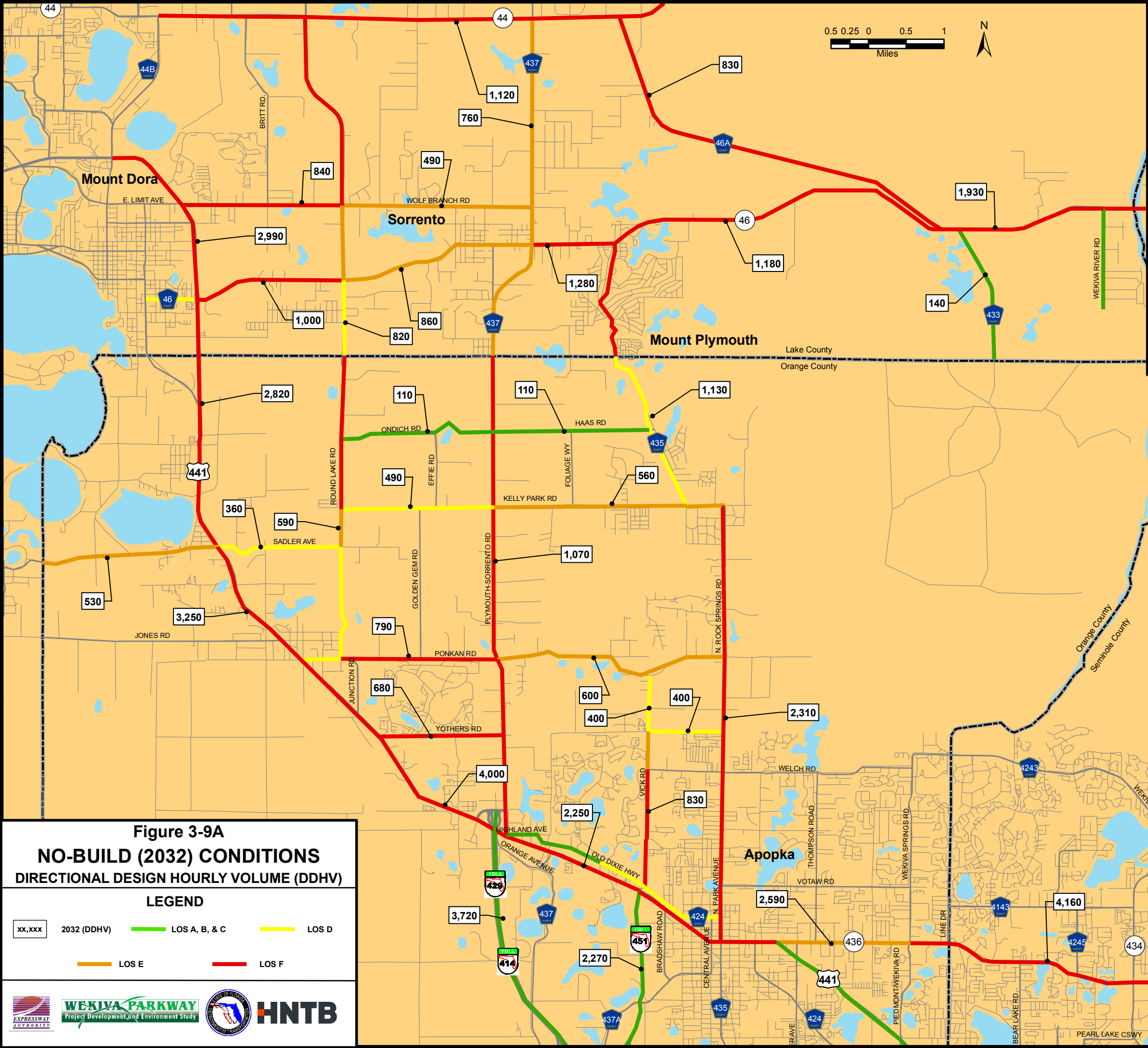


**SEE FIGURE 3-8B
FOR
SEMINOLE COUNTY**



HNTB



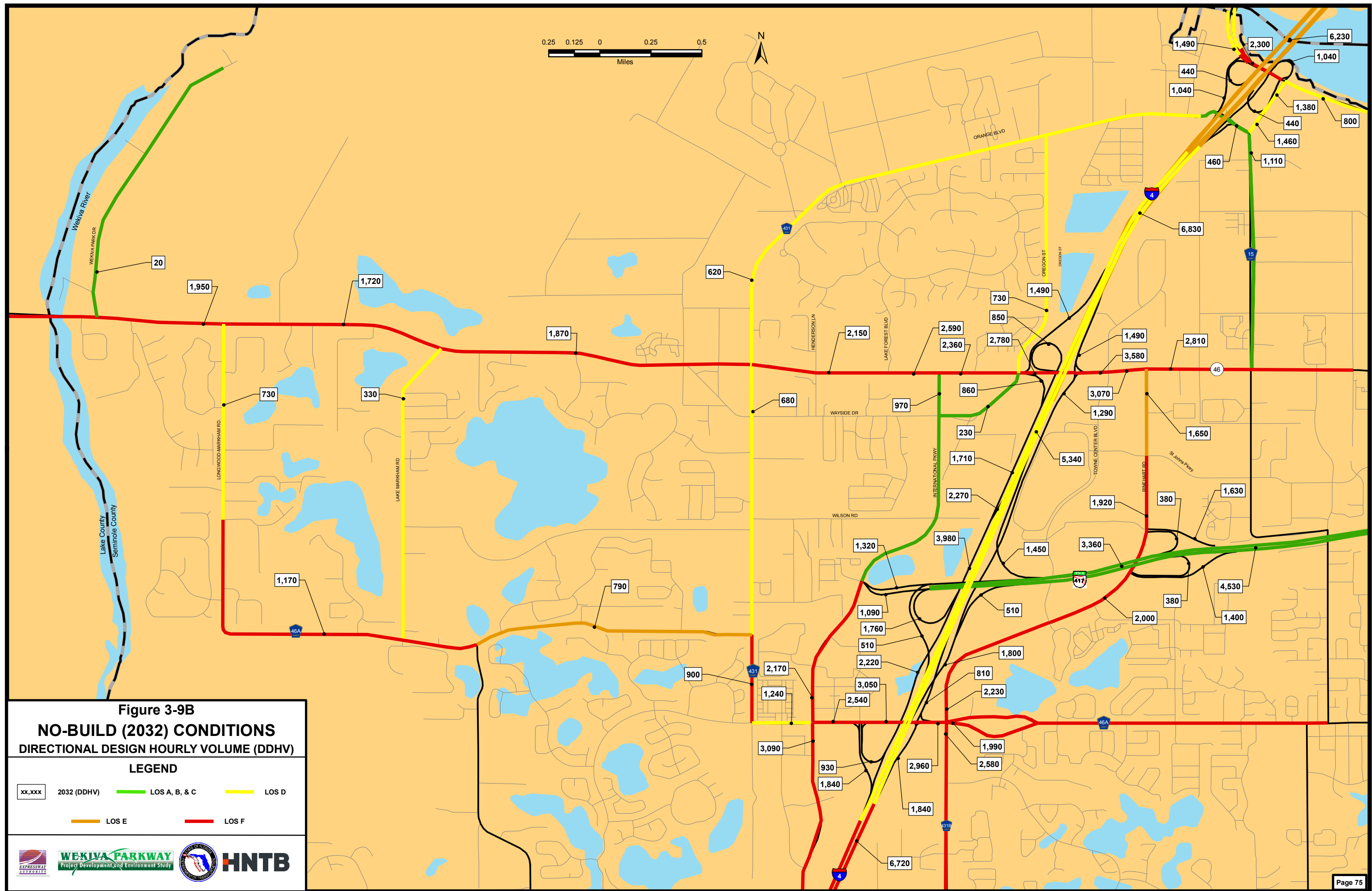


**SEE FIGURE 3-9B
FOR
SEMINOLE COUNTY**

Figure 3-9A
NO-BUILD (2032) CONDITIONS
DIRECTIONAL DESIGN HOURLY VOLUME (DDHV)

LEGEND

xx,xxx	2032 (DDHV)	LOS A, B, & C	LOS D
		LOS E	LOS F



3.2.3.3 Ramp Analyses

Table 3.17 shows the 2032 ramp merge/diverge junction analysis results. The majority of the freeway elements along I-4 and SR 417 in the project area are expected to operate at LOS D or better during peak hour traffic conditions, except for the I-4 EB on ramp at US 17/92, I-4 WB off ramp at US 17/92, I-4 EB on ramp at SR 46, I-4 CD WB off ramp to SR 417 and I-4 WB off ramp to SR 417 SB and CR 46A, which are projected to operate at LOS E or worse. Although, in general, the table shows acceptable LOS along SR 417, the SimTraffic simulation showed long queues at the proposed SR 417 extension ramps to International Parkway. This queue will exist because the ramp extensions at the SR 417 and I-4 interchange are proposed as one-lane ramps for the No-Build condition which affects the operation of the ramp merge/diverge junctions. Also, the I-4 westbound off-ramp to SR 417 is a single-lane ramp. The heavy traffic volumes on the merge area between this ramp and the SR 417 southbound on-ramp from International Parkway exceed the capacity of the downstream freeway segment. The traffic simulation of the proposed ramp conditions shows that the merge condition will create a delay queue that will extend the length of the ramp to the westbound C-D road and by the year 2032, the queue will cause significant delay on both the C-D road and the ramp extension.

TABLE 3.17 NO-BUILD (2032) FREEWAY AND RAMP LOS SUMMARY

Interchange Ramps	Ramp Description	Volume (vph)	Merge Analysis		Diverge Analysis	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
I-4 at U.S. 17/92	I-4 EB Off Ramp to U.S. 17/92	1,040	-	-	5.3	A
	I-4 WB On Ramp from U.S. 17/92	1,040	31.5	D	-	-
	I-4 EB On Ramp from U.S. 17/92	440	36.4	E	-	-
	I-4 WB Off Ramp to U.S. 17/92	440	-	-	36.5	E
I-4 at SR 46	I-4 EB Off Ramp to SR 46 (through I-4 EB C-D)	1,290	-	-	17.3	B
	I-4 WB On Ramp from SR 46 WB (through I-4 WB C-D)	850	17.0	B	-	-
	I-4 WB On Ramp from SR 46 EB (through I-4 WB C-D)	860	17.0	B	-	-
	I-4 EB On Ramp from SR 46	1,490	42.7	F	-	-
	I-4 WB Off Ramp to SR 46	1,490	-	-	27.9	C
SR 417 at Rinehart Rd	SR 417 WB off Ramp to Rinehart Rd	1,630	-	-	31.3	D
	SR 417 EB on Ramp from Rinehart Rd	1,400	29.8	D	-	-
	SR 417 WB on Ramp from Rinehart Rd	380	21.2	C	-	-
	SR 417 EB off Ramp to Rinehart Rd	380	-	-	22.3	C
I-4 at SR 417	I-4 EB Off Ramp to SR 417 SB	510	25.7	C	17.3	B
	I-4 WB On Ramp from SR 417 NB	510	20.5	C	9.5	A
	I-4 EB On Ramp from SR 417 NB	1,450	34.8	D	10.7	B
	I-4 WB Off Ramp to SR 417 SB	1,760	25.1	C	38.6	F
I-4 at CR 46A	I-4 EB Off Ramp to CR 46A	1,840	-	-	21.1	C
	I-4 WB On Ramp from CR 46A (through I-4 WB C-D)	1,840	29.1	D	-	-
	I-4 EB On Ramp from CR 46A	810	19.7	B	-	-
	I-4 WB Off Ramp to CR 46A (through I-4 WB C-D)	930	-	-	21.4	C
I-4 EB CD Rd.	I-4 EB Off Ramp to SR 417 SB and SR 46	1,800	-	-	19.9	B
I-4 WB CD Rd.	I-4 WB Off Ramp to SR 417 SB and CR 46A	2,270	15.1*	F	26.4	C
	I-4 WB On Ramp from CR 46A and SR 46	3,130	U/C	D	-	-
SR 417 at International Pkwy.	SR 417 NB Off Ramp to International Pkwy.	1,320	-	-	9.5	A
	SR 417 SB On Ramp from International Pkwy.	1,090	25.1	C	-	-

* DENSITY NOT CALCULATED IN OVERSATURATED CONDITIONS

Table 3.17 No-Build (2032) Freeway and Ramp LOS Summary (Continued)

Weaving Analysis				
Weaving Segment	Ramp Description	Volume (vph)	Density (pc/mi/ln)	LOS
I-4 WB CD Rd.	I-4 WB Off Ramp to CR 46A	810	37.63	E
	I-4 WB Off Ramp to SR 417 SB	1,460		
	SR 46 EB and WB Ramps to CR 46A and I-4 WB	1,410		
	SR 46 EB and WB Ramps to SR 417 SB	300		

For the 2032 No-Build Alternative, analysis was performed to determine the number of lanes required for the interchanges ramps. The number of lanes, the ramp DDHV and ramp LOS are shown in Table 3.18.

TABLE 3.18 NO-BUILD (2032) RAMP NUMBER OF LANES SUMMARY

Interchange Ramps	Ramp Description	Number of lanes	DDHV	LOS
I-4 at U.S. 17/92	I-4 EB Off Ramp to U.S. 17/92	1	1,040	D
	I-4 WB On Ramp from U.S. 17/92	1	1,040	D
	I-4 EB On Ramp from U.S. 17/92	1	440	E
	I-4 WB Off Ramp to U.S. 17/92	1	440	E
I-4 at SR 46	I-4 EB Off Ramp to SR 46 (through I-4 EB CD)	2	1,290	B
	I-4 WB On Ramp from SR 46 WB (through I-4 WB CD)	1	850	B
	I-4 WB On Ramp from SR 46 EB (through I-4 WB CD)	1	860	B
	I-4 EB On Ramp from SR 46	1	1,490	F
	I-4 WB Off Ramp to SR 46	2	1,490	C
SR 417 at Rinehart Rd	SR 417 WB off Ramp to Rinehart Rd	1	1,630	D
	SR 417 EB on Ramp from Rinehart Rd	1	1,400	D
	SR 417 WB on Ramp from Rinehart Rd	1	380	C
	SR 417 EB off Ramp to Rinehart Rd	1	380	C
I-4 at SR 417	I-4 EB Off Ramp to SR 417 SB	1	510	B
	I-4 WB On Ramp from SR 417 NB	1	510	C
	I-4 EB On Ramp from SR 417 NB	2	1,450	D
	I-4 WB Off Ramp to SR 417 SB	1	1,760	F
I-4 at CR 46A	I-4 EB Off Ramp to CR 46A	2	1,840	C
	I-4 WB On Ramp from CR 46A (through I-4 WB CD)	1	1,840	D
	I-4 EB On Ramp from CR 46A	1	810	B
	I-4 WB Off Ramp to CR 46A (through I-4 WB CD)	1	930	C
I-4 EB CD System	I-4 EB Off Ramp to EB CD System	2	1,800	B
I-4 WB CD System	I-4 WB Off Ramp to WB CD System	2	2,270	C
	Between SR 46 On Ramps and I-4 WB On Ramp	2	1,710	F
	Between I-4 WB On Ramp and SR 417 SB Off Ramp	3	3,980	F
	Between SR 417 SB Off Ramp and CR 46A Off Ramp	2	2,220	C
	Between CR 46A Off Ramp and CR 46A On Ramp	1	1,290	D
	I-4 WB On Ramp from WB CD System	2	3,130	D
SR 417 at International Pkwy.	SR 417 NB Off Ramp to International Pkwy.	1	1,320	A
	SR 417 SB On Ramp from International Pkwy.	1	1,090	C

3.2.3.4 Intersection Analyses

The PM peak hour intersection analyses are summarized in Table 3.19. Table 3.19 shows that all of the intersections analyzed in Orange County will operate at LOS F. In Lake County, 4 of the 7 intersections analyzed along SR 46 will operate at LOS E or better for the PM peak traffic conditions. The intersection of SR 46 at CR 437 will deteriorate to LOS E in 2032 from LOS D in the Years 2012 and 2022. The intersections on SR 46 at Round Lake Road, CR 435 and Wekiva River Road will operate at LOS F in the Year 2032. As mentioned earlier, a significant decrease in delays along SR 46 would occur if the facility is widened to 4 lanes from US 441 to the Lake/Seminole County line which would allow for more through capacity at those intersections.

In Seminole County, fourteen of the twenty-three intersections in the project area are expected to operate at LOS D or better. In the Year 2022, nineteen intersections were operating at LOS D or better. Four of the five intersections that will operate worse than LOS D in the Year 2032, but did not in the Year 2022, are along SR 46 at:

- Wekiva Park Road
- Longwood Markham Road
- Lake Markham Road
- Rinehart Road

In addition to the intersections mentioned above, the intersection of International Parkway and SR 417 is also expected to operate at LOS F in Year 2032.

TABLE 3.19 No-BUILD (2032) INTERSECTION LOS SUMMARY

Intersection	Control Type	PM Peak	
		Delay (sec/veh)	LOS
Orange County			
US 441 and Connector Road	Signal	93.2	F
Connector Road and SR 429/414	Signal	276.3	F
US 441 and CR 437	Signal	147.5	F
CR 437 and Connector Road	Signal	264.5	F
CR 437 and Ponkan Rd	Signal	155.4	F
CR 437 and Kelly Park Rd	Signal	205.3	F
Lake County			
SR 46 and US 441 SB Ramps	Signal	35.4	D
SR 46 and US 441 NB Ramps	Signal	25.1	C
SR 46 and Round Lake Rd	Signal	182.7	F
SR 46 and CR 437	Signal	68.7	E
SR 46 and CR 435/Niles St	Signal	143.3	F
SR 46 and CR 46A	Signal	59.2	E
SR 46 and Wekiva River Rd	Signal	121.5	F
Seminole County			
U.S. 17/92 and I-4 WB Ramps	Signal	11.2	B
U.S. 17/92 and I-4 EB Ramps/CR 15	Signal	37.3	D

Table 3.19 No-Build (2032) Intersection LOS Summary (Continued)

Intersection	Control Type	PM Peak	
		Delay (sec/veh)	LOS
Seminole County			
CR 15 and CR 431	Signal	28.5	C
SR 46 and Wekiva Park Dr	Signal	83.0	F
SR 46 and Longwood Markham Rd	Signal	121.3	F
SR 46 and Lake Markham Rd	Signal	90.2	F
SR 46 and CR 431 (Orange Blvd)	Signal	50.9	D
SR 46 and Lake Forest Blvd	Signal	13.7	B
SR 46 and International Pkwy	Signal	34.8	C
SR 46 and N Oregon Ave/Wayside Dr	Signal	55.5	E
SR 46 and I-4 WB Ramps	Signal	46.0	D
SR 46 and I-4 EB Ramps	Signal	38.0	D
SR 46 and Town Center Blvd	Signal	68.9	E
SR 46 and Rinehart Rd	Signal	91.7	F
CR 46A and International Pkwy	Signal	182.7	F
CR 46A and I-4 WB Ramps	Signal	144.4	F
CR 46A and I-4 EB Ramps	Signal	144.4	F
CR 46A and Rinehart Rd	Signal	163.1	F
Rinehart Rd and St Johns Pkwy	Signal	27.1	C
Rinehart Rd and SR 417 NB Ramps	Signal	49.0	D
Rinehart Rd and SR 417 SB Ramps	Signal	35.3	D
Rinehart Rd and Town Center Blvd	Signal	33.9	C
International Pkwy and SR 417	Signal	105.4	F

The LOS for the freeway elements, the projected turning movement volumes and intersections are illustrated in Figures 3-7A (Orange and Lake Counties) and 3-7B (Seminole County).

3.3 Summary

Traffic conditions were analyzed under a No-Build scenario for three analysis years: 2012 opening year, 2022 mid-year, and 2032 design year. While the No-Build scenario did not include the Wekiva Parkway or SR 46 Realignment projects, it does include all the programmed and planned roadway improvements within the project study area. Even with the anticipated capacity improvements within the study area, significant LOS deficiencies are expected on many of the major and minor roadways by 2032. US 441 is expected to operate at LOS F and be significantly over capacity from Apopka to Mount Dora in 2032. Likewise, SR 46 is expected to operate at LOS E and F and be significantly over capacity in locations between US 441 in Lake County and Interstate 4 in Seminole County.

In Orange County, Rock Springs Road, Plymouth Sorrento Road, and portions of Round Lake Road and Ponkan Road are expected to operate at LOS F. In Lake County, CR 46A, Mount Plymouth Road and portions of Wolf Branch Road are expected to operate at LOS F. In Seminole County, CR 46A, and portions of Rinehart Road, International Parkway, and Lake Markham Road are expected to operate under LOS F conditions. In addition, with the extension of SR 417 via ramps to International Parkway, the one-lane SR 417 ramps under I-4 are expected to be over capacity and operate at LOS F conditions. The I-4 mainline in Seminole County is expected to operate under LOS F conditions except in locations where a significant amount of traffic is diverted to the C-D system near SR 417.

