SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

LOXAHATCHEE RV RESORT

Town of Loxahatchee Groves, FL

TRAFFIC IMPACT STATEMENT

PREPARED FOR:

Bove, LLC
354 Royal Tern Road South
Ponte Vedra, Florida 32082

JOB NO. 24-102

DATE: 08/21/2024
REVISED: 11/01/2024
REVISED: 03/24/2025
REVISED: 04/09/2025
REVISED: 05/06/2025

Anna Lai, Professional Engineer, State of Florida, License No. 78138 This item has been digitally signed and sealed by Anna Lai, P.E., PTOE, on 05/06/25. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.	Digitally signed by Anna Lai Date: 2025.05.06 14:42:19-04'00'

2581 Metrocentre Blvd. West, Ste 3 | West Palm Beach, FL 33407
561.478.7848 | simmonsandwhite.com | Certificate of Authorization #3452

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1.0 SITE DATA

The subject parcel is generally located on the east side of C Road, north of Southern Boulevard in the Town of Loxahatchee Groves, Florida and contains approximately 47.02 acres. The Property Control Numbers (PCN) for the subject parcel are

41-41-43-32-05-000-0010
41-41-43-32-05-000-0020
41-41-43-32-05-000-0030
41-41-43-32-05-002-0000
41-41-43-32-05-016-0000

Proposed site development on the currently unimproved parcel is to consist of a 288-campsite recreational vehicle park. Site access is proposed via a full access driveway connection to the proposed north terminus of C Road. C Road connects to Southern Boulevard to the south.

2.0 PURPOSE OF STUDY

This study will analyze the proposed development's impact on the surrounding major thoroughfares within the project's radius of development influence in accordance with the Palm Beach County Unified Land Development Code Article 12 – Traffic Performance Standards. The Traffic Performance Standards state that a Site Specific Development Order for a proposed project shall meet the standards and guidelines outlined in two separate "Tests" with regard to traffic performance.

Test 1, or the Build-Out Test, relates to the build-out period of the project and requires that a project not add traffic within the radius of development influence which would have total traffic exceeding the adopted LOS at the end of the build-out period. This Test 1 analysis consists of two parts and no project shall be approved for a Site Specific Development Order unless it can be shown to satisfy the requirements of Parts One and Two of Test 1.

Part One – Intersections, requires the analysis of major intersections, within or beyond a project's radius of development influence, where a project's traffic is significant on a link within the radius of development influence. The intersections analyzed shall operate within the applicable threshold associated with the level of analysis addressed.

Part Two – Links, compares the total traffic in the peak hour, peak direction on each link within a project's radius of development influence with the applicable LOS "D" link service volumes. The links analyzed shall operate within the applicable thresholds associated with the level of analysis addressed.

Test 2, or the Five Year Analysis, relates to the evaluation of project traffic five years in the future and requires that a project not add traffic within the radius of development influence which would result in total traffic exceeding the adopted LOS at the end of the Five Year Analysis period.

2.0 PURPOSE OF STUDY (CONTINUED)

This test requires analysis of links and major intersections as necessary within or beyond the radius of development influence, where a project's traffic is significant on a link within the radius of development influence.

This analysis shall address the total traffic anticipated to be in place at the end of the build out year. This study will verify that the proposed development's traffic impact will meet the above Traffic Performance Standards.

3.0 TRAFFIC GENERATION

Trip generation has been calculated in accordance with the ITE Trip Generation Manual, 11th Edition and the Palm Beach County Trip Generation Rates. Table 1 shows the daily traffic generation associated with the proposed development in trips per day (TPD). Tables 2 and 3 show the AM and PM peak hour traffic generation, respectively, in peak hour trips (pht). The traffic generation associated with the proposed 288-campsite recreational vehicle park (the land use rates are in Appendix A) may be summarized as follows:

Proposed Plan of Development

Daily Traffic Generation	=	543 tpd
AM Peak Hour Traffic Generation (In/Out)	=	60 pht (22 In/38 Out)
PM Peak Hour Traffic Generation (In/Out)	=	78 pht (51 In/27 Out)

Please note the daily traffic generation is based on a 57% average occupancy of campsites (see the attached seasonal occupancy data).

4.0 ROADWAY IMPROVEMENTS

Per the Palm Beach County Five Year Road Program, there are no roadway improvements proposed in the vicinity of the project. Per the FDOT Five Year Work Program, the following roadway improvement is in the vicinity of the project (in Appendix B):

> SR 80 from west of Lion Country Safari Road to Forest Hill/Crestwood Boulevard, widening from 4 lanes divided to 6 lanes divided, to be completed in 2025. Dual eastbound left and dual southbound left turn lanes are proposed at the B Road/ Binks Forest Drive intersection.

5.0 RADIUS OF DEVELOPMENT INFLUENCE

Based on Table 12.B.2.D-7 3A of the Palm Beach County Unified Land Development Code Article 12 – Traffic Performance Standards, for a net trip generation of 78 peak hour trips, the development of influence shall be a one (1) mile radius.

For Test 1, a project must address those links within the radius of development influence on which its net trips are greater than 1% of the LOS "D" of the link affected on a peak hour, peak direction basis AND those links outside of the Radius of development influence on which its net trips are greater than five percent of the LOS "D" of the link affected on a peak hour, peak direction basis up to the limits set forth in Table 12.B.2.C-1 1A: LOS "D" Link Service Volumes.

For Test 2, a project must address those links within the radius of development influence on which its net trips are greater than 3% of the LOS "E" of the link affected on a peak hour, peak direction basis AND those links outside of the radius of development influence on which its net trips are greater than five percent of the LOS "E" of the link affected on a peak hour, peak direction basis up to the limits set forth in Table 12.B.2.C-4 2A: LOS "E" Link Service Volumes.

6.0 TRIP DISTRIBUTION

The project trips were distributed and assigned on the links within the radius of development influence based on the existing and anticipated traffic patterns. Figure 1 presents the trip distribution percentages.

7.0 TRAFFIC ASSIGNMENT/DISTRIBUTION TEST 1 – PART 2

Tables 4 and 5 (in Appendix C) show the project's AM and PM peak hour trip assignment, respectively, as well as the applicable Level of Service Standard for Each of the links within the project's radius of development influence. Links with a project assignment greater than 1% of the applicable Level of Service "D" have been outlined as links with significant project assignment.

Tables 6 and 7 (in Appendix C) show the projected total AM and PM peak hour traffic volumes and threshold volumes for the links with significant project assignment within the project's radius of development influence.

A review of Tables 4-7 indicates this project meets Test 1 of the Palm Beach County Traffic Performance Standards on all links within the project's radius of development influence.

8.0 INTERSECTION ANALYSIS TEST 1 – PART 1

As a requirement of Part 1 of Test 1 of the Palm Beach County Traffic Performance Standards, all major intersections in each direction nearest to the point at which the project's traffic enters each project accessed link, and where the project traffic entering or exiting the intersection from/to the project accessed link is significant, must be analyzed. Therefore, the following intersection must be analyzed for the 2029 projected AM and PM peak hours:

Southern Boulevard at B Road/Binks Forest Drive

For each intersection, the 2029 background traffic has been calculated using the combination of a 1.0% background growth rate and the approved committed development trips. The intersection analysis sheets are in Appendix E. The 2029 build-out volume reports from the Palm Beach County Engineering Traffic Division TPS Database are included in Appendix D. The analysis results show that the sum of the critical movements during the peak season, peak hours at project build-out is less than the adopted Level of Service volume of 1,400 vehicles per hours (vph) for the intersections.

Note the study intersection was analyzed using the FDOT programmed improvements.

Intersection	Conditions	Critical Sum	
		AM	PM
Southern Boulevard at B Road/Binks Forest Drive	Background traffic, without project, programmed geometry*	1,471	2,005
	Total traffic, with project, programmed geometry*	1,475	2,008

* Includes FDOT programmed intersection improvements of dual eastbound left and dual southbound left turn lanes (see Appendix B).

Per Florida Statutes Chapter 163, Section 3180, improvements needed to address existing failures are not the developer's responsibility.

Operational analysis was performed in as Southern Boulevard is an FDOT SIS roadway. The capacity analysis results are in Appendix E.

Background Conditions

For the background conditions operational analysis, the optimized signal timing was used for the study signalized intersection. The cycle length remained the same as the existing timing but the phasing timing was optimized. The analysis included the FDOT programmed intersection improvements of dual eastbound left and dual southbound left turn lanes.

The results of the background conditions analysis are provided below in Table 8 and are included in Appendix E.

8.0 INTERSECTION ANALYSIS TEST 1 – PART 1 (CONTINUED)

Table 8
2029 Background Conditions Operational Analysis

Intersection	Intersection Control	Approach	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Southern Boulevard at B Road/Binks Forest Drive	Signal	Northbound	99.2	F	199.8	F
		Southbound	149.7	F	224.6	F
		Eastbound	52.5	D	86.6	F
		Westbound	66.1	E	212.8	F
		Overall	69.7	E	170.3	F

As shown above, the study intersections will operate overall at LOS E in the AM peak hour and LOS F in the PM peak hour.

Total Conditions

For the total conditions operational analysis, the optimized signal timing was also used for the study signalized intersection. The analysis included the FDOT programmed intersection improvements of dual eastbound left and dual southbound left turn lanes.

The results of the total conditions analysis are provided below in Table 9 and are included in Appendix E.

Table 9
2029 Total Conditions Operational Analysis

Intersection	Intersection Control	Approach	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Southern Boulevard at B Road/Binks Forest Drive	Signal	Northbound	97.8	F	198.7	F
		Southbound	149.7	F	224.6	F
		Eastbound	55.8	E	92.5	F
		Westbound	67.3	F	213.4	F
		Overall	71.4	E	172.4	F

As shown above, the study intersections will operate overall at LOS E in the AM peak hour and LOS F in the PM peak hour. The proposed development will result in only a minimal impact to the operations of the intersection.

9.0 TEST 2 FIVE YEAR ANALYSIS

Test 2, or the Five Year Analysis, relates to the evaluation of project traffic five years in the future and requires that a project not add traffic within the radius of Development influence which would result in total traffic exceeding the adopted LOS at the end of the Five Year Analysis Period. Tables 10 and 11 (in Appendix F) show the project's net trip generation is less than 3% of the applicable Level of Service "E" threshold for all links within the project's radius of development influence. This project therefore meets the requirements of Test 2.

10.0 SITE RELATED IMPROVEMENTS

The AM and PM peak hour volumes at the project entrances for the overall development with no reduction for pass by credits are shown in Tables 2 and 3 and may be summarized as follows:

		Directional Distribution (Trips In/Out)
AM Peak Hour	=	22 / 38
PM Peak Hour	=	51 / 27

Figure 1 presents the AM and PM peak turning movement volume assignments at the project driveway based on the directional distributions. As previously mentioned, site access is proposed via a full access driveway connection to the proposed north terminus of C Road. C Road connects to Southern Boulevard to the south.

Based on the Palm Beach County Engineering Guidelines used in determining the need for turn lanes of 75 right turns or 30 left turns in the peak hour, and on the existing turn lanes, additional turn lanes are not warranted or recommended.

11.0 CONCLUSION

The proposed development has been estimated to generate 543 trips per day, 60 AM peak hour trips, and 78 PM peak hour trips at project build-out in 2029. A brief review of the directly accessed link within the project's radius of development influence reveals the proposed development will have a minimal impact to the surrounding roadway network and will therefore meet the requirements of the Palm Beach County Traffic Performance Standards.

AL: x:\Documents\Traffic Drainage&Structural\tis.24102.rev6

LOXAHATCHEE RV RESORT

08/20/24
Revised 05/02/25

PROPOSED DEVELOPMENT

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips (Driveway Trips)	Pass-by %	Pass-by Trips	Net Trips
Campground/Recreational Vehicle Park	416	288	Campsites	3.31[j] x 0.57[k]			543		0	543	0%	0	543
			Grand Totals:				**543**	**0.0%**	**0**	**543**	**0%**	**0**	**543**

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips (Driveway Trips) In	External Trips (Driveway Trips) Out	External Trips (Driveway Trips) Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Campground/Recreational Vehicle Park	416	288	Campsites	0.21	0.36	0.64	22	38	60	0.0%	0	0	0	22	38	60	0%	0	22	38	60
			Grand Totals:				**22**	**38**	**60**	**0.0%**	**0**	**0**	**0**	**22**	**38**	**60**	**0%**	**0**	**22**	**38**	**60**

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips (Driveway Trips) In	External Trips (Driveway Trips) Out	External Trips (Driveway Trips) Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Campground/Recreational Vehicle Park	416	288	Campsites	0.27	0.65	0.35	51	27	78	0.0%	0	0	0	51	27	78	0%	0	51	27	78
			Grand Totals:				**51**	**27**	**78**	**0.0%**	**0**	**0**	**0**	**51**	**27**	**78**	**0%**	**0**	**51**	**27**	**78**

Notes:
j) No daily trip generation rate available. Based on Daily (3.55) to PM peak (0.29) ratio for LUC 260 Recreational Homes.
k) 57% average occupancy of campsites (see attached seasonal occupancy data).

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Projected Occupancy by Season (Source: Bove LLC)

November though April (Equestrian Season Jan-April)		# of Sites	11-1 to 4-30 Occupancy
	Standard RV Sites	211	80%
	Premium RV Sites	74	84%
	Totals/Average	***285***	***82%***
Shoulder Season May to June 10 and September 15-October 31		**# of Sites**	**5-1 to 6-10 & 9-15 to 10-31 Occupancy**
	Standard RV Sites	211	40%
	Premium RV Sites	74	45%
	Totals/Average	***285***	***43%***
Summer Season June 11-September 15		**# of Sites**	**6-11 to 9-15 Occupancy**
	Standard RV Sites	211	45%
	Premium RV Sites	74	48%
	Totals/Average	***285***	***47%***
Gross Income Summary			
Total All Seasons		**285**	**57%**
Total Lodging Revenue per site			

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Authorization # 3452 | 561.478.7848

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N.T.S.

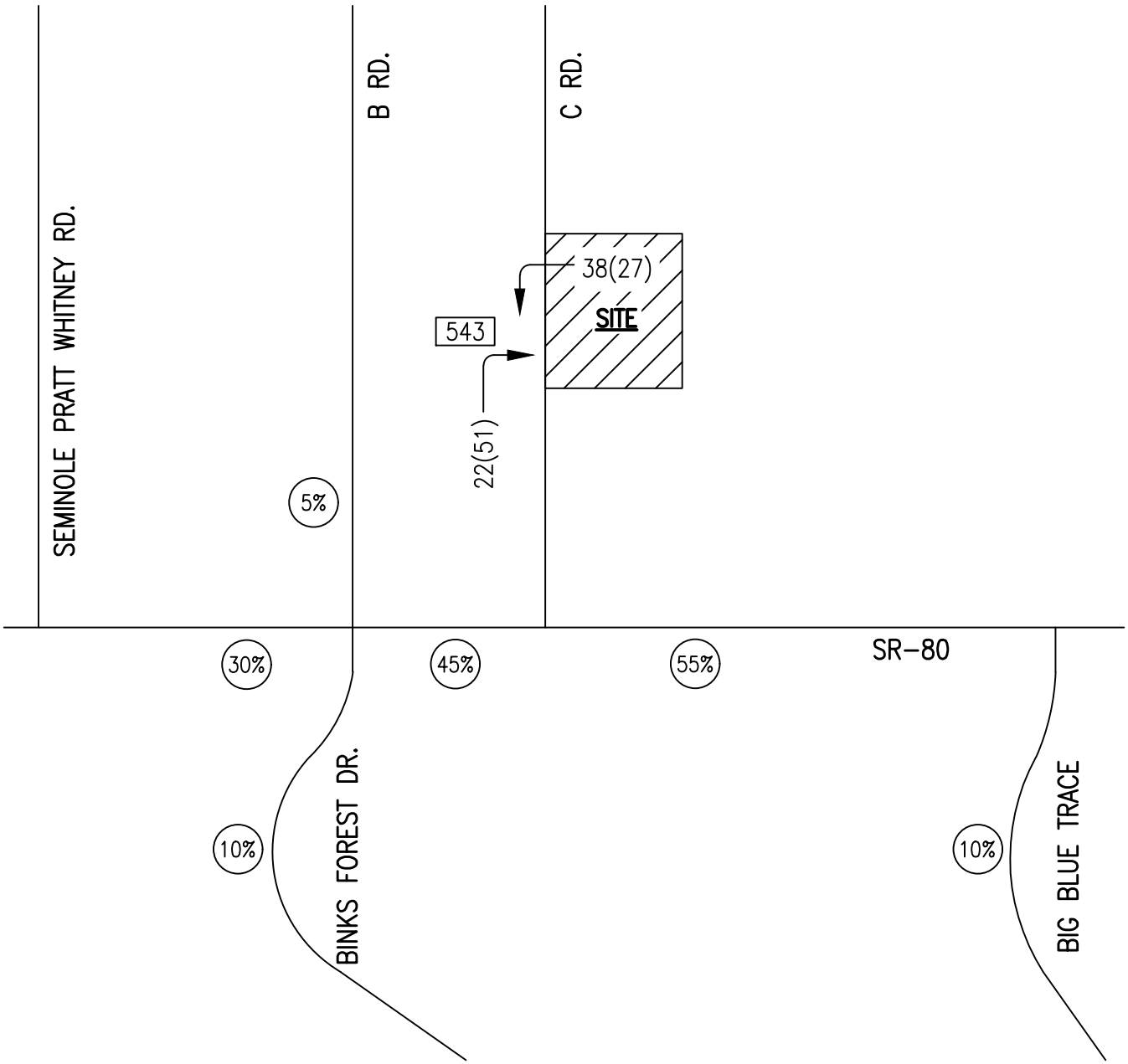


FIGURE 1
PROJECT DISTRIBUTION & TURNING MOVEMENTS

LEGEND

(15%) PROJECT DISTRIBUTION
5 A.M. PEAK HOUR TURNING MOVEMENT
(3) P.M. PEAK HOUR TURNING MOVEMENT
[538] A.A.D.T.

LOXAHATCHEE RV RESORT
24-102 AL 08-20-24
REVISED: 03-21-25, 05-02-25

APPENDIX A

ITE TRIP GENERATION

Land Use: 416
Campground/Recreational Vehicle Park

Description

A campground/recreational vehicle park is a recreational site that accommodates campers, trailers, tents, and recreational vehicles on a transient basis. They are found in a variety of locations and provide a variety of facilities, often including restrooms with showers and recreational facilities, such as a swimming pool, convenience store, and laundromat.

Additional Data

The sites were surveyed in the 1990s, the 2000s, and the 2010s in Rhode Island, Vermont, and Washington.

Source Numbers

401, 559, 728

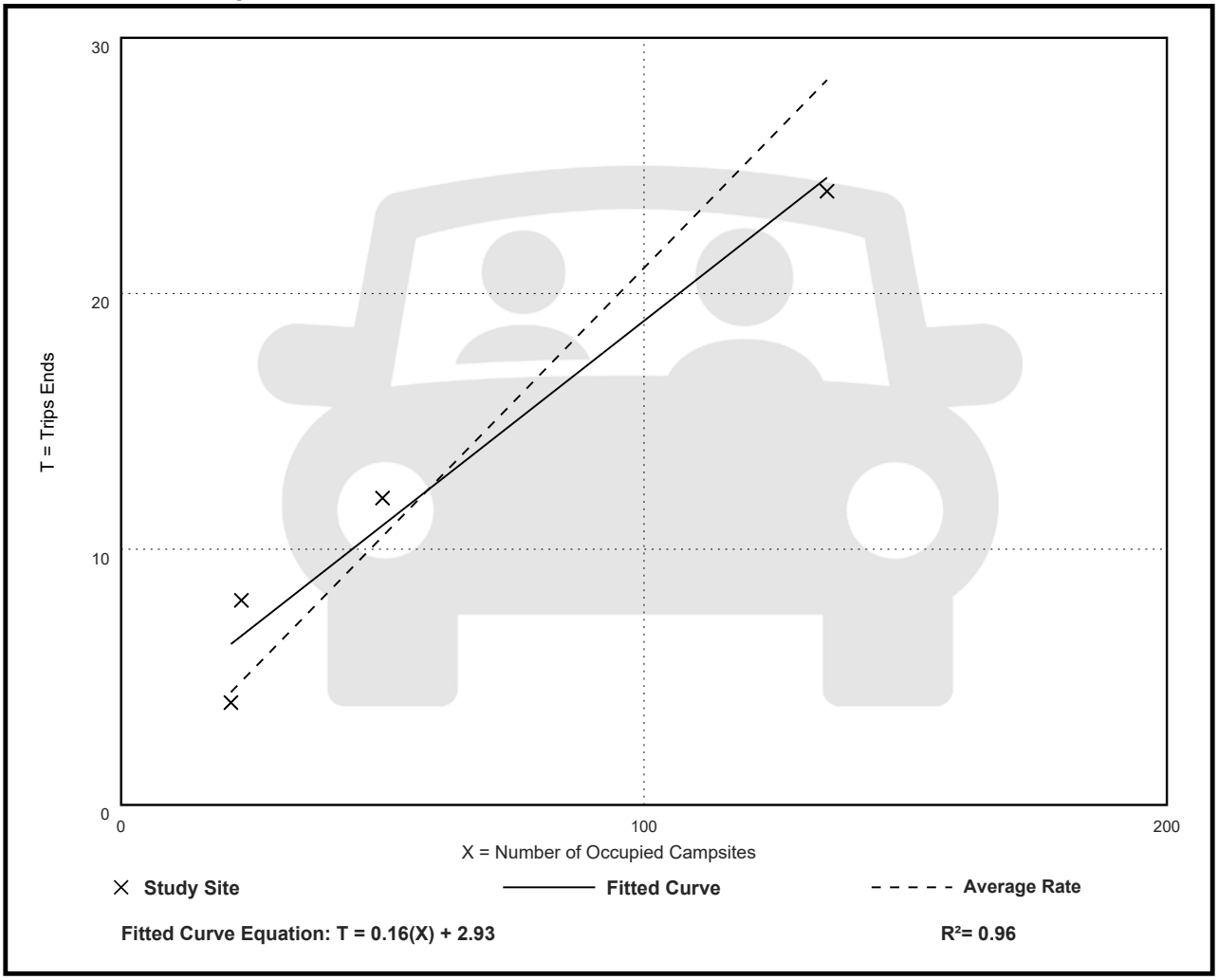
Campground/Recreational Vehicle Park
(416)

Vehicle Trip Ends vs: **Occupied Campsites**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 4
Avg. Num. of Occupied Campsites: 57
Directional Distribution: 36% entering, 64% exiting

Vehicle Trip Generation per Occupied Campsite

Average Rate	Range of Rates	Standard Deviation
0.21	0.18 - 0.35	0.06

Data Plot and Equation



Fitted Curve Equation: T = 0.16(X) + 2.93

R^2= 0.96

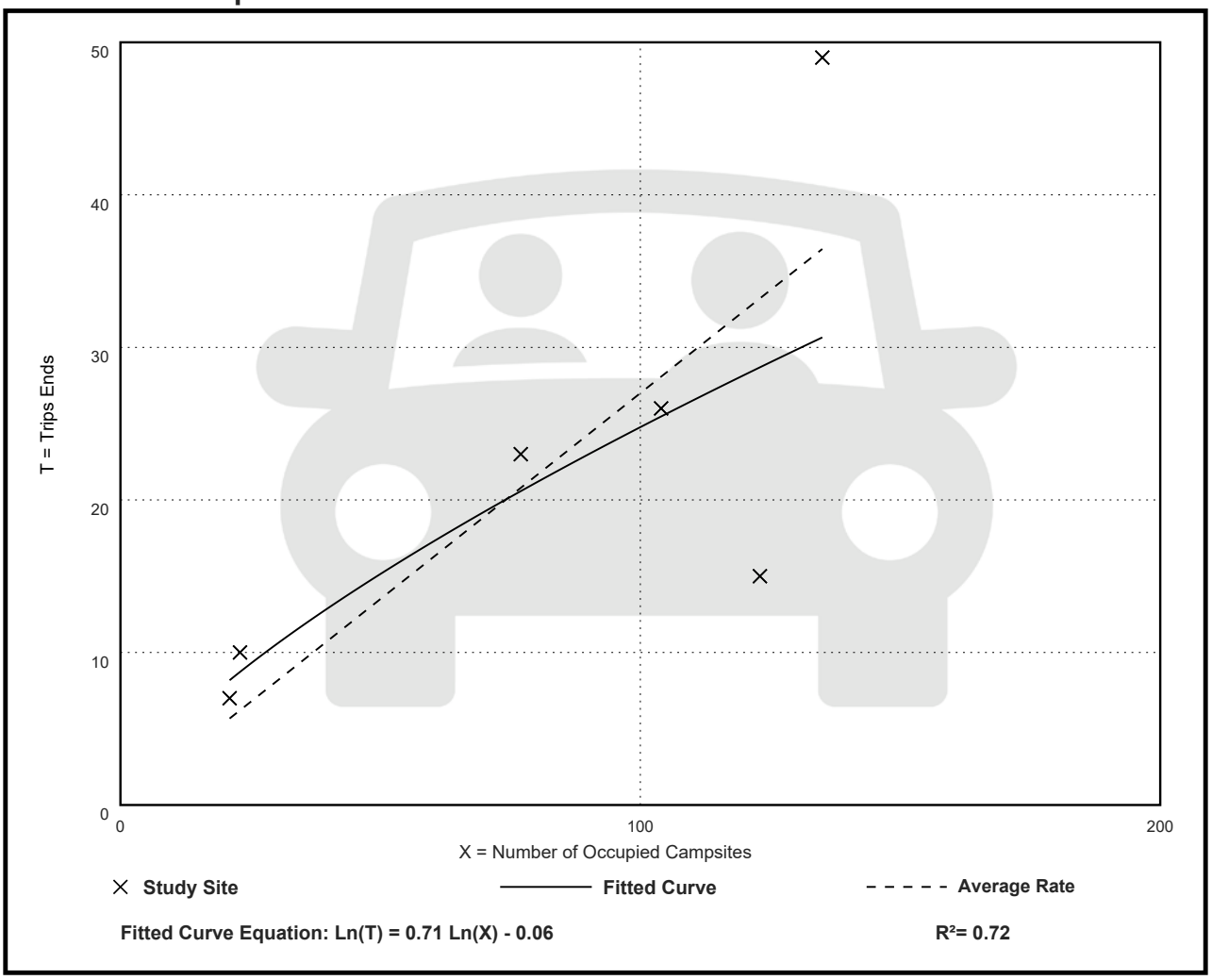
Campground/Recreational Vehicle Park
(416)

Vehicle Trip Ends vs: Occupied Campsites
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. Num. of Occupied Campsites: 81
Directional Distribution: 65% entering, 35% exiting

Vehicle Trip Generation per Occupied Campsite

Average Rate	Range of Rates	Standard Deviation
0.27	0.12 - 0.43	0.11

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.71 Ln(X) - 0.06

R^2= 0.72

Land Use: 260
Recreational Homes

Description

A recreational home is either (1) a second home used by its owner periodically for recreation or (2) rented on a seasonal basis. Some sites in the database are located within a resort that contains local services and complete recreational facilities. Timeshare (Land Use 265) is a related land use.

Additional Data

A large number of internal trips are made for recreational purposes in resort communities containing recreational homes.

The sites were surveyed in the 1980s, the 2000s, and the 2010s in California, New York, and Oregon.

Source Numbers

187, 901, 968, 1046

Recreational Homes
(260)

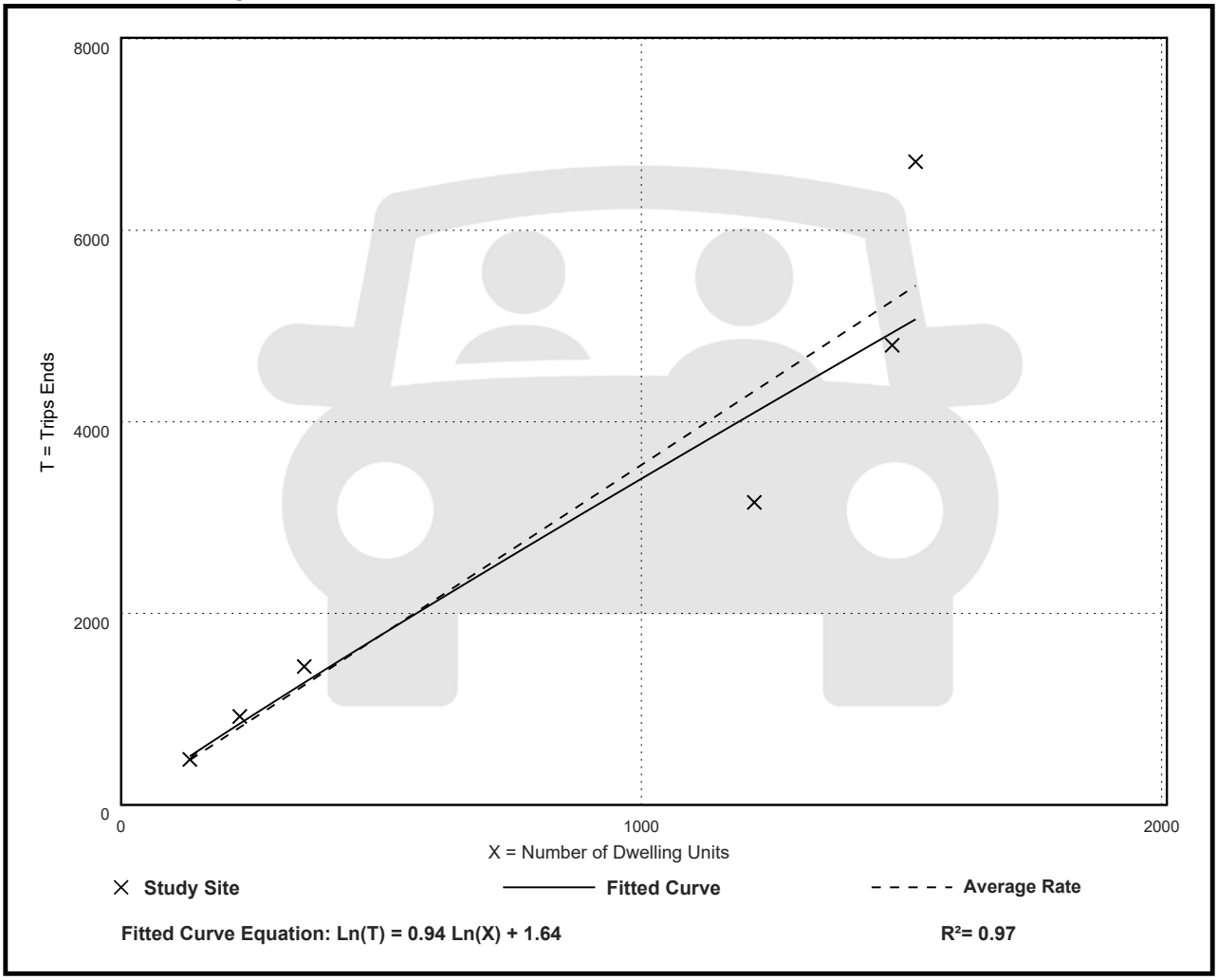
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: Rural
Number of Studies: 6
Avg. Num. of Dwelling Units: 823
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
3.55	2.60 - 4.40	0.78

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.94 Ln(X) + 1.64

R^2= 0.97

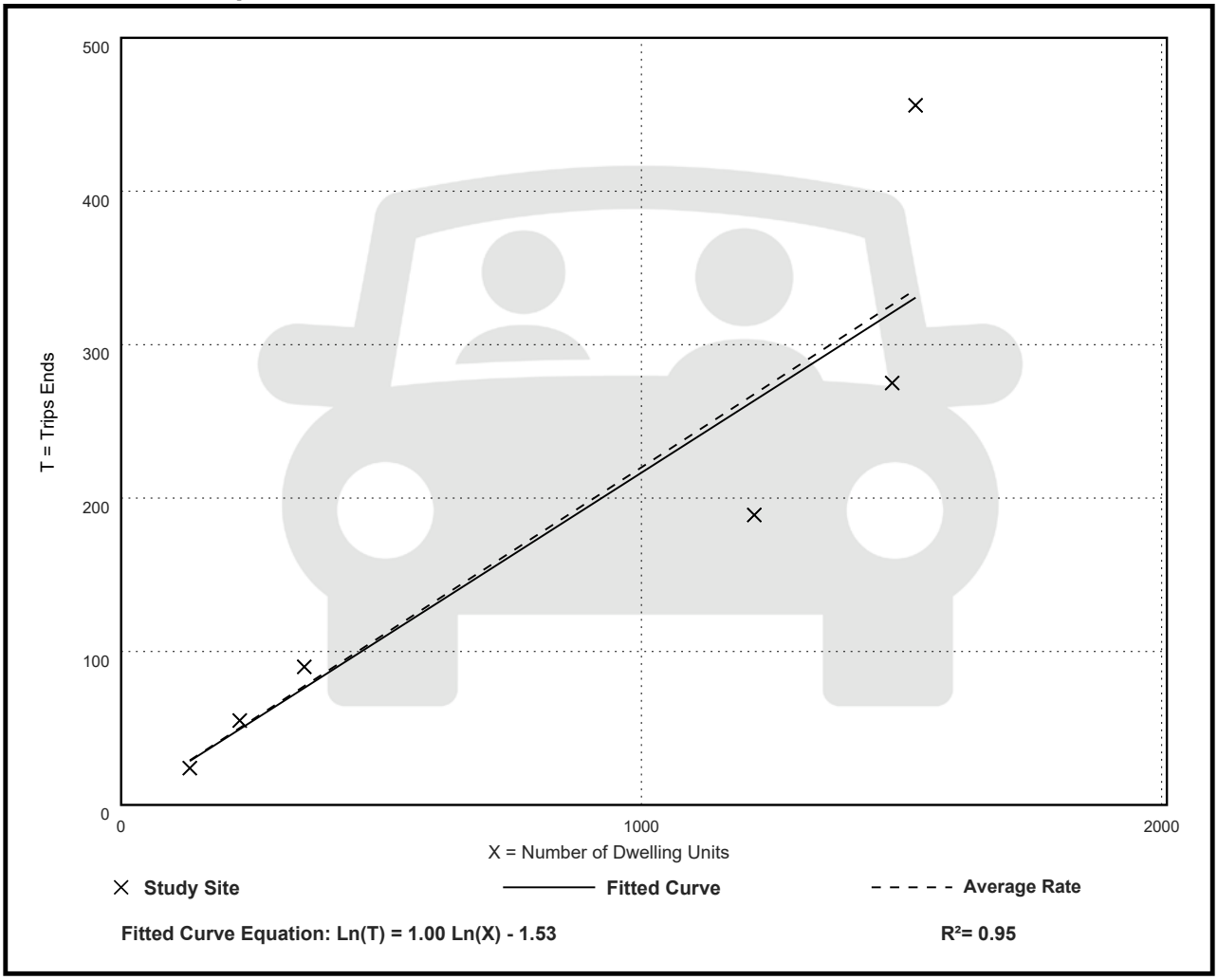
Recreational Homes
(260)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: Rural
Number of Studies: 6
Avg. Num. of Dwelling Units: 823
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.22	0.16 - 0.30	0.06

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 1.00 Ln(X) - 1.53

R^2= 0.95

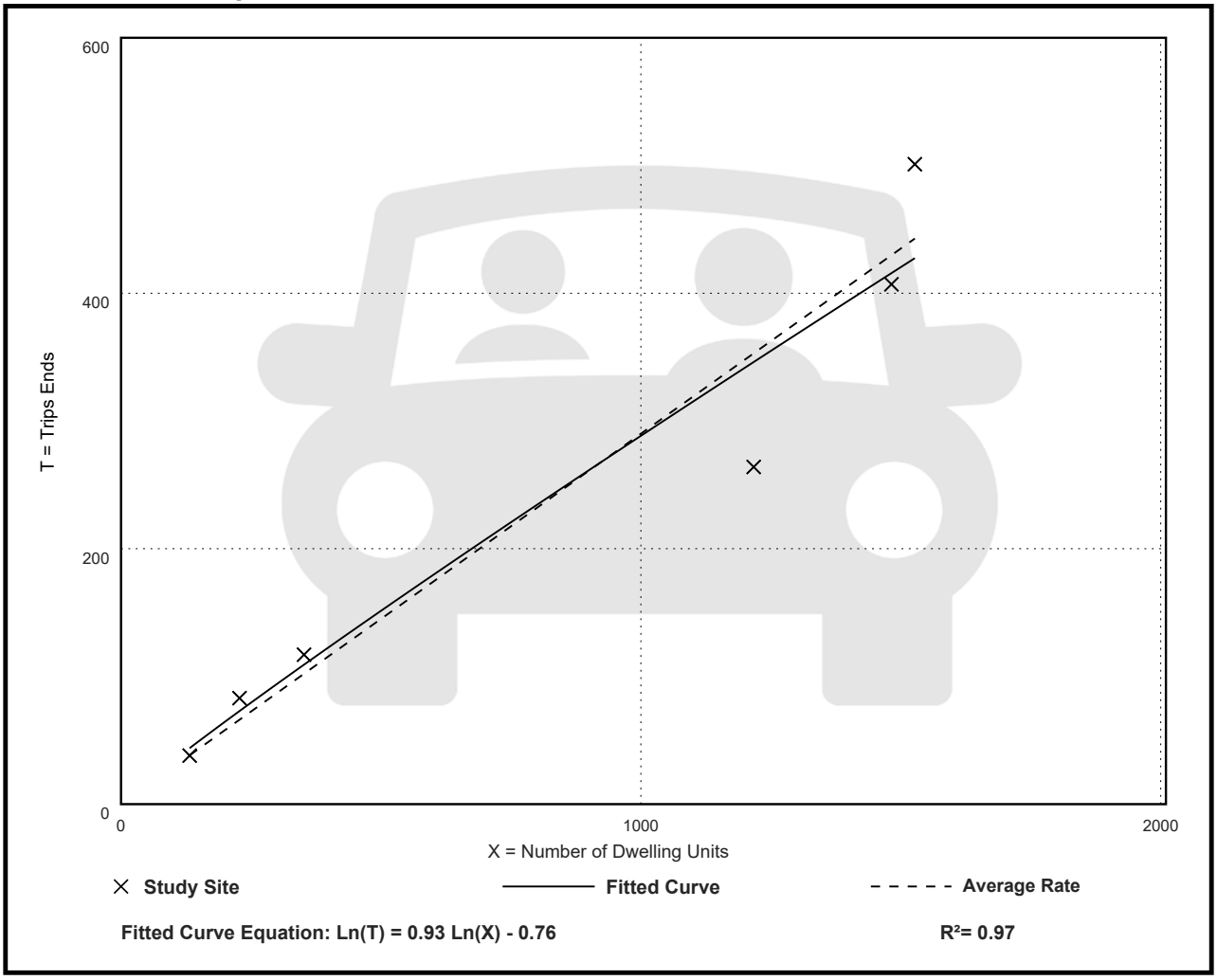
Recreational Homes
(260)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: Rural
Number of Studies: 6
Avg. Num. of Dwelling Units: 823
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.29	0.22 - 0.36	0.05

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.93 Ln(X) - 0.76

R^2= 0.97

APPENDIX B

ROADWAY IMPROVEMENTS

FDOT Emergency Travel Alert: For information on the current situation, please visit the following page - Alerts.

Florida Department of

TRANSPORTATION

Web Application

Office of Work Program and Budget Julie Adamson - Director

Updated: 11/1/2024 12:3

Five Year Work Program

Selection Criteria	
District 04	**2025-2029 AD**
Palm Beach County	**Item Number:**419345-2

Display current records in a Report Style
Display current records in an Excel Document

Project Summary

Transportation System: INTRASTATE STATE HIGHWAY — District 04 - Palm Beach County
Description: SR-80 FROM W OF LION COUNTRY SAFARI RD TO FOREST HILL/CRESTWOOD BLVD.
Type of Work: ADD LANES & REHABILITATE PVMNT — View Scheduled Activities
Item Number: 419345-2 — **SIS**
Length: 7.215 — View Map of Item

Construction Contract Information

Notice to Proceed Date	Work Begun Date	Present Contract Days	Contract Days Used	Percent Days Used
04/19/2018	07/31/2018	1423	1423	100.00%
Vendor Name: COMMUNITY ASPHALT CORP.				

Project Detail

Fiscal Year:	**2025**	**2026**	**2027**	**2028**	**2029**
Highways/Preliminary Engineering					***(On-Going)***
Amount:					
Highways/Right of Way					***(On-Going)***
Amount:					
Highways/Railroad & Utilities					***(On-Going)***
Amount:					
Highways/Construction					***(On-Going)***
Amount:	$6,400				
Highways/Environmental					***(On-Going)***
Amount:					

Item Total:	**$6,400**				

This site is maintained by the Office of Work Program and Budget, located at 605 Suwannee Street, MS 21, Tallahassee, Florida 323

View Contact Information for Office of Work Program and Budget

Application Home: Work Program
Office Home: Office of Work Program and Budget

- Contact Us
- Employment
- MyFlorida.com
- Performance
- Statement of Agency
- Web Policies & Notices

Florida Department of Transportation

Consistent, Predictable, Repeatable

INDEX OF ROADWAY PLANS

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3	GENERAL NOTES
4	FDOT GENERAL NOTES
5 - 7	ROADWAY PLAN

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S-6	GUIDE SIGN WORKSHEET

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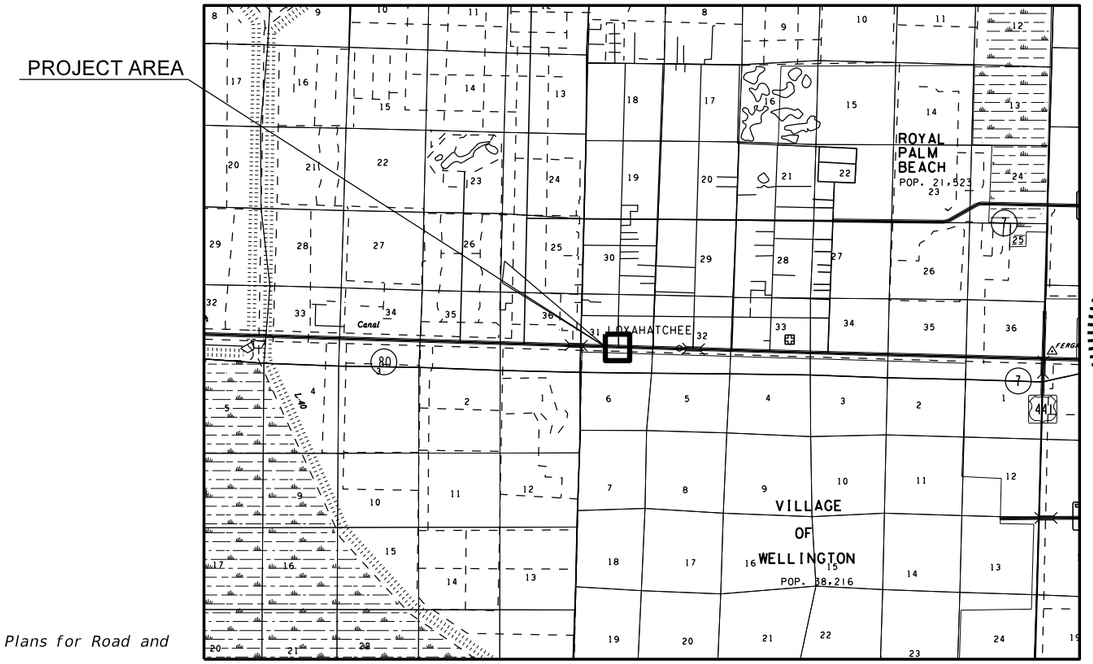
T-2 - T-3	SIGNALIZATION NOTES
T-4	SIGNALIZATION PAY ITEM NOTES
T-5	SIGNALIZATION PLAN

FDOT CONSTRUCTION AGREEMENT
2021-C-496-00008

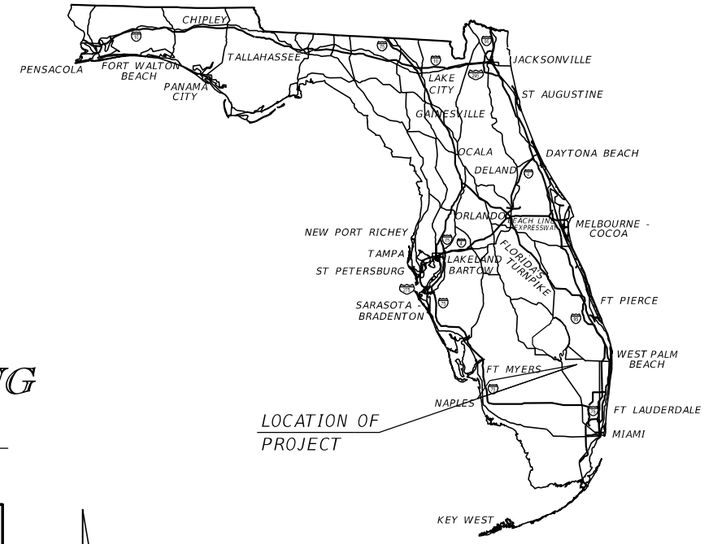
STATE ROAD 80 (SOUTHERN BLVD) AT B ROAD

PALM BEACH COUNTY (93120)

ROADWAY, SIGNING & PAVEMENT MARKING AND SIGNALIZATION PLANS



LOCATION MAP
N.T.S.



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GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2022-23 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

Standard Plans for Bridge Construction are included in the Structures Plans Component

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, July 2022 Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks

SR-80 POSTED SPEED LIMIT : 55 MPH

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

RICHARD TRENT EBERSOLE
LICENSE
No 64318
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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SIGNING AND PAVEMENT MARKING & SIGNALIZATION PLANS ENGINEER OF RECORD:

R. TRENT EBERSOLE, P.E.
P.E. NO.: 64318
MCMAHON ASSOCIATES INC.
2090 PALM BEACH LAKES BLVD, SUITE 400
WEST PALM BEACH, FL 33409
PHONE: (561) 840-8650 FAX: (561) 840-8590
CERTIFICATE OF AUTHORIZATION NO. 4908

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
	22	1

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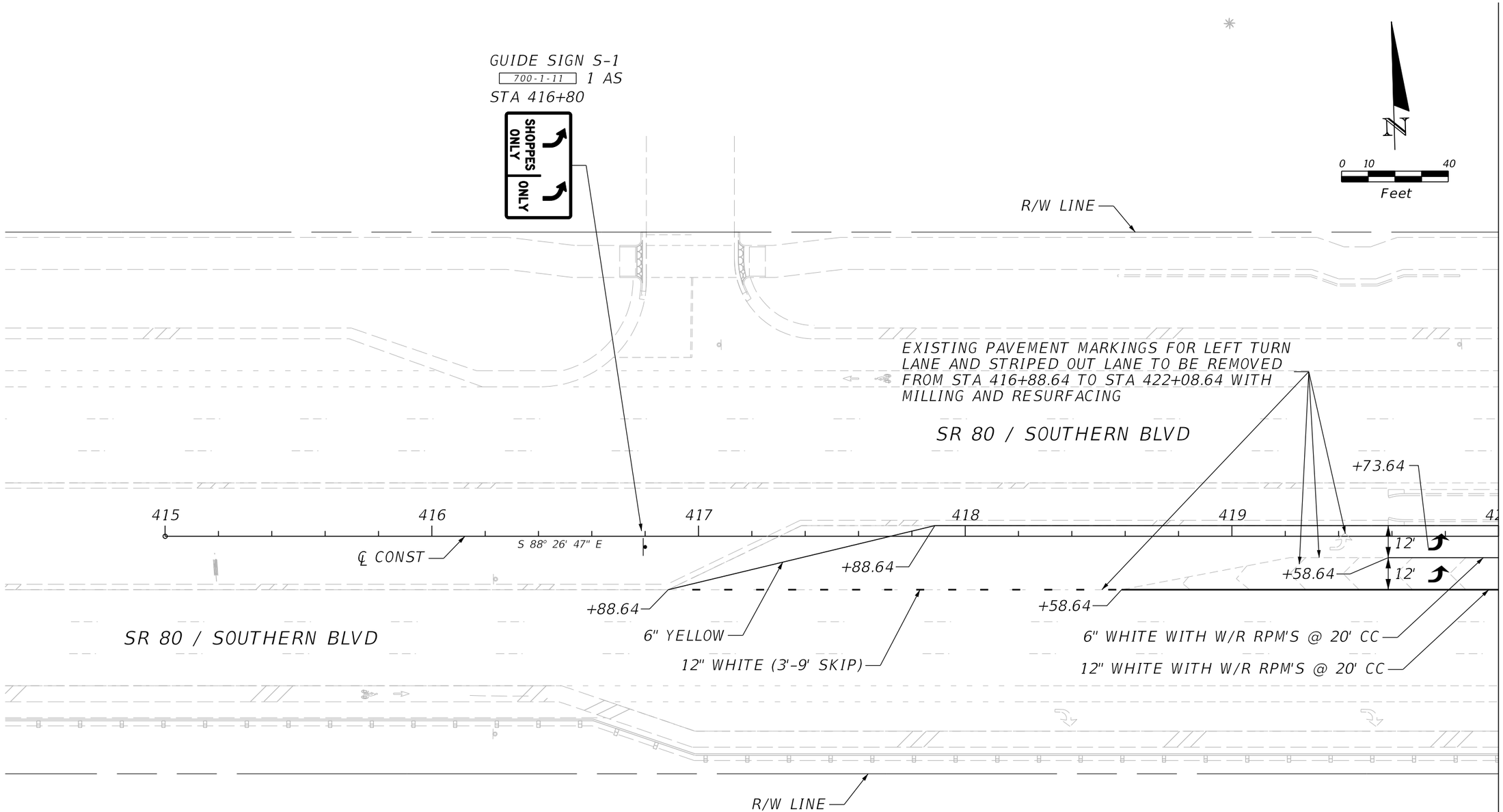

NO.	REVISION	BY	DATE
6			
5			
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2			
1			

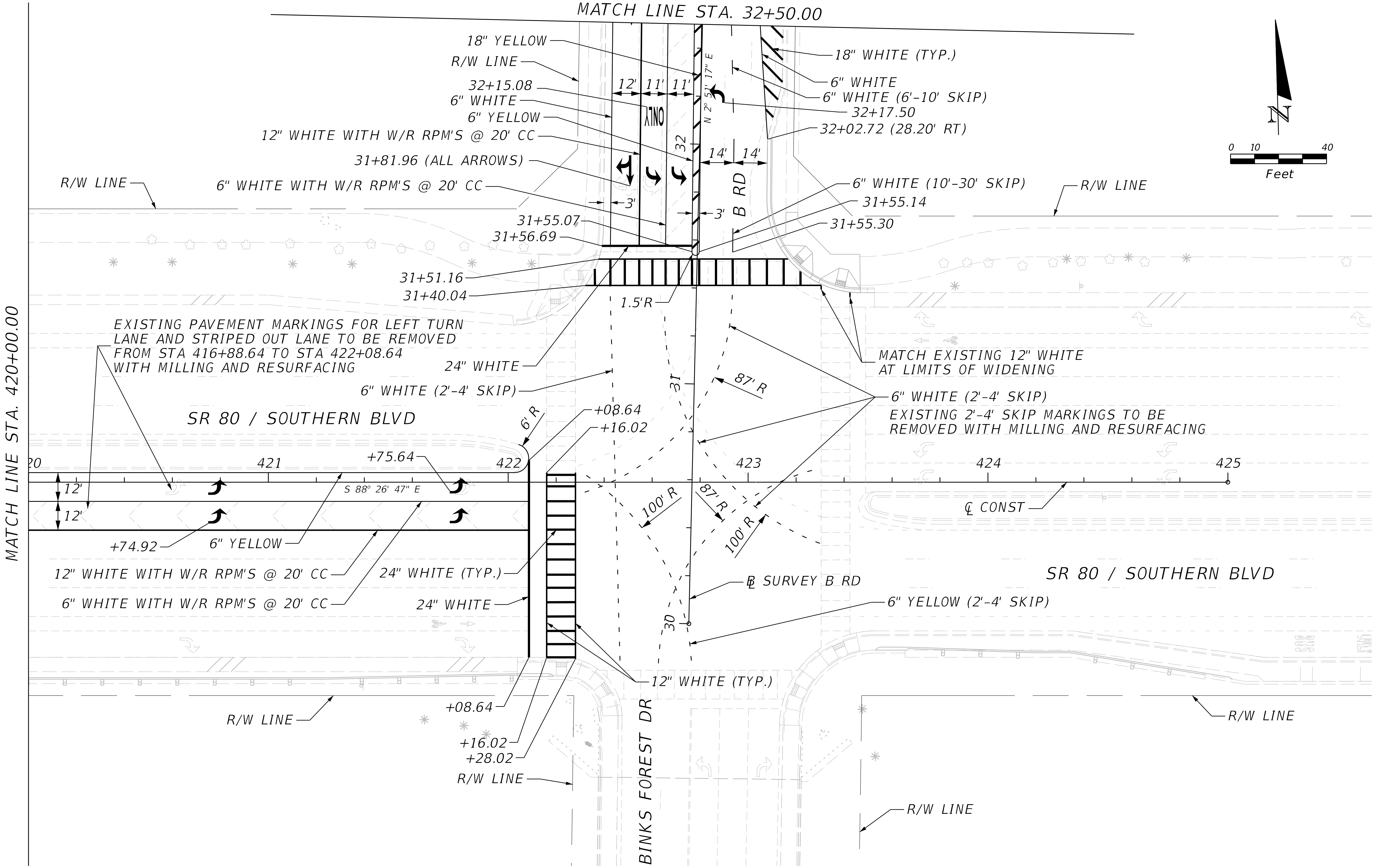
McMAHON TRANSPORTATION ENGINEERS & PLANNERS
2090 PALM BEACH LAKES BLVD, SUITE 400 (561) 840-8650
WEST PALM BEACH, FL 33409 FAX (561) 840-8590
CERTIFICATE OF AUTHORIZATION NO. 4908
E.O.R. R. TRENT EBERSOLE , P.E.
P.E. NO. 64318

FLORIDA LICENSE No. SIGNATURE DATE

DATE : 12/19/2022
PROJ. # : PROJ. #
DRAWN BY: HAR
APPD. BY : JDH
PLOT BY : HAR
FILE NAME: N/A
REF. # : 18902L_01
F.B. & PG. : N/A

SIGNING AND PAVEMENT MARKING PLAN

SHEET
S-3


MATCH LINE STA. 32+50.00
18" YELLOW
R/W LINE
32+15.08
6" WHITE
6" YELLOW
12" WHITE WITH W/R RPM'S @ 20' CC
31+81.96 (ALL ARROWS)
6" WHITE WITH W/R RPM'S @ 20' CC
31+55.07
31+56.69
31+51.16
31+40.04
12' 11' 11'
ONLY
N 2° 51' 17" E
32
14' 14'
3'
B RD
1.5'R
18" WHITE (TYP.)
6" WHITE
6" WHITE (6'-10' SKIP)
32+17.50
32+02.72 (28.20' RT)
6" WHITE (10'-30' SKIP)
31+55.14
31+55.30
R/W LINE
0 10 40
Feet
N
EXISTING PAVEMENT MARKINGS FOR LEFT TURN LANE AND STRIPED OUT LANE TO BE REMOVED FROM STA 416+88.64 TO STA 422+08.64 WITH MILLING AND RESURFACING
24" WHITE
6" WHITE (2'-4' SKIP)
MATCH EXISTING 12" WHITE AT LIMITS OF WIDENING
6" WHITE (2'-4' SKIP)
EXISTING 2'-4' SKIP MARKINGS TO BE REMOVED WITH MILLING AND RESURFACING
87' R
31
SR 80 / SOUTHERN BLVD
6' R
+08.64
+16.02
+75.64
420
421
422
423
424
425
12'
12'
S 88° 26' 47" E
87' R
100' R
100' R
℄ CONST
+74.92
6" YELLOW
12" WHITE WITH W/R RPM'S @ 20' CC
24" WHITE (TYP.)
6" WHITE WITH W/R RPM'S @ 20' CC
24" WHITE
SR 80 / SOUTHERN BLVD
℄ SURVEY B RD
6" YELLOW (2'-4' SKIP)
30
12" WHITE (TYP.)
+08.64
+16.02
+28.02
R/W LINE
R/W LINE
R/W LINE
R/W LINE
BINKS FOREST DR
MATCH LINE STA. 420+00.00

NO.	REVISION	BY	DATE
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1			

McMAHON
TRANSPORTATION ENGINEERS & PLANNERS
2090 PALM BEACH LAKES BLVD, SUITE 400 (561) 840-8650
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CERTIFICATE OF AUTHORIZATION NO. 4908
E.O.R. R. TRENT EBERSOLE , P.E.
P.E. NO. 64318

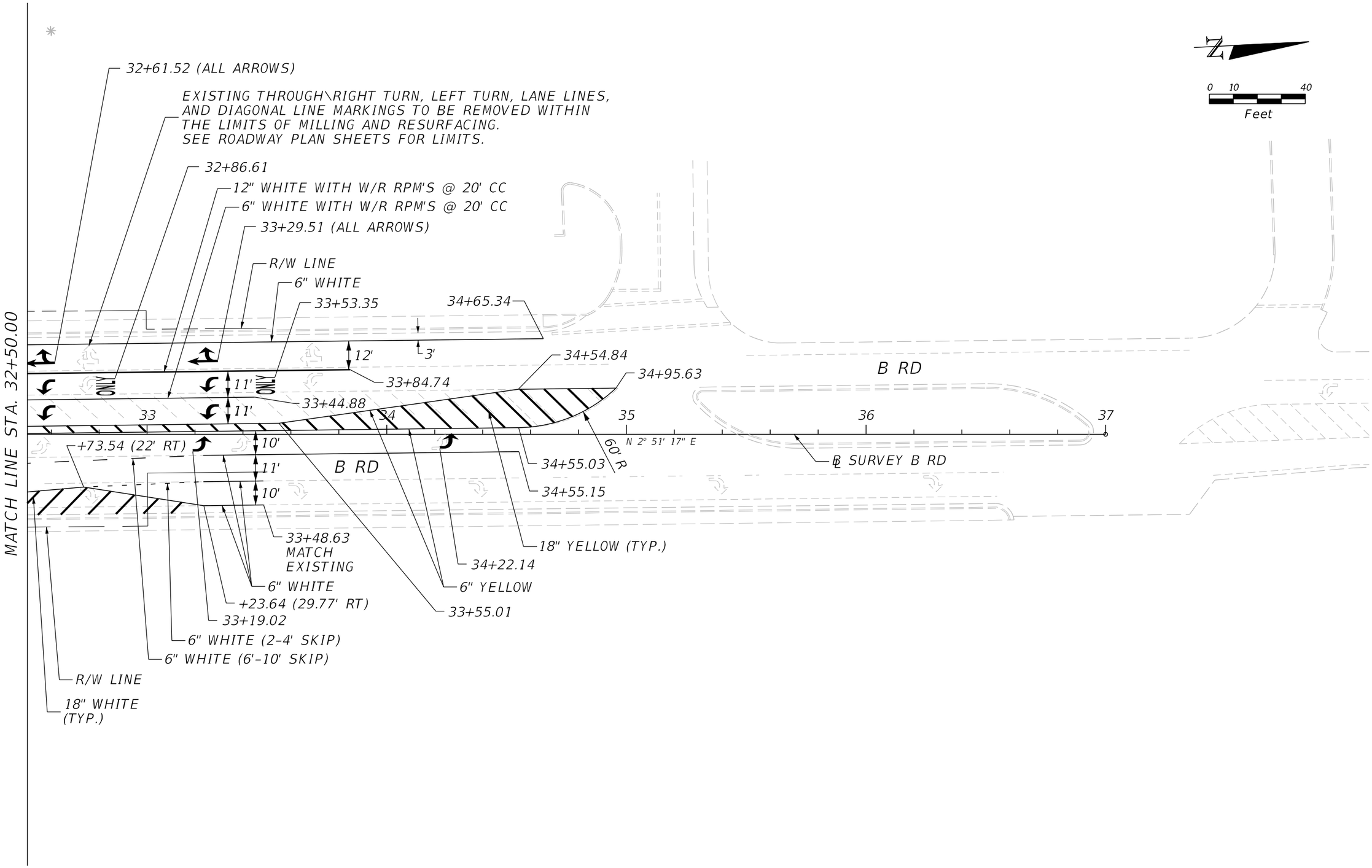
FLORIDA LICENSE No. SIGNATURE DATE

DATE : 12/19/2022
PROJ. # : PROJ. #
DRAWN BY: HAR
APPD. BY : JDH
PLOT BY : HAR
FILE NAME : N/A
REF. # : 18902L_01
F.B. & PG. : N/A

SIGNING AND PAVEMENT MARKING PLAN

SHEET
S-4

dhill 12/19/2022 3:27:41 PM ...\CAD\signing\PLANSP02.dgn



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NO.	REVISION	BY	DATE
6			
5			
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3			
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McMAHON TRANSPORTATION ENGINEERS & PLANNERS
2090 PALM BEACH LAKES BLVD, SUITE 400 (561) 840-8650
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P.E. NO. 64318

FLORIDA LICENSE No. SIGNATURE DATE

DATE : 12/19/2022
PROJ. # : PROJ. #
DRAWN BY: HAR
APPD. BY : JDH
PLOT BY : HAR
FILE NAME: N/A
REF. # : 18902L_01
F.B. & PG. : N/A

SIGNING AND PAVEMENT MARKING PLAN

SHEET
S-5

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APPENDIX C

TEST 1 ANALYSIS: LINK ANALYSIS

TABLE 4
TEST 1 - PROJECT SIGNIFICANCE CALCULATION
AM PEAK HOUR

2029 BUILD OUT
1 MILE RADIUS OF DEVELOPMENT INFLUENCE
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 22
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 38

STATION	ROADWAY	FROM	TO	DIRECTION	AM PEAK HOUR DIRECTIONAL PROJECT DISTRIBUTION	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
3443	SOUTHERN BOULEVARD	SEMINOLE PRATT WHITNEY ROAD	BINKS FOREST DRIVE		30%	11	6D	I	2940	0.37%	NO
3431	**SOUTHERN BOULEVARD**	**BINKS FOREST DRIVE**	**SITE**	**EB**	**45% ENTER 55% EXIT**	**31**	**6D**	**I**	**2940**	**1.05%**	**YES**
				WB	**100% EXIT**	**38**	**6D**	**I**	**2940**	**1.29%**	**YES**
3431	SOUTHERN BOULEVARD	SITE	BIG BLUE TRACE		55%	21	6D	I	2940	0.71%	NO
N/A	B ROAD	COLLECTING CANAL ROAD	SOUTHERN BOULEVARD		5%	2	2	I	880	0.23%	NO
3436	BINKS FOREST DRIVE	SOUTHERN BOULEVARD	GREENVIEW SHORES BOULEVARD		10%	4	4D	I	1960	0.20%	NO
3422	BIG BLUE TRACE	SOUTHERN BOULEVARD	WELLINGTON TRACE		10%	4	2	I	880	0.45%	NO

TABLE 5
TEST 1 - PROJECT SIGNIFICANCE CALCULATION
PM PEAK HOUR

2029 BUILD OUT
1 MILE RADIUS OF DEVELOPMENT INFLUENCE
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 51
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 27

STATION	ROADWAY	FROM	TO	DIRECTION	PROJECT DISTRIBUTION	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
3443	SOUTHERN BOULEVARD	SEMINOLE PRATT WHITNEY ROAD	BINKS FOREST DRIVE		30%	15	6D	I	2940	0.51%	NO
3431	**SOUTHERN BOULEVARD**	**BINKS FOREST DRIVE**	**SITE**	**EB**	**45% ENTER 55% EXIT**	**38**	**6D**	**I**	**2940**	**1.29%**	**YES**
				WB	100% EXIT	27	6D	I	2940	0.92%	NO
3431	SOUTHERN BOULEVARD	SITE	BIG BLUE TRACE		55%	28	6D	I	2940	0.95%	NO
N/A	B ROAD	COLLECTING CANAL ROAD	SOUTHERN BOULEVARD		5%	3	2	I	880	0.34%	NO
3436	BINKS FOREST DRIVE	SOUTHERN BOULEVARD	GREENVIEW SHORES BOULEVARD		10%	5	4D	I	1960	0.26%	NO
3422	BIG BLUE TRACE	SOUTHERN BOULEVARD	WELLINGTON TRACE		10%	5	2	I	880	0.57%	NO

TABLE 6
AM PEAK HOUR - TEST 1

2029 BUILD OUT
1 MILE RADIUS OF DEVELOPMENT INFLUENCE
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 22
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 38

ROADWAY	FROM	TO	DIRECTION	TRAFFIC COUNT YEAR	AM PEAK HOUR TRAFFIC	PROJECT DISTRIBUTION	AM PEAK HOUR PROJECT TRIPS	MAJOR PROJECT	1.0% GROWTH	TOTAL BACKGROUND TRAFFIC USED	2029 TRAFFIC WITHOUT PROJECT	2029 TOTAL TRAFFIC	ASSURED LANES	CLASS	LOS D	2027 WITHOUT PROJECT MEETS LOS STD.	MEETS LOS STD.
SOUTHERN BOULEVARD[1]	BINKS FOREST DRIVE	SITE	EB	2024	2322	45% ENTER 55% EXIT	31	462	118	580	2902	2933	6D	I	2940	YES	YES
			WB	2024	2096	100% EXIT	38	499	107	606	2702	2740	6D	I	2940	YES	YES

NOTES
1. Peak hour traffic based on PBC turning movement count for Southern Boulevard at Binks Forest Drive.

TABLE 7
PM PEAK HOUR - TEST 1

2029 BUILD OUT
1 MILE RADIUS OF DEVELOPMENT INFLUENCE
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 51
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 27

ROADWAY	FROM	TO	DIRECTION	TRAFFIC COUNT YEAR	PM PEAK HOUR TRAFFIC	PROJECT DISTRIBUTION	PM PEAK HOUR PROJECT TRIPS	MAJOR PROJECT	1.0% GROWTH	TOTAL BACKGROUND TRAFFIC USED	2029 TRAFFIC WITHOUT PROJECT	2029 TOTAL TRAFFIC	ASSURED LANES	CLASS	LOS D	2027 WITHOUT PROJECT MEETS LOS STD.	MEETS LOS STD.
SOUTHERN BOULEVARD[1]	BINKS FOREST DRIVE	SITE	EB	2024	1837	45% ENTER 55% EXIT	38	636	94	730	2567	2605	6D	I	2940	YES	YES

NOTES
1. Peak hour traffic based on PBC turning movement count for Southern Boulevard at Binks Forest Drive.

APPENDIX D

PBC TPS DATABASE
2029 VOLUME SHEETS

Input Data

ROAD NAME:	Southern Blvd	STATION:	3431		Report Created
CURRENT YEAR:	2024	FROM:	Binks Forest Dr		03/21/2025
ANALYSIS YEAR:	2029	TO:	Midpoint		
GROWTH RATE:	0%	COUNT DATE:	NA		
		PSF:	0		

Link Analysis

Time Period	AM			PM		
Direction	2-way	NB/EB	SB/WB	2-way	NB/EB	SB/WB
Existing Volume	0	0	0	0	0	0
Peak Volume	0	0	0	0	0	0
Diversion(%)	0	0	0	0	0	0
Volume after Diversion	0	0	0	0	0	0

Committed Developments							Type	% Complete
Palms West Medical	5	4	1	6	2	5	NR	92%
Grove Medical	0	0	0	0	0	0	NR	100%
Palms West Hospital	20	15	5	21	6	15	NR	82%
Arden PUD	152	114	37	181	67	114	Res	65%
Cypress Key	2	1	1	5	2	3	NR	85%
Southern Palm Crossing	2	1	1	5	2	3	NR	90%
Loxahatchee Retail	0	0	0	0	0	0	NR	100%
City of Westlake	220	107	112	232	125	108	NR	39%
Binks Pointe	0	0	0	0	0	0	Res	100%
278 ProffessionalWay	17	5	12	31	22	9	NR	65%
Loxahatchee Groves Commons	24	12	12	51	26	25	NR	80%
Palm Beach State College	89	12	78	114	52	61	NR	35%
Indian Trails Grove DRI	63	44	19	70	26	44	Res	0%
RaceTrac - Southern Blvd	0	0	0	0	0	0	NR	100%
Valencia Village	3	2	1	77	37	40	NR	0%
Okeechobee Folsom Commercial	6	4	2	17	8	9	NR	0%
Central Park of Commerce	138	29	109	147	110	37	NR	0%
Palm Beach Aggregates	19	2	17	33	27	6	NR	35%
Suess Medical	9	3	6	9	6	4	NR	0%
Flying Cow Ranch	1	1	0	2	1	1	Res	0%
Brown Landholding Relocation	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**NR**	**0%**
Village Royale Charter School	146	89	57	31	13	17	NR	0%
Palm West Plaza - Expansion	3	2	1	70	34	37	NR	55%
Avenir	42	20	22	51	30	21	Res	3%
Groves Town Center	**0**	**18**	**18**	**0**	**57**	**57**	**NR**	**3%**
Wellington Assemblage	39	29	10	50	19	31	Res	0%
Total Committed Developments	1000	514	521	1203	672	647		
Total Committed Residential	297	208	88	354	143	211		
Total Committed Non-Residential	703	306	433	849	529	436		
Double Count Reduction	74	52	22	89	36	53		
Total Discounted Committed Developments	926	462	499	1114	636	594		
Historical Growth	0	0	0	0	0	0		
Comm Dev+1% Growth	926	462	499	1114	636	594		
Growth Volume Used	926	462	499	1114	636	594		
Total Volume	926	462	499	1114	636	594		

Lanes	4LD					
LOS D Capacity	3220	1960	1960	3220	1960	1960
Link Meets Test 1?	YES	YES	YES	YES	YES	YES
LOS E Capacity	3400	1960	1960	3400	1960	1960
Link Meets Test 2?	YES	YES	YES	YES	YES	YES

A	B	C	D	E	F	G	H	I
		Input Data						
ROAD NAME:	Southern Blvd		STATION:	3431				Report Created
CURRENT YEAR:	2024		FROM:	MIDPOINT				03/21/2025
ANALYSIS YEAR:	2029		TO:	Big Blue Trce				
GROWTH RATE:	0%		COUNT DATE:	NA				
			PSF:	0				
		Link Analysis						
Time Period		AM			PM			

Direction	2-way	NB/EB	SB/WB	2-way	NB/EB	SB/WB
Existing Volume	0	0	0	0	0	0
Peak Volume	0	0	0	0	0	0
Diversion(%)	0	0	0	0	0	0
Volume after Diversion	0	0	0	0	0	0

Committed Developments							Type	% Complete
Palms West Medical	5	4	1	6	2	5	NR	92%
Grove Medical	0	0	0	0	0	0	NR	100%
Palms West Hospital	20	15	5	21	6	15	NR	82%
Arden PUD	152	114	37	181	67	114	Res	65%
Cypress Key	2	1	1	5	2	3	NR	85%
Southern Palm Crossing	2	1	1	5	2	3	NR	90%
Loxahatchee Retail	0	0	0	0	0	0	NR	100%
City of Westlake	220	107	112	232	125	108	NR	39%
Binks Pointe	0	0	0	0	0	0	Res	100%
278 ProffessionalWay	17	5	12	31	22	9	NR	65%
Loxahatchee Groves Commons	24	12	12	51	26	25	NR	80%
Palm Beach State College	89	12	78	114	52	61	NR	35%
Indian Trails Grove DRI	63	44	19	70	26	44	Res	0%
RaceTrac - Southern Blvd	0	0	0	0	0	0	NR	100%
Valencia Village	6	2	3	142	74	68	NR	0%
Okeechobee Folsom Commercial	6	4	2	17	8	9	NR	0%
Central Park of Commerce	138	29	109	147	110	37	NR	0%
Palm Beach Aggregates	19	2	17	33	27	6	NR	35%
Suess Medical	9	3	6	9	6	4	NR	0%
Flying Cow Ranch	1	1	0	2	1	1	Res	0%
Brown Landholding Relocation	~~**0**~~	~~**0**~~	~~**0**~~	~~**0**~~	~~**0**~~	~~**0**~~	**NR**	**0%**
Village Royale Charter School	146	89	57	31	13	17	NR	0%
Palm West Plaza - Expansion	5	2	3	105	55	50	NR	55%
Avenir	42	20	22	51	30	21	Res	3%
Groves Town Center	**0**	**18**	**18**	**0**	**57**	**57**	**NR**	**3%**
Wellington Assemblage	39	29	10	50	19	31	Res	0%
Total Committed Developments	1005	514	525	1303	730	688		
Total Committed Residential	297	208	88	354	143	211		
Total Committed Non-Residential	708	306	437	949	587	477		
Double Count Reduction	74	52	22	89	36	53		
Total Discounted Committed Developments	931	462	503	1214	694	635		
Historical Growth	0	0	0	0	0	0		
Comm Dev+1% Growth	931	462	503	1214	694	635		
Growth Volume Used	931	462	503	1214	694	635		
Total Volume	931	462	503	1214	694	635		

Lanes	4LD					
LOS D Capacity	3220	1960	1960	3220	1960	1960
Link Meets Test 1?	YES	YES	YES	YES	YES	YES
LOS E Capacity	3400	1960	1960	3400	1960	1960
Link Meets Test 2?	YES	YES	YES	YES	YES	YES

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O

Input Data

E-W Street: Southern Blvd
N-S STREET: Binks Forest Dr
TIME PERIOD: AM
GROWTH RATE: %
SIGNAL ID: 30718

COUNT DATE: 08/28/2024
CURRENT YEAR: 2024
ANALYSIS YEAR: 2029
PSF: 1.13

Report Created
03/20/2025

Intersection Volume Development

	Eastbound			Westbound			Northbound			Southbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Diversions	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Peak Season Volume	0	0	0	0	0	0	0	0	0	0	0	0		
Committed Developments													Type	% Complete
City of Westlake	0	107	13	0	112	0	13	0	0	0	0	0	NR	39%
Wellington Assemblage	0	29	13	0	10	0	4	0	0	0	0	0	Res	0%
Palm Beach State College	0	8	1	0	55	31	8	8	0	5	1	0	NR	35%
278 ProffessionalWay	0	0	4	12	0	0	2	0	5	0	0	0	NR	65%
Palm Beach Aggregates	0	3	0	0	17	0	0	0	0	0	0	0	NR	35%
Indian Trails Grove DRI	0	44	11	0	19	0	5	0	0	0	0	0	Res	0%
Palm West Plaza - Expansion	0	1	0	0	1	0	0	0	1	0	0	0	NR	55%
Flying Cow Ranch	0	1	0	0	0	0	0	0	1	0	0	0	Res	0%
Avenir	0	20	0	0	22	0	0	0	0	0	0	0	Res	3%
Loxahatchee Groves Commons	0	11	6	0	12	7	7	7	0	7	6	0	NR	80%
Arden PUD	0	114	9	0	37	0	3	0	0	0	0	0	Res	65%
Okeechobee Folsom Commercial	0	2	0	0	1	0	0	0	0	0	0	0	NR	0%
Brown Landholding Relocation	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	NR	0%
Marketplace at the Wellington	0	0	7	0	0	0	5	0	0	0	0	0	Res	0%
Central Park of Commerce	0	29	2	0	109	0	9	0	0	0	0	0	NR	0%
Groves Town Center	**32**	**0**	**0**	**18**	**0**	**0**	**0**	**19**	**0**	**0**	**9**	**16**	NR	0%
Valencia Village	0	2	0	0	1	0	0	0	0	0	0	0	NR	0%
Suess Medical	0	3	0	0	6	0	0	0	0	0	0	0	NR	0%
Total Committed Developments	32	374	66	30	402	38	56	34	7	12	16	16		
Total Committed Residential	0	208	40	0	88	0	17	0	1	0	0	0		
Total Committed Non-Residential	32	166	26	30	314	38	39	34	6	12	16	16		
Double Count Reduction	0	33	5	0	22	0	4	0	0	0	0	0		
Total Discounted Committed	32	341	61	30	380	38	52	34	7	12	16	16		
Historical Growth	#VALUE!	#VALUE!	#VALUE!	#VALUE!	####	####	###	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
Comm Dev+1% Growth	0	0	0	0	0	0	0	0	0	0	0	0		
Growth Volume Used	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0		

Input Data

E-W Street: Southern Blvd
N-S STREET: Binks Forest Dr
TIME PERIOD: PM
GROWTH RATE: %
SIGNAL ID: 30718

COUNT DATE: 08/28/2024
CURRENT YEAR: 2024
ANALYSIS YEAR: 2029
PSF: 1.13

Report Created
03/20/2025

Intersection Volume Development

	Eastbound			Westbound			Northbound			Southbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Diversions	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Peak Season Volume	0	0	0	0	0	0	0	0	0	0	0	0		
Committed Developments													Type	% Complete
City of Westlake	0	125	15	0	108	0	13	0	0	0	0	0	NR	39%
Wellington Assemblage	0	19	9	0	31	0	14	0	0	0	0	0	Res	0%
Palm Beach State College	0	36	5	0	43	25	6	6	0	21	5	0	NR	35%
278 ProffessionalWay	0	0	3	9	0	0	7	0	22	0	0	0	NR	65%
Palm Beach Aggregates	0	27	0	0	6	0	0	0	0	0	0	0	NR	35%
Indian Trails Grove DRI	0	27	7	0	44	0	11	0	0	0	0	0	Res	0%
Palm West Plaza - Expansion	0	21	0	14	23	0	0	0	13	0	0	0	NR	55%
Flying Cow Ranch	0	1	0	1	1	0	0	0	0	0	0	0	Res	0%
Avenir	0	30	0	0	21	0	0	0	0	0	0	0	Res	3%
Loxahatchee Groves Commons	0	24	14	0	24	15	13	13	0	15	14	0	NR	80%
Arden PUD	0	67	5	0	114	0	9	0	0	0	0	0	Res	65%
Okeechobee Folsom Commercial	0	4	0	0	4	0	0	0	0	0	0	0	NR	0%
Brown Landholding Relocation	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	**~~0~~**	NR	0%
Wellington North	0	0	11	0	0	0	-4	0	0	0	0	0	NR	0%
Marketplace at the Wellington	0	0	9	0	0	0	8	0	0	0	0	0	Res	0%
Central Park of Commerce	0	110	9	0	37	0	3	0	0	0	0	0	NR	0%
Valencia Village	0	31	0	7	34	0	0	0	6	0	0	0	NR	0%
Groves Town Center	**43**	**0**	**0**	**57**	**0**	**0**	**0**	**25**	**0**	**0**	**30**	**51**	NR	0%
Suess Medical	0	6	0	0	4	0	0	0	0	0	0	0	NR	0%
Total Committed Developments	43	528	87	88	494	40	80	44	41	36	49	51		
Total Committed Residential	0	225	28	14	152	40	22	19	13	36	19	0		
Total Committed Non-Residential	43	384	57	87	283	40	38	44	41	36	49	51		
Double Count Reduction	0	56	7	4	38	8	6	5	3	7	5	0		
Total Discounted Committed	43	472	80	84	456	32	74	39	38	29	44	51		
Historical Growth	0	3.4E+24	4.1E+23	0	####	0	###	0	0	0	0	0		
Comm Dev+1% Growth	0	3.4E+24	4.1E+23	0	####	0	###	0	0	0	0	0		
Growth Volume Used	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	125	15	0	108	0	13	0	0	0	0	0		

PTC
Transportation Consultants
601 Heritage Drive, Suite 493
Jupiter, FL 33458
(561) 296-9698

April 9, 2024
Revises September 26, 2024

Mr. Daniel J. Zimmer
Solar Sportsystems, Inc.
250 Delaware Avenue
Buffalo, NY 14202

Re: Groves Town Center Hotel - #PTC23-086

Dear Mr. Zimmer:

The purpose of this letter is to provide a traffic statement for the above referenced project. It is proposed to develop a 81-room hotel within the approved Groves Town Center located in the northeast quadrant of Southern Boulevard and B Road in the Town of Loxahatchee Groves. Access and the buildout year for the site will remain the same. The Parcel Control Number (PCN) for this Site is: 41-41-43-31-13-002-0010. **Attachment 1** provides a summary of the Site Plan submittals to date within Groves Town Center.

A trip generation analysis was conducted using the newest Palm Beach County and ITE, Trip Generation, 11th Edition trip generation rates. The trip generation for the overall Master Plan uses is provided on **Attachment 2A**. **Attachment 2B** provides the cumulative trip generation for the approved and proposed site plans. **Attachment 2C** shows the trips remaining for the Groves Town Center project. It is demonstrated that the trips associated with the approved and proposed site plans do not exceed the approved thresholds for the Groves Town Center project. With no increase above the approved trip thresholds, the requirements of the Traffic Performance Standards have been met.

Please contact me at atroutman@pindertroutman.com if you have any questions or need any additional information.

Sincerely,

ANDREA M. TROUTMAN LICENSE No.45409 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Andrea M Troutman
Date: 2024.09.26 09:11:54 -04'00'

Andrea M. Troutman, P.E.
President

Attachments

Andrea M. Troutman, State of Florida, Professional Engineer, License No. 45409
This item has been electronically signed and sealed by Andrea M. Troutman, P.E. on 9/26/24 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Attachment 1
Groves Town Center Hotel
Submittals to Date

Name	Land Use	ITE Code	Intensity	
Wawa	Gas Station w/ C-Store (FP/ SF)	FDOT	16	6,119
Culver's	Fast Food Rest. With DT	934	4,479	SF
Aldi	Shopping Center w/Sup Market	821	21,730	SF
Auto Zone	Shopping Center w/Sup Market	821	7,381	SF
Dental Office	Medical Office	720	4,200	SF
Car Wash	Carwash (Automated)	PBC	1	Lane
PBOI	Medical Office	720	20,200	SF
Hotel*	Hotel	310	81	Rooms

* Current Request.

Attachment 2A
Groves Town Center Hotel
Trip Generation - Approved Master Plan

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips	Internal Trips		External Trips	Pass-by Trips (1)		New Trips
						Trips	%				
Congregate Care Facility	253	128 DUs	2.21 / DU	50%	283	28	10%	255	-	0%	255
General Office (10k-250k SF)	710	23,000 SF	10.84 / 1000 SF	50%	249	25	10%	224	22	10%	202
Medical Office	720	21,000 SF	T = 42.97(X) - 108.01	50%	794	79	10%	715	72	10%	643
Shop Plaza (40-150k) w/ Sup Market	821	92,149 SF	94.49 / 1000 SF	50%	8,707	522	6%	8,185	3,192	39%	4,993
Drive-In Bank	912	3,600 SF	100.35 / 1000 SF	50%	361	36	10%	325	153	47%	172
Gas Station w/ C-Store (FP/ SF)	FDOT	16 7,251	T = 14.3 X PM Trips	50%	4,419	354	8%	4,065	2,480	61%	1,585
TOTAL					14,813	1,044	7.0%	13,769	5,919		7,850

AM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)		New Trips		
					In	Out	Trips	Trips	%	In	Out	Trips			In	Out	Trips
Congregate Care Facility	253	128 DUs	0.08 / DU	58%	6	4	10	1	10%	6	3	9	-	0%	6	3	9
General Office (10k-250k SF)	710	23,000 SF	1.52 / 1000 SF	88%	31	4	35	4	10%	29	2	31	3	10%	26	2	28
Medical Office	720	21,000 SF	3.10 / 1000SF	79%	51	14	65	7	10%	47	11	58	6	10%	42	10	52
Shop Plaza (40-150k) w/ Sup Market	821	92,149 SF	3.53 / 1000 SF	62%	202	123	325	20	6%	192	113	305	119	39%	117	69	186
Drive-In Bank	912	3,600 SF	9.95 / 1000 SF	58%	21	15	36	4	10%	19	13	32	15	47%	10	7	17
Gas Station w/ C-Store (FP/ SF)	FDOT	16 7,251	T = 12.3(FP) + 15.5(X)	50%	155	154	309	22	7%	144	143	287	175	61%	56	56	112
TOTAL					466	314	780	58	7.4%	437	285	722	318		257	147	404

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)		New Trips		
					In	Out	Trips	Trips	%	In	Out	Trips			In	Out	Trips
Congregate Care Facility	253	128 DUs	0.18 / DU	49%	11	12	23	2	10%	10	11	21	-	0%	10	11	21
General Office (10k-250k SF)	710	23,000 SF	1.44 / 1000 SF	17%	6	27	33	3	10%	5	25	30	3	10%	5	22	27
Medical Office	720	21,000 SF	3.93 / 1000 SF	30%	25	58	83	8	10%	21	54	75	8	10%	19	48	67
Shop Plaza (40-150k) w/ Sup Market	821	92,149 SF	9.03 / 1000 SF	48%	399	433	832	50	6%	374	408	782	305	39%	228	249	477
Drive-In Bank	912	3,600 SF	21.01 / 1000 SF	50%	38	38	76	8	10%	34	34	68	32	47%	18	18	36
Gas Station w/ C-Store (FP/ SF)	FDOT	16 7,251	T = 12.3(FP) + 15.5(X)	50%	155	154	309	31	10%	139	139	278	170	61%	54	54	108
TOTAL					634	722	1,356	102	7.5%	583	671	1,254	518		334	402	736

(1) Source: Palm Beach County Traffic Division and ITE Trip Generation, *11th Edition*.

Attachment 2B
Groves Town Center Hotel
Trip Generation - Approved & Proposed Site Plans

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips	Internal Trips		External Trips	Pass-by Trips (1)		New Trips
						Trips	%				
Hotel	310	81 Rooms	7.99 / Room	50%	647	65	10%	582	58	10%	524
Medical Office	720	24,400 SF	T = 42.97(X) - 108.01	50%	940	94	10%	846	85	10%	761
Shop Plaza (40-150k) w/ Sup Market	821	29,111 SF	94.49 / 1000 SF	50%	2,751	165	6%	2,586	1,009	39%	1,577
Fast Food Rest. With DT	934	4,479 SF	467.48 / 1000 SF	50%	2,094	209	10%	1,885	924	49%	961
Gas Station w/ C-Store (FP/ SF)	FDOT	16 6,119	T = 14.3 X PM Trips	50%	4,176	334	8%	3,842	2,344	61%	1,498
Carwash (Automated)	PBC	1 Lane	166 / Lane	50%	166	17	10%	149	-	0%	149
TOTAL					10,774	884	8.2%	9,890	4,420		5,470

AM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)		New Trips		
					In	Out	Trips	Trips	%	In	Out	Trips			In	Out	Trips
Hotel	310	81 Rooms	0.46 / Room	56%	21	16	37	4	10%	19	14	33	3	10%	17	13	30
Medical Office	720	24,400 SF	3.10 / 1000SF	79%	60	16	76	8	10%	56	12	68	7	10%	50	11	61
Shop Plaza (40-150k) w/ Sup Market	821	29,111 SF	3.53 / 1000 SF	62%	64	39	103	6	6%	61	36	97	38	39%	37	22	59
Fast Food Rest. With DT (2)	934	4,479 SF	0.00 / 1000 SF	51%	-	-	-	-	10%	-	-	-	-	49%	-	-	-
Gas Station w/ C-Store (FP/ SF)	FDOT	16 6,119	T = 12.3(FP) + 15.5(X)	50%	146	146	292	19	7%	137	136	273	167	61%	53	53	106
Carwash (Automated)	PBC	1 Lane	11.97 / Lane	50%	6	6	12	1	10%	5	6	11	-	0%	5	6	11
TOTAL					297	223	520	38	7.3%	278	204	482	215		162	105	267

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)		New Trips		
					In	Out	Trips	Trips	%	In	Out	Trips			In	Out	Trips
Hotel	310	81 Rooms	0.59 / Room	51%	24	24	48	5	10%	22	21	43	4	10%	20	19	39
Medical Office	720	24,400 SF	3.93 / 1000 SF	30%	29	67	96	10	10%	24	62	86	9	10%	22	55	77
Shop Plaza (40-150k) w/ Sup Market	821	29,111 SF	9.03 / 1000 SF	48%	126	137	263	16	6%	117	130	247	96	39%	71	80	151
Fast Food Rest. With DT	934	4,479 SF	33.03 / 1000 SF	52%	77	71	148	15	10%	70	63	133	65	49%	36	32	68
Gas Station w/ C-Store (FP/ SF)	FDOT	16 6,119	T = 12.3(FP) + 15.5(X)	50%	146	146	292	29	10%	131	132	263	160	61%	51	52	103
Carwash (Automated)	PBC	1 Lane	13.65 / Lane	50%	7	7	14	1	10%	7	6	13	-	0%	7	6	13
TOTAL					409	452	861	76	8.8%	371	414	785	334		207	244	451

(1) Source: Palm Beach County Traffic Division and ITE Trip Generation, *11th Edition*.
(2) Culver's Restaurant is not open in the AM so no trip generation was shown.

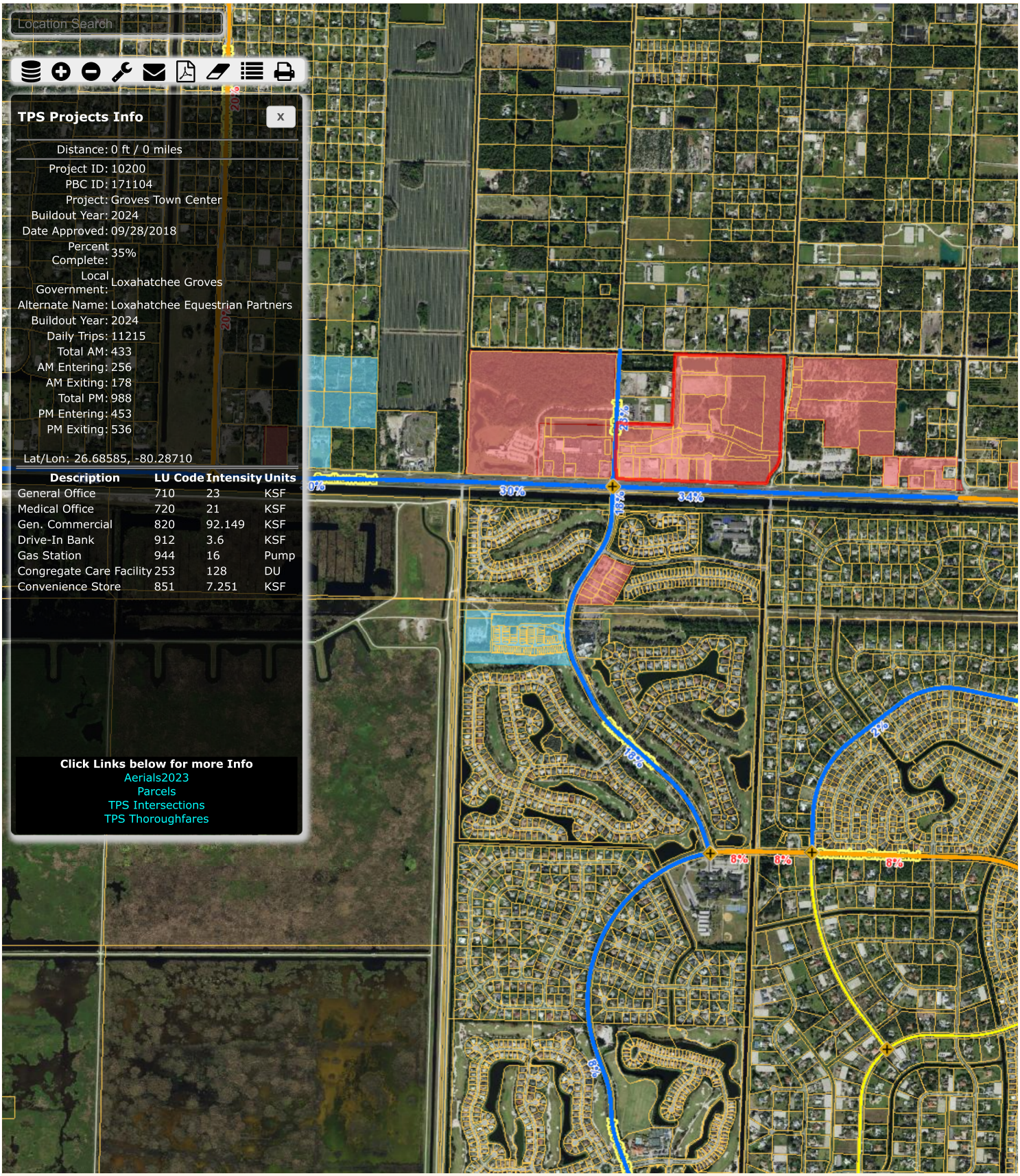
Attachment 2C
Groves Town Center Hotel
Trip Generation Comparison

	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Approved Master Plan (1)	7,850	257	147	404	334	402	736
Approved and Proposed Site Plans (2)	5,470	162	105	267	207	244	451
Remaining Trips:	2,380	95	42	137	127	158	285

(1) See Attachment 2A.

(2) See Attachment 2B.

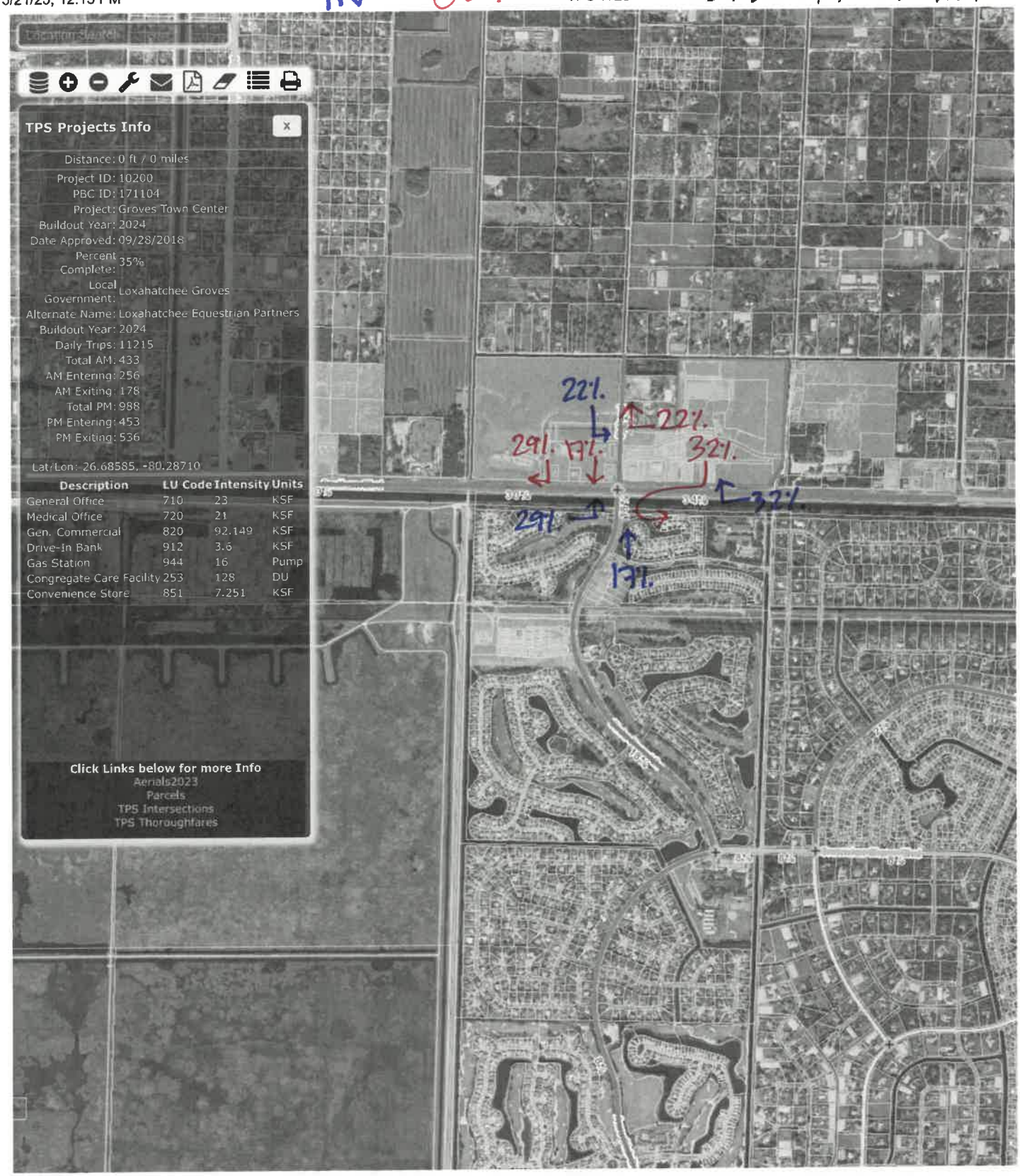
+ Hotel	524	17	13	30	20	19	39
TOTAL	2,904	112	55	167	147	177	324

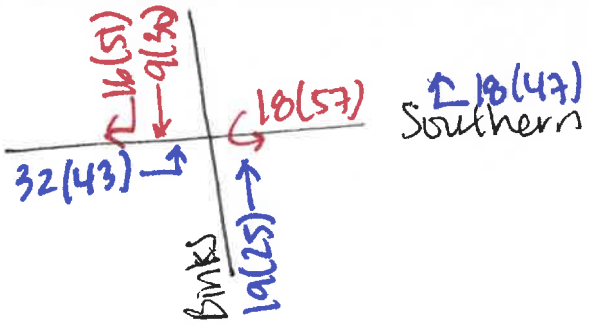

Location Search
TPS Projects Info
x
Distance: 0 ft / 0 miles
Project ID: 10200
PBC ID: 171104
Project: Groves Town Center
Buildout Year: 2024
Date Approved: 09/28/2018
Percent Complete: 35%
Local Government: Loxahatchee Groves
Alternate Name: Loxahatchee Equestrian Partners
Buildout Year: 2024
Daily Trips: 11215
Total AM: 433
AM Entering: 256
AM Exiting: 178
Total PM: 988
PM Entering: 453
PM Exiting: 536
Lat/Lon: 26.68585, -80.28710
Description LU Code Intensity Units
General Office 710 23 KSF
Medical Office 720 21 KSF
Gen. Commercial 820 92.149 KSF
Drive-In Bank 912 3.6 KSF
Gas Station 944 16 Pump
Congregate Care Facility 253 128 DU
Convenience Store 851 7.251 KSF
Click Links below for more Info
Aerials2023
Parcels
TPS Intersections
TPS Thoroughfares
0%
30%
16%
34%
2%
16%
8%
8%
8%
8%
26.68492, -80.29637

IN OUT

TPS WEB

23+34+18+30 = 105%.
22+32+17+29 = 100%.





26.68492, -80.29637

APPENDIX E

TEST 1 PART 1: INTERSECTION ANALYSIS

CMA INTERSECTION ANALYSIS
LOXAHATCHEE RV RESORT
SOUTHERN BOULEVARD AND BINKS FOREST DRIVE

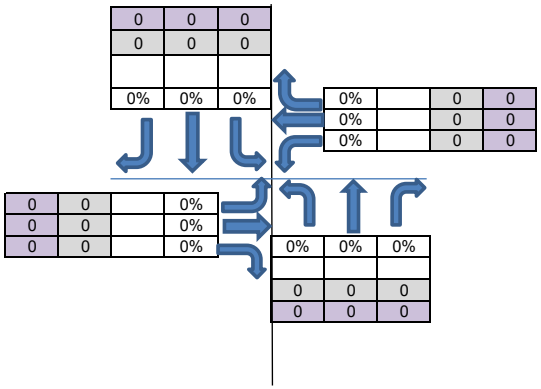
03/20/25
Revised 05/02/25

TRIPS	IN	OUT
AM	22	38
PM	51	27

INPUT DATA

Comments: Background conditions, without project. FDOT programmed improvements include dual EBL and dual SBL lanes.

Area Wide Growth Rate = 1.00% Peak Season = 1.00 Current Year = 2024 Buildout Year = 2029



AM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Existing Volume (2024)	335	97	396	186	118	61	140	1732	541	113	1829	154	5702	Existing Total
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0		
Background Traffic Growth	17	5	20	9	6	3	7	88	28	6	93	8	291	BG Total
1.0% Background Growth	17	5	20	9	6	3	7	88	28	6	93	8	1,310	1% + MP Total
Major Projects Traffic	52	34	7	12	16	16	32	341	61	30	380	38		
1% BGR + Major Projects	69	39	27	21	22	19	39	429	89	36	473	46		
Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0		
Total	**404**	**136**	**423**	**207**	**140**	**80**	**179**	**2161**	**630**	**149**	**2302**	**200**		
Approach Total		**963**			**428**			**2,970**			**2,651**			

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	1	2	1	<	2	3	1	2	3	1	
Per Lane Volume	404	136	423	104	220		90	720	630	74	767	200	
Right on Red			60			10			60			60	
Overlaps Left			74			90			404			104	
Adj. Per Lane Volume	404	136	289	104	210		90	720	166	74	767	36	
Through/Right Volume		289			210			720			767		
Opposing Left Turns		104			404			74			90		
Critical Volume for Approach		393			614			795			857		
Critical Volume for Direction		614						857					
Intersection Critical Volume					**1,471**								
STATUS?					**OVER**								

PM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Existing Volume (2024)	369	198	135	268	306	104	150	1423	303	217	2213	230	5916	Existing Total
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0		
Background Traffic Growth	19	10	7	14	16	5	8	73	15	11	113	12	302	BG Total
1.0% Background Growth	19	10	7	14	16	5	8	73	15	11	113	12	1,744	1% + MP Total
Major Projects Traffic	74	39	38	29	44	51	43	472	80	84	456	32		
1% BGR + Major Projects	93	49	45	43	60	56	51	545	95	95	569	44		
Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0		
Total	**462**	**247**	**180**	**311**	**366**	**160**	**201**	**1968**	**398**	**312**	**2782**	**274**		
Approach Total		**889**			**837**			**2,567**			**3,368**			

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	1	2	1	<	2	3	1	2	3	1	
Per Lane Volume	462	247	180	155	526		100	656	398	156	927	274	
Right on Red			60			10			60			60	
Overlaps Left			156			100			462			155	
Adj. Per Lane Volume	462	247	0	155	516		100	656	0	156	927	58	
Through/Right Volume		247			516			656			927		
Opposing Left Turns		155			462			156			100		
Critical Volume for Approach		402			978			812			1028		
Critical Volume for Direction		978						1028					
Intersection Critical Volume					**2,005**								
STATUS?					**OVER**								

CMA INTERSECTION ANALYSIS
LOXAHATCHEE RV RESORT
SOUTHERN BOULEVARD AND BINKS FOREST DRIVE

03/20/25
Revised 05/02/25

TRIPS	IN	OUT
AM	22	38
PM	51	27

INPUT DATA

Comments: Future conditions, with project. FDOT programmed improvements include dual EBL and dual SBL lanes.

Area Wide Growth Rate = 1.00% Peak Season = 1.00 Current Year = 2024 Buildout Year = 2029

AM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Existing Volume (2024)	335	97	396	186	118	61	140	1732	541	113	1829	154	5702	Existing Total
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0		
Background Traffic Growth	17	5	20	9	6	3	7	88	28	6	93	8	291	BG Total
1.0% Background Growth	17	5	20	9	6	3	7	88	28	6	93	8	1,310	1% + MP Total
Major Projects Traffic	52	34	7	12	16	16	32	341	61	30	380	38		
1% BGR + Major Projects	69	39	27	21	22	19	39	429	89	36	473	46		
Project Traffic	0	0	2	0	0	0	0	7	0	25	11	0		
Total	**404**	**136**	**425**	**207**	**140**	**80**	**179**	**2168**	**630**	**174**	**2313**	**200**		
Approach Total		**965**			**428**			**2,977**			**2,687**			

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	1	2	1	<	2	3	1	2	3	1	
Per Lane Volume	404	136	425	104	220		90	723	630	87	771	200	
Right on Red			60			10			60			60	
Overlaps Left			87			90			404			104	
Adj. Per Lane Volume	404	136	278	104	210		90	723	166	87	771	36	
Through/Right Volume		278			210			723			771		
Opposing Left Turns		104			404			87			90		
Critical Volume for Approach		382			614			810			861		
Critical Volume for Direction		614						861					
Intersection Critical Volume	**1,475**												
STATUS?	**OVER**												

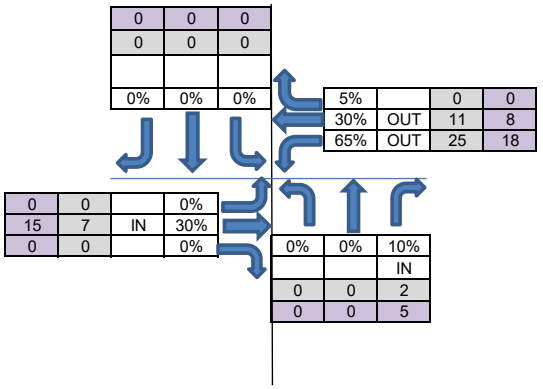
PM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Existing Volume (2024)	369	198	135	268	306	104	150	1423	303	217	2213	230	5916	Existing Total
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0		
Background Traffic Growth	19	10	7	14	16	5	8	73	15	11	113	12	302	BG Total
1.0% Background Growth	19	10	7	14	16	5	8	73	15	11	113	12	1,744	1% + MP Total
Major Projects Traffic	74	39	38	29	44	51	43	472	80	84	456	32		
1% BGR + Major Projects	93	49	45	43	60	56	51	545	95	95	569	44		
Project Traffic	0	0	5	0	0	0	0	15	0	18	8	0		
Total	**462**	**247**	**185**	**311**	**366**	**160**	**201**	**1983**	**398**	**330**	**2790**	**274**		
Approach Total		**894**			**837**			**2,582**			**3,394**			

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	1	2	1	<	2	3	1	2	3	1	
Per Lane Volume	462	247	185	155	526		100	661	398	165	930	274	
Right on Red			60			10			60			60	
Overlaps Left			165			100			462			155	
Adj. Per Lane Volume	462	247	0	155	516		100	661	0	165	930	58	
Through/Right Volume		247			516			661			930		
Opposing Left Turns		155			462			165			100		
Critical Volume for Approach		402			978			826			1030		
Critical Volume for Direction		978						1030					
Intersection Critical Volume	**2,008**												
STATUS?	**OVER**												

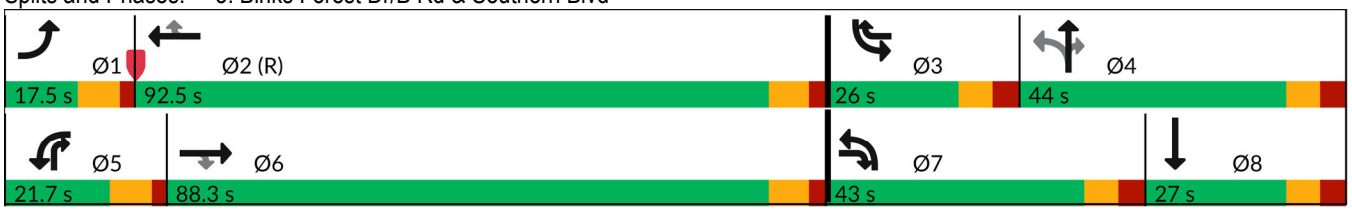


SIGNAL ID	E-W STREET	N-S STREET	DATE	TIME	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
30726	Southern Bl	Big Blue Tr/F Rd	2/8/2023	5:00 PM	1	144	33	199	0	56	50	15	2	9	2015	154	6	477	1839	35	5035
30726	Southern Bl	Big Blue Tr/F Rd	11/1/2021	7:00 AM	0	62	18	212	0	22	25	10	1	78	1228	70	0	144	1673	29	3572
30726	Southern Bl	Big Blue Tr/F Rd	11/1/2021	12:00 PM	0	70	7	153	0	27	14	7	0	8	1235	30	0	176	849	24	2600
30726	Southern Bl	Big Blue Tr/F Rd	11/1/2021	5:00 PM	0	97	21	186	0	44	34	14	0	12	1850	56	0	346	1933	29	4622
30726	Southern Bl	Big Blue Tr/F Rd	2/22/2021	7:15 AM	0	140	22	476	0	12	14	7	0	6	1316	68	0	166	1537	35	3799
30726	Southern Bl	Big Blue Tr/F Rd	2/22/2021	12:00 PM	0	46	22	207	0	22	30	6	1	7	1030	58	0	211	1232	32	2904
30726	Southern Bl	Big Blue Tr/F Rd	2/22/2021	5:00 PM	0	114	24	230	0	31	38	6	0	5	1449	124	0	371	2299	23	4714
30718	Southern Bl	Binks Forest Dr/B Rd	8/28/2024	7:00 AM	0	335	97	396	0	186	118	61	42	98	1732	541	8	105	1829	154	5702
30718	Southern Bl	Binks Forest Dr/B Rd	8/28/2024	12:00 PM	0	190	122	110	0	247	152	64	85	104	1091	187	16	133	1843	141	4485
30718	Southern Bl	Binks Forest Dr/B Rd	8/28/2024	4:45 PM	0	369	198	135	0	268	306	104	52	98	1423	303	11	206	2213	230	5916
30718	Southern Bl	Binks Forest Dr/B Rd	2/1/2023	7:00 AM	0	280	59	344	0	109	100	18	50	61	1676	439	2	143	1179	91	4551
30718	Southern Bl	Binks Forest Dr/B Rd	2/1/2023	12:00 PM	0	185	98	177	0	180	131	19	71	101	1113	190	4	134	872	179	3454
30718	Southern Bl	Binks Forest Dr/B Rd	2/1/2023	4:45 PM	2	339	149	188	0	196	135	53	72	193	1331	212	4	207	1497	172	4750
30718	Southern Bl	Binks Forest Dr/B Rd	9/1/2021	7:00 AM	0	248	72	204	0	72	61	19	35	49	1236	194	1	80	925	84	3280
30718	Southern Bl	Binks Forest Dr/B Rd	9/1/2021	11:45 AM	0	133	62	108	0	110	88	24	49	101	774	91	0	122	695	134	2491
30718	Southern Bl	Binks Forest Dr/B Rd	9/1/2021	4:45 PM	0	261	98	86	0	137	90	27	28	115	1010	155	1	164	1042	187	3401
30815	Southern Bl	Cleary Rd	3/16/2023	7:30 AM	0	0	0	0	0	97	0	175	30	83	2356	0	10	0	2759	118	5628
30815	Southern Bl	Cleary Rd	3/16/2023	12:15 PM	0	0	0	0	0	70	0	152	36	125	1970	0	4	0	2068	72	4497
30815	Southern Bl	Cleary Rd	3/16/2023	4:45 PM	0	0	0	0	0	178	0	127	34	102	2896	0	20	0	3201	93	6651
30815	Southern Bl	Cleary Rd	3/8/2021	7:30 AM	0	0	0	0	0	70	0	125	37	118	3101	0	10	0	2468	133	6062
30815	Southern Bl	Cleary Rd	3/8/2021	12:00 PM	0	0	0	0	0	70	0	95	43	115	1935	0	14	0	1813	104	4189
30815	Southern Bl	Cleary Rd	3/8/2021	4:45 PM	0	0	0	0	0	130	0	92	45	121	2918	0	15	0	3127	100	6548
30722	Southern Bl	D Rd	5/7/2024	9:00 AM	0	0	0	0	0	58	0	17	0	36	3477	0	0	0	2905	39	6532

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	179	2161	630	149	2302	200	404	136	423	207	140
Future Volume (vph)	179	2161	630	149	2302	200	404	136	423	207	140
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA
Protected Phases	1	6	7	5	2	3	7	4	5	3	8
Permitted Phases			6			2	4		4		
Detector Phase	1	6	7	5	2	3	7	4	5	3	8
Switch Phase											
Minimum Initial (s)	4.0	20.0	4.0	4.0	20.0	4.0	4.0	6.0	4.0	4.0	6.0
Minimum Split (s)	11.5	27.5	12.0	11.5	27.5	12.0	12.0	14.0	11.5	12.0	14.0
Total Split (s)	17.5	88.3	43.0	21.7	92.5	26.0	43.0	44.0	21.7	26.0	27.0
Total Split (%)	9.7%	49.1%	23.9%	12.1%	51.4%	14.4%	23.9%	24.4%	12.1%	14.4%	15.0%
Yellow Time (s)	5.5	5.5	4.5	5.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5
All-Red Time (s)	2.0	2.0	3.5	2.0	2.0	3.5	3.5	3.5	2.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.0	7.5	7.5	8.0	8.0	8.0	7.5	8.0	8.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	10.0	82.2	124.7	12.8	85.0	108.5	62.0	38.0	58.8	16.0	19.0
Actuated g/C Ratio	0.06	0.46	0.69	0.07	0.47	0.60	0.34	0.21	0.33	0.09	0.11
v/c Ratio	0.99	0.98	0.58	0.65	1.01	0.21	1.10	0.36	0.78	0.72	1.17
Control Delay (s/veh)	144.3	61.9	13.2	93.9	67.1	5.9	127.4	64.4	56.2	93.1	179.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	144.3	61.9	13.2	93.9	67.1	5.9	127.4	64.4	56.2	93.1	179.5
LOS	F	E	B	F	E	A	F	E	E	F	F
Approach Delay (s/veh)		56.6			64.0			87.3			137.5
Approach LOS		E			E			F			F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay (s/veh): 68.5	Intersection LOS: E
Intersection Capacity Utilization 110.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Binks Forest Dr/B Rd & Southern Blvd

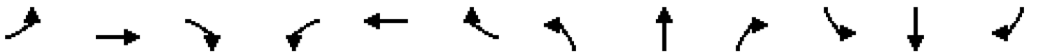


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	188	2275	663	157	2423	211	425	143	445	218	231
v/c Ratio	0.99	0.98	0.58	0.65	1.01	0.21	1.10	0.36	0.78	0.72	1.17
Control Delay (s/veh)	144.3	61.9	13.2	93.9	67.1	5.9	127.4	64.4	56.2	93.1	179.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	144.3	61.9	13.2	93.9	67.1	5.9	127.4	64.4	56.2	93.1	179.5
Queue Length 50th (ft)	117	969	303	94	~1066	36	~517	147	406	130	~310
Queue Length 95th (ft)	#207	#1094	417	137	#1169	74	#750	224	561	179	#503
Internal Link Dist (ft)		1123			1189			528			604
Turn Bay Length (ft)											
Base Capacity (vph)	190	2323	1140	270	2401	1023	385	393	580	343	197
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.98	0.58	0.58	1.01	0.21	1.10	0.36	0.77	0.64	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	2161	630	149	2302	200	404	136	423	207	140	80
Future Volume (veh/h)	179	2161	630	149	2302	200	404	136	423	207	140	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	2275	600	157	2423	148	425	143	382	218	147	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	2404	1055	197	2411	867	386	421	447	259	124	62
Arrive On Green	0.06	0.47	0.47	0.06	0.47	0.47	0.19	0.22	0.22	0.08	0.11	0.11
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	1781	1870	1585	3456	1179	586
Grp Volume(v), veh/h	188	2275	600	157	2423	148	425	143	382	218	0	220
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1781	1870	1585	1728	0	1765
Q Serve(g_s), s	9.8	76.5	36.7	8.1	85.0	8.4	35.0	11.5	40.5	11.2	0.0	19.0
Cycle Q Clear(g_c), s	9.8	76.5	36.7	8.1	85.0	8.4	35.0	11.5	40.5	11.2	0.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	192	2404	1055	197	2411	867	386	421	447	259	0	186
V/C Ratio(X)	0.98	0.95	0.57	0.80	1.00	0.17	1.10	0.34	0.86	0.84	0.00	1.18
Avail Cap(c_a), veh/h	192	2404	1055	273	2411	867	386	421	447	346	0	186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	84.9	45.4	16.2	83.9	47.5	20.3	57.9	58.5	61.2	82.2	0.0	80.5
Incr Delay (d2), s/veh	58.7	8.8	0.7	10.8	19.5	0.4	75.5	0.5	14.9	13.0	0.0	123.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.0	43.8	19.6	7.1	50.7	6.0	33.7	9.5	25.5	9.4	0.0	22.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	143.6	54.3	17.0	94.7	67.0	20.8	133.4	59.0	76.1	95.2	0.0	203.6
LnGrp LOS	F	D	B	F	F	C	F	E	E	F		F
Approach Vol, veh/h		3063			2728			950			438	
Approach Delay, s/veh		52.5			66.1			99.2			149.7	
Approach LOS		D			E			F			F	

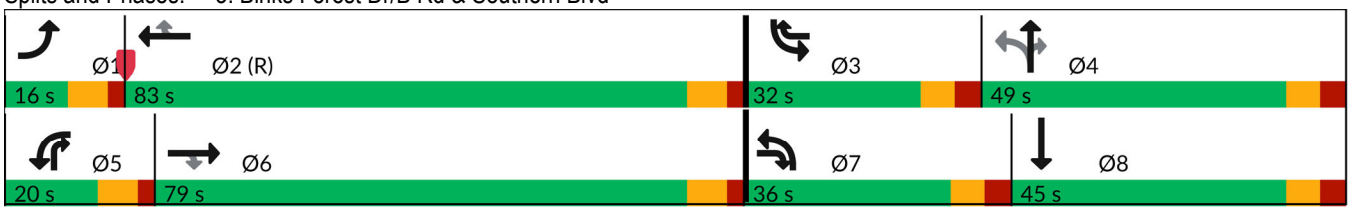
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	92.5	21.5	48.5	17.7	92.3	43.0	27.0
Change Period (Y+Rc), s	7.5	7.5	8.0	8.0	7.5	7.5	8.0	8.0
Max Green Setting (Gmax), s	10.0	85.0	18.0	36.0	14.2	80.8	35.0	19.0
Max Q Clear Time (g_c+I1), s	11.8	87.0	13.2	42.5	10.1	78.5	37.0	21.0
Green Ext Time (p_c), s	0.0	0.0	0.3	0.0	0.2	2.2	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	69.7
HCM 7th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	201	1968	398	312	2782	274	462	247	180	311	366
Future Volume (vph)	201	1968	398	312	2782	274	462	247	180	311	366
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA
Protected Phases	1	6	7	5	2	3	7	4	5	3	8
Permitted Phases			6			2	4		4		
Detector Phase	1	6	7	5	2	3	7	4	5	3	8
Switch Phase											
Minimum Initial (s)	4.0	20.0	4.0	4.0	20.0	4.0	4.0	6.0	4.0	4.0	6.0
Minimum Split (s)	11.5	27.5	12.0	11.5	27.5	12.0	12.0	14.0	11.5	12.0	14.0
Total Split (s)	16.0	79.0	36.0	20.0	83.0	32.0	36.0	49.0	20.0	32.0	45.0
Total Split (%)	8.9%	43.9%	20.0%	11.1%	46.1%	17.8%	20.0%	27.2%	11.1%	17.8%	25.0%
Yellow Time (s)	5.5	5.5	4.5	5.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5
All-Red Time (s)	2.0	2.0	3.5	2.0	2.0	3.5	3.5	3.5	2.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.0	7.5	7.5	8.0	8.0	8.0	7.5	8.0	8.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	8.5	71.5	107.0	12.5	75.5	104.5	70.9	43.5	64.0	21.5	37.0
Actuated g/C Ratio	0.05	0.40	0.59	0.07	0.42	0.58	0.39	0.24	0.36	0.12	0.21
v/c Ratio	1.31	1.03	0.43	1.38	1.37	0.29	1.54	0.58	0.31	0.80	1.48
Control Delay (s/veh)	236.2	79.4	17.4	250.1	210.6	9.4	296.2	66.8	26.5	91.9	274.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	236.2	79.4	17.4	250.1	210.6	9.4	296.2	66.8	26.5	91.9	274.2
LOS	F	E	B	F	F	A	F	E	C	F	F
Approach Delay (s/veh)		82.1			197.9			177.9			206.5
Approach LOS		F			F			F			F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay (s/veh): 157.7	Intersection LOS: F
Intersection Capacity Utilization 139.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Binks Forest Dr/B Rd & Southern Blvd

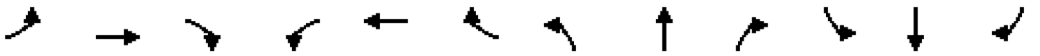


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	212	2072	419	328	2928	288	486	260	189	327	553
v/c Ratio	1.31	1.03	0.43	1.38	1.37	0.29	1.54	0.58	0.31	0.80	1.48
Control Delay (s/veh)	236.2	79.4	17.4	250.1	210.6	9.4	296.2	66.8	26.5	91.9	274.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	236.2	79.4	17.4	250.1	210.6	9.4	296.2	66.8	26.5	91.9	274.2
Queue Length 50th (ft)	~164	~951	213	~263	~1667	75	~756	275	95	196	~889
Queue Length 95th (ft)	#259	#1035	297	#372	#1725	130	#1000	386	169	252	#1136
Internal Link Dist (ft)		1123			1189			528			604
Turn Bay Length (ft)											
Base Capacity (vph)	162	2019	971	238	2132	1000	316	450	611	457	374
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	1.03	0.43	1.38	1.37	0.29	1.54	0.58	0.31	0.72	1.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	1968	398	312	2782	274	462	247	180	311	366	160
Future Volume (veh/h)	201	1968	398	312	2782	274	462	247	180	311	366	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	2072	356	328	2928	225	486	260	126	327	385	157
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	2028	876	240	2142	835	317	474	512	371	260	106
Arrive On Green	0.05	0.40	0.40	0.07	0.42	0.42	0.16	0.25	0.25	0.11	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	1781	1870	1585	3456	1263	515
Grp Volume(v), veh/h	212	2072	356	328	2928	225	486	260	126	327	0	542
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1781	1870	1585	1728	0	1778
Q Serve(g_s), s	8.5	71.5	23.3	12.5	75.5	14.1	28.0	21.7	10.5	16.8	0.0	37.0
Cycle Q Clear(g_c), s	8.5	71.5	23.3	12.5	75.5	14.1	28.0	21.7	10.5	16.8	0.0	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	163	2028	876	240	2142	835	317	474	512	371	0	365
V/C Ratio(X)	1.30	1.02	0.41	1.37	1.37	0.27	1.53	0.55	0.25	0.88	0.00	1.48
Avail Cap(c_a), veh/h	163	2028	876	240	2142	835	317	474	512	461	0	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	85.8	54.2	23.2	83.8	52.2	23.5	60.0	58.2	44.8	79.2	0.0	71.5
Incr Delay (d2), s/veh	172.1	25.6	0.3	189.4	168.3	0.8	255.1	1.3	0.2	15.2	0.0	231.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.1	45.9	13.9	19.3	96.0	9.5	50.9	15.9	7.7	13.1	0.0	60.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	257.8	79.9	23.5	273.2	220.5	24.3	315.0	59.6	45.0	94.4	0.0	303.2
LnGrp LOS	F	F	C	F	F	C	F	E	D	F		F
Approach Vol, veh/h		2640			3481			872			869	
Approach Delay, s/veh		86.6			212.8			199.8			224.6	
Approach LOS		F			F			F			F	

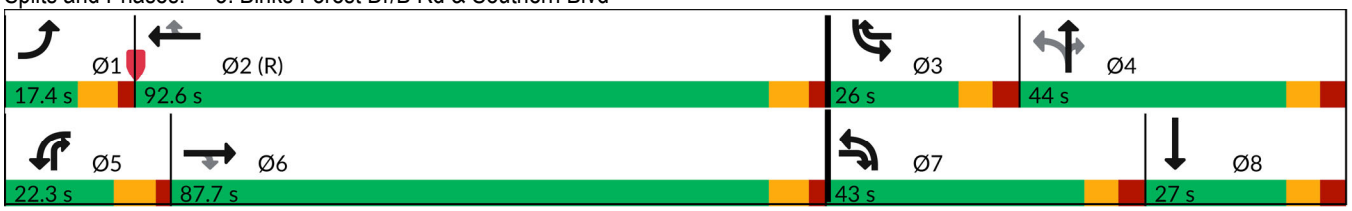
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	83.0	27.3	53.7	20.0	79.0	36.0	45.0
Change Period (Y+Rc), s	7.5	7.5	8.0	8.0	7.5	7.5	8.0	8.0
Max Green Setting (Gmax), s	8.5	75.5	24.0	41.0	12.5	71.5	28.0	37.0
Max Q Clear Time (g_c+I1), s	10.5	77.5	18.8	23.7	14.5	73.5	30.0	39.0
Green Ext Time (p_c), s	0.0	0.0	0.5	1.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	170.3
HCM 7th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	179	2168	630	174	2313	200	404	136	425	207	140
Future Volume (vph)	179	2168	630	174	2313	200	404	136	425	207	140
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA
Protected Phases	1	6	7	5	2	3	7	4	5	3	8
Permitted Phases			6			2	4		4		
Detector Phase	1	6	7	5	2	3	7	4	5	3	8
Switch Phase											
Minimum Initial (s)	4.0	20.0	4.0	4.0	20.0	4.0	4.0	6.0	4.0	4.0	6.0
Minimum Split (s)	11.5	27.5	12.0	11.5	27.5	12.0	12.0	14.0	11.5	12.0	14.0
Total Split (s)	17.4	87.7	43.0	22.3	92.6	26.0	43.0	44.0	22.3	26.0	27.0
Total Split (%)	9.7%	48.7%	23.9%	12.4%	51.4%	14.4%	23.9%	24.4%	12.4%	14.4%	15.0%
Yellow Time (s)	5.5	5.5	4.5	5.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5
All-Red Time (s)	2.0	2.0	3.5	2.0	2.0	3.5	3.5	3.5	2.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.0	7.5	7.5	8.0	8.0	8.0	7.5	8.0	8.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.9	81.3	123.8	13.7	85.1	108.6	62.0	38.0	59.7	16.0	19.0
Actuated g/C Ratio	0.06	0.45	0.69	0.08	0.47	0.60	0.34	0.21	0.33	0.09	0.11
v/c Ratio	1.00	0.99	0.59	0.70	1.01	0.21	1.10	0.36	0.78	0.72	1.17
Control Delay (s/veh)	147.3	65.7	13.8	95.8	67.9	5.9	127.4	64.4	55.2	93.1	179.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	147.3	65.7	13.8	95.8	67.9	5.9	127.4	64.4	55.2	93.1	179.5
LOS	F	E	B	F	E	A	F	E	E	F	F
Approach Delay (s/veh)		59.6			65.1			86.8			137.5
Approach LOS		E			E			F			F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay (s/veh): 70.1	Intersection LOS: E
Intersection Capacity Utilization 110.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Binks Forest Dr/B Rd & Southern Blvd

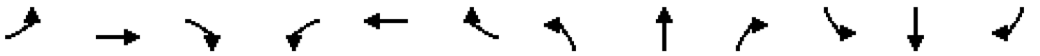


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	188	2282	663	183	2435	211	425	143	447	218	231
v/c Ratio	1.00	0.99	0.59	0.70	1.01	0.21	1.10	0.36	0.78	0.72	1.17
Control Delay (s/veh)	147.3	65.7	13.8	95.8	67.9	5.9	127.4	64.4	55.2	93.1	179.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	147.3	65.7	13.8	95.8	67.9	5.9	127.4	64.4	55.2	93.1	179.5
Queue Length 50th (ft)	117	~1001	316	110	~1104	36	~517	147	405	130	~310
Queue Length 95th (ft)	#208	#1108	428	157	#1178	74	#750	224	564	179	#503
Internal Link Dist (ft)		1123			1189			528			604
Turn Bay Length (ft)											
Base Capacity (vph)	188	2296	1130	282	2404	1024	385	393	585	343	197
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.99	0.59	0.65	1.01	0.21	1.10	0.36	0.76	0.64	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	2168	630	174	2313	200	404	136	425	207	140	80
Future Volume (veh/h)	179	2168	630	174	2313	200	404	136	425	207	140	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	2282	600	183	2435	148	425	143	384	218	147	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	2366	1043	223	2414	868	386	421	459	259	124	62
Arrive On Green	0.05	0.46	0.46	0.06	0.47	0.47	0.19	0.22	0.22	0.08	0.11	0.11
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	1781	1870	1585	3456	1179	586
Grp Volume(v), veh/h	188	2282	600	183	2435	148	425	143	384	218	0	220
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1781	1870	1585	1728	0	1765
Q Serve(g_s), s	9.8	78.1	37.5	9.4	85.1	8.4	35.0	11.5	40.5	11.2	0.0	19.0
Cycle Q Clear(g_c), s	9.8	78.1	37.5	9.4	85.1	8.4	35.0	11.5	40.5	11.2	0.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	190	2366	1043	223	2414	868	386	421	459	259	0	186
V/C Ratio(X)	0.99	0.96	0.58	0.82	1.01	0.17	1.10	0.34	0.84	0.84	0.00	1.18
Avail Cap(c_a), veh/h	190	2366	1043	284	2414	868	386	421	459	346	0	186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	85.0	46.9	17.0	83.2	47.4	20.3	57.9	58.5	60.0	82.2	0.0	80.5
Incr Delay (d2), s/veh	62.0	11.4	0.8	14.1	20.5	0.4	75.5	0.5	12.8	13.0	0.0	123.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.1	45.2	20.1	8.2	51.2	6.0	33.7	9.5	25.2	9.4	0.0	22.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	147.0	58.2	17.7	97.3	67.9	20.7	133.4	59.0	72.8	95.2	0.0	203.6
LnGrp LOS	F	E	B	F	F	C	F	E	E	F		F
Approach Vol, veh/h		3070			2766			952			438	
Approach Delay, s/veh		55.8			67.3			97.8			149.7	
Approach LOS		E			E			F			F	

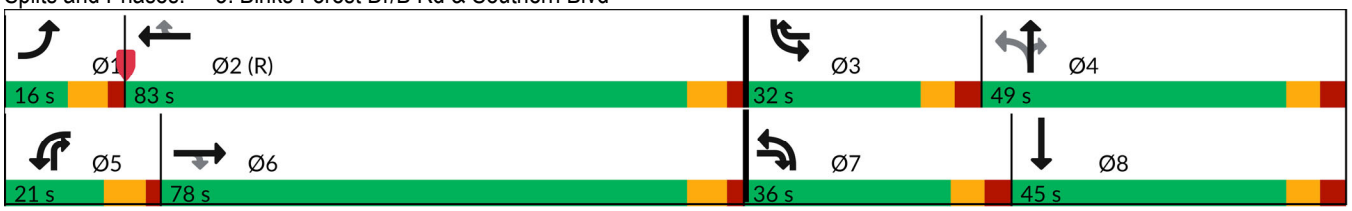
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	92.6	21.5	48.5	19.1	90.9	43.0	27.0
Change Period (Y+Rc), s	7.5	7.5	8.0	8.0	7.5	7.5	8.0	8.0
Max Green Setting (Gmax), s	9.9	85.1	18.0	36.0	14.8	80.2	35.0	19.0
Max Q Clear Time (g_c+I1), s	11.8	87.1	13.2	42.5	11.4	80.1	37.0	21.0
Green Ext Time (p_c), s	0.0	0.0	0.3	0.0	0.2	0.1	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	71.4
HCM 7th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	201	1983	398	330	2790	274	462	247	185	311	366
Future Volume (vph)	201	1983	398	330	2790	274	462	247	185	311	366
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA
Protected Phases	1	6	7	5	2	3	7	4	5	3	8
Permitted Phases			6			2	4		4		
Detector Phase	1	6	7	5	2	3	7	4	5	3	8
Switch Phase											
Minimum Initial (s)	4.0	20.0	4.0	4.0	20.0	4.0	4.0	6.0	4.0	4.0	6.0
Minimum Split (s)	11.5	27.5	12.0	11.5	27.5	12.0	12.0	14.0	11.5	12.0	14.0
Total Split (s)	16.0	78.0	36.0	21.0	83.0	32.0	36.0	49.0	21.0	32.0	45.0
Total Split (%)	8.9%	43.3%	20.0%	11.7%	46.1%	17.8%	20.0%	27.2%	11.7%	17.8%	25.0%
Yellow Time (s)	5.5	5.5	4.5	5.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5
All-Red Time (s)	2.0	2.0	3.5	2.0	2.0	3.5	3.5	3.5	2.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.0	7.5	7.5	8.0	8.0	8.0	7.5	8.0	8.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	8.5	70.5	106.0	13.5	75.5	104.5	70.9	43.5	65.0	21.5	37.0
Actuated g/C Ratio	0.05	0.39	0.59	0.08	0.42	0.58	0.39	0.24	0.36	0.12	0.21
v/c Ratio	1.31	1.05	0.44	1.35	1.38	0.29	1.54	0.58	0.31	0.80	1.48
Control Delay (s/veh)	236.2	86.2	17.9	238.0	212.4	9.4	296.2	66.8	26.7	91.9	274.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	236.2	86.2	17.9	238.0	212.4	9.4	296.2	66.8	26.7	91.9	274.2
LOS	F	F	B	F	F	A	F	E	C	F	F
Approach Delay (s/veh)		87.4			198.5			177.0			206.5
Approach LOS		F			F			F			F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay (s/veh): 159.6	Intersection LOS: F
Intersection Capacity Utilization 140.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Binks Forest Dr/B Rd & Southern Blvd

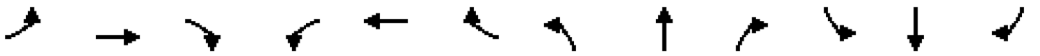


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	212	2087	419	347	2937	288	486	260	195	327	553
v/c Ratio	1.31	1.05	0.44	1.35	1.38	0.29	1.54	0.58	0.31	0.80	1.48
Control Delay (s/veh)	236.2	86.2	17.9	238.0	212.4	9.4	296.2	66.8	26.7	91.9	274.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	236.2	86.2	17.9	238.0	212.4	9.4	296.2	66.8	26.7	91.9	274.2
Queue Length 50th (ft)	~164	~977	216	~275	~1675	76	~756	275	100	196	~889
Queue Length 95th (ft)	#259	#1061	301	#387	#1733	130	#1000	386	175	252	#1136
Internal Link Dist (ft)		1123			1189			528			604
Turn Bay Length (ft)											
Base Capacity (vph)	162	1991	963	257	2132	999	316	450	620	457	374
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	1.05	0.44	1.35	1.38	0.29	1.54	0.58	0.31	0.72	1.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	1983	398	330	2790	274	462	247	185	311	366	160
Future Volume (veh/h)	201	1983	398	330	2790	274	462	247	185	311	366	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	2087	356	347	2937	225	486	260	132	327	385	157
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	2000	867	259	2142	835	317	474	521	371	260	106
Arrive On Green	0.05	0.39	0.39	0.08	0.42	0.42	0.16	0.25	0.25	0.11	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	1781	1870	1585	3456	1263	515
Grp Volume(v), veh/h	212	2087	356	347	2937	225	486	260	132	327	0	542
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1781	1870	1585	1728	0	1778
Q Serve(g_s), s	8.5	70.5	23.6	13.5	75.5	14.1	28.0	21.7	11.0	16.8	0.0	37.0
Cycle Q Clear(g_c), s	8.5	70.5	23.6	13.5	75.5	14.1	28.0	21.7	11.0	16.8	0.0	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	163	2000	867	259	2142	835	317	474	521	371	0	365
V/C Ratio(X)	1.30	1.04	0.41	1.34	1.37	0.27	1.53	0.55	0.25	0.88	0.00	1.48
Avail Cap(c_a), veh/h	163	2000	867	259	2142	835	317	474	521	461	0	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	85.8	54.8	23.8	83.3	52.2	23.5	60.0	58.2	44.2	79.2	0.0	71.5
Incr Delay (d2), s/veh	172.1	32.6	0.3	176.2	170.1	0.8	255.1	1.3	0.3	15.2	0.0	231.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.1	47.6	14.1	20.0	96.7	9.5	50.9	15.9	7.9	13.1	0.0	60.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	257.8	87.3	24.1	259.5	222.4	24.3	315.0	59.6	44.5	94.4	0.0	303.2
LnGrp LOS	F	F	C	F	F	C	F	E	D	F		F
Approach Vol, veh/h		2655			3509			878			869	
Approach Delay, s/veh		92.5			213.4			198.7			224.6	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	83.0	27.3	53.7	21.0	78.0	36.0	45.0
Change Period (Y+Rc), s	7.5	7.5	8.0	8.0	7.5	7.5	8.0	8.0
Max Green Setting (Gmax), s	8.5	75.5	24.0	41.0	13.5	70.5	28.0	37.0
Max Q Clear Time (g_c+I1), s	10.5	77.5	18.8	23.7	15.5	72.5	30.0	39.0
Green Ext Time (p_c), s	0.0	0.0	0.5	1.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	172.4
HCM 7th LOS	F

CONTROLLER TIME SHEET

DATE TIMING INSTALLED: _____

INTERSECTION:	SOUTHERN BLVD/SR 80 & BINKS FOREST DR	CONTROLLER TYPE:	NAZTEC
SIGNAL #	30718	SYSTEM #	2195

PHASE NUMBER	BOUND	TIMING INTERVAL													
		MIN GREEN	GAP EXT	MAX 1	MAX 2	YEL CLR	RED CLR	WALK	PED CLR	MIN RCL	MAX RCL	PED RCL	PHASE ENABLE	LOCKED CALLS	DETECTOR SETTINGS
1	EBLT	4.0	2.0	20.0	8.0	5.5	2.0	0.0	0.0				1		L1=NORMAL
2	WB	20.0	4.0	75.0	45.0	5.5	2.0	7.0	14.0	1			1	1	L2=NORMAL
3	SBLT	4.0	2.0	20.0	8.0	4.5	3.5	0.0	0.0				1		L3=NORMAL
4	NB	6.0	3.0	25.0	12.0	4.5	3.5	7.0	37.0				1		OD4=NORMAL OD4R=D/N (10)
5	WBLT	4.0	2.0	25.0	8.0	5.5	2.0	0.0	0.0				1		L5=NORMAL
6	EB	20.0	4.0	75.0	45.0	5.5	2.0	7.0	19.0	1			1	1	L6=NORMAL
7	NBLT	4.0	3.0	20.0	8.0	4.5	3.5	0.0	0.0				1		OD7=NORMAL
8	SB	6.0	3.0	25.0	12.0	4.5	3.5	7.0	38.0				1		L8=NORMAL L8R=D/N (5)

PRE-EMPTION TIMING								
	DELAY BEFORE	GREEN BEFORE	PRE-EMPT 1 LOCK MEMORY	TRACK CLR Φ	TRACK CLR GREEN	DWELL Φ	MIN DWELL	EXIT Φ
R/R								
BRIDGE								
FIRE STN								
BUS								

SPECIAL FUNCTIONS						
	START Φ	DUAL ENTRY	DET SWITCH	OUT OF FLASH	INTO FLASH	
	2,6	2,4,6,8	3,7	2,6	4,8	
Notes:	1. REFER TO SYSTEM TIMING AND ALT TIMING PLANS					
2. UPDATED SYSTEM TIMING & ALT TABLES						
3. REFER TO WO2023-000184						
4.						

TIMING DESIGNED BY:	RONALD TIBBETTS	DATE:	12/12/2022	APPROVED BY:	SUNIL GYAWALI, P.E., PTOE	DATE:	12/13/22

SYSTEM TIMING SHEET

DATE TIMING INSTALLED: _____

INTERSECTION:	SOUTHERN BLVD/SR 80 & BINKS FOREST DR			CONTROLLER TYPE:	NAZTEC
SYSTEM:	SOUTHERN BLVD/SR 80	SIGNAL #	30718	SYSTEM #	2195

TOD SCHEDULER

WEEKDAY				WEEKEND							
				SATURDAY				SUNDAY			
TIME	PATTERN	TIME	PATTERN	TIME	PATTERN	TIME	PATTERN	TIME	PATTERN	TIME	PATTERN
0:00	21	5:00	5	0:00	21	6:00	7	0:00	21	6:00	7
6:30	2	10:00	1	7:30	5	9:30	4	7:30	5	9:30	4
15:00	3	19:30	1	12:00	6	17:00	4	12:00	6	17:00	4
20:30	5	22:00	7	20:00	5	22:00	7	20:00	5	22:00	7

TIMING PLANS

PATTERN		1		2		3		4		5		6	
CYCLE LENGTH (SEC)		140		180		180		140		120		160	
OFFSET (SEC)		87		95		75		106		114		81	
COORDINATED PHASE		2		2		2		2		6		2	
SEQUENCE		3		3		3		1		2		3	
ALT TIMING PLAN		1		2		3		4		5		1	
		SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE
FORCE-OFF 1 (SEC)	EBLT	26	NON	26	NON	27	NON	24	NON	23	NON	32	NON
FORCE-OFF 2 (SEC)	WB	35	MAX	59	MAX	59	MAX	35	MAX	44	MAX	44	MAX
FORCE-OFF 3 (SEC)	SBLT	23	NON	25	NON	30	NON	25	NON	23	NON	28	NON
FORCE-OFF 4 (SEC)	NB	56	NON	70	NON	64	NON	56	NON	30	NON	56	NON
FORCE-OFF 5 (SEC)	WBLT	20	NON	20	NON	25	NON	24	NON	23	NON	25	NON
FORCE-OFF 6 (SEC)	EB	41	MAX	65	MAX	61	MAX	35	MAX	44	MAX	51	MAX
FORCE-OFF 7 (SEC)	NBLT	24	NON	40	NON	39	NON	25	NON	30	NON	29	NON
FORCE-OFF 8 (SEC)	SB	55	NON	55	NON	55	NON	56	NON	23	NON	55	NON

Special Features:

1) PATTERN 6, 7, & 21 MAX 2 ACTIVE
2)
3)

TIMING DESIGNED BY:	RONALD TIBBETTS	DATE:	12/12/2022
APPROVED BY:	SUNIL GYAWALI, P.E., PTOE	DATE:	12/13/2022

SYSTEM TIMING SHEET

DATE TIMING INSTALLED: _____

INTERSECTION:	SOUTHERN BLVD/SR 80 & BINKS FOREST DR			CONTROLLER TYPE:	NAZTEC
SYSTEM:	SOUTHERN BLVD/SR 80	SIGNAL #	30718	SYSTEM #	2195

TOD SCHEDULER											
WEEKDAY				WEEKEND							
				SATURDAY				SUNDAY			
TIME	PATTERN	TIME	PATTERN	TIME	PATTERN	TIME	PATTERN	TIME	PATTERN	TIME	PATTERN

TIMING PLANS													
PATTERN		7											
CYCLE LENGTH (SEC)		90											
OFFSET (SEC)		29											
COORDINATED PHASE		2											
SEQUENCE		1											
ALT TIMING PLAN		2											
		SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE
FORCE-OFF 1 (SEC)	EBLT	15	NON										
FORCE-OFF 2 (SEC)	WB	40	MAX										
FORCE-OFF 3 (SEC)	SBLT	15	NON										
FORCE-OFF 4 (SEC)	NB	20	NON										
FORCE-OFF 5 (SEC)	WBLT	15	NON										
FORCE-OFF 6 (SEC)	EB	40	MAX										
FORCE-OFF 7 (SEC)	NBLT	15	NON										
FORCE-OFF 8 (SEC)	SB	20	NON										

Special Features:

1) PATTERN 6, 7, & 21 MAX 2 ACTIVE
2)
3)

TIMING DESIGNED BY:	RONALD TIBBETTS	DATE:	12/12/2022
APPROVED BY:	SUNIL GYAWALI, P.E., PTOE	DATE:	12/13/2022

[1.1.6.1] ALTERNATE TIMING SHEET

INTERSECTION:	SOUTHERN BLVD/SR 80 & BINKS FOREST DR	SIGNAL #	30718	SYSTEM #	2195

	MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED CLEAR	WALK	PED CLEAR	ASSIGNED PHASE	BIKE CLEAR
	ALT TIMING PLAN 1									
1	4.0	2.0	23.0	29.0	5.5	2.0	0.0	0.0	1	
2	20.0	4.0	32.0	41.0	5.5	2.0	7.0	14.0	2	
3	4.0	2.0	20.0	25.0	4.5	3.5	0.0	0.0	3	
4	6.0	3.0	25.0	24.0	4.5	3.5	7.0	37.0	4	
5	4.0	2.0	17.0	22.0	5.5	2.0	0.0	0.0	5	
6	20.0	4.0	38.0	48.0	5.5	2.0	7.0	19.0	6	
7	4.0	3.0	21.0	26.0	4.5	3.5	0.0	0.0	7	
8	6.0	3.0	25.0	24.0	4.5	3.5	7.0	38.0	8	

	MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED CLEAR	WALK	PED CLEAR	ASSIGNED PHASE	BIKE CLEAR
	ALT TIMING PLAN 2									
1	4.0	2.0	23.0	12.0	5.5	2.0	0.0	0.0	1	
2	20.0	4.0	56.0	35.0	5.5	2.0	7.0	14.0	2	
3	4.0	2.0	22.0	12.0	4.5	3.5	0.0	0.0	3	
4	6.0	3.0	30.0	17.0	4.5	3.5	7.0	37.0	4	
5	4.0	2.0	17.0	12.0	5.5	2.0	0.0	0.0	5	
6	20.0	4.0	62.0	37.0	5.5	2.0	7.0	19.0	6	
7	4.0	3.0	37.0	12.0	4.5	3.5	0.0	0.0	7	
8	6.0	3.0	30.0	17.0	4.5	3.5	7.0	38.0	8	

	MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED CLEAR	WALK	PED CLEAR	ASSIGNED PHASE	BIKE CLEAR
	ALT TIMING PLAN 3									
1	4.0	2.0	24.0		5.5	2.0	0.0	0.0	1	
2	20.0	4.0	56.0		5.5	2.0	7.0	14.0	2	
3	4.0	2.0	27.0		4.5	3.5	0.0	0.0	3	
4	6.0	3.0	30.0		4.5	3.5	7.0	37.0	4	
5	4.0	2.0	22.0		5.5	2.0	0.0	0.0	5	
6	20.0	4.0	58.0		5.5	2.0	7.0	19.0	6	
7	4.0	3.0	36.0		4.5	3.5	0.0	0.0	7	
8	6.0	3.0	30.0		4.5	3.5	7.0	38.0	8	

	MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED CLEAR	WALK	PED CLEAR	ASSIGNED PHASE	BIKE CLEAR
	ALT TIMING PLAN 4									
1	4.0	2.0	21.0		5.5	2.0	0.0	0.0	1	
2	20.0	4.0	32.0		5.5	2.0	7.0	14.0	2	
3	4.0	2.0	22.0		4.5	3.5	0.0	0.0	3	
4	6.0	3.0	22.0		4.5	3.5	7.0	37.0	4	
5	4.0	2.0	21.0		5.5	2.0	0.0	0.0	5	
6	20.0	4.0	62.0		5.5	2.0	7.0	19.0	6	
7	4.0	3.0	24.0		4.5	3.5	0.0	0.0	7	
8	6.0	3.0	22.0		4.5	3.5	7.0	38.0	8	

	MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED CLEAR	WALK	PED CLEAR	ASSIGNED PHASE	BIKE CLEAR
	ALT TIMING PLAN 5									
1	4.0	2.0	20.0		5.5	2.0	0.0	0.0	1	
2	20.0	4.0	41.0		5.5	2.0	7.0	14.0	2	
3	4.0	2.0	20.0		4.5	3.5	0.0	0.0	3	
4	6.0	3.0	27.0		4.5	3.5	7.0	37.0	4	
5	4.0	2.0	20.0		5.5	2.0	0.0	0.0	5	
6	20.0	4.0	41.0		5.5	2.0	7.0	19.0	6	
7	4.0	3.0	27.0		4.5	3.5	0.0	0.0	7	
8	6.0	3.0	20.0		4.5	3.5	7.0	38.0	8	

ALT TIMING PLAN ASSIGNMENTS	
ALT TIMING PLAN 1	PATTERNS 1,6
ALT TIMING PLAN 2	PATTERNS 2,7
ALT TIMING PLAN 3	PATTERN 3
ALT TIMING PLAN 4	PATTERN 4
ALT TIMING PLAN 5	PATTERN 5

NOTES;	

TIMING DESIGNED BY:	RONALD TIBBETTS	DATE	12/12/2022
APPROVED BY:	SUNIL GYAWALI, P.E., PTOE	DATE	12/13/2022

APPENDIX F

TEST 2 ANALYSIS: LINK ANALYSIS

TABLE 10
TEST 2 - PROJECT SIGNIFICANCE CALCULATION
AM PEAK HOUR

TEST 2 - FIVE YEAR ANALYSIS
1 MILE RADIUS OF DEVELOPMENT INFLUENCE
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 22
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 38

STATION	ROADWAY	FROM	TO	DIRECTION	AM PEAK HOUR DIRECTIONAL PROJECT DISTRIBUTION	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS E STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
3443	SOUTHERN BOULEVARD	SEMINOLE PRATT WHITNEY ROAD	BINKS FOREST DRIVE		30%	11	6D	I	2940	0.37%	NO
3431	SOUTHERN BOULEVARD	BINKS FOREST DRIVE	SITE	EB	45% ENTER 55% EXIT	31	6D	I	2940	1.05%	NO
				WB	100% EXIT	38	6D	I	2940	1.29%	NO
3431	SOUTHERN BOULEVARD	SITE	BIG BLUE TRACE		55%	21	6D	I	2940	0.71%	NO
N/A	B ROAD	COLLECTING CANAL ROAD	SOUTHERN BOULEVARD		3%	1	2	I	880	0.11%	NO
3436	BINKS FOREST DRIVE	SOUTHERN BOULEVARD	GREENVIEW SHORES BOULEVARD		10%	4	4D	I	1960	0.20%	NO
3422	BIG BLUE TRACE	SOUTHERN BOULEVARD	WELLINGTON TRACE		10%	4	2	I	880	0.45%	NO

TABLE 11
TEST 2 - PROJECT SIGNIFICANCE CALCULATION
PM PEAK HOUR

TEST 2 - FIVE YEAR ANALYSIS
1 MILE RADIUS OF DEVELOPMENT INFLUENCE
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 51
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 27

STATION	ROADWAY	FROM	TO	DIRECTION	PM PEAK HOUR DIRECTIONAL PROJECT DISTRIBUTION	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS E STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
3443	SOUTHERN BOULEVARD	SEMINOLE PRATT WHITNEY ROAD	BINKS FOREST DRIVE		30%	15	6D	I	2940	0.51%	NO
3431	SOUTHERN BOULEVARD	BINKS FOREST DRIVE	SITE	EB	45% ENTER 55% EXIT	38	6D	I	2940	1.29%	NO
				WB	100% EXIT	27	6D	I	2940	0.92%	NO
3431	SOUTHERN BOULEVARD	SITE	BIG BLUE TRACE		55%	28	6D	I	2940	0.95%	NO
N/A	B ROAD	COLLECTING CANAL ROAD	SOUTHERN BOULEVARD		3%	2	2	I	880	0.23%	NO
3436	BINKS FOREST DRIVE	SOUTHERN BOULEVARD	GREENVIEW SHORES BOULEVARD		10%	5	4D	I	1960	0.26%	NO
3422	BIG BLUE TRACE	SOUTHERN BOULEVARD	WELLINGTON TRACE		10%	5	2	I	880	0.57%	NO