



Marion County Board of County Commissioners

Growth Management ♦ Zoning

2710 E. Silver Springs Blvd. Ocala, FL 34470 Phone: 352-438-2675 Fax: 352-438-2676

APPLICATION COMPLETE

DATE COMPLETED 9/27/23 INITIALS [Signature]

RECEIVED

TENTATIVE MEETING DATES

SEP 26 2023

P&Z PH 11/27/23

BCC/P&Z PH 12/19/23 MC GROWTH SERVICES

APPLICATION FOR ZONING CHANGE

Application No.: _____

The undersigned hereby requests a zoning change of the Marion County Land Development Code, Article 4, Zoning, on the below described property and area, from _____ A-1, Agricultural

to _____ RC-1, Rural Commercial _____, for the intended use of:

_____ gas station, convenience store.

Legal description: (please attach a copy of the deed and location map)

Parcel account number(s): 07263-000-00

Property dimensions: 899' x 490' parcel with 115' x 399' easement area. Total acreage: 11.06 Acres (MOL)

Directions: Travel north on US Hwy 441/301 to intersection with County Road 329. Property is on the southwest corner of such intersection.

The property owner must sign this application unless he has attached written authorization naming an agent to act on his/her behalf.

Jerry Cauthen and Karen Cauthen, husband and wife

Mastroserio Engineering, LLC OBO Del Lago Ventures, Inc.

Property owner name (please print)

Applicant or agent name (please print)

1350 West CR 329

200 Galleria Parkway, Suite 900

Mailing address

Mailing address

Citra, FL Sparr, FL 32113

Atlanta, Georgia 30339

City, state, zip code

City, state, zip code

Phone number (please include area code)

Phone number (please include area code)

Email Address: Paolo@mastroserioeng.com; rbatsel@lawyersocala.com

See enclosed Letter of Authorization.

Signature

Signature [Signature]

Please note: the zoning change will not become effective until 14 days after a final decision is made by the Marion County Board of County Commissioners. The owner, applicant or agent is encouraged to attend the public hearing where this application will be discussed. If no representative is present and the board requires additional information, the request may be postponed or denied. Notice of said hearing will be mailed to the above-listed address(es). All information given by the applicant or agent must be correct and legible to be processed. The filing fee is \$1,000.00, and is non-refundable. For more information, please contact the Zoning Division at 352-438-2675.

FOR OFFICE USE ONLY

RECEIVED BY: [Signature]

DATE: 9/26/23

ZONING MAP NO.: 174

Rev. 07/02/2019

LAND USE: AL

ZONING: A-1

SEC/TWP/RGE: 25 / 13 / 21

"Meeting Needs by Exceeding Expectations"

PROJECT 2022100033

AR 30679

A-1

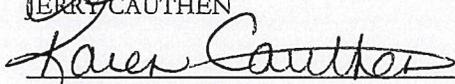
Attachment A

LETTER OF AUTHORIZATION
(to Agencies Named Below)

Location:	Marion County, Florida
Subject Property Parcel Identification Numbers:	07263-000-00
Applicable Agencies:	1) MARION COUNTY 2) ST. JOHNS RIVER WATER MANAGEMENT DISTRICT 3) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 4) FLORIDA DEPARTMENT OF TRANSPORTATION 5) FLORIDA WILDLIFE COMMISSION
Property Owners:	JERRY CAUTHEN and KAREN CAUTHEN
Applicant/Authorized Party:	DEL LAGO VENTURES, INC., or its successor, assigns or affiliates
Authorized Agents:	MASTROSERIO ENGINEERING, LLC

JERRY CAUTHEN and KAREN CAUTHEN, the owners of the real property identified under Marion County Parcel Identification Numbers 07263-000-00 (the "Property"), hereby authorize and consent to Applicant/Authorized Party making applications for approvals and permitting relating to the Property, specifically including but without limitation the following requests/applications to which a copy of this consent may be attached: (i) Rezoning (inclusive of rezoning to Rural Commercial); (ii) amendments to future land use for the Property, including modifications to text policy amendments affecting the Property, (iii) site plan review and approval, (iv) environmental resource permitting, (v) building permits, (vi) permitting relating to threatened or endangered species, and (vii) permits or approvals relating to transportation improvements or modifications.



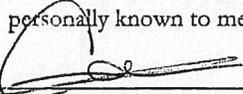
 JERRY CAUTHEN


 KAREN CAUTHEN

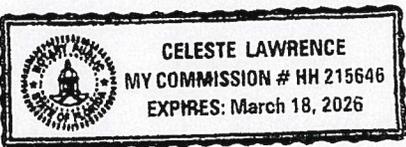
Address for Notice: 1350 WCR 329
CITRA, FL 32113
 (Email): Cauthen10@hotmail.com

State of Florida
 County of Marion

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 20, day of March, 2023, by Jerry Cauthen and Karen Cauthen, who is personally known to me or has produced FLID as identification.



 NOTARY PUBLIC
 Commission No.: AH215646
 Commission Expires: 3/18/2026



GOODING & BATSEL, PLLC

**ATTORNEYS AT LAW
1531 SE 36TH AVENUE
OCALA, FLORIDA 34471**

**W. JAMES GOODING III
ROBERT W. BATSEL, JR.
ROBERT W. BATSEL
JAMES T. HARTLEY**

**TELEPHONE (352) 572-1290
FACSIMILE (352) 572-1289
email: rbatsel@lawyersocala.com**

September 26, 2023

Via Email and Hand Delivery

Mr. Charles Varadin, Director
Marion County Growth Services
Marion County Board of County Commissioners
2710 E. Silver Springs Blvd.
Ocala, FL 34470
Email: chuck.varadin@marionfl.org

Re: Application for Rezoning to Rural Commercial (RC-1)
Portion of Marion County Parcel ID No. 07263-000-00

Dear Mr. Varadin:

I have the pleasure of working with Mastroserio Engineering, LLC on behalf of Del Lago Ventures, Inc., a subsidiary of RaceTrac Petroleum, Inc., in their efforts to invest in an underserved portion of northern Marion County. RaceTrac is a family-owned business that has been serving guests since 1934, currently operating over 550 store locations throughout Florida, Georgia, Louisiana, Tennessee and Texas. My client intends to purchase property located at the southwest corner of the intersection of US Highway 301/441 and County Road 329 in order to construct and operate a gas station and convenience store. Enclosed, please find the following items for your review and consideration:

1. Application for Zoning Change;
2. Executed Letter of Authorization;
3. Vesting Deed;
4. Marion County Property Appraiser Property Record Card;
5. Legal description of subject property;
6. Aerial of subject property;
7. Future Land Use Map;
8. Zoning Map;
9. Site Plan;
10. Two (2) versions of Site Plan with aerial overlay zoomed to different perspectives;
11. Project elevations;
12. Traffic Impact Analysis / Traffic Study; and
13. Our check #20460 in the amount of \$1,000.00 made payable to the Marion County Board of County Commissioners representing the application filing fee.

Please let me know if you require any additional information. It is my understanding that this Application will be scheduled to be heard by the Planning and Zoning Commission on Monday, November 27, 2023, at 5:30 p.m., on first reading before the Marion County Board of County Commissioners on Tuesday, December 19, 2023, and on final hearing before the BOCC on January 3, 2024 at 2:00 p.m. Please confirm receipt and the accuracy of the foregoing dates at your convenience.

Attachment A

Thank you for your consideration. I look forward to speaking with you soon.

Sincerely,

/s/ Robert W. Batsel, Jr.

Robert W. Batsel, Jr.

RWB/hcc
Enclosures as stated

Attachment A

LEGAL DESCRIPTION BEL LAGO REZONING PARCEL

PARCEL A:

A PORTION OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 7302, PAGES 1337 AND 1338 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA AND LYING IN THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 30, TOWNSHIP 13 SOUTH, RANGE 21 EAST, MARION COUNTY FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A CONCRETE MONUMENT AT THE SOUTHEAST CORNER OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 7302, PAGES 1337 AND 1338 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA; THENCE NORTH 00°21'01" EAST ALONG THE EASTERLY LINE OF SAID LANDS AND ALONG THE WESTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 441/301 (STATE ROAD NO. 25-A), BEING A 200 FOOT WIDE RIGHT OF WAY ACCORDING TO STATE ROAD RIGHT OF WAY MAP SECTION 36001-2501, 795.65 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 89°15'51" WEST, DEPARTING SAID RIGHT OF WAY LINE, 899.85 FEET; THENCE NORTH 00°21'01" EAST, 427.42 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF WEST HIGHWAY 329, BEING A 50-FOOT-WIDE COUNTY ROAD RIGHT OF WAY PER MARION COUNTY ENGINEERING DEPARTMENT RESURFACING MAP, PROJECT NO. 77,764, DATED 6/13/19, SAID POINT ALSO BEING ON THE ARC OF A CURVE CONCAVE SOUTHEASTERLY; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTHERLY RIGHT OF WAY LINE, HAVING A RADIUS OF 675.00 FEET AND A CENTRAL ANGLE OF 21°55'42", 258.34 FEET AND BEING SUBTENDED BY A CHORD BEARING AND DISTANCE OF NORTH 75°02'57" EAST, 256.76 FEET TO A POINT; THENCE NORTH 89°15'44" EAST, CONTINUING ALONG SAID SOUTHERLY RIGHT OF WAY LINE, 652.15 FEET TO A POINT OF INTERSECTION WITH THE AFOREMENTIONED WESTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 441/301; THENCE SOUTH 00°21'01" WEST ALONG SAID WESTERLY RIGHT OF WAY LINE, 490.50 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAIN 10.00 ACRES, MORE OR LESS.

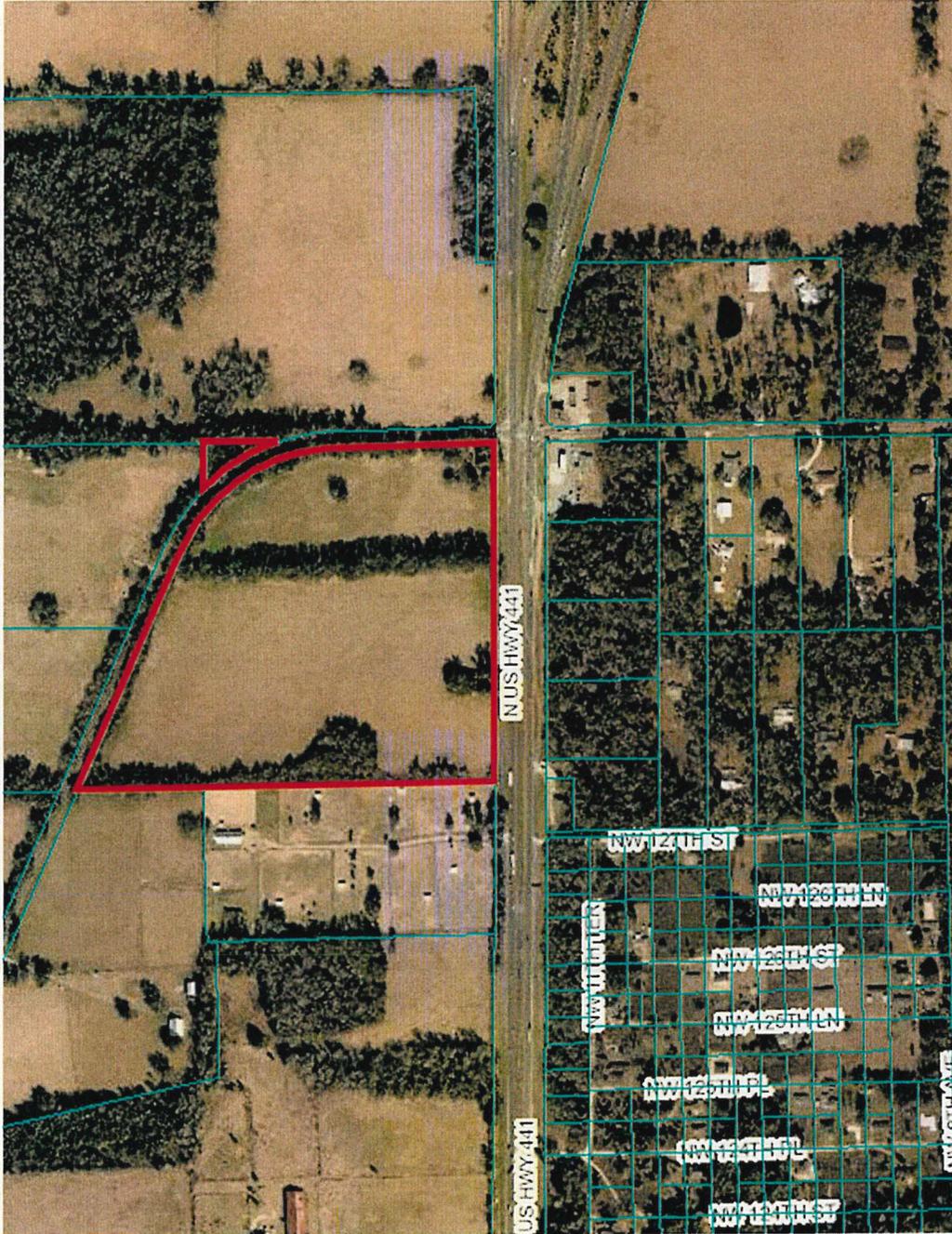
AND

PARCEL B:

COMMENCE AT A CONCRETE MONUMENT AT THE SOUTHEAST CORNER OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 7302, PAGES 1337 AND 1338 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA; THENCE NORTH 00°21'01" EAST ALONG THE EASTERLY LINE OF SAID LANDS AND ALONG THE WESTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 441/301 (STATE ROAD NO. 25-A), BEING A 200 FOOT WIDE RIGHT OF WAY ACCORDING TO STATE ROAD RIGHT OF WAY MAP SECTION 36001-2501, 396.54 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 89°15'51" WEST, DEPARTING SAID RIGHT OF WAY LINE, 115.25 FEET; THENCE NORTH 00°21'01" EAST, 399.11 FEET; THENCE NORTH 89°15'51" EAST, 115.25 FEET TO A POINT ON THE AFOREMENTIONED WESTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 441/301; THENCE SOUTH 00°21'01" WEST ALONG SAID WESTERLY RIGHT OF WAY LINE, 399.11 FEET TO THE POINT OF BEGINNING.

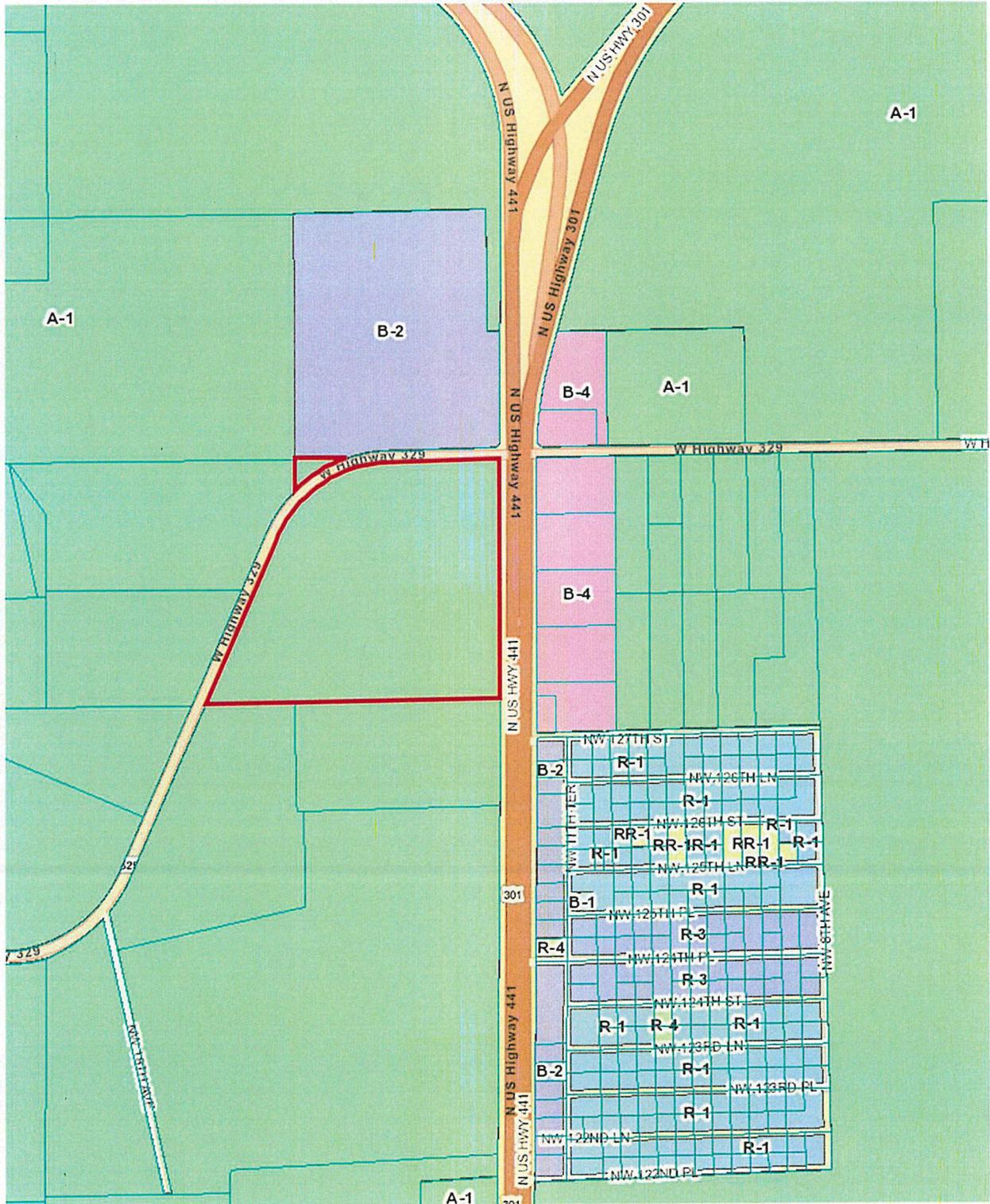
SAID LANDS CONTAIN 1.06 ACRES, MORE OR LESS.

Aerial – Marion County Property Appraiser

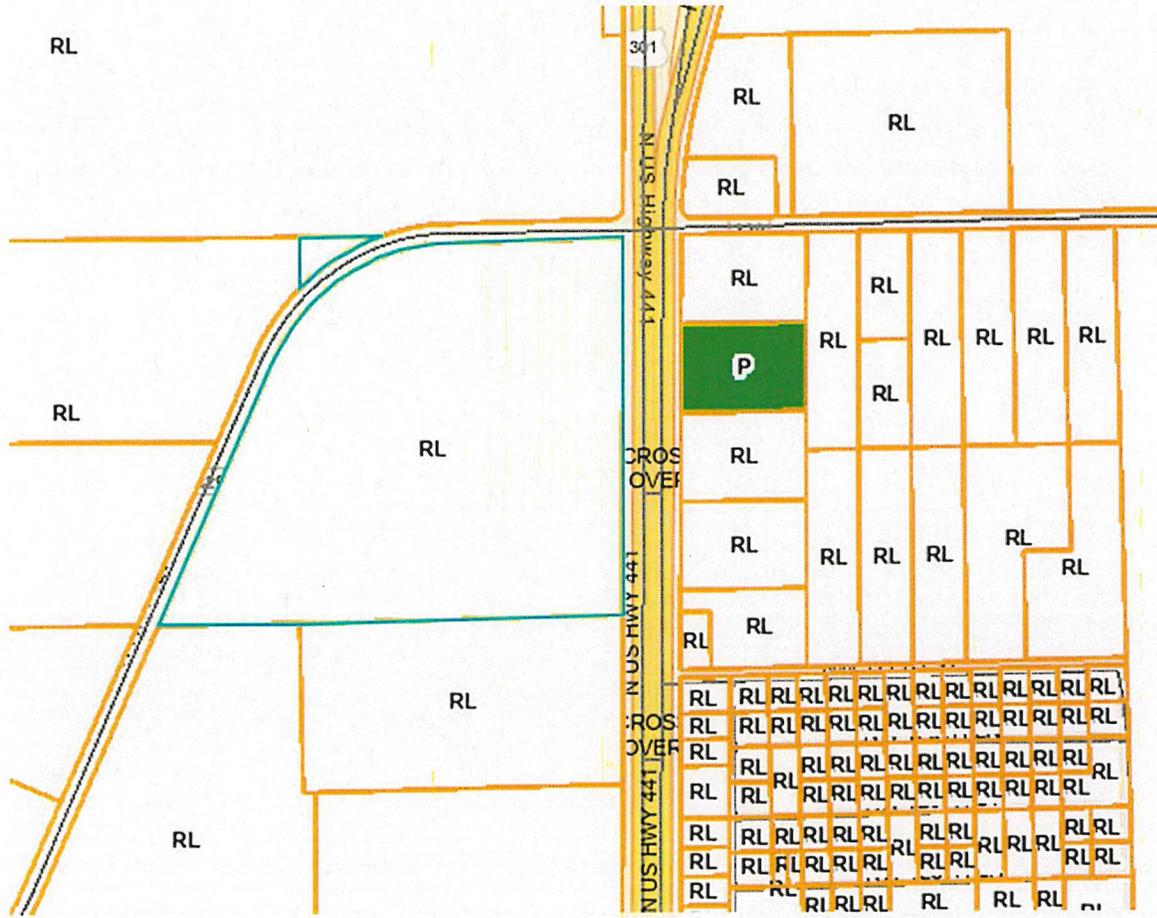


Attachment A

Zoning Map



Future Land Use Map



Attachment A

RaceTrac
 RACETRAC INC.
 290 RAILROAD PARKWAY SOUTHWEST
 SUITE 800
 ATLANTA, GEORGIA 30329
 (770) 411-7900

DESIGN PROFESSIONALS

Mark S. Salopek, LLC
 701 W. LAKESIDE AVE
 APT #200
 CLEVELAND, OH 44113

REVISION RECORD
 DATE DESCRIPTION
 06/27/23 PRELIM PACKAGE

RaceTrac

RACETRAC INC.
 290 RAILROAD PARKWAY SOUTHWEST
 SUITE 800
 ATLANTA, GEORGIA 30329
 (770) 411-7900

PROJECT NAME
SPARR

CITRA
 FL 32113
 301 @ 329

RACETRAC STORE NUMBER
#1609

PROTOTYPE SERIES 2023
 2023 R11 S11
 PLAN MODIFICATION NOTICE
 SFB NO. 0205 DATE 06/22/23

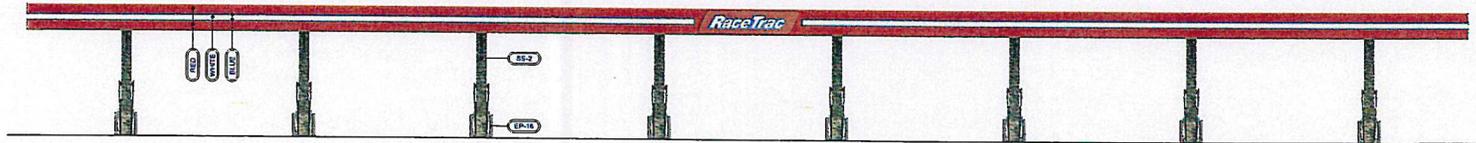
FORWARD PLAN INDICATES DATE WHEN THE
 PARTTYPE SERIES NO. MUST BE USED. THE
 LATEST EPA REQUIREMENTS FOR ALL
 MODELS ARE INCORPORATED TO THE
 PARTTYPE SERIES NO. AT ORIGINAL RELEASE.
 THE MODEL NUMBER SHOWN IN THIS ADVICE
 LIST MAY DIFFER FROM EPA INCORPORATED IN
 THE EPA STORE NUMBER LABEL.
 CONTACT RACETRAC ENGINEERING AND
 COMPLIANCE FOR ALL FUTURE
 REVISIONS NOT INCORPORATED HEREIN.

PROFESSIONAL SEAL

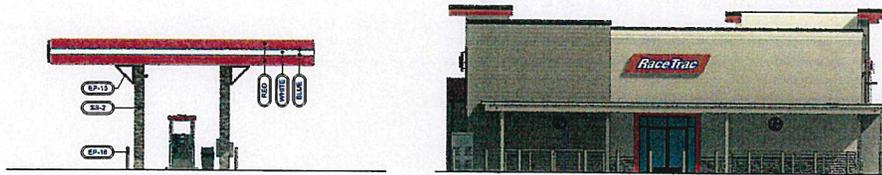
PROJECT NUMBER
 2023157.22

SHEET TITLE
**FUEL CANOPY
 ELEVATIONS**

SHEET NUMBER
100



2 CANOPY FRONT ELEVATION
 1/8" = 1'-0"



1 CANOPY ELEVATION
 1/8" = 1'-0"

FUEL CANOPY FINISH SCHEDULE			
ID	MANUF.	MATERIAL	COMMENTS
BLUE	-	-	1" BLUE STRIPE
RED	-	-	REFER TO SPECIFICATION CHART ON SHEET C100
WHITE	-	-	1" WHITE STRIPE
PAINT			
EP-15	SHERWIN WILLIAMS		PAINTED SHERWIN WILLIAMS "SIBANE BRONZE" 4786
EP-16	SHERWIN WILLIAMS		PAINTED SHERWIN WILLIAMS "SIBANE GRAY" 4786
STACKED STONE			
SS-2	IL DORADO	BLUFFSTONE MINERET	WET STACK APPLICATION. MORTAR COLOR "LIGHT BUMP"
STANDARD CANOPY FASCIA COLOR SPECIFICATION CHART			
COLOR CALLOUT	CANOPY MANUFACTURER	STANDARD COLOR SPECIFICATION	
'TAN'	LANE CANOPIES	ETT TAN FASCIA	
	MOOSE CANOPIES	ETT TAN FASCIA	
'RED'	LANE CANOPIES	PUREB O TAN FASCIA	
	MOOSE CANOPIES	TRD RED FASCIA - PROGRAM RED	
	MOOSE CANOPIES	PROGRAM RED FASCIA	

Attachment A

RaceTrac.
 COPYRIGHT © 2012
 THESE PLANS ARE SUBJECT TO FEDERAL
 COPYRIGHT LAWS. ANY USE OF NAME
 WITHOUT THE EXPRESS WRITTEN
 PERMISSION OF RACETRAC, INC. IS
 PROHIBITED. SEE RACETRAC, INC.

DESIGN PROFESSIONALS

Mark S. Salopek, LLC
 791 W. LAKEDE AVE
 4TH FLOOR
 CLEVELAND, OH 44113

ISSUE/REVISION RECORD	DATE	DESCRIPTION
06/27/23		PRELIM PACKAGE

RaceTrac.
 RACETRAC INC.
 208 CALLETA PARKWAY SOUTHWEST
 SUITE 808
 ATLANTA, GEORGIA 30338
 (770) 411-1648

PROJECT NAME
SPARR

CITRA
 FL 32113
 301 @ 329

RACETRAC STORE NUMBER
#1609

PROTOTYPE SERIES 2023
 2023 RH SV

PLAN MODIFICATION NOTICE
 SP# NO. 0205 DATE 06/02/23

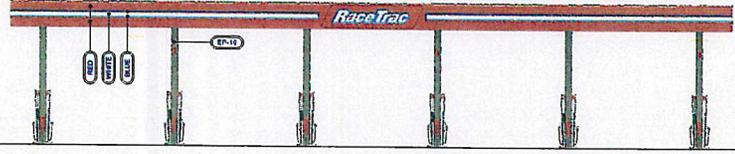
STANDARD PLAN (EXCEPT AS NOTED) SHALL BE THE PORTYFIVE (15) SERIES SET UNLESS SHOWN. THE CUSTOMER HAS REPRESENTED THE CUSTOMER'S SPECIFICATIONS AND WARRANTY TO THE PORTYFIVE (15) SERIES SET. ANY MODIFICATIONS TO THE PORTYFIVE (15) SERIES SET SHALL BE THE CUSTOMER'S RESPONSIBILITY. THE CUSTOMER HAS REPRESENTED THE CUSTOMER'S SPECIFICATIONS AND WARRANTY TO THE PORTYFIVE (15) SERIES SET. ANY MODIFICATIONS TO THE PORTYFIVE (15) SERIES SET SHALL BE THE CUSTOMER'S RESPONSIBILITY. THE CUSTOMER HAS REPRESENTED THE CUSTOMER'S SPECIFICATIONS AND WARRANTY TO THE PORTYFIVE (15) SERIES SET. ANY MODIFICATIONS TO THE PORTYFIVE (15) SERIES SET SHALL BE THE CUSTOMER'S RESPONSIBILITY.

PROFESSIONAL SEAL

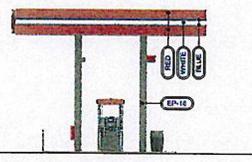
PROJECT NUMBER
 2023157.22

SHEET TITLE
EDO FUEL CANOPY ELEVATIONS

SHEET NUMBER
200

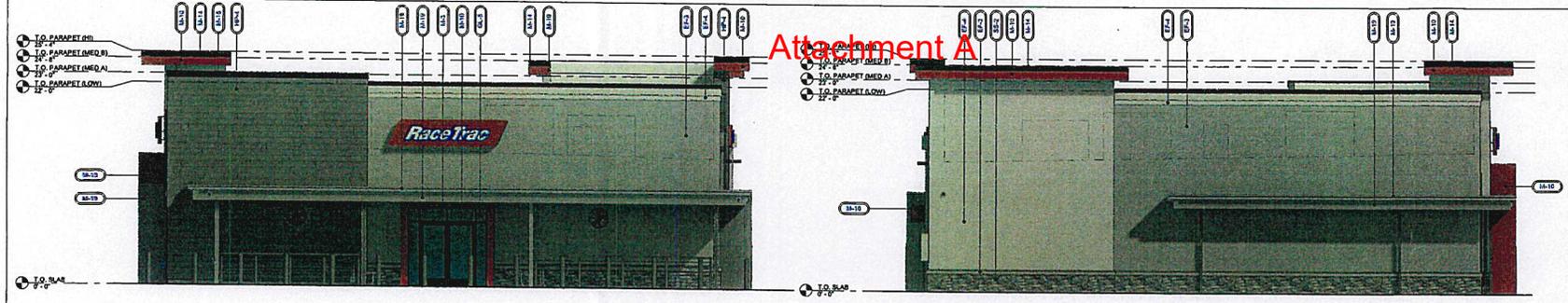


2 EDO CANOPY FRONT ELEVATION
 1/8" = 1'-0"



1 EDO CANOPY ELEVATION
 1/8" = 1'-0"

FUEL CANOPY FINISH SCHEDULE			
ID	MANUF.	MATERIAL	COMMENTS
BLUE	-	-	2" BLUE STRIPE
RED	-	-	REFER TO SPECIFICATION CHART ON SHEET C100
WHITE	-	-	2" WHITE STRIPE
PAINT			
EP-15	SHERWIN WILLIAMS		PAINTED SHERWIN WILLIAMS "URBANE BRONZE" #704
EP-16	SHERWIN WILLIAMS		PAINTED SHERWIN WILLIAMS "SLIMM" GRAY #766
STACKED STONE			
SS-1	IL DORADO	BLUFFSTONE MINERET	WET STACK APPLICATION. MORTAR COLOR "LIGHT BUFF"
STANDARD CANOPY FASCIA COLOR SPECIFICATION CHART			
COLOR CALLOUT	CANOPY MANUFACTURER	STANDARD COLOR SPECIFICATION	
"TAN"	MAGEE CANOPIES	ETT TAN FASCIA	
	MADISON CANOPIES	FUSION TAN FASCIA	
	MAGEE CANOPIES	TRD RED FASCIA - PROGRAM RED	
	MADISON CANOPIES	PROGRAM RED FASCIA	



4 RIGHT ELEVATION
3/16" = 1'-0"

3 LEFT ELEVATION
3/16" = 1'-0"



2 REAR ELEVATION
3/16" = 1'-0"



1 FRONT ELEVATION
3/16" = 1'-0"

EXTERIOR MATERIAL SCHEDULE		
CEMENT BOARD		
M-4 JAMES HARDIE	SMOOTH LAF BOND OR APPROVED ALTERNATE	PAINTED SHERWIN WILLIAMS POLYURETHANE FINISH AND 1/8\"/>
EP-3	STO	FINE FRESH APPLICATION COLOR TO MATCH SW 6074 POLISHED CONCRETE
EP-4	STO	FINE FRESH APPLICATION COLOR TO MATCH SW 6122 ALPAC
GLAZING		
GL-2	1/2\"/>	
GL-3	1/2\"/>	
METAL		
M-3	1/2\"/>	
M-10	ALPOLIC	TRO RED
M-11	ALPOLIC	17R BLUE
M-14	ALPOLIC	METAL TO MATCH ALPOLIC 'CNC CHARCOAL'
M-15	ALPOLIC	METAL TO MATCH ALPOLIC 'CNC CHARCOAL'
M-17	ALPOLIC	METAL TO MATCH STOREFRONT DARK BRONZE F40
M-18	ALPOLIC	METAL TO MATCH ALPOLIC 'CNC CHARCOAL'
M-19	ALPOLIC	SEM RIVER ROCK GREY
PAINT		
EP-1	SHERWIN WILLIAMS	EXTERIOR PAINT TO SW 7120 'BLACK FOX'
EP-16	SHERWIN WILLIAMS	PAINTED SHERWIN WILLIAMS 'SUBMIT GRAY' #1688
EP-17	STO	FINE FRESH APPLICATION COLOR TO MATCH SW 6122 ALPAC
EP-18	STO	FINE FRESH APPLICATION COLOR TO MATCH SW 6174 POLISHED CONCRETE
STACKED STONE		
SS-3	EL DORADO	BLUFFSTONE MINERET
TILE		
TK-1	SELECT COMPOSITE	TX P
WINDOW FILM		
WF-1	WINDOW FILM 3M	SEE ADD FOR WINDOW FILM LOCATIONS
WF-2	WINDOW FILM 3M	SEE ADD FOR WINDOW FILM LOCATIONS

RaceTrac
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DESIGN PROFESSIONALS

Mark S. Salopek, LLC
 701 W. LAKESIDE AVE
 4TH FLOOR
 CLEVELAND, OH 44113

ISSUE/REVISION RECORD

DATE	DESCRIPTION
09/27/23	PRELIM PACKAGE

RaceTrac
RACETRAC INC.
 230 EASTERN PARKWAY NORTHWEST
 SUITE 400
 ATLANTA, GEORGIA 30316
 (770) 431-7660

PROJECT NAME
SPARR

CITRA
 FL 32113
 301 @ 329

RACETRAC STORE NUMBER
#1609

PROTOTYPIC SERIES 2023
 2023 RH SV

PLAN MODIFICATION NOTICE
 SPS NO. 0205 DATE 08/02/23

STANDARD PLAN INCLUDES SPS 0901 WHICH THE PROPRIETARY LOGOS SET BEHIND ABOVE THE WINDOW AND SIGNAGES TO THE LEFT. MODIFICATIONS TO THE SPS 0901 SHALL BE THE PROPRIETARY LOGOS SET AT BEHIND BEHIND. THE NEW BEHIND LOGOS ON THE SIGNAGE SHALL BE THE BEHIND LOGOS. CONTACT RACETRAC CONSULTANTS AND ARCHITECTS FOR ANY FURTHER DETAILS. PREPARED BY: [NAME]

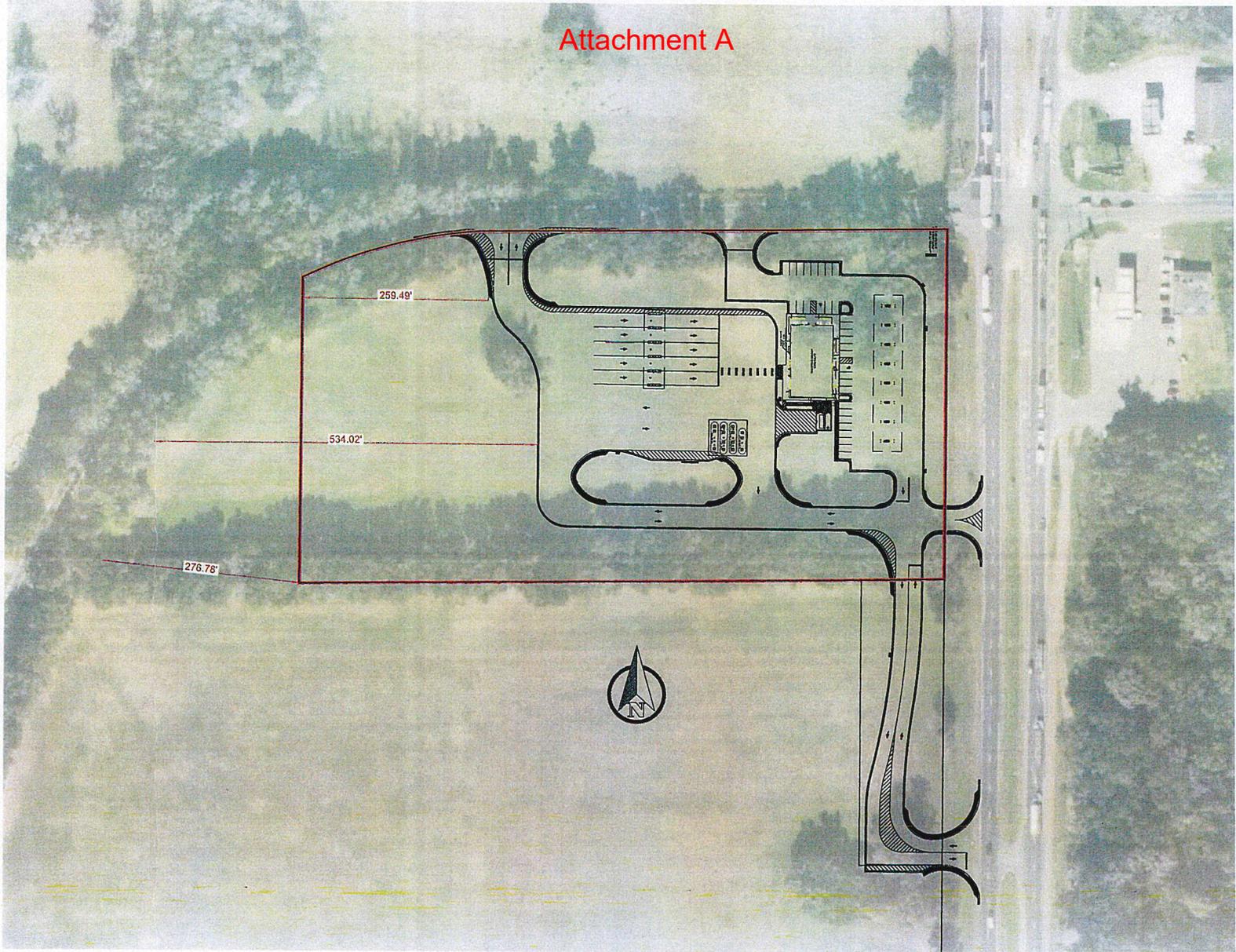
PROFESSIONAL SEAL

PROJECT NUMBER
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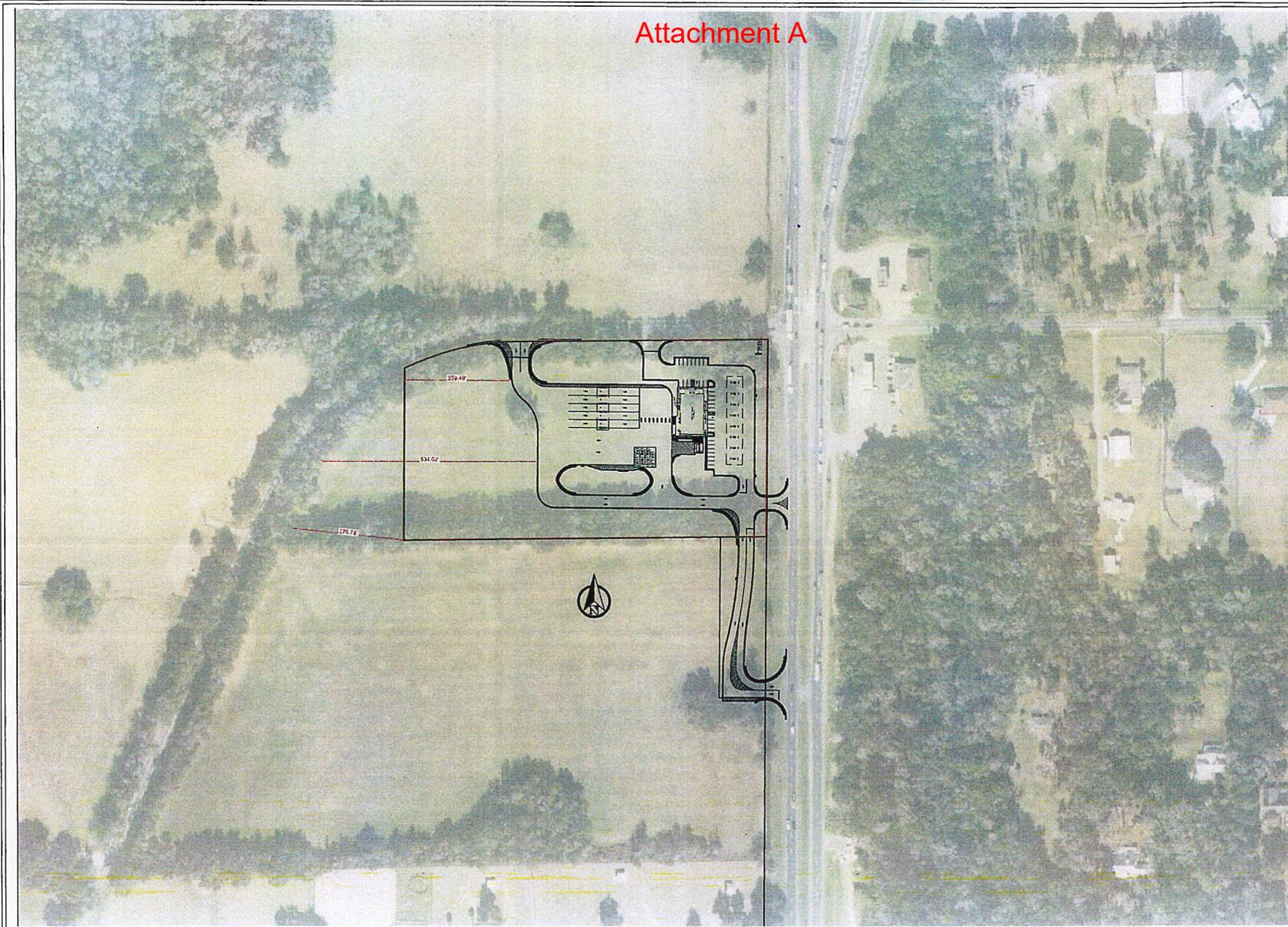
SHEET TITLE
EXTERIOR ELEVATIONS

SHEET NUMBER
300

Attachment A



Attachment A



<p>THIS PLAN AND THE INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF RACETAC INC. AND SHALL BE KEPT IN CONFIDENCE. ANY DISCLOSURE OF THIS INFORMATION TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF RACETAC INC. IS PROHIBITED.</p>	
<p>RACETAC RACETAC TRAVEL CENTER, INC. 301 E. 250 WABASH COUNTY</p>	
<p>SITE PLAN RT TRAVEL CENTER (RHS) SPARR</p>	
<p>DATE</p>	<p>NOV2017</p>
<p>SCALE</p>	<p>AS SHOWN</p>
<p>DRAWING NAME</p>	<p>RT TRAVEL CENTER (RHS) SPARR</p>
<p>SHEET NO.</p>	<p>1/1</p>
<p>DATE</p>	<p></p>

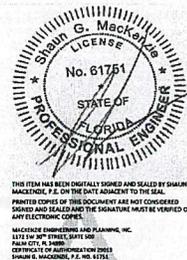
TRAFFIC IMPACT ANALYSIS

RaceTrac Sparr Marion County, FL

Prepared for:
RaceTrac
Atlanta, GA

Prepared by:


Engineering & Planning, Inc.
1172 SW 30th Street, Suite 500
Palm City, FL 34990
(772) 286-8030



Digitally signed by
Shaun MacKenzie®
Date: 2023.07.21
16:17:02 -04'00'

131033
July 2023
© MacKenzie Engineering and Planning, Inc.
CA 29013

Shaun G. MacKenzie P.E.
PE Number 61751

EXECUTIVE SUMMARY

MacKenzie Engineering and Planning, Inc. (MEP) was retained by RaceTrac to perform a traffic analysis. The proposed development is situated on the southwest corner of US 441 and Highway 329 in Marion County, FL (Parcel ID's: 07263-000-00). The applicant proposes to develop the property with a 16 automobile fueling positions, five (5) truck fueling positions and a 6,008 SF Convenience Store. A buildout year of 2026 was analyzed for the proposed project.

The proposed project is expected to generate the following net new external trips:

- 1,608 daily, 147 AM peak hour (72 in/75 out), and 124 PM peak hour (62 in/62 out) trips.

The proposed project is expected to generate the following cumulative driveway trips:

- 6,652 daily, 576 AM peak hour (287 in/289 out), and 511 PM peak hour (258 in/253 out) trips.

An ingress 235-foot left-turn is recommended at Driveway 1 & Highway 329. An ingress 405-foot right-turn lane is recommended at Driveway 3 and Driveway 4 on US 441. Turn lane extensions are recommended for the northbound left-turn lane and southbound right-turn on US 441 at Highway 329. The project meets Marion County's concurrency requirements.

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LIST OF EXHIBITS

- Exhibit 1. Trip Generation
- Exhibit 2. Volume Development Sheets
- Exhibit 3. Intersection Analysis

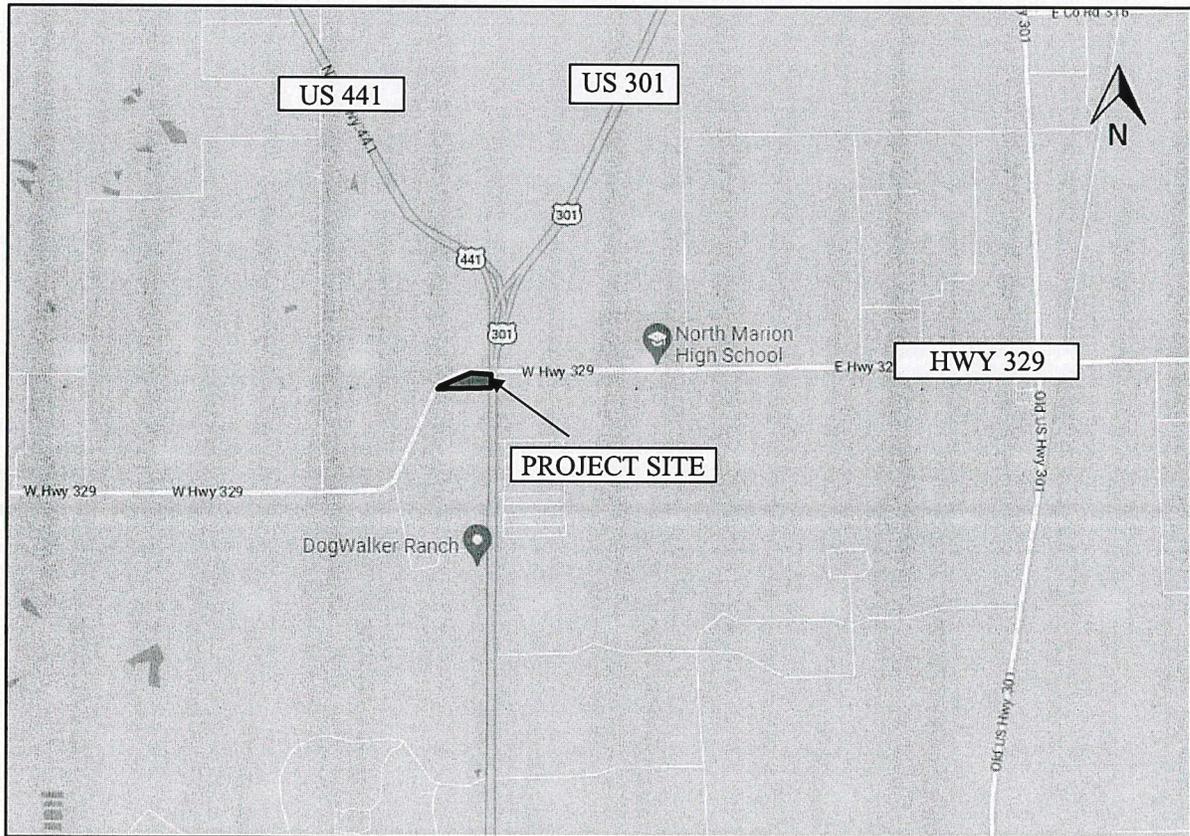


INTRODUCTION

MacKenzie Engineering & Planning, Inc. was retained to prepare a traffic impact analysis for RaceTrac Sparr. This document presents the methodology used and the findings of the traffic impact analysis.

The proposed Project site located at the southwest corner of US 441 and Highway 329 in Marion County, FL (Parcel ID's: 07263-000-00). The applicant proposes to develop the property with a 16 automobile fueling positions, five (5) truck fueling positions and a 6,008 SF Convenience Store. A buildout year of 2026 was analyzed for the proposed project. Figure 1 illustrates the site location.

Figure 1: Proposed Site Location





INVENTORY AND PLANNING DATA

The traffic data used in this analysis were obtained from Marion County and FDOT. The data included:

- Historic traffic count data
- Roadway geometrics

RaceTrac Petroleum, Inc provided project development information.

PROJECT TRAFFIC

Traffic Generation

The study used trip generation rates and equations contained within the Institute of Transportation Engineers (ITE) report, *Trip Generation (11th Edition)* to estimate trips from the project. The study used trip generation rates for Convenience Store/Gas Station (5.5 – 10k) (Land Use 945) and Land Use 950 to represent the diesel fueling option for large vehicles (trucks).

Proposed Site

- 6,008 SF Convenience Store with 16 Fueling Positions (ITE Land Use 945)
- 5 Truck Fueling Positions (ITE Land Use 950)

The proposed project is expected to generate the following net new external trips:

- 1,608 daily, 147 AM peak hour (72 in/75 out), and 124 PM peak hour (62 in/62 out) trips.

The proposed project is expected to generate the following cumulative driveway trips:

- 6,652 daily, 576 AM peak hour (287 in/289 out), and 511 PM peak hour (258 in/253 out) trips.

Internal Capture

The site was conservatively analyzed without internal capture.



Pass-by Trip Capture

Two different pass-by capture methods were examined.

1. Pass-by capture in accordance with ITE's report, *Trip Generation Manual* (11th Edition)
2. Pass-by capture limited to 20 percent of the adjacent street traffic

The lesser (more conservative) of the two methods was used in each time period.

Table 1. Trip Generation

Land Use	Intensity		Daily	AM Peak Hour			PM Peak Hour		
			Trips	Total	In	Out	Total	In	Out
Proposed Site Traffic									
Convenience Store/Gas Station	16	VFP	5,532	506	253	253	432	216	216
Truck fueling positions	5	VFP	1,120	70	34	36	79	42	37
Subtotal			6,652	576	287	289	511	258	253
Pass-By Traffic - Based ITE									
Convenience Store/Gas Station	76%	75%	4,204	385	192	193	328	164	164
Truck fueling positions	76%	75%	840	53	26	27	59	32	27
Subtotal			5,044	438	218	220	387	196	191
Pass-By Traffic - (20% Adj Street Max)									
Convenience Store/Gas Station	20.0%	20.0%	6,522	429	215	214	501	251	250
April 2023 Counts	2,143	2,506							
Pass-By Traffic Used (Lowest)									
			5,044	429	215	214	387	196	191
NET PROPOSED TRIPS			1,608	147	72	75	124	62	62
Total Proposed Driveway Volumes			6,652	576	287	289	511	258	253
NET CHANGE IN TRIPS (FOR THE PURPOSES OF CONCURRENCY)			1,608	147	72	75	124	62	62
NET CHANGE IN DRIVEWAY VOLUMES			6,652	576	287	289	511	258	253

Note: Trip generation was calculated using the following data:

Land Use	ITE Code	Unit	Daily Rate	Pass-by Rate	AM Peak Hour		PM Peak Hour	
					in/out	Rate	in/out	Equation
Convenience Store/Gas Station	945	VFP	345.75	76%/75%	50/50	31.60	50/50	26.90
Truck fueling positions	950	VFP	224	76%/75%	49/51	13.97	53/47	15.42

ITE 11th Edition

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TRAFFIC DISTRIBUTION AND ASSIGNMENT

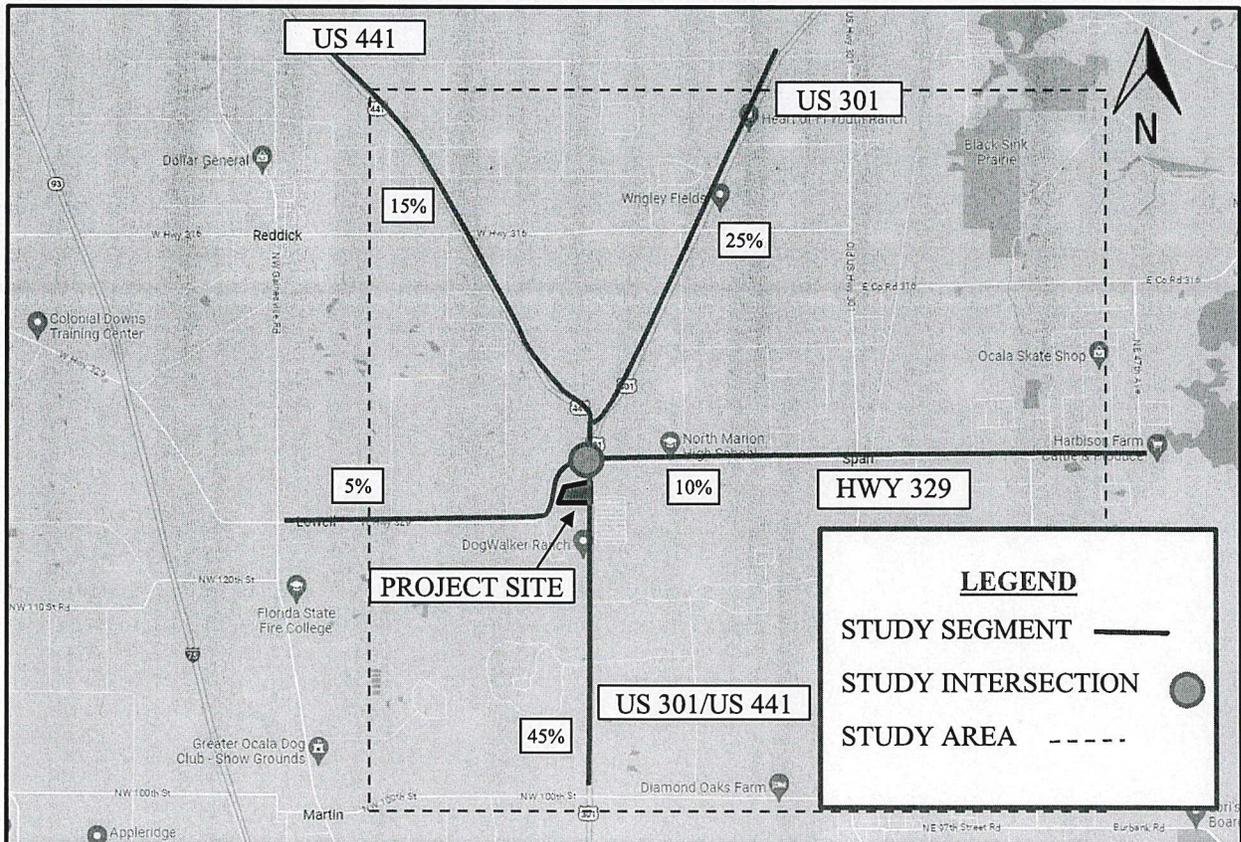
Traffic distribution and assignment will be determined using traffic count data. The distributed net proposed trips for the project were assigned to the roadway network within the radius of influence. A separate truck distribution was prepared based on traffic count data.

The auto trip distribution is summarized by general directions and is depicted below:

- EAST - 10 Percent
- WEST - 5 Percent
- NORTH - 40 Percent
- SOUTH - 45 Percent

The project assignment is shown in Figure 2.

Figure 2. Auto Traffic Assignment



Attachment A

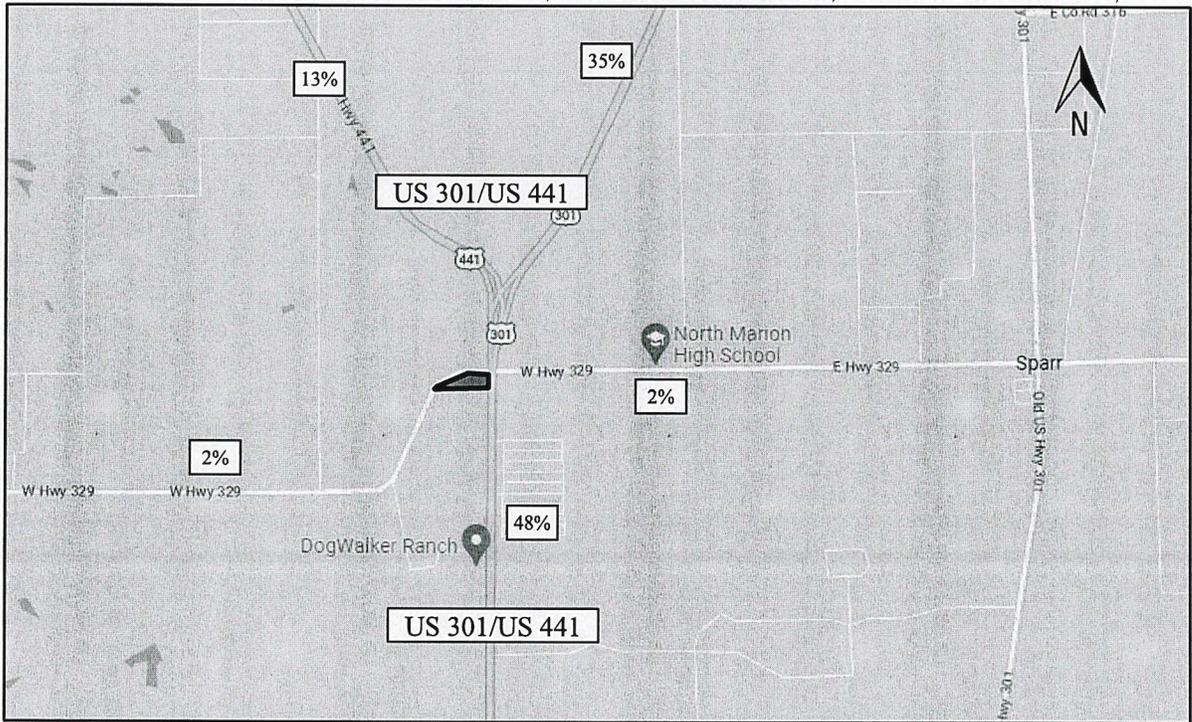


The truck trip distribution is summarized by general directions and is depicted below:

- EAST - 2 Percent
- WEST - 2 Percent
- NORTH - 48 Percent
- SOUTH - 48 Percent

The truck assignment is illustrated in Figure 3.

Figure 3. Truck Traffic Assignment





STUDY AREA

The study area will include any public roadway where the net new traffic from the proposed project is at least 3% of the maximum service volume (based on the FDOT Generalized Level of Service) of the roadway plus one segment beyond. Minimum peak hour Level of Service (LOS) for study roadways are C and D based on Marion County Land Development Code Article 1 Division 8 Sec. 1.8.3. The study area will be determined by Table 2.

Table 2. Study Area – 3% of the Maximum Service Volume (Significance)

Road	Segment ID	From	To	Type	Context Class	Adopted LOS	Generalized Service Capacity	Percent Project Assignment	Project Trips	Significance	Significance Impact?
US 301	6560	US 441	NE Jacksonville Rd	4-Ln Divided	C2 (Rural)	C	2,390	15%	11	0.46%	NO
US 441	7060	CR 318	CR 25A (N)	4-Ln Divided	C2 (Rural)	C	2,390	23%	17	0.71%	NO
	7050.2	CR 25A (N)	US 301	4-Ln Divided	C2 (Rural)	C	2,390	25%	19	0.79%	NO
	7050.1	US 301	Hwy 329	4-Ln Divided	C2 (Rural)	C	2,389	50%	38	1.59%	NO
	7040.2	Hwy 329	NW 117th St	4-Ln Divided	C2 (Rural)	C	2,390	45%	34	1.42%	NO
Hwy 329	1440.1	CR 25A	US 441	2-Ln Undivided	C2 (Rural)	C	430	5%	4	0.93%	NO
	1450	US 441	Jacksonville Rd	2-Ln Undivided	C2 (Rural)	C	430	10%	8	1.86%	NO
	1460	Jacksonville Rd	NE 47 AV	2-Ln Undivided	C2 (Rural)	D	730	5%	4	0.55%	NO

* Capacity Based on FDOT 2023 Q/LOS Handbook

No roadway segments are significantly impacted. Therefore, roadway analysis is not necessary.



HISTORICAL GROWTH

A public information request will be made to obtain the latest committed development traffic. Historic growth rates were developed based on available FDOT Traffic Online data. The FDOT historic annual growth on the surrounding facilities between 2017 and 2021 is 2.6%. A 2.6 percent annual compound growth rate will be used for the analysis, as shown in Table 3.

Table 3. Growth Rate Calculation

Roadway	From	To	FDOT Station	AADT					Annual Absolute Growth	Growth Rate
				2017	2018	2019	2020	2021		
Hwy 329	Gainesville Rd	Jacksonville Rd	36-8075	2100			2600		167	6.4%
US 301/US 401	100th St	Hwy 329	36-0443	24755	29000	22500		28500	535	1.9%
US 441	Hwy 329	Hwy 316	36-0006	8800		8900			50	0.6%
US 301	Hwy 329	Hwy 316	36-0007	13500		14900			700	4.7%
Historical Growth Rate =									2.6%	
Growth Rate Used =									2.6%	

COMMITTED ROADWAY IMPROVEMENTS

A review conducted of the Five-Year Plans of Marion County and FDOT. There are no additional capacity improvements planned in the study area.



DRIVEWAYS

The project site proposes four (4) points of access. The proposed access is as follows:

- Highway 329 (DW 1) – West – full opening
- Highway 329 (DW 2) – East – right-in/right-out opening
- US 441 (DW 3) – North – right-in/right-out
- US 441 (DW 4) – South – right-in/right-out

The proposed project driveway volumes are shown in Figure 4A-4C.



Figure 4A. Proposed Auto Project Driveway Traffic

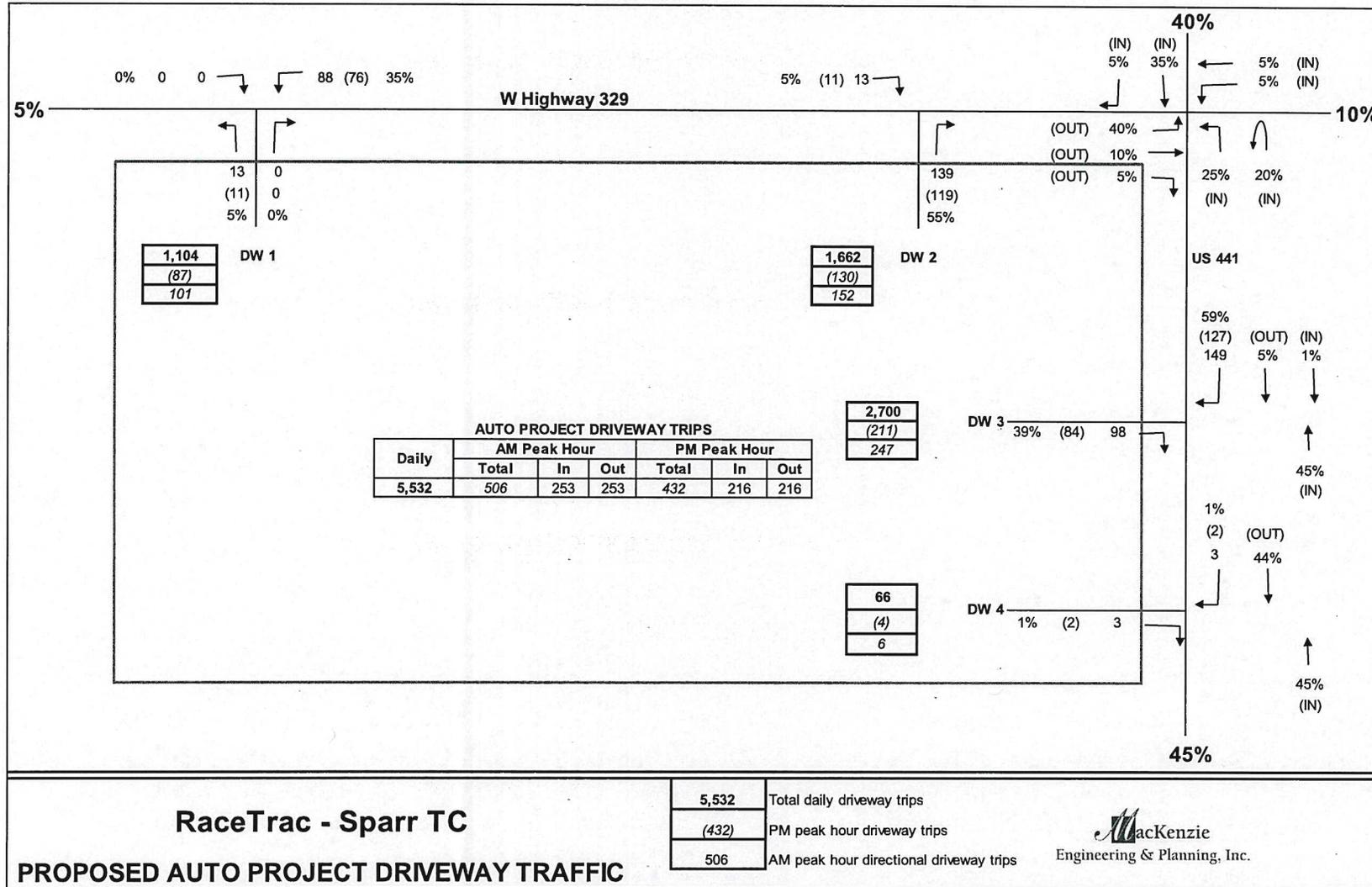




Figure 4B. Proposed Truck Project Driveway Traffic

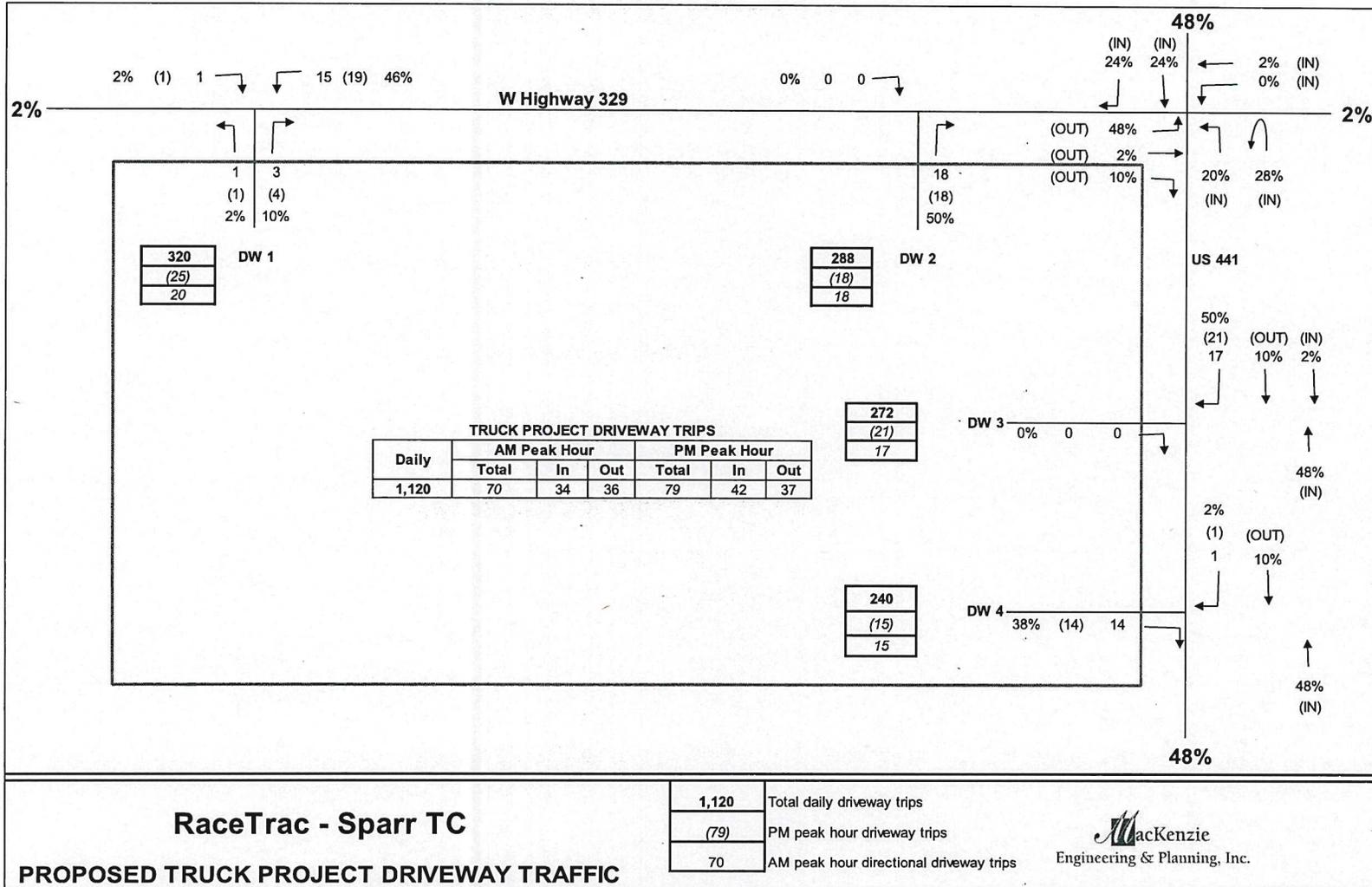
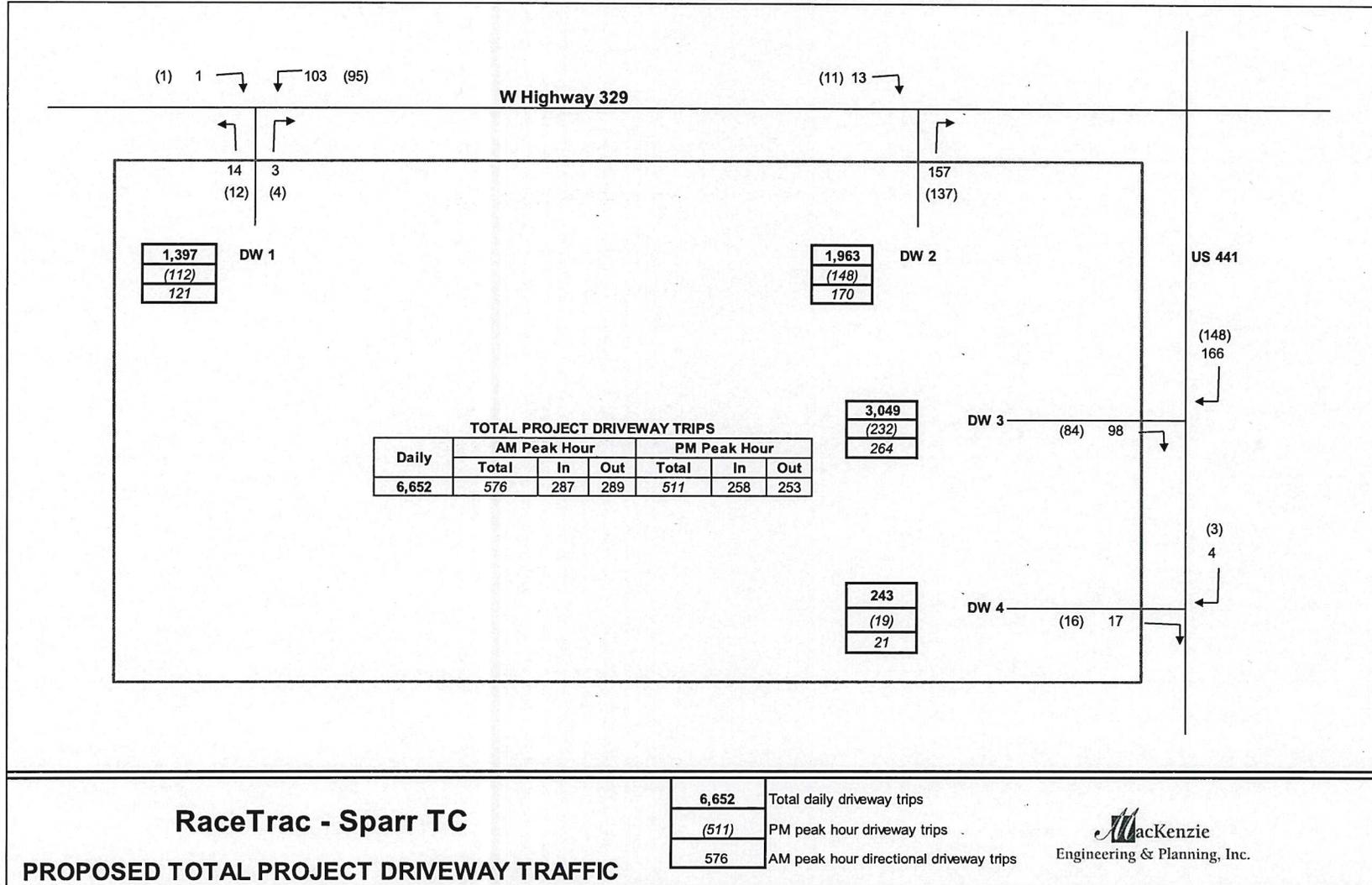




Figure 4C. Proposed Total Project Driveway Traffic





Driveway 1 (Highway 329) - West

Ingress Right-Turn Lane

A review of the project’s accesses was performed to evaluate if the proposed project volumes meet the minimum Ingress Turn Lane Standards. The evaluation was based on the FDOT’s Driveway Handbook 2019 Edition, Section 7.2. FDOT’s Handbook recommends a right-turn lane when right-turn movements exceed 80-125 vehicles per hour during the peak hour for an unsignalized posted speed limit is 45 mph or less.

The site’s Driveway 1 AM and PM peak hour vehicles are 1 and 1, respectively. Using FDOT’s most conservative threshold of 80-125 vehicles per hour, a right-turn lane is not recommended.

Ingress Left-Turn Lane

A left-turn warrant analysis was performed to evaluate if the proposed project volumes meets the minimum Ingress Turn Lane Standards for a left-turn lane on Highway 329. The evaluation was based on AASHTO’s Guide for Left - Turn Lanes on Two - Lane Rural Highways.

Table 4. DW 1 Ingress Left Turn Lane Evaluation

	Major Road (Hwy 329) Two-Lane Highways in Rural Areas			Three-Leg Intersections
	Peak Hour Volume		Two-Lane Peak Hour Volume	Turn Lane Threshold
	WBL	WBT		Is a Left Turn Lane Required?
AM	103	166	283	YES

Based on AASHTO’s Guide for Left-Turn Lanes on Two-Lane Rural Highway, a left-turn lane at this location is recommended because the projected left-turn volume in the peak satisfies the criteria identified within the matrix. Therefore, a left-turn lane is recommended. A total turn lane length of 235 feet (including taper) is recommended based on a 50-foot queue and 185 feet of deceleration distance based on a design speed of 45 MPH.

MEP evaluated the Highway 329 and DW 1 intersection. An ingress left-turn lane is recommended at this intersection. With project traffic, the intersection is projected to operate acceptably with all movements operating under capacity (v/c ratio less than 1.0).



Driveway 2 (Highway 329) - East

Ingress Right-Turn Lane

The site's Driveway 2 AM and PM peak hour vehicles are 13 and 11, respectively. Using FDOT's most conservative threshold of 80-125 vehicles per hour, a right-turn lane is not recommended.

MEP evaluated the Highway 329 and DW 2 intersection. With project traffic, the intersection is projected to operate acceptably with all movements operating under capacity (v/c ratio less than 1.0).

Driveway 3 (US 441) - North

Ingress Right-Turn Lane

A review of the project's accesses was performed to evaluate if the proposed project volumes meet the minimum Ingress Turn Lane Standards. The evaluation was based on the FDOT's Driveway Handbook 2019 Edition, Section 7.2. FDOT's Handbook recommends a right-turn lane when right-turn movements exceed 35-55 vehicles per hour during the peak hour for an unsignalized posted speed limit is over 45 mph.

The site's Driveway 3 AM and PM peak hour vehicles are 166 and 148, respectively. Using FDOT's most conservative threshold of 35-55 vehicles per hour, a right-turn lane is recommended. A total turn lane length of 405 feet is recommended based on a design speed of 60 MPH.

MEP evaluated the US 441 and DW 3 intersection. An ingress right-turn lane is recommended at this intersection. With project traffic, the intersection is projected to operate acceptably with all movements operating under capacity (v/c ratio less than 1.0).

Driveway 4 (US 441) - South

Ingress Right-Turn Lane

The site's Driveway 4 AM and PM peak hour vehicles are 4 and 3, respectively. Using FDOT's most conservative threshold of 35-55 vehicles per hour, a right-turn lane is not recommended.

MEP evaluated the US 441 and DW 4 intersection. With project traffic, the intersection is projected to operate acceptably with all movements operating under capacity (v/c ratio less than 1.0).



INTERSECTION ANALYSIS

The project is adjacent to the Highway 329 & US 441 intersection. The intersection is analyzed in the AM and PM peak hours to determine the intersection performance.

Time Periods and Scenarios

The intersection is analyzed for the AM and PM peak hours and five (5) scenarios:

1. Existing Condition
2. 2026 Background Condition (Pre-Development)
3. 2026 Background Condition (Pre-Development) with Improvements (if needed)
4. 2026 Buildout Condition (Post-Development)
5. 2026 Buildout Condition (Post-Development) with Improvements (if needed)

Scenario 3 is only necessary if the intersection is failing the background condition. Scenario 5 is only necessary if the intersection is failing the buildout condition. If the intersection is failing, improvements are added to the intersection to result in acceptable intersection operations (i.e. – intersection LOS “D” or better and all v/c ratios less than 1.0).

AM Peak Hour

Existing

The intersection is estimated to be operating at LOS “B” and is meeting the adopted LOS standard during the AM peak hour.

2026 Background Condition (Pre-Development)

The intersection is projected to be operating at LOS “B” and is meeting the adopted LOS standard during the AM peak hour.

2026 Buildout Condition (Post-Development)

The intersection is projected to be operating at LOS “C” and is meeting the adopted LOS standard during the AM peak hour. The intersection performance in each scenario is shown in Table 5. Eastbound and/or westbound left-turn phases are not warranted based on the analysis results.



Table 5. AM Peak Hour US 441 & Highway 329 Intersection Performance

		AM Peak Hour												
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Total
Existing	Total Delay		20.0	15.9		22.1	16.2	25.9	15.5	11.2	26.1	13.3	10.4	16.1
	LOS		C	B		C	B	C	B	B	C	B	B	B
	v/c ratio		0.254	0.025		0.545	0.123	0.524	0.797	0.163	0.572	0.554	0.021	
Bckgmd (Pre-Dev)	Total Delay		21.5	17.0		23.9	17.2	27.0	15.9	11.4	26.9	13.6	10.6	17.0
	LOS		C	B		C	B	C	B	B	C	B	B	B
	v/c ratio		0.269	0.024		0.584	0.129	0.564	0.816	0.166	0.630	0.567	0.022	
Post (Buildout)	Total Delay		27.8	14.0		26.3	18.6	33.2	19.0	13.4	37.0	22.9	17.0	22.8
	LOS		C	B		C	B	C	B	B	D	C	B	C
	v/c ratio		0.666	0.046		0.586	0.108	0.830	0.783	0.160	0.710	0.784	0.081	

PM Peak Hour

Existing

The intersection is estimated to be operating at LOS “B” and is meeting the adopted LOS standard during the PM peak hour.

2026 Background Condition (Pre-Development)

The intersection is projected to be operating at LOS “B” and is meeting the adopted LOS standard during the PM peak hour.

2026 Buildout Condition (Post-Development)

The intersection is projected to be operating at LOS “C” and is meeting the adopted LOS standard during the PM peak hour. The intersection performance in each scenario is shown in Table 6. Eastbound and/or westbound left-turn phases are not warranted based on the analysis results.

Table 6. PM Peak Hour US 441 & Highway 329 Intersection Performance

		PM Peak Hour												
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Total
Existing	Total Delay		24.4	20.4		24.2	18.5	28.5	14.8	9.7	27.9	11.7	8.4	15.5
	LOS		C	C		C	B	C	B	A	C	B	A	B
	v/c ratio		0.510	0.217		0.455	0.093	0.462	0.810	0.094	0.629	0.598	0.017	
Bckgmd (Pre-Dev)	Total Delay		26.6	21.9		26.4	20.0	31	15.4	9.7	31.1	12.1	8.4	16.3
	LOS		C	C		C	C	B	A	C	B	A	A	B
	v/c ratio		0.549	0.228		0.492	0.101	0.485	0.827	0.096	0.693	0.616	0.018	
Post (Buildout)	Total Delay		34.0	18.5		29.3	21.6	42.3	22.2	14.1	45.7	25.4	17.2	26.2
	LOS		C	B		C	C	D	C	B	D	C	B	C
	v/c ratio		0.748	0.144		0.435	0.069	0.841	0.835	0.097	0.772	0.834	0.072	



Queueing Analysis

A queueing analysis was performed for the buildout conditions. Based on the analysis, the northbound left-turn lane requires an extension of 200 feet to total length of 591 feet (including taper) and the southbound right-turn lane requires an extension of 80 to total length of 430 feet (including taper).

Table 7. US 441 & Highway 329 Queueing Analysis

Peak Hour Queueing (feet)			
Lane Group	EBR	NBL	SBR
AM	12	168	20
PM	51	186	23
Deceleration	240	405	405
Total Needed Turn Lane Length	291	591	428
Existing Turn Lane Length (including Taper)	293	400	350
Needs Extension?	No	Yes - Extend 200 feet	Yes - Extend 80 feet

ACCESS MANAGEMENT

Driveway 3 on US Hwy 441 does not meet the minimum 660 feet driveway spacing required per Section 6.11.5 of Marion County's Land Development Code. The applicant will require an FDOT variance for Driveway 3 on US 441.



CONCLUSION

MacKenzie Engineering and Planning, Inc. (MEP) was retained by RaceTrac to perform a traffic analysis. The proposed development is situated on the southwest corner of US 441 and Highway 329 in Marion County, FL (Parcel ID's: 07263-000-00). The applicant proposes to develop the property with a 16 automobile fueling positions, five (5) truck fueling positions and a 6,008 SF Convenience Store. A buildout year of 2026 was analyzed for the proposed project.

The proposed project is expected to generate the following net new external trips:

- 1,608 daily, 147 AM peak hour (72 in/75 out), and 124 PM peak hour (62 in/62 out) trips.

The proposed project is expected to generate the following cumulative driveway trips:

- 6,652 daily, 576 AM peak hour (287 in/289 out), and 511 PM peak hour (258 in/253 out) trips.

An ingress 235-foot left-turn is recommended at Driveway 1 & Highway 329. An ingress 405-foot right-turn lane is recommended at Driveway 3 and Driveway 4 on US 441. Turn lane extensions are recommended for the northbound left-turn lane and southbound right-turn on US 441 at Highway 329. The project meets Marion County's concurrency requirements.



APPENDICES

Exhibit 1. Trip Generation

Exhibit 2. Volume Development Sheets

Exhibit 3. Intersection Analysis

A- Approved Methodology

B- Marion County 2022 Peak Season Factor Category Report

C- Median Turn Lanes Minimum Deceleration Lengths (Exhibit 212-1)

D- FDOT Access Management Guidebook – Recommended Guidelines for Exclusive Right-Turn Lanes

E- Suggested Left-Turn Treatment Guidelines – Cost Evaluations for Intersections on Two-Lane Highways in Rural Areas (AASHTO Green Book 7th Edition)

Attachment A

EXHIBIT 1									
RaceTrac - Sparr TC									
Trip Generation - Gas Station									
Land Use	Intensity		Daily	AM Peak Hour			PM Peak Hour		
			Trips	Total	In	Out	Total	In	Out
Proposed Site Traffic									
Convenience Store/Gas Station	16	VFP	5,532	506	253	253	432	216	216
Truck fueling positions	5	VFP	1,120	70	34	36	79	42	37
Subtotal			6,652	576	287	289	511	258	253
Pass-By Traffic - Based ITE									
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Convenience Store/Gas Station	20.0%	20.0%	6,522	429	215	214	501	251	250
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NET PROPOSED TRIPS			1,608	147	72	75	124	62	62
Total Proposed Driveway Volumes			6,652	576	287	289	511	258	253
NET CHANGE IN TRIPS (FOR THE PURPOSES OF CONCURRENCY)			1,608	147	72	75	124	62	62
NET CHANGE IN DRIVEWAY VOLUMES			6,652	576	287	289	511	258	253
Note: Trip generation was calculated using the following data:									
	ITE			Pass-by	AM Peak Hour		PM Peak Hour		
Land Use	Code	Unit	Daily Rate	Rate	in/out	Rate	in/out	Equation	
Convenience Store/Gas Station	945	VFP	345.75	76%/75%	50/50	31.60	50/50	26.90	
Truck fueling positions	950	VFP	224	76%/75%	49/51	13.97	53/47	15.42	

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Attachment A

RaceTrac Sparr
AM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
US 441 & Highway 329

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM	0	2	5	9	0	38	7	16	0	1	214	10	1	10	172	7	492
7:15 AM	7:30 AM	0	3	7	6	0	36	15	18	0	6	216	9	1	7	202	9	535
7:30 AM	7:45 AM	0	6	5	6	0	46	17	19	0	2	204	9	1	16	207	9	547
7:45 AM	8:00 AM	0	9	5	9	0	42	16	23	0	8	187	11	0	19	179	6	514
8:00 AM	8:15 AM	0	7	6	3	0	22	10	16	0	17	219	25	0	8	164	7	504
8:15 AM	8:30 AM	0	3	8	9	0	20	18	14	0	11	243	17	1	10	163	6	523
8:30 AM	8:45 AM	0	2	16	5	0	23	25	15	0	16	227	34	1	22	163	5	554
8:45 AM	9:00 AM	0	10	35	13	0	29	33	28	0	17	193	49	1	28	125	1	562
Peak Hour Traffic Volume		0	42	87	60	0	256	141	149	0	78	1703	164	6	120	1375	50	4231
8:00 AM	9:00 AM	0	22	65	30	0	94	86	73	0	61	882	125	3	68	615	19	2143

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
4/11/2023																
Existing Volumes	0	22	65	30	0	94	86	73	0	61	882	125	3	68	615	19
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	22	65	30	0	94	86	73	0	61	882	125	3	68	615	19
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	2	5	2	0	8	7	6	0	5	71	10	0	5	49	2
2026 Volumes	0	24	70	32	0	102	93	79	0	66	953	135	3	73	664	21
Pre Development Volumes	0	24	70	32	0	102	93	79	0	66	953	135	3	73	664	21
Auto		Out	Out	Out		In	In		In	In					In	In
Assignment	0%	40%	10%	5%	0%	5%	5%	0%	20%	25%	0%	0%	0%	0%	35%	5%
Project Traffic	0	101	25	13	0	13	13	0	51	63	0	0	0	0	89	13
Truck		Out	Out	Out		In	In		In	In					In	In
Assignment	0%	48%	2%	10%	0%	0%	2%	0%	28%	20%	0%	0%	0%	0%	24%	24%
Project Traffic	0	17	1	4	0	0	1	0	10	7	0	0	0	0	8	8
Total Project Traffic	0	118	26	17	0	13	14	0	61	70	0	0	0	0	97	21
Post Development Volumes	0	142	96	49	0	115	107	79	61	136	953	135	3	73	761	42
Existing % Trucks		14%	12%	0%	10%	10%	12%	8%	2%	2%	20%	8%	7%	7%	21%	5%
Project % Trucks		14%	4%	24%		0%	7%		16%	10%					8%	38%
Post Dev. Truck %		14%	10%	8%		9%	11%	8%		13%	20%	8%	7%	7%	19%	22%

Highway 329 from Project to US 441 Peak Hour Peak Direction Volumes

EBT = EBU + EBL + EBT + EBR

WBT = EBU + NBL + WBT + SBR

US 441 from Project to US 441 Peak Hour Peak Direction Volumes

NBT = NBU + NBL + NBT + NBR

SBT = NBU + WBL + SBT + EBR

Attachment A

RaceTrac Sparr
PM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
US 441 & Highway 329

	ebu	ebl	ebr	ebl	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr	totals
4:00 PM	0	16	46	38	0	22	21	21	21	1	13	240	23	3	11	230	8	693
4:15 PM	0	15	29	21	0	24	13	17	17	0	11	272	22	2	22	241	4	693
4:30 PM	0	11	13	7	0	14	13	13	13	0	8	279	25	2	20	192	3	600
4:45 PM	0	6	11	4	0	17	7	18	18	0	3	233	27	1	18	173	2	520
5:00 PM	0	14	12	5	0	19	16	23	23	0	6	251	35	2	14	212	4	613
5:15 PM	0	12	16	7	0	18	5	19	19	1	6	254	35	0	14	193	6	586
5:30 PM	0	6	14	3	0	12	10	19	19	0	3	241	41	4	15	231	2	601
5:45 PM	0	9	11	2	0	9	7	23	23	0	8	220	36	1	25	242	3	596
Peak Hour Traffic Volume																		
4:00 PM	0	89	152	87	0	135	92	153	153	2	58	1990	244	15	139	1714	32	4902
4:00 PM	5:00 PM	0	48	99	70	0	77	54	69	1	35	1024	97	8	71	836	17	2506

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebr	ebl	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr
4/11/2023																	
<u>Existing Volumes</u>	0	48	99	70	0	77	54	69	69	1	35	1024	97	8	71	836	17
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Adjusted Volumes</u>	0	48	99	70	0	77	54	69	69	1	35	1024	97	8	71	836	17
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	4	8	6	0	6	4	6	6	0	3	82	8	1	6	67	1
<u>2026 Volumes</u>	0	52	107	76	0	83	58	75	75	1	38	1106	105	9	77	903	18
<u>Pre Development Volumes</u>	0	52	107	76	0	83	58	75	75	1	38	1106	105	9	77	903	18
<u>Auto</u>		<u>Out</u>	<u>Out</u>	<u>Out</u>		<u>In</u>	<u>In</u>			<u>In</u>	<u>In</u>					<u>In</u>	<u>In</u>
<u>Assignment</u>	0%	40%	10%	5%	0%	5%	5%	0%	0%	20%	25%	0%	0%	0%	0%	35%	5%
<u>Project Traffic</u>	0	86	22	11	0	11	11	0	0	43	54	0	0	0	0	76	11
<u>Truck</u>		<u>Out</u>	<u>Out</u>	<u>Out</u>		<u>In</u>	<u>In</u>			<u>In</u>	<u>In</u>					<u>In</u>	<u>In</u>
<u>Assignment</u>	0%	48%	2%	10%	0%	0%	2%	0%	0%	28%	20%	0%	0%	0%	0%	24%	24%
<u>Project Traffic</u>	0	18	1	4	0	0	1	0	0	12	8	0	0	0	0	10	10
<u>Total Project Traffic</u>	0	104	23	15	0	11	12	0	0	55	62	0	0	0	0	86	21
<u>Post Development Volumes</u>	0	156	130	91	0	94	70	75	75	56	100	1106	105	9	77	989	39
Existing % Trucks		17%	7%	6%	4%	4%	2%	9%	9%	6%	6%	20%	3%	6%	6%	16%	12%
Project % Trucks		17%	4%	27%	0%	8%	8%	0%	0%	22%	13%	0%	0%	0%	0%	12%	48%
Post Dev. Truck %		17%	7%	9%	0%	4%	3%	9%	9%	22%	20%	3%	3%	6%	6%	16%	31%

12%

Highway 329 from Project to US 441 Peak Hour Peak Direction Volumes
EBT = EBU + EBL + EBT + EBR
WBT = EBU + NBL + WBT + SBR

US 441 from Project to US 441 Peak Hour Peak Direction Volumes
NBT = NBU + NBL + NBT + NBR
SBT = NBU + WBL + SBT + EBR

Attachment A

RaceTrac Sparr
AM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
DW 1 & Highway 329

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr	totals
7:00 AM	7:15 AM	0		16		0		15		0				0				31
7:15 AM	7:30 AM	0		16		0		30		0				0				46
7:30 AM	7:45 AM	0		17		0		28		0				0				45
7:45 AM	8:00 AM	0		23		0		30		0				0				53
8:00 AM	8:15 AM	0		16		0		34		0				0				50
8:15 AM	8:30 AM	0		20		0		35		0				0				55
8:30 AM	8:45 AM	0		23		0		46		0				0				69
8:45 AM	9:00 AM	0		58		0		51		0				0				109
Peak Hour Traffic Volume		0	0	189	0	0	0	269	0	0	0	0	0	0	0	0	0	458
8:00 AM	9:00 AM	0	0	117	0	0	0	166	0	0	0	0	0	0	0	0	0	283

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr
4/11/2023																
<u>Existing Volumes</u>	0	0	117	0	0	0	166	0	0	0	0	0	0	0	0	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	117	0	0	0	166	0	0	0	0	0	0	0	0	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0
2026 Volumes	0	0	126	0	0	0	179	0	0	0	0	0	0	0	0	0
Pre Development Volumes	0	0	126	0	0	0	179	0	0	0	0	0	0	0	0	0
Auto			In	In		In				Out		Out				
<u>Assignment</u>	0%	0%	5%	0%	0%	35%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%
<u>Project Traffic</u>	0	0	13	0	0	89	0	0	0	13	0	0	0	0	0	0
Truck			In	In		In				Out		Out				
<u>Assignment</u>	0%	0%	0%	2%	0%	46%	0%	0%	0%	2%	0%	10%	0%	0%	0%	0%
<u>Project Traffic</u>	0	0	0	1	0	16	0	0	0	1	0	4	0	0	0	0
Total Project Traffic	0	0	13	1	0	105	0	0	0	14	0	4	0	0	0	0
Post Development Volumes	0	0	139	1	0	105	179	0	0	14	0	4	0	0	0	0

Attachment A

RaceTrac Sparr
PM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
DW 1 & Highway 329

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr	totals
4:00 PM	4:15 PM	0		100		0		42		0				0				142
4:15 PM	4:30 PM	0		65		0		28		0				0				93
4:30 PM	4:45 PM	0		31		0		24		0				0				55
4:45 PM	5:00 PM	0		21		0		12		0				0				33
5:00 PM	5:15 PM	0		31		0		26		0				0				57
5:15 PM	5:30 PM	0		35		0		17		0				0				52
5:30 PM	5:45 PM	0		23		0		15		0				0				38
5:45 PM	6:00 PM	0		22		0		18		0				0				40
Peak Hour Traffic Volume		0	0	328	0	0	0	182	0	0	0	0	0	0	0	0	0	510
4:00 PM	5:00 PM	0	0	217	0	0	0	106	0	0	0	0	0	0	0	0	0	323

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr
4/11/2023																
<u>Existing Volumes</u>	0	0	217	0	0	0	106	0	0	0	0	0	0	0	0	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	217	0	0	0	106	0	0	0	0	0	0	0	0	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	17	0	0	0	8	0	0	0	0	0	0	0	0	0
2026 Volumes	0	0	234	0	0	0	114	0	0	0	0	0	0	0	0	0
Pre Development Volumes	0	0	234	0	0	0	114	0	0	0	0	0	0	0	0	0
Auto			In	In		In				Out		In				
<u>Assignment</u>	0%	0%	5%	0%	0%	35%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%
<u>Project Traffic</u>	0	0	11	0	0	76	0	0	0	11	0	0	0	0	0	0
Truck			In	In		In				Out		Out				
<u>Assignment</u>	0%	0%	0%	2%	0%	46%	0%	0%	0%	2%	0%	10%	0%	0%	0%	0%
<u>Project Traffic</u>	0	0	0	1	0	19	0	0	0	1	0	4	0	0	0	0
Total Project Traffic	0	0	11	1	0	95	0	0	0	12	0	4	0	0	0	0
Post Development Volumes	0	0	245	1	0	95	114	0	0	12	0	4	0	0	0	0

Attachment A

RaceTrac Sparr
AM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
DW 2 & Highway 329

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM	0		16		0		15		0				0				31
7:15 AM	7:30 AM	0		16		0		30		0				0				46
7:30 AM	7:45 AM	0		17		0		28		0				0				45
7:45 AM	8:00 AM	0		23		0		30		0				0				53
8:00 AM	8:15 AM	0		16		0		34		0				0				50
8:15 AM	8:30 AM	0		20		0		35		0				0				55
8:30 AM	8:45 AM	0		23		0		46		0				0				69
8:45 AM	9:00 AM	0		58		0		51		0				0				109

Peak Hour Traffic Volume

8:00 AM	9:00 AM	0	0	189	0	0	0	269	0	0	0	0	0	0	0	0	0	458
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Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
4/11/2023																
<u>Existing Volumes</u>	0	0	117	0	0	0	166	0	0	0	0	0	0	0	0	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	117	0	0	0	166	0	0	0	0	0	0	0	0	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0
2026 Volumes	0	0	126	0	0	0	179	0	0	0	0	0	0	0	0	0
Pre Development Volumes	0	0	126	0	0	0	179	0	0	0	0	0	0	0	0	0
Auto				In			In						Out			
<u>Assignment</u>	0%	0%	0%	5%	0%	0%	35%	0%	0%	0%	0%	0%	55%	0%	0%	0%
<u>Project Traffic</u>	0	0	0	13	0	0	89	0	0	0	0	0	139	0	0	0
Truck			Out	In			In						Out			
<u>Assignment</u>	0%	0%	10%	0%	0%	0%	46%	0%	0%	0%	0%	0%	50%	0%	0%	0%
<u>Project Traffic</u>	0	0	4	0	0	0	16	0	0	0	0	0	18	0	0	0
Total Project Traffic	0	0	4	13	0	0	105	0	0	0	0	157	0	0	0	0
Post Development Volumes	0	0	130	13	0	0	284	0	0	0	0	157	0	0	0	0

Attachment A

RaceTrac Sparr
PM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
DW 2 & Highway 329

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
4:00 PM	4:15 PM	0		100		0		42		0				0				142
4:15 PM	4:30 PM	0		65		0		28		0				0				93
4:30 PM	4:45 PM	0		31		0		24		0				0				55
4:45 PM	5:00 PM	0		21		0		12		0				0				33
5:00 PM	5:15 PM	0		31		0		26		0				0				57
5:15 PM	5:30 PM	0		35		0		17		0				0				52
5:30 PM	5:45 PM	0		23		0		15		0				0				38
5:45 PM	6:00 PM	0		22		0		18		0				0				40
Peak Hour Traffic Volume		0	0	328	0	0	0	182	0	0	0	0	0	0	0	0	0	510
4:00 PM	5:00 PM	0	0	217	0	0	0	106	0	0	0	0	0	0	0	0	0	323

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
4/11/2023																
<u>Existing Volumes</u>	0	0	217	0	0	0	106	0	0	0	0	0	0	0	0	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	217	0	0	0	106	0	0	0	0	0	0	0	0	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	17	0	0	0	8	0	0	0	0	0	0	0	0	0
2026 Volumes	0	0	234	0	0	0	114	0	0	0	0	0	0	0	0	0
Pre Development Volumes	0	0	234	0	0	0	114	0	0	0	0	0	0	0	0	0
Auto				In			In					In				
<u>Assignment</u>	0%	0%	0%	5%	0%	0%	35%	0%	0%	0%	0%	55%	0%	0%	0%	0%
<u>Project Traffic</u>	0	0	0	11	0	0	76	0	0	0	0	119	0	0	0	0
Truck			Out	In			In					Out				
<u>Assignment</u>	0%	0%	10%	0%	0%	0%	46%	0%	0%	0%	0%	50%	0%	0%	0%	0%
<u>Project Traffic</u>	0	0	4	0	0	0	19	0	0	0	0	19	0	0	0	0
Total Project Traffic	0	0	4	11	0	0	95	0	0	0	0	138	0	0	0	0
Post Development Volumes	0	0	238	11	0	0	209	0	0	0	0	138	0	0	0	0

Attachment A

RaceTrac Sparr
AM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
US 441 & DW 3

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM	0				0				0		225				219		444
7:15 AM	7:30 AM	0				0				0		231				244		475
7:30 AM	7:45 AM	0				0				0		215				259		474
7:45 AM	8:00 AM	0				0				0		206				230		436
8:00 AM	8:15 AM	0				0				0		261				189		450
8:15 AM	8:30 AM	0				0				0		271				192		463
8:30 AM	8:45 AM	0				0				0		277				191		468
8:45 AM	9:00 AM	0				0				0		259				167		426
Peak Hour Traffic Volume		0	0	0	0	0	0	0	0	0	0	1945	0	0	0	1691	0	3636
7:15 AM	8:15 AM	0	0	0	0	0	0	0	0	0	0	913	0	0	0	922	0	1835

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
4/11/2023																
<u>Existing Volumes</u>	0	0	0	0	0	0	0	0	0	0	913	0	0	0	922	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	0	0	0	0	0	0	0	0	913	0	0	0	922	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	0	0	0	0	0	0	0	0	73	0	0	0	74	0
2026 Volumes	0	0	0	0	0	0	0	0	0	0	986	0	0	0	996	0
Pre Development Volumes	0	0	0	0	0	0	0	0	0	0	986	0	0	0	996	0
Auto				Out							In				In/Out	In
<u>Assignment</u>	0%	0%	0%	39%	0%	0%	0%	0%	0%	0%	45%	0%	0%	0%	1%/5%	59%
<u>Project Traffic</u>	0	0	0	99	0	0	0	0	0	0	114	0	0	0	15	149
Truck				Out							In				In/Out	In
<u>Assignment</u>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	48%	0%	0%	0%	2%/10%	50%
<u>Project Traffic</u>	0	0	0	0	0	0	0	0	0	0	16	0	0	0	4	17
Total Project Traffic	0	0	0	99	0	0	0	0	0	0	130	0	0	0	19	166
Post Development Volumes	0	0	0	99	0	0	0	0	0	0	1116	0	0	0	1015	166

Attachment A

RaceTrac Sparr
PM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
US 441 & DW 3

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr	totals
4:00 PM	4:15 PM	0				0				0		276		0		290		566
4:15 PM	4:30 PM	0				0				0		305		0		286		591
4:30 PM	4:45 PM	0				0				0		312		0		213		525
4:45 PM	5:00 PM	0				0				0		263		0		194		457
5:00 PM	5:15 PM	0				0				0		292		0		236		528
5:15 PM	5:30 PM	0				0				0		295		0		218		513
5:30 PM	5:45 PM	0				0				0		285		0		246		531
5:45 PM	6:00 PM	0				0				0		264		0		253		517
Peak Hour Traffic Volume		0	0	0	0	0	0	0	0	0	0	2292	0	0	0	1936	0	4228
4:00 PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	1156	0	0	0	983	0	2139

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbr	sbr	
4/11/2023																	
<u>Existing Volumes</u>	0	0	0	0	0	0	0	0	0	0	1156	0	0	0	983	0	
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjusted Volumes	0	0	0	0	0	0	0	0	0	0	1156	0	0	0	983	0	
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	
Growth Volume	0	0	0	0	0	0	0	0	0	0	93	0	0	0	79	0	
2026 Volumes	0	0	0	0	0	0	0	0	0	0	1249	0	0	0	1062	0	
Pre Development Volumes	0	0	0	0	0	0	0	0	0	0	1249	0	0	0	1062	0	
Auto				Out							In				In/Out	In	
<u>Assignment</u>	0%	0%	0%	39%	0%	0%	0%	0%	0%	0%	45%	0%	0%	0%	1%/5%	59%	
<u>Project Traffic</u>	0	0	0	84	0	0	0	0	0	0	97	0	0	0	13	127	
Truck				Out							In				In/Out	In	
<u>Assignment</u>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	48%	0%	0%	0%	2%/10%	50%	
<u>Project Traffic</u>	0	0	0	0	0	0	0	0	0	0	20	0	0	5	21		
Total Project Traffic	0	0	0	84	0	0	0	0	0	0	117	0	0	0	18	148	
Post Development Volumes	0	0	0	84	0	0	0	0	0	0	1366	0	0	0	1080	148	

Attachment A

RaceTrac Sparr
AM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
US 441 & DW 4

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM	0				0				0		225				219		444
7:15 AM	7:30 AM	0				0				0		231				244		475
7:30 AM	7:45 AM	0				0				0		215				259		474
7:45 AM	8:00 AM	0				0				0		206				230		436
8:00 AM	8:15 AM	0				0				0		261				189		450
8:15 AM	8:30 AM	0				0				0		271				192		463
8:30 AM	8:45 AM	0				0				0		277				191		468
8:45 AM	9:00 AM	0				0				0		259				167		426

Peak Hour Traffic Volume

7:15 AM	8:15 AM	0	0	0	0	0	0	0	0	0	0	913	0	0	0	922	0	1835
---------	---------	---	---	---	---	---	---	---	---	---	---	-----	---	---	---	-----	---	------

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
4/11/2023																
<u>Existing Volumes</u>	0	0	0	0	0	0	0	0	0	0	913	0	0	0	922	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	0	0	0	0	0	0	0	0	913	0	0	0	922	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	0	0	0	0	0	0	0	0	73	0	0	0	74	0
2026 Volumes	0	0	0	0	0	0	0	0	0	0	986	0	0	0	996	0
<u>Pre Development Volumes</u>	0	0	0	0	0	0	0	0	0	0	986	0	0	0	996	0
Auto				Out							In				Out	In
<u>Assignment</u>	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	45%	0%	0%	0%	44%	1%
<u>Project Traffic</u>	0	0	0	3	0	0	0	0	0	0	114	0	0	0	111	3
Truck				Out							In				Out	In
<u>Assignment</u>	0%	0%	0%	38%	0%	0%	0%	0%	0%	0%	48%	0%	0%	0%	10%	2%
<u>Project Traffic</u>	0	0	0	14	0	0	0	0	0	0	16	0	0	0	4	1
<u>Total Project Traffic</u>	0	0	0	17	0	0	0	0	0	0	130	0	0	0	115	4
<u>Post Development Volumes</u>	0	0	0	17	0	0	0	0	0	0	1116	0	0	0	1111	4

Attachment A

RaceTrac Sparr
PM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 2
US 441 & DW 4

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
4:00 PM 4:15 PM	0				0				0		276		0		290		566
4:15 PM 4:30 PM	0				0				0		305		0		286		591
4:30 PM 4:45 PM	0				0				0		312		0		213		525
4:45 PM 5:00 PM	0				0				0		263		0		194		457
5:00 PM 5:15 PM	0				0				0		292		0		236		528
5:15 PM 5:30 PM	0				0				0		295		0		218		513
5:30 PM 5:45 PM	0				0				0		285		0		246		531
5:45 PM 6:00 PM	0				0				0		264		0		253		517
Peak Hour Traffic Volume	0	0	0	0	0	0	0	0	0	0	2292	0	0	0	1936	0	4228
4:00 PM 5:00 PM	0	0	0	0	0	0	0	0	0	0	1156	0	0	0	983	0	2139

Count Taken: 4/11/2023
Buildout year: 2026
Growth Rate: 2.6%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
4/11/2023																
Existing Volumes	0	0	0	0	0	0	0	0	0	0	1156	0	0	0	983	0
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes	0	0	0	0	0	0	0	0	0	0	1156	0	0	0	983	0
Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Volume	0	0	0	0	0	0	0	0	0	0	93	0	0	0	79	0
2026 Volumes	0	0	0	0	0	0	0	0	0	0	1249	0	0	0	1062	0
Pre Development Volumes	0	0	0	0	0	0	0	0	0	0	1249	0	0	0	1062	0
Auto																
Assignment	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	45%	0%	0%	0%	44%	1%
Project Traffic	0	0	0	2	0	0	0	0	0	0	97	0	0	0	95	2
Truck																
Assignment	0%	0%	0%	38%	0%	0%	0%	0%	0%	0%	48%	0%	0%	0%	10%	2%
Project Traffic	0	0	0	14	0	0	0	0	0	0	20	0	0	0	4	1
Total Project Traffic	0	0	0	16	0	0	0	0	0	0	117	0	0	0	99	3
Post Development Volumes	0	0	0	16	0	0	0	0	0	0	1366	0	0	0	1161	3

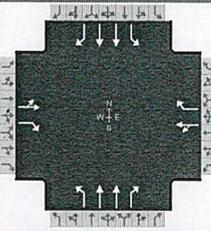
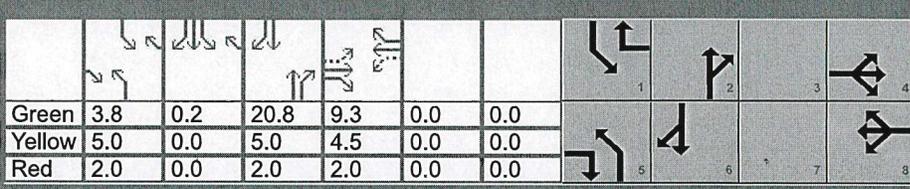
Attachment A

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	MEP			Duration, h	0.250										
Analyst	MEP			Analysis Date	Jun 13, 2023										
Jurisdiction	Marion County			Time Period											
Urban Street				Analysis Year	2026										
Intersection	US 441 & Hwy 329			File Name	US 441 & Hwy 329 Existing AM.xus										
Project Description	2023 Existing AM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				22	65	30	94	86	73	61	882	125	68	615	19
Signal Information															
Cycle, s	54.6	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On	Green	3.8	0.2	20.8	9.3	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	0.0	5.0	4.5	0.0	0.0					
				Red	2.0	0.0	2.0	2.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				22	65	30	94	86	73	61	882	125	68	615	19
Initial Queue (Q _b), veh/h				0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h				None			None			None			None		
Heavy Vehicles (P _{HV}), %				12	0		12	8		2	20	8	7	21	5
Ped / Bike / RTOR, /h				0	0	21	0	0	30	0	0	36	0	0	7
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)				3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft				0	250		0	250	250	0	200	225	0	200	
Grade (P _g), %				0			0			0			0		
Speed Limit, mi/h				45	45	45	45	45	45	55	55	55	55	55	55
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s					40.0		40.0	20.0	70.0	20.0	70.0				
Yellow Change Interval (Y), s					4.5		4.5	5.0	5.0	5.0	5.0				
Red Clearance Interval (R _c), s					2.0		2.0	2.0	2.0	2.0	2.0				
Minimum Green (G _{min}), s					6		6	6	6	6	6				
Start-Up Lost Time (I _t), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Passage (PT), s					2.0		2.0	2.0	2.0	2.0	2.0				
Recall Mode					Off		Off	Off	Min	Off	Min				
Dual Entry					Yes		Yes	No	Yes	No	Yes				
Walk (Walk), s					0.0		0.0		0.0		0.0				
Pedestrian Clearance Time (PC), s					0.0		0.0		0.0		0.0				
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50		No	0.50		No	0.50		No	0.50	

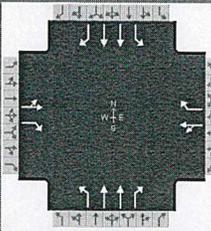
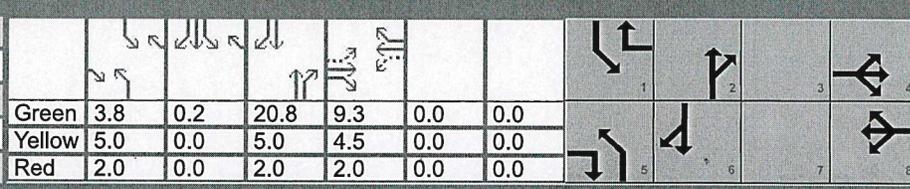
Attachment A

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	MEP			Duration, h	0.250										
Analyst	MEP		Analysis Date	Jun 13, 2023		Area Type	Other								
Jurisdiction	Marion County		Time Period			PHF	0.95								
Urban Street			Analysis Year	2026		Analysis Period	1 > 7:00								
Intersection	US 441 & Hwy 329		File Name	US 441 & Hwy 329 Existing AM.xus											
Project Description	2023 Existing AM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				22	65	30	94	86	73	61	882	125	68	615	19
Signal Information															
Cycle, s	54.6	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	3.8	0.2	20.8	9.3	0.0	0.0									
Yellow	5.0	0.0	5.0	4.5	0.0	0.0									
Red	2.0	0.0	2.0	2.0	0.0	0.0									
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					4		8	5	2	1	6				
Case Number					7.0		7.0	2.0	3.0	2.0	3.0				
Phase Duration, s					15.8		15.8	10.8	27.8	11.0	28.1				
Change Period, (Y+R _c), s					6.5		6.5	7.0	7.0	7.0	7.0				
Max Allow Headway (MAH), s					3.0		3.0	2.9	2.9	2.9	2.9				
Queue Clearance Time (g _s), s					4.6		8.8	3.9	16.8	4.2	11.2				
Green Extension Time (g _e), s					0.6		0.6	0.1	4.0	0.1	4.0				
Phase Call Probability					0.99		0.99	0.62	1.00	0.66	1.00				
Max Out Probability					0.00		0.00	0.00	0.00	0.00	0.00				
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h					92	9		189	45	64	928	94	72	647	13
Adjusted Saturation Flow Rate (s), veh/h/ln					1628	1610		1450	1510	1781	1527	1510	1711	1513	1547
Queue Service Time (g _s), s					0.0	0.2		4.3	1.3	1.9	14.8	2.2	2.2	9.2	0.3
Cycle Queue Clearance Time (g _c), s					2.6	0.2		6.8	1.3	1.9	14.8	2.2	2.2	9.2	0.3
Green Ratio (g/C)					0.17	0.24		0.17	0.24	0.07	0.38	0.38	0.07	0.39	0.39
Capacity (c), veh/h					360	386		348	368	122	1166	576	125	1168	597
Volume-to-Capacity Ratio (X)					0.254	0.025		0.545	0.123	0.524	0.797	0.163	0.572	0.554	0.021
Back of Queue (Q), ft/ln (95 th percentile)					43.8	3.5		98.9	17.9	32.8	191.9	26	38.2	116.6	3.2
Back of Queue (Q), veh/ln (95 th percentile)					1.6	0.1		3.6	0.7	1.3	6.6	1.0	1.4	4.0	0.1
Queue Storage Ratio (RQ) (95 th percentile)					0.00	0.01		0.00	0.07	0.13	0.00	0.13	0.17	0.00	0.02
Uniform Delay (d ₁), s/veh					19.9	15.9		21.6	16.1	24.6	15.0	11.2	24.5	13.1	10.4
Incremental Delay (d ₂), s/veh					0.1	0.0		0.5	0.1	1.3	0.5	0.0	1.5	0.2	0.0
Initial Queue Delay (d ₃), s/veh					0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh					20.0	15.9		22.1	16.2	25.9	15.5	11.2	26.1	13.3	10.4
Level of Service (LOS)					C	B		C	B	C	B	B	C	B	B
Approach Delay, s/veh / LOS				19.6	B		20.9	C		15.8	B		14.5	B	
Intersection Delay, s/veh / LOS				16.1						B					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				2.48	B		2.44	B		1.93	B		1.92	B	
Bicycle LOS Score / LOS				0.65	A		0.87	A		1.38	A		1.09	A	

Attachment A

HCS7 Signalized Intersection Intermediate Values

General Information				Intersection Information											
Agency	MEP			Duration, h	0.250										
Analyst	MEP		Analysis Date	Jun 13, 2023		Area Type	Other								
Jurisdiction	Marion County		Time Period												
Urban Street			Analysis Year	2026		PHF	0.95								
Intersection	US 441 & Hwy 329		File Name	US 441 & Hwy 329 Existing AM.xus											
Project Description	2023 Existing AM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				22	65	30	94	86	73	61	882	125	68	615	19
Signal Information															
Cycle, s	54.6	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	3.8	0.2	20.8	9.3	0.0	0.0									
Yellow	5.0	0.0	5.0	4.5	0.0	0.0									
Red	2.0	0.0	2.0	2.0	0.0	0.0									
Saturation Flow / Delay				L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Heavy Vehicles and Grade Factor (f_{HVg})	0.984	0.906	1.000	0.984	0.906	0.938	0.984	0.844	0.938	0.945	0.836	0.961			
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000			
Left-Turn Adjustment Factor (f_{LT})	0.945	0.945		0.842	0.842		0.952	0.000		0.952	0.000				
Right-Turn Adjustment Factor (f_{RT})		0.000	0.847		0.000	0.847		0.000	0.847		0.000	0.847			
Left-Turn Pedestrian Adjustment Factor (f_{LPB})	1.000			1.000			1.000			1.000					
Right-Turn Ped-Bike Adjustment Factor (f_{RPB})			1.000			1.000			1.000			1.000			
Work Zone Adjustment Factor (f_{WZ})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
DDI Factor (f_{DDI})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Movement Saturation Flow Rate (s), veh/h	412	1216	1610	757	693	1510	1781	3053	1510	1711	3025	1547			
Proportion of Vehicles Arriving on Green (P)	0.17	0.17	0.17	0.17	0.17	0.17	0.07	0.38	0.38	0.07	0.39	0.39			
Incremental Delay Factor (k)		0.04	0.04		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04			
Signal Timing / Movement Groups				EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R				
Lost Time (t_L)					6.5		6.5	7.0	7.0	7.0	7.0				
Green Ratio (g/C)					0.17		0.17	0.07	0.38	0.07	0.39				
Permitted Saturation Flow Rate (s_p), veh/h/ln					1327		1354	0	0	0	0				
Shared Saturation Flow Rate (s_{sh}), veh/h/ln					1553		1422								
Permitted Effective Green Time (g_p), s					9.3		9.3	0.0	0.0	0.0	0.0				
Permitted Service Time (g_u), s					2.6		6.9	0.0	0.0	0.0	0.0				
Permitted Queue Service Time (g_{ps}), s					0.0		4.3								
Time to First Blockage (g_f), s					4.2		0.9	0.0	0.0	0.0	0.0				
Queue Service Time Before Blockage (g_s), s					2.6		0.9								
Protected Right Saturation Flow (s_R), veh/h/ln					1610		1510		0		0				
Protected Right Effective Green Time (g_R), s					3.8		4.0		0.0		0.0				
Multimodal				EB			WB			NB			SB		
Pedestrian F_w / F_v				1.710	0.051	1.710	0.010	1.198	0.043	1.198	0.030				
Pedestrian F_s / F_{delay}				0.000	0.118	0.000	0.118	0.000	0.094	0.000	0.094				
Pedestrian M_{corner} / M_{cw}															
Bicycle c_b / d_b				340.84	18.80	340.84	18.80	762.80	10.46	771.57	10.31				
Bicycle F_w / F_v				-3.64	0.17	-3.64	0.39	-3.64	0.90	-3.64	0.60				

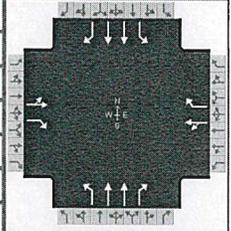
HCS7 Signalized Intersection Results Graphical Summary

General Information

Agency	MEP
Analyst	MEP
Jurisdiction	Marion County
Urban Street	
Intersection	US 441 & Hwy 329
Project Description	2023 Existing AM

Intersection Information

Duration, h	0.250
Area Type	Other
PHF	0.95
Analysis Period	1> 7:00
File Name	US 441 & Hwy 329 Existing AM.xus



Demand Information

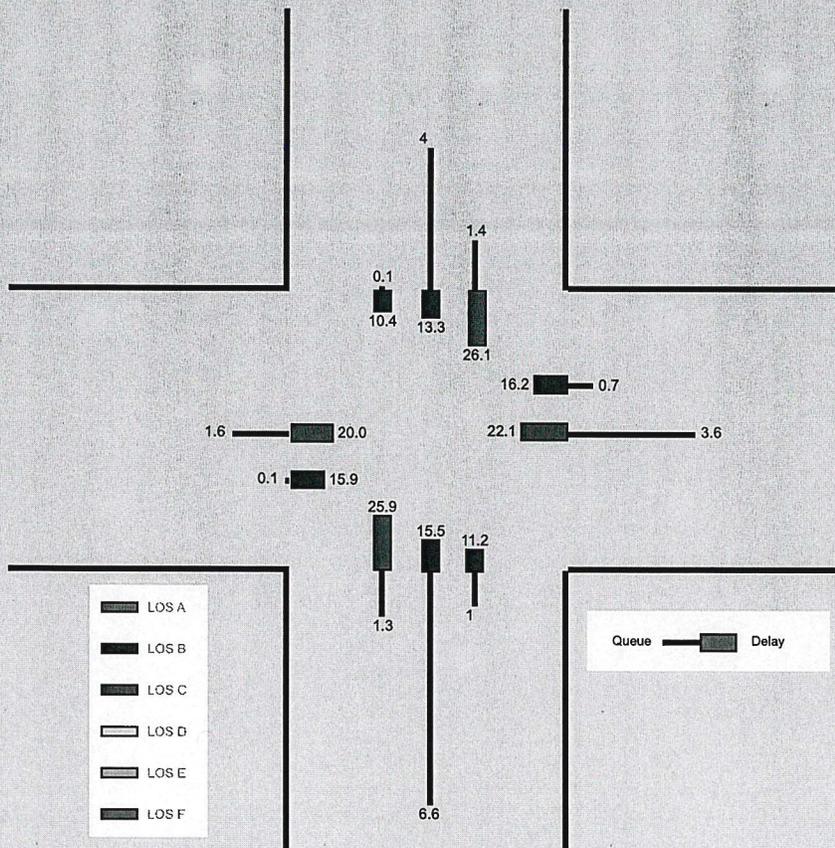
Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	22	65	30	94	86	73	61	882	125	68	615	19

Signal Information

Cycle, s	54.6	Reference Phase	2	[Signal Diagrams]									
Offset, s	0	Reference Point	End	[Signal Diagrams]									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	3.8	0.2	20.8	9.3	0.0	0.0	[Signal Diagrams]		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	0.0	5.0	4.5	0.0	0.0	[Signal Diagrams]		
				Red	2.0	0.0	2.0	2.0	0.0	0.0	[Signal Diagrams]		

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (Q), ft/ln (95 th percentile)		43.8	3.5		98.9	17.9	32.8	191.9	26	38.2	116.6	3.2
Back of Queue (Q), veh/ln (95 th percentile)		1.6	0.1		3.6	0.7	1.3	6.6	1.0	1.4	4.0	0.1
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.01		0.00	0.07	0.13	0.00	0.13	0.17	0.00	0.02
Control Delay (d), s/veh		20.0	15.9		22.1	16.2	25.9	15.5	11.2	26.1	13.3	10.4
Level of Service (LOS)		C	B		C	B	C	B	B	C	B	B
Approach Delay, s/veh / LOS	19.6	B		20.9	C		15.8	B		14.5	B	
Intersection Delay, s/veh / LOS	16.1			B			B			B		



Attachment A

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	MEP			Duration, h	0.250										
Analyst	MEP			Analysis Date	Jun 13, 2023										
Jurisdiction	Marion County			Time Period											
Urban Street				Analysis Year	2026										
Intersection	US 441 & Hwy 329			File Name	US 441 & Hwy 329 Existing PM.xus										
Project Description	2023 Existing PM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				48	99	70	77	54	69	36	1024	97	79	836	17
Signal Information															
Cycle, s	58.1	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.8	1.7	25.3	7.8	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	0.0	5.0	4.5	0.0	0.0					
				Red	2.0	0.0	2.0	2.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				48	99	70	77	54	69	36	1024	97	79	836	17
Initial Queue (Q _b), veh/h				0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h				None			None			None			None		
Heavy Vehicles (P _{HV}), %				7	6		2	9		6	20	3	6	16	12
Ped / Bike / RTOR, /h				0	0	12	0	0	41	0	0	36	0	0	6
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)				3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft					12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft					0	250		0	250	250	0	200	225	0	200
Grade (P _g), %					0			0			0			0	
Speed Limit, mi/h				45	45	45	45	45	45	55	55	55	55	55	55
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s					40.0		40.0	20.0	70.0	20.0	70.0				
Yellow Change Interval (Y), s					4.5		4.5	5.0	5.0	5.0	5.0				
Red Clearance Interval (R _c), s					2.0		2.0	2.0	2.0	2.0	2.0				
Minimum Green (G _{min}), s					6		6	6	6	6	6				
Start-Up Lost Time (I _t), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s					2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode					Off		Off	Off	Min	Off	Min				
Dual Entry					Yes		Yes	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s					0.0		0.0		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s					0.0		0.0		0.0		0.0		0.0		0.0
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50

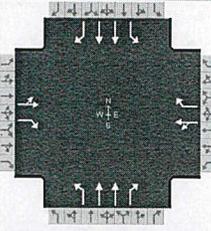
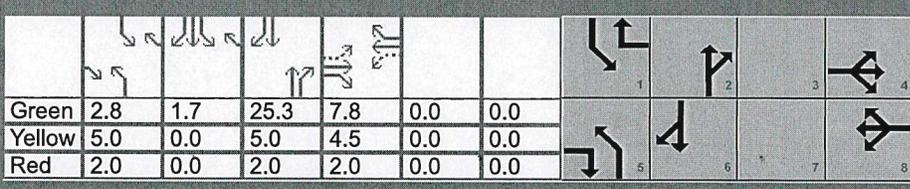
Attachment A

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	MEP			Duration, h	0.250										
Analyst	MEP			Analysis Date	Jun 13, 2023			Area Type	Other						
Jurisdiction	Marion County			Time Period				PHF	0.95						
Urban Street				Analysis Year	2026			Analysis Period	1> 16:00						
Intersection	US 441 & Hwy 329			File Name	US 441 & Hwy 329 Existing PM.xus										
Project Description	2023 Existing PM														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	48	99	70	77	54	69	36	1024	97	79	836	17			
Signal Information															
Cycle, s	58.1	Reference Phase	2	Green	2.8	1.7	25.3	7.8	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	5.0	0.0	5.0	4.5	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	0.0	2.0	2.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					4		8	5	2	1	6				
Case Number					7.0		7.0	2.0	3.0	2.0	3.0				
Phase Duration, s					14.3		14.3	9.8	32.3	11.4	34.0				
Change Period, (Y+R _c), s					6.5		6.5	7.0	7.0	7.0	7.0				
Max Allow Headway (MAH), s					3.1		3.1	2.9	2.9	2.9	2.9				
Queue Clearance Time (g _s), s					7.2		7.0	3.2	19.9	4.7	14.0				
Green Extension Time (g _e), s					0.7		0.7	0.0	5.3	0.1	5.3				
Phase Call Probability					1.00		1.00	0.46	1.00	0.74	1.00				
Max Out Probability					0.00		0.00	0.00	0.00	0.00	0.00				
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16			
Adjusted Flow Rate (v), veh/h	155	61		138	29		38	1078	64	83	880	12			
Adjusted Saturation Flow Rate (s), veh/h/ln	1637	1535		1514	1497		1725	1527	1572	1725	1583	1459			
Queue Service Time (g _s), s	0.2	2.0		0.0	0.9		1.2	17.9	1.4	2.7	12.0	0.2			
Cycle Queue Clearance Time (g _c), s	5.2	2.0		5.0	0.9		1.2	17.9	1.4	2.7	12.0	0.2			
Green Ratio (g/C)	0.14	0.18		0.14	0.21		0.05	0.44	0.44	0.08	0.46	0.46			
Capacity (c), veh/h	304	281		303	317		82	1330	685	132	1471	678			
Volume-to-Capacity Ratio (X)	0.510	0.217		0.455	0.093		0.462	0.810	0.094	0.629	0.598	0.017			
Back of Queue (Q), ft/ln (95 th percentile)	86.1	29.4		73.5	13.5		22.4	224.8	15.9	48.1	144.8	2.7			
Back of Queue (Q), veh/ln (95 th percentile)	3.3	1.1		2.9	0.5		0.9	7.8	0.6	1.8	5.1	0.1			
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.12		0.00	0.05		0.09	0.00	0.08	0.21	0.00	0.01			
Uniform Delay (d ₁), s/veh	23.9	20.2		23.8	18.4		27.0	14.3	9.7	26.1	11.5	8.4			
Incremental Delay (d ₂), s/veh	0.5	0.1		0.4	0.0		1.5	0.5	0.0	1.8	0.1	0.0			
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0			
Control Delay (d), s/veh	24.4	20.4		24.2	18.5		28.5	14.8	9.7	27.9	11.7	8.4			
Level of Service (LOS)		C	C		C	B		C	B	A	C	B	A		
Approach Delay, s/veh / LOS	23.3		C	23.2		C	14.9		B	13.0		B			
Intersection Delay, s/veh / LOS	15.5						B								
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.48		B	2.44		B	1.95		B	1.90		B			
Bicycle LOS Score / LOS	0.84		A	0.76		A	1.46		A	1.29		A			

Attachment A

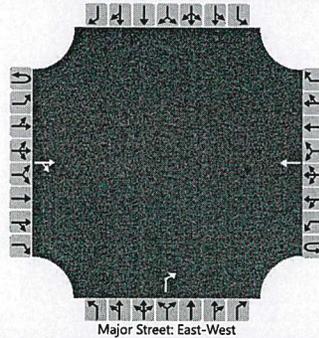
HCS7 Signalized Intersection Intermediate Values

General Information				Intersection Information											
Agency	MEP			Duration, h	0.250										
Analyst	MEP			Analysis Date	Jun 13, 2023			Area Type	Other						
Jurisdiction	Marion County			Time Period				PHF	0.95						
Urban Street				Analysis Year	2026			Analysis Period	1> 16:00						
Intersection	US 441 & Hwy 329			File Name	US 441 & Hwy 329 Existing PM.xus										
Project Description	2023 Existing PM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				48	99	70	77	54	69	36	1024	97	79	836	17
Signal Information															
Cycle, s	58.1	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.8	1.7	25.3	7.8	0.0	0.0					
				Yellow	5.0	0.0	5.0	4.5	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	0.0	2.0	2.0	0.0	0.0					
Saturation Flow / Delay				L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles and Grade Factor (f_{HVg})				0.984	0.945	0.953	0.984	0.984	0.930	0.953	0.844	0.977	0.953	0.875	0.906
Parking Activity Adjustment Factor (f_p)				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})				1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
Left-Turn Adjustment Factor (f_{LT})				0.911	0.911		0.809	0.809		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})					0.000	0.847		0.000	0.847		0.000	0.847		0.000	0.847
Left-Turn Pedestrian Adjustment Factor (f_{LPB})				1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{RPB})						1.000			1.000			1.000			1.000
Work Zone Adjustment Factor (f_{wz})				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
DDI Factor (f_{DDI})				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Movement Saturation Flow Rate (s), veh/h				534	1102	1535	890	624	1497	1725	3053	1572	1725	3166	1459
Proportion of Vehicles Arriving on Green (P)				0.14	0.14	0.14	0.14	0.14	0.14	0.05	0.44	0.44	0.08	0.46	0.46
Incremental Delay Factor (k)					0.04	0.04		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Signal Timing / Movement Groups				EBL	EBT/R		WBL	WBT/R		NBL	NBT/R		SBL	SBT/R	
Lost Time (t_L)					6.5			6.5		7.0	7.0		7.0	7.0	
Green Ratio (g/C)					0.14			0.14		0.05	0.44		0.08	0.46	
Permitted Saturation Flow Rate (s_p), veh/h/ln					1368			1310		0	0		0	0	
Shared Saturation Flow Rate (s_{sh}), veh/h/ln					1594			1479							
Permitted Effective Green Time (g_p), s					7.9			7.9		0.0	0.0		0.0	0.0	
Permitted Service Time (g_u), s					2.9			2.7		0.0	0.0		0.0	0.0	
Permitted Queue Service Time (g_{ps}), s					0.2			0.0							
Time to First Blockage (g_r), s					1.7			0.7		0.0	0.0		0.0	0.0	
Queue Service Time Before Blockage (g_{ts}), s					1.7			0.7							
Protected Right Saturation Flow (s_R), veh/h/ln					1535			1497			0			0	
Protected Right Effective Green Time (g_R), s					2.8			4.5			0.0			0.0	
Multimodal				EB			WB			NB			SB		
Pedestrian F_w / F_v				1.710	0.051		1.710	0.009		1.198	0.058		1.198	0.017	
Pedestrian F_s / F_{delay}				0.000	0.123		0.000	0.123		0.000	0.089		0.000	0.085	
Pedestrian M_{corner} / M_{cw}															
Bicycle c_b / d_b				270.29	21.72		270.29	21.72		870.68	9.26		928.80	8.33	
Bicycle F_w / F_v				-3.64	0.36		-3.64	0.28		-3.64	0.97		-3.64	0.80	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MEP	Intersection	Hwy 329 & DW 2
Agency/Co.	MEP	Jurisdiction	Marion County
Date Performed	6/12/2023	East/West Street	Hwy 329
Analysis Year	2026	North/South Street	DW 2
Time Analyzed		Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	2026 Post-Development PM		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	0	1		0	0	0
Configuration				TR			T					R				
Volume (veh/h)			238	11			209					138				
Percent Heavy Vehicles (%)												5				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																	6.2
Critical Headway (sec)																	6.25
Base Follow-Up Headway (sec)																	3.3
Follow-Up Headway (sec)																	3.35

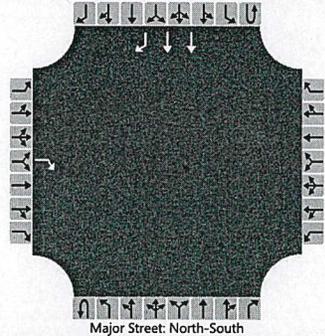
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																	145
Capacity, c (veh/h)																	775
v/c Ratio																	0.19
95% Queue Length, Q ₉₅ (veh)																	0.7
Control Delay (s/veh)																	10.7
Level of Service (LOS)																	B
Approach Delay (s/veh)																	10.7
Approach LOS																	B

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MEP	Intersection	US 441 & DW 3
Agency/Co.	MEP	Jurisdiction	Marion County
Date Performed	6/12/2023	East/West Street	DW 3
Analysis Year	2026	North/South Street	US 441
Time Analyzed		Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	2026 Post-Development AM		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0		0	0	0		0	2	1
Configuration				R											T	R
Volume (veh/h)				99											1015	166
Percent Heavy Vehicles (%)				19												
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No												No		
Median Type Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)				6.9												
Critical Headway (sec)				7.28												
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)				3.49												

Delay, Queue Length, and Level of Service

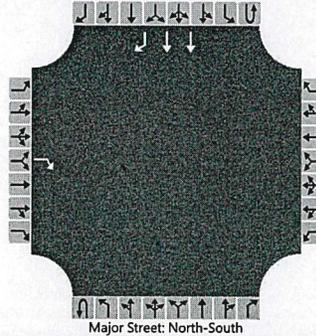
Flow Rate, v (veh/h)				104												
Capacity, c (veh/h)				449												
v/c Ratio				0.23												
95% Queue Length, Q ₉₅ (veh)				0.9												
Control Delay (s/veh)				15.4												
Level of Service (LOS)				C												
Approach Delay (s/veh)		15.4														
Approach LOS		C														

Attachment A

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MEP			Intersection	US 441 & DW 3		
Agency/Co.	MEP			Jurisdiction	Marion County		
Date Performed	6/12/2023			East/West Street	DW 3		
Analysis Year	2026			North/South Street	US 441		
Time Analyzed				Peak Hour Factor	0.95		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	2026 Post-Development PM						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0		0	0	0		0	2	1
Configuration				R											T	R
Volume (veh/h)				84											1080	148
Percent Heavy Vehicles (%)				14												
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No												No			
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)				6.9												
Critical Headway (sec)				7.18												
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)				3.44												

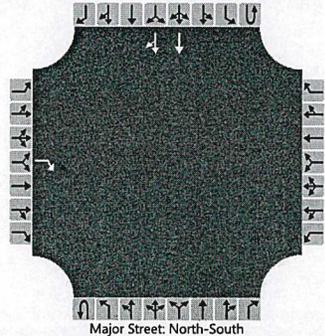
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				88												
Capacity, c (veh/h)				437												
v/c Ratio				0.20												
95% Queue Length, Q ₉₅ (veh)				0.7												
Control Delay (s/veh)				15.3												
Level of Service (LOS)				C												
Approach Delay (s/veh)	15.3															
Approach LOS	C															

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MEP	Intersection	US 441 & DW 4				
Agency/Co.	MEP	Jurisdiction	Marion County				
Date Performed	6/12/2023	East/West Street	DW 4				
Analysis Year	2026	North/South Street	US 441				
Time Analyzed		Peak Hour Factor	0.95				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	2026 Post-Development AM						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	0	0	0	0	2	0
Configuration				R											T	TR
Volume (veh/h)				17											1111	4
Percent Heavy Vehicles (%)				19												
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)				6.9												
Critical Headway (sec)				7.28												
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)				3.49												

Delay, Queue Length, and Level of Service

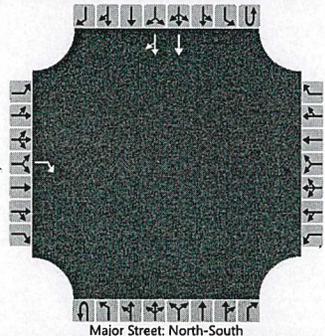
Flow Rate, v (veh/h)				18												
Capacity, c (veh/h)				413												
v/c Ratio				0.04												
95% Queue Length, Q ₉₅ (veh)				0.1												
Control Delay (s/veh)				14.1												
Level of Service (LOS)				B												
Approach Delay (s/veh)	14.1															
Approach LOS	B															

Attachment A

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MEP	Intersection	US 441 & DW 4				
Agency/Co.	MEP	Jurisdiction	Marion County				
Date Performed	6/12/2023	East/West Street	DW 4				
Analysis Year	2026	North/South Street	US 441				
Time Analyzed		Peak Hour Factor	0.95				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	2026 Post-Development PM						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	0	0	0	0	2	0
Configuration				R											T	TR
Volume (veh/h)				16											1161	3
Percent Heavy Vehicles (%)				14												
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)				6.9												
Critical Headway (sec)				7.18												
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)				3.44												

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				17												
Capacity, c (veh/h)				407												
v/c Ratio				0.04												
95% Queue Length, Q ₉₅ (veh)				0.1												
Control Delay (s/veh)				14.2												
Level of Service (LOS)				B												
Approach Delay (s/veh)	14.2															
Approach LOS	B															

Attachment A

 MacKenzie
Engineering & Planning, Inc.

1172 SW 30th Street, Suite 500 • Palm City • Florida • 34990
(772) 286-8030 • www.mackenzieengineeringinc.com

APPENDIX A

Methodology on file with the County

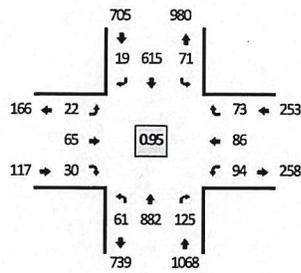
Attachment A

Type of peak hour being reported: Intersection Peak

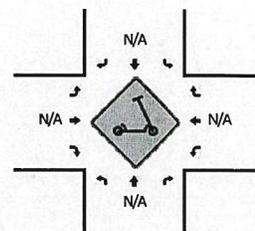
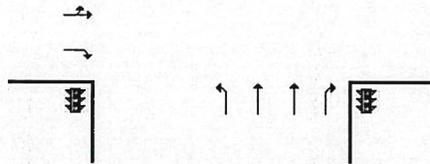
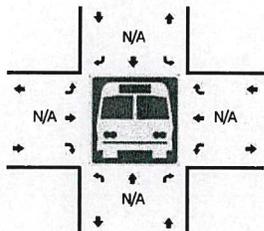
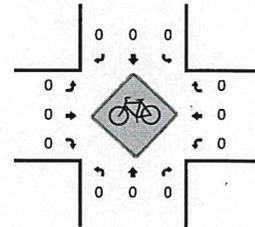
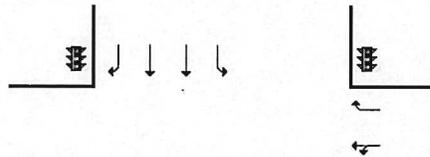
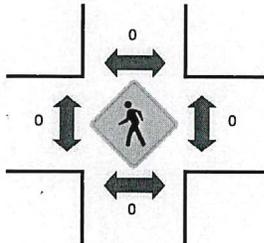
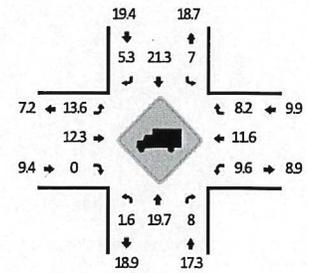
Method for determining peak hour: Total Entering Volume

LOCATION: US 441 -- Hwy 329
CITY/STATE: Marion, FL

QC JOB #: 16154201
DATE: Tue, Apr 11 2023



Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM



R* = RTOR

15-Min Count Period Beginning At	US 441 (Northbound)					US 441 (Southbound)					Hwy 329 (Eastbound)					Hwy 329 (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	1	214	10	0	0	10	172	7	1	0	2	5	2	0	7	38	7	7	0	9	492	
7:15 AM	6	216	6	0	3	7	202	6	1	3	3	7	3	0	3	36	15	7	0	11	535	
7:30 AM	2	204	7	0	2	16	207	9	1	0	6	5	2	0	4	46	17	5	0	14	547	
7:45 AM	8	187	9	0	2	19	179	3	0	3	9	5	7	0	2	42	16	16	0	7	514	2088
8:00 AM	17	219	21	0	4	8	164	5	0	2	7	6	1	0	2	22	10	8	0	8	504	2100
8:15 AM	11	243	13	0	4	10	163	3	1	3	3	8	1	0	8	20	18	8	0	6	523	2088
8:30 AM	16	227	18	0	16	22	163	3	1	2	2	16	0	0	5	23	25	7	0	8	554	2095
8:45 AM	17	193	37	0	12	28	125	1	1	0	10	35	7	0	6	29	33	20	0	8	562	2143

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	68	772	196	0	48	112	500	4	4	0	40	140	52	0	24	116	132	112	0	32	2352
Heavy Trucks	0	160	24			8	88	0			8	20	0			4	16	12			340
Buses																					
Pedestrians	0					0					0					0					0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scoters																					

Comments:

Report generated on 4/17/2023 11:29 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

2,143 x 20% = 429

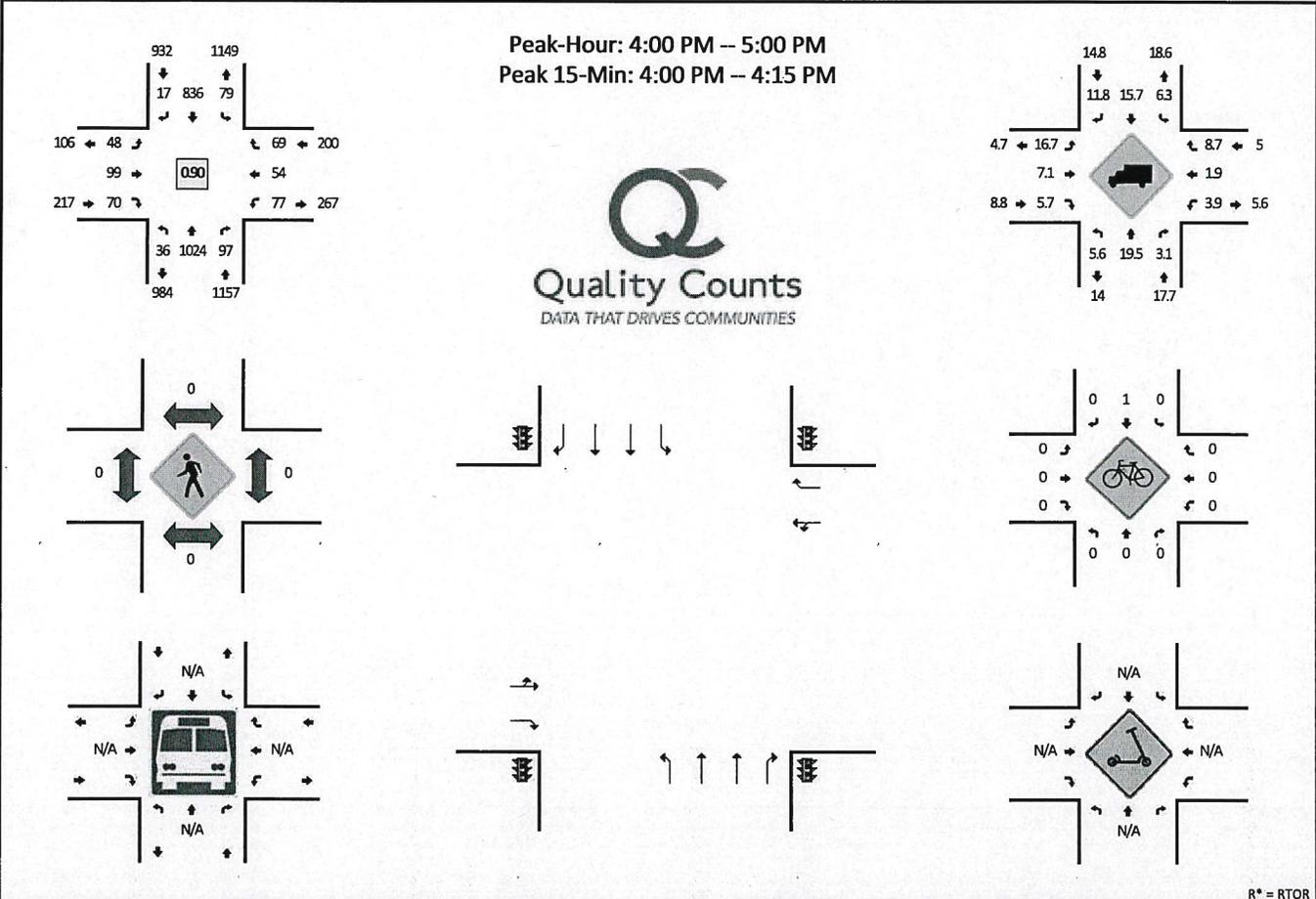
Attachment A

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: US 441 -- Hwy 329
CITY/STATE: Marion, FL

QC JOB #: 16154202
DATE: Tue, Apr 11 2023



15-Min Count Period Beginning At	US 441 (Northbound)				US 441 (Southbound)				Hwy 329 (Eastbound)				Hwy 329 (Westbound)				Total	Hourly Totals				
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left			Thru	Right	U	R*
4:00 PM	13	240	12	1	11	11	230	6	3	2	16	46	17	0	21	22	21	13	0	8	693	
4:15 PM	11	272	9	0	13	22	241	4	2	0	15	29	8	0	13	24	13	10	0	7	693	
4:30 PM	8	279	13	0	12	20	192	2	2	1	11	13	2	0	5	14	13	10	0	3	600	
4:45 PM	3	233	17	0	10	18	173	2	1	0	6	11	2	0	2	17	7	8	0	10	520	2506
5:00 PM	6	251	26	0	9	14	212	2	2	2	14	12	1	0	4	19	16	16	0	7	613	2426
5:15 PM	6	254	26	1	9	14	193	3	0	3	12	16	1	0	6	18	5	12	0	7	586	2319
5:30 PM	3	241	32	0	9	15	231	1	4	1	6	14	2	0	1	12	10	7	0	12	601	2320
5:45 PM	8	220	27	0	9	25	242	3	1	0	9	11	1	0	1	9	7	8	0	15	596	2396
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total					
All Vehicles	52	960	92	4	44	44	920	32	12	8	64	184	152	0	84	88	84	84	0	32	2940	
Heavy Trucks	4	184	4			4	148	4			8	12	8			4	4	0			384	
Buses																						
Pedestrians	0	0	0			0	0	0			0	0	0			0	0	0			0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

Report generated on 4/17/2023 11:29 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

20% x 2,506 = 501

Attachment A

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 3600 MARION COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.94 PSCF
1	01/01/2022 - 01/01/2022	1.07	1.14
2	01/02/2022 - 01/08/2022	1.06	1.13
3	01/09/2022 - 01/15/2022	1.05	1.12
4	01/16/2022 - 01/22/2022	1.04	1.11
5	01/23/2022 - 01/29/2022	1.02	1.09
6	01/30/2022 - 02/05/2022	1.01	1.07
7	02/06/2022 - 02/12/2022	1.00	1.06
* 8	02/13/2022 - 02/19/2022	0.98	1.04
* 9	02/20/2022 - 02/26/2022	0.97	1.03
*10	02/27/2022 - 03/05/2022	0.96	1.02
*11	03/06/2022 - 03/12/2022	0.95	1.01
*12	03/13/2022 - 03/19/2022	0.94	1.00
*13	03/20/2022 - 03/26/2022	0.93	0.99
*14	03/27/2022 - 04/02/2022	0.92	0.98
*15	04/03/2022 - 04/09/2022	0.91	0.97
*16	04/10/2022 - 04/16/2022	0.90	0.96
*17	04/17/2022 - 04/23/2022	0.92	0.98
*18	04/24/2022 - 04/30/2022	0.94	1.00
*19	05/01/2022 - 05/07/2022	0.95	1.01
*20	05/08/2022 - 05/14/2022	0.97	1.03
21	05/15/2022 - 05/21/2022	0.99	1.05
22	05/22/2022 - 05/28/2022	0.99	1.05
23	05/29/2022 - 06/04/2022	1.00	1.06
24	06/05/2022 - 06/11/2022	1.00	1.06
25	06/12/2022 - 06/18/2022	1.01	1.07
26	06/19/2022 - 06/25/2022	1.02	1.09
27	06/26/2022 - 07/02/2022	1.02	1.09
28	07/03/2022 - 07/09/2022	1.03	1.10
29	07/10/2022 - 07/16/2022	1.03	1.10
30	07/17/2022 - 07/23/2022	1.03	1.10
31	07/24/2022 - 07/30/2022	1.03	1.10
32	07/31/2022 - 08/06/2022	1.03	1.10
33	08/07/2022 - 08/13/2022	1.03	1.10
34	08/14/2022 - 08/20/2022	1.03	1.10
35	08/21/2022 - 08/27/2022	1.04	1.11
36	08/28/2022 - 09/03/2022	1.05	1.12
37	09/04/2022 - 09/10/2022	1.06	1.13
38	09/11/2022 - 09/17/2022	1.07	1.14
39	09/18/2022 - 09/24/2022	1.05	1.12
40	09/25/2022 - 10/01/2022	1.03	1.10
41	10/02/2022 - 10/08/2022	1.01	1.07
42	10/09/2022 - 10/15/2022	0.99	1.05
43	10/16/2022 - 10/22/2022	0.99	1.05
44	10/23/2022 - 10/29/2022	1.00	1.06
45	10/30/2022 - 11/05/2022	1.00	1.06
46	11/06/2022 - 11/12/2022	1.01	1.07
47	11/13/2022 - 11/19/2022	1.01	1.07
48	11/20/2022 - 11/26/2022	1.03	1.10
49	11/27/2022 - 12/03/2022	1.04	1.11
50	12/04/2022 - 12/10/2022	1.06	1.13
51	12/11/2022 - 12/17/2022	1.07	1.14
52	12/18/2022 - 12/24/2022	1.06	1.13
53	12/25/2022 - 12/31/2022	1.05	1.12

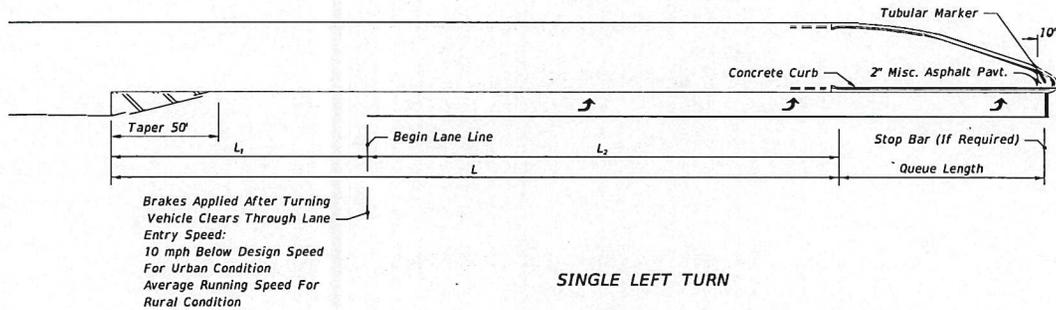
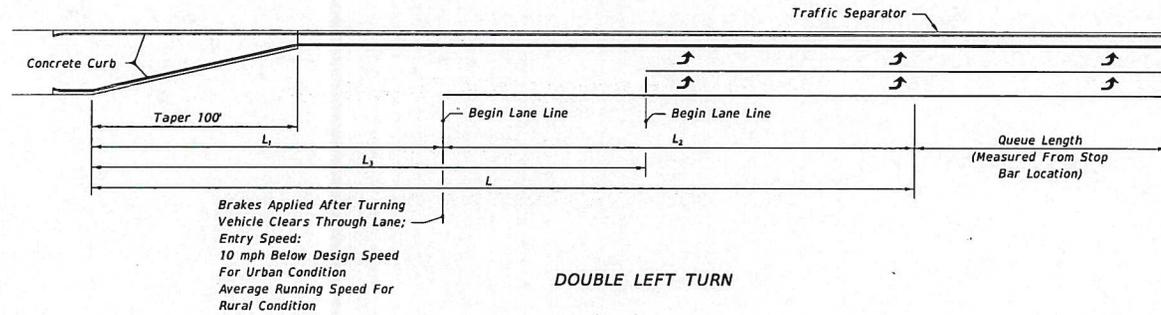
* PEAK SEASON

23-FEB-2023 09:11:22

830UPD

5_3600_PKSEASON.TXT

MEDIAN TURN LANES
MINIMUM DECELERATION LENGTHS



MEDIAN TURN LANES								
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L ₁ (ft.)	URBAN CONDITIONS			RURAL CONDITIONS		
			Brake To Stop Distance L ₂ (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L ₃ (ft.)	Brake To Stop Distance L ₂ (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L ₃ (ft.)
35	25	70	75	145	110	—	—	—
40	30	80	75	155	120	—	—	—
45	35	85	100	185	135	—	—	—
50	40/44	105	135	240	160	185	290	160
55	48	125	—	—	—	225	350	195
60	52	145	—	—	—	260	405	230
65	55	170	—	—	—	290	460	270

NOT TO SCALE

EXHIBIT 212-1
01/01/2023

When Not to Consider Exclusive Right-Turn Lanes

- Dense or built-out corridors with limited space
- Right-turn lane that would negatively impact pedestrians or bicyclists
- Vehicular movements from driveways or median openings that cross the right-turn lane resulting in multiple threat crashes
- Context classifications C2T, C4, C5, or C6

When Exclusive Right-Turn Lanes are Beneficial

There are instances when adding an exclusive right-turn lane for unsignalized driveways are beneficial to traffic operations and safety. **Table 27** provides some guidance for this situation based on the speed limit of the roadway and how many right turns occur per hour. Locations where the Auto and Truck Modal Emphasis is "High" may be appropriate for consideration of Exclusive Right Turn Lanes.

Table 27 – Recommended Guidelines for Exclusive Right-Turn Lanes to Unsignalized Driveway¹⁰

Roadway Posted Speed Limit	Number of Right Turns Per Hour
45 mph or less	80 – 125 ¹
Over 45 mph	35 – 55 ²
<i>Note: A posted speed limit of 45 mph may be used with these thresholds if the operating speeds are known to be over 45 mph during the time of peak right turn demand.</i>	
<i>Note on traffic projections: Projecting turning volumes is, at best, a knowledgeable estimate. Keep this in mind especially if the projections of right turns are close to meeting the guidelines. In that case, consider requiring the turn lane.</i>	
¹ The lower threshold of 80 right-turn vehicles per hour would be most used for higher volume (greater than 600 vehicles per hour, per lane in one direction on the major roadway) or two-lane roads where lateral movement is restricted. The 125 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with a large entry radius (50 feet or greater).	
² The lower threshold of 35 right-turn vehicles per hour would be most appropriately used on higher volume two-lane roadways where lateral movement is restricted. The 55 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with large entry radius (50 feet or greater).	

Source: NCHRP Report 420 (Impacts of Access Management Techniques)

These recommendations are primarily based on the research done in NCHRP Report 420, Impacts of Access Management Techniques, Chapter 4 – Unsignalized Access Spacing (Technique 1B), and Use of Speed Differential as a Measure to Evaluate the Need for Right-Turn Deceleration Lane at Unsignalized Intersections.

In the *NCHRP Report 420*, the observed high-speed roads, 30 to 40 right-turn vehicles per hour caused evasive maneuvers on 5 - 10 percent of the following through vehicles. For lower speed roadways, 80 to 110 right-turn vehicles caused 15 - 20 percent of the following through vehicles to make evasive maneuvers. The choice of acceptable percentages of through vehicles impacted is a decision based on reasonable expectations of the different roadways.

In this study, by modeling speed differentials, a better understanding of the impacts of through volume and driveway radius was discovered.

¹⁰ May not be appropriate for signalized locations where signal phasing plays an important role in determining the need for right turn lanes.

Table 9-25. Suggested Left-Turn Treatment Guidelines Based on Results from Benefit-Cost Evaluations for Intersections on Two-Lane Highways in Rural Areas (16)

Left-Turn Lane Peak-Hour Volume (veh/h)	Three-Leg Intersection, Major-Road Two-Lane Highway Peak-Hour Volume (veh/h/ln) that Warrants a Bypass Lane	Three-Leg Intersection, Major-Road Two-Lane Highway Peak-Hour Volume (veh/h/ln) that Warrants a Left-Turn Lane	Four-Leg Intersection, Major-Road Two-Lane Highway Peak-Hour Volume (veh/h/ln) that Warrants a Left-Turn Lane
5	50	200	150
10	50	100	50
15	< 50	100	50
20	< 50	50	< 50
25	< 50	50	< 50
30	< 50	50	< 50
35	< 50	50	< 50
40	< 50	50	< 50
45	< 50	50	< 50
50 or More	< 50	50	< 50

Note: These guidelines apply where the major road is uncontrolled and the minor-road approaches are stop- or yield-controlled. Both the left-turn peak-hour volume and the major-rad volume warrants should be met as shown in Figure 9-36.

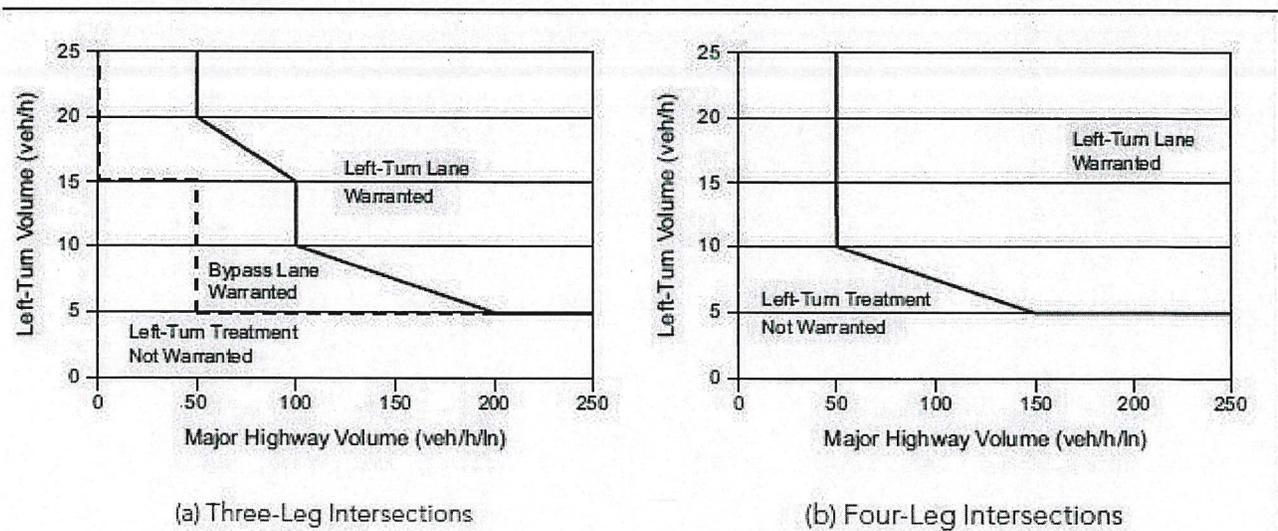
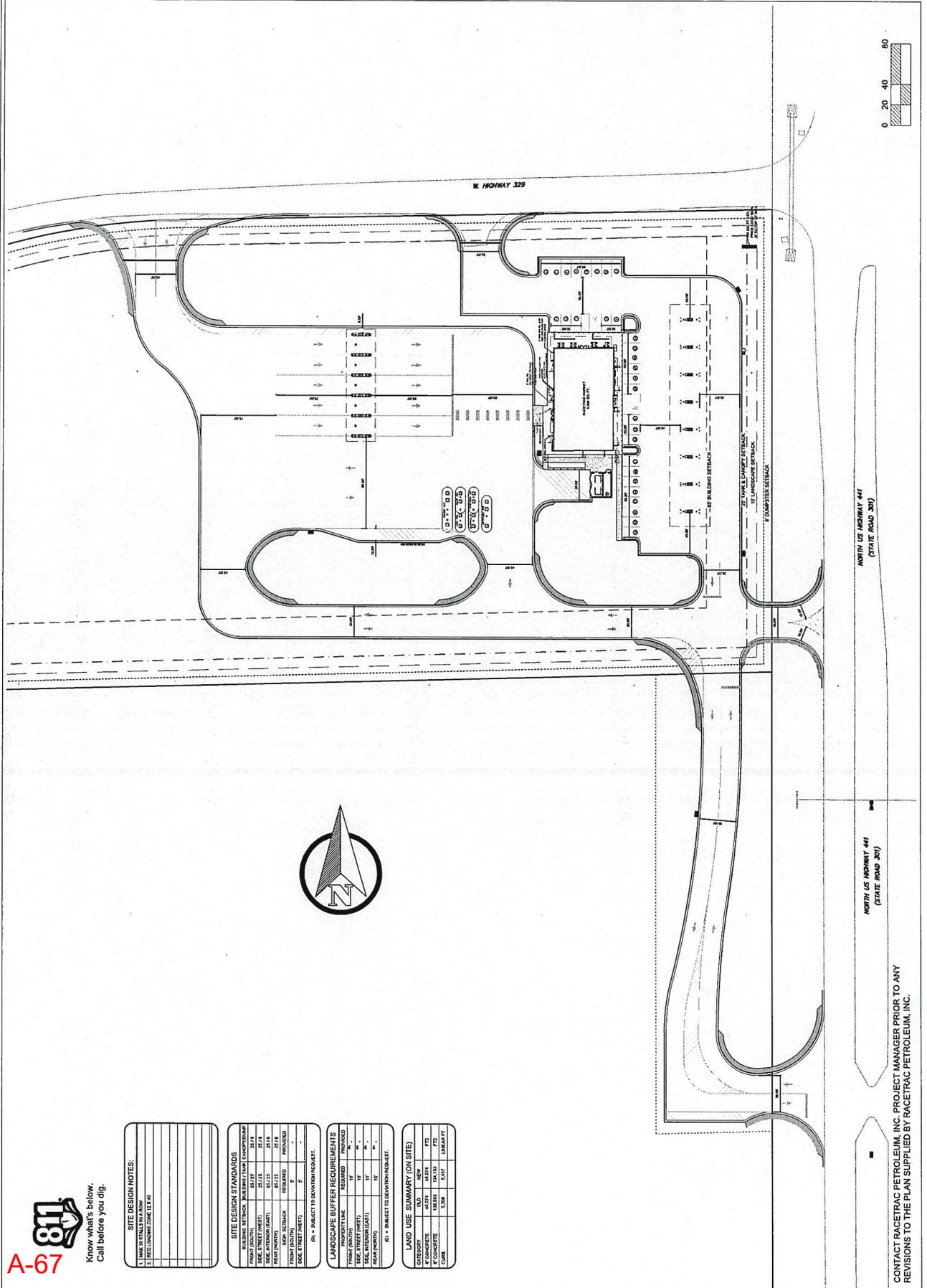


Figure 9-36. Suggested Left-Turn Treatment Warrants Based on Results from Benefit-Cost Evaluations for Intersections on Two-Lane Highways in Rural Areas (16)

Attachment A

DATE	NO.		DRAWING NAME: RT TRAVEL CENTER #1609 SPARR	SHEET NO. 1	VERSION
			CITY, GA		
			MARION COUNTY		
			SUITE 201 @ 329		
			200 GALLERIA PARKWAY SE		
			MARIETTA, GA 30067		
			PROJECT NO. 1609		
			DRAWING SCALE: 1"=40'		
			DRAWING DATE: 11/20/07		
			DRAWING NO. 1609-01		
			PROJECT NAME: RT TRAVEL CENTER #1609 SPARR		
			PROJECT LOCATION: 200 GALLERIA PARKWAY SE, MARIETTA, GA 30067		
			PROJECT OWNER: RACETRAC PETROLEUM, INC.		
			PROJECT ARCHITECT: RACETRAC PETROLEUM, INC.		
			PROJECT ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT SURVEYOR: RACETRAC PETROLEUM, INC.		
			PROJECT LANDSCAPE ARCHITECT: RACETRAC PETROLEUM, INC.		
			PROJECT CIVIL ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT ELECTRICAL ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT MECHANICAL ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT PLUMBING ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT STRUCTURAL ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT ENVIRONMENTAL ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT GEOTECHNICAL ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT HISTORIC PRESERVATION ARCHITECT: RACETRAC PETROLEUM, INC.		
			PROJECT TRAFFIC ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT WATER ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT WIND ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT SOUND ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT VIBRATION ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT SPECIALTY ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT OTHER ENGINEER: RACETRAC PETROLEUM, INC.		
			PROJECT OTHER PROFESSIONAL: RACETRAC PETROLEUM, INC.		
			PROJECT OTHER PERSONNEL: RACETRAC PETROLEUM, INC.		
			PROJECT OTHER: RACETRAC PETROLEUM, INC.		



A-67

811

Know what's below.
Call before you dig.

SITE DESIGN NOTES:

1. MARK IS STALLS IN A ROW
2. RECYCLING ZONE 1, 2 & 3

SITE DESIGN STANDARDS

BUILDING SETBACK (BUILDING / TRAIL CANYON/DRIVE)	35' / 8'
FRONT (DRIVE)	35' / 8'
REAR (DRIVE)	35' / 8'
SIDE (INTERIOR LAST)	10' / 5'
REAR (PARKING)	45' / 15'
FRONT SETBACK	REQUIRED
REAR SETBACK	PROVIDED
FRONT (TREE) (FEET)	5'
REAR (TREE) (FEET)	5'

(8) - SUBJECT TO DEVIATION REQUEST.

LANDSCAPE BUFFER REQUIREMENTS

PROPERTY LINE	REQUIRED	PROVIDED
FRONT (DRIVE)	15'	15'
FRONT (PARKING)	10'	10'
FRONT (INTERIOR LAST)	10'	10'
REAR (PARKING)	15'	15'

(5) - SUBJECT TO DEVIATION REQUEST.

LAND USE SUMMARY (ON SITE)

CONCRETE	4,074	48.5%	F72
ASPHALT	15,033	184.1%	F72
PAVEMENT	15,033	184.1%	F72
LANDSCAPE	5,208	64.5%	L600A11T

CONTACT RACETRAC PETROLEUM, INC. PROJECT MANAGER PRIOR TO ANY REVISIONS TO THE PLAN SUPPLIED BY RACETRAC PETROLEUM, INC.

Jimmy H. Cowan, Jr., CFA
Marion County Property Appraiser



2023 Property Record Card
Real Estate

07263-000-00

Prime Key: 109495

Beta MAP IT+

Current as of 9/22/2023

Property Information

CAUTHEN JERRY
CAUTHEN KAREN
PO BOX 674
SPARR FL 32192-0674

Taxes / Assessments:

Map ID: 174

Millage: 9001 - UNINCORPORATED

M.S.T.U.

PC: 53

Acres: 38.62

Current Value

Land Just Value	\$878,605		
Buildings	\$0		
Miscellaneous	\$0	Impact	
Total Just Value	\$878,605	Land Class Value	(\$867,830)
Total Assessed Value	\$10,775	Total Class Value	\$10,775
Exemptions	\$0	<u>Ex Codes:</u> 08	\$10,775
Total Taxable	\$10,775		

History of Assessed Values

Year	Land Just	Building	Misc Value	Mkt/Just	Assessed Val	Exemptions	Taxable Val
2022	\$702,884	\$0	\$0	\$702,884	\$8,303	\$0	\$8,303
2021	\$333,870	\$0	\$0	\$333,870	\$8,110	\$0	\$8,110
2020	\$229,661	\$0	\$0	\$229,661	\$229,661	\$0	\$229,661

Property Transfer History

Book/Page	Date	Instrument	Code	Q/U	V/I	Price
7302/1337	10/2020	07 WARRANTY	4 V-APPRAISERS OPINION	Q	V	\$396,000
7289/0450	10/2020	61 FJDMNT	7 PORTIONUND INT	U	I	\$100
7268/1220	09/2020	62 DISTR	7 PORTIONUND INT	U	I	\$100
6841/1601	09/2018	08 CORRECTIVE	0	U	I	\$100
6830/1112	09/2018	62 DISTR	0	U	V	\$100
5383/1683	06/2010	25 PER REP	7 PORTIONUND INT	U	I	\$100
DETH/REGS	11/2009	71 DTH CER	0	U	V	\$100
3821/0271	08/2004	71 DTH CER	0	U	V	\$100
3820/1007	10/2002	74 PROBATE	0	U	V	\$100
1770/1536	09/1991	08 CORRECTIVE	0	U	V	\$100
1767/0475	09/1991	07 WARRANTY	0	U	V	\$100
LESE/15YR	10/1989	LS LEASE	0	U	V	\$1,250
1225/1868	06/1984	60 CRT ORD	0	U	V	\$100
1046/1423	12/1980	62 DISTR	0	U	V	\$100

Attachment A

MCPA Property Record Card

9/22/23, 3:04 PM

Property Description

SEC 25 TWP 13 RGE 21
 NE 1/4 OF NE 1/4 SLY &
 ELY OF C-329 &
 SEC 30 TWP 13 RGE 22
 NW 1/4 OF NW 1/4
 EX SR 25A ROW

Land Data - Warning: Verify Zoning

Use	CUse	Front	Depth	Zoning	Units	Type	Rate	Loc	Shp	Phy	Class Value	Just Value
5302		.0	.0	A1	38.62	AC	25,000.0000	1.00	0.91	1.00	10,775	878,605
9994		.0	.0	A1	1.00	UT	.0000	1.00	1.00	1.00		
Neighborhood 1241 - RES ON HWY 441											Total Land - Class \$10,775	
Mkt: 8 70											Total Land - Just \$878,605	

Miscellaneous Improvements

Type	Nbr Units	Type	Life	Year In	Grade	Length	Width
							Total Value - \$0

Appraiser Notes

Planning and Building

**** Permit Search ****

Permit Number	Issued Date	Complete Date	Description

Cost/Market Summary

Buildings R.C.N.	\$0	1/1/2000				
Total Depreciation	\$0					
Bldg - Just Value	\$0					
Misc - Just Value	\$0	3/11/2011	Bldg Nbr	RCN	Depreciation	Depreciated
Land - Just Value	\$878,605	4/20/2023				
Total Just Value	\$878,605					



Prepared by
Elaine Johnson, an employee of
First American Title Insurance Company
1808 East Silver Springs Blvd
Ocala, Florida 34470
(352)690-1787

Return to: Grantee

File No.: 14203-2664236
Consideration: \$396,000.00

WARRANTY DEED

This indenture made on **October 27, 2020** A.D., by

Katherine DesRoches, a single woman and James Robert Gibson, Jr., a single man

whose address is: **4900 SW 46th Ct Apt 209 Ocala, FL 34474**
hereinafter called the "grantor", to

Jerry Cauthen and Karen Cauthen, husband and wife

whose address is: **P.O. Box 674 Sparr, FL 32192**
hereinafter called the "grantee":

(Which terms "Grantor" and "Grantee" shall include singular or plural, corporation or individual, and either sex, and shall include heirs, legal representatives, successors and assigns of the same)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, (\$10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in **Marion County, Florida**, to-wit:

THE NE1/4 OF THE NE1/4 LYING SOUTHERLY AND EASTERLY OF C-329 OF SECTION 25 TOWNSHIP 13 SOUTH RANGE 21 EAST MARION COUNTY, FLORIDA.

AND

THE NW1/4 OF THE NW1/4 EXCEPTING STATE ROAD 25A RIGHT OF WAY AND EXCEPT THAT PART OF NW1/4 OF NW1/4 LYING EAST OF HIGHWAY 441 OF SECTION 30 TOWNSHIP 13 SOUTH, RANGE 21 EAST MARION COUNTY, FLORIDA.

Parcel Identification Number: **07263-000-00**

The land is not the homestead of the Grantor under the laws and constitution of the State of Florida and neither the Grantor nor any person(s) for whose support the Grantor is responsible reside on or adjacent to the land.

Attachment A

Subject to all reservations, covenants, conditions, restrictions and easements of record and to all applicable zoning ordinances and/or restrictions imposed by governmental authorities, if any.

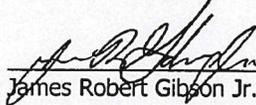
Together with all the tenements, hereditaments and appurtenances thereto belonging or in any way appertaining.

To Have and to Hold, the same in fee simple forever.

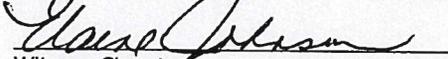
And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31st of 2020.

In Witness Whereof, the grantor has hereunto set their hand(s) and seal(s) the day and year first above written.

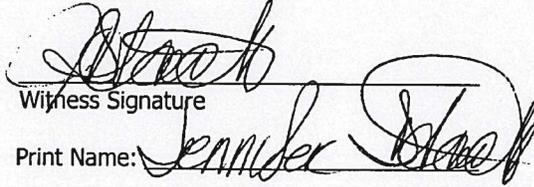

Katherine DesRoches


James Robert Gibson Jr.

Signed, sealed and delivered in our presence:


Witness Signature

Print Name: Elaine Johnson

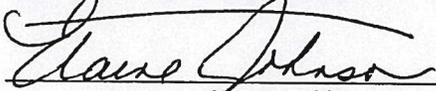

Witness Signature

Print Name: Jennifer Stahl

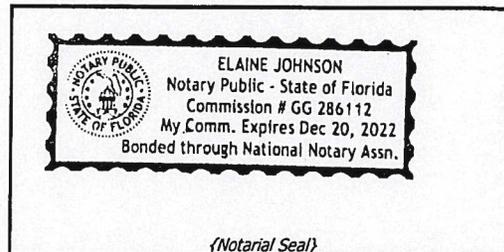
State of **FL**

County of **Marion**

The Foregoing Instrument Was Acknowledged before me by means of physical presence or online notarization, on **October 27, 2020**, by **Katherine DesRoches, a single woman and James Robert Gibson, Jr., a single man** who is/are personally known to me or who has/have produced a valid driver's license as identification.


Notary Public
Elaine Johnson

(Printed Name)



My Commission expires: _____