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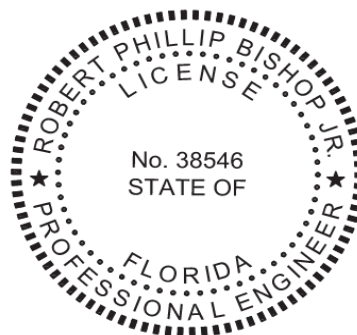
January 20, 2025

THE WOODS TRAFFIC ANALYSIS

FDOT PERMIT – 2024-A-292-00038

Prepared by:

North Florida Professional Services, Inc.



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Robert P Bishop

Digitally signed by Robert P Bishop
DN: cn=Robert P Bishop,
o=North Florida Professional Services
Inc., c=US
Date: 2025.01.22 14:47:05-0500

ON THE DATE ADJACENT TO THE SEAL

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NORTH FLORIDA PROFESSIONAL SERVICES, INC.
P.O. BOX 3823
LAKE CITY, FL 32056
CERTIFICATE OF AUTHORIZATION: 29011
ROBERT PHILLIP BISHOP, JR., P.E. NO. 38546

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

RE: Traffic Analysis of the estimated daily traffic volume for The Woods, SR 247 in Columbia County, FL

The following analysis is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition. It needs to be noted that no ITE code fully represents the characteristics of the proposed site. Based on the limited available data, the Land Use Code 495 was taken into consideration since it represents similar conditions to our site.

- **Land Use Code 495, Recreational Community Center**, is a stand-alone public facility similar to and including YMCAs. These facilities often include classes and clubs for adults and children, a day care or nursery school, meeting rooms and other social facilities, swimming pools and whirlpools, saunas, tennis, racquetball, handball, pickle ball, basketball and volleyball courts; outdoor athletic fields/courts, exercise classes, weightlifting and gymnastics equipment, locker rooms, and a restaurant or snack bar. Public access is typically allowed, and a membership fee may be charged. Racquet/tennis club (Land Use 491), health/fitness club (Land Use 492), and athletic club (Land Use 493) are related land uses.
- Per the submittal made to Columbia County by the owner in September 2022 for site plan approval, the proposed hours of operation are Thursday to Sunday from 4pm to 2am and 10 employees. The venue can also host up to 5 food trucks onsite.
- Based on the above information, the AM Peak Rate was not taken into consideration, and additional employees have been added for the food trucks for a total of 15 employees.

Table 1 shows a summary of the square footage distribution used as an independent variable during the analysis.

Table 1. Gross Floor Area

Gross Floor Area (GFA)		
Restaurant	640	sf
Shipping Container Bar	320	sf
Game Room	1600	sf
Pavilion	3801	sf
Total	6361	sf
Independent Variable (IV)	6.4	

Table 2 shows the calculated daily trips for Weekdays, Saturdays, and Sundays.

Table 2. Expected Daily Trips

DESCRIPTION/ ITE CODE	UNITS	RATE WEEKDAY DAILY TRAFFIC	PM PEAK PERIOD RATE	% PM IN	% PM Out	EXPECTED UNITS	DAILY TRIPS	PM PEAK	PM IN	PM OUT
RECREATIONAL COM. CENTER 495	KSF ²	28.82	2.53	47%	53%	6.4	189	16	8	8
RECREATIONAL COM. CENTER 495	EMPLOYEES	27.25	2.71	43%	57%	15	409	41	17	24
DESCRIPTION/ ITE CODE	UNITS	RATE SATURDAY DAILY TRAFFIC	PM PEAK PERIOD RATE	% PM IN	% PM Out	EXPECTED UNITS	DAILY TRIPS	PM PEAK	PM IN	PM OUT
RECREATIONAL COM. CENTER 495	KSF ²	9.1	1.07	54%	46%	6.4	58	7	4	3
RECREATIONAL COM. CENTER 495	EMPLOYEES	18.34	2.59	53%	47%	15	275	39	21	18
DESCRIPTION/ ITE CODE	UNITS	RATE SUNDAY DAILY TRAFFIC	PM PEAK PERIOD RATE	% PM IN	% PM Out	EXPECTED UNITS	DAILY TRIPS	PM PEAK	PM IN	PM OUT
RECREATIONAL COM. CENTER 495	KSF ²	13.6	1.48	56%	44%	6.4	87	9	5	4
RECREATIONAL COM. CENTER 495	EMPLOYEES	12.03	1.66	43%	57%	15	180	25	11	14

Table 3 shows the Historical Daily Traffic Volumes taken from the FDOT annual traffic counting program of a station near the site. The Current Average Daily Traffic (ADT) on the portion of SR 247 in the vicinity of the site is approximately 9,800 vehicles per day.

Table 3 Historical AADT Report

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2023 HISTORICAL AADT REPORT

COUNTY: 29 - COLUMBIA

SITE: 0106 - SR 247 .3 MI. N. OF CR 242

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
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2023	9800 C	E	0	W	0	9.50	54.30	3.70
2022	9500 C	E	0	W	0	9.50	54.70	4.00
2021	8400 F		0		0	9.50	54.20	4.90
2020	8200 C	E	0	W	0	9.50	54.80	4.00
2019	8900 C	E	0	W	0	9.50	54.80	4.80
2018	9000 C	E	0	W	0	9.50	54.70	4.50
2017	9000 C	E	0	W	0	9.50	55.50	5.10
2016	9000 C	E	0	W	0	9.50	53.90	4.10
2015	8300 C	E	0	W	0	9.50	54.50	4.90
2014	7600 C	E		W		9.50	54.40	4.70
2013	7200 C	E	0	W	0	9.50	55.30	4.80
2012	7100 C	E	0	W	0	9.50	54.70	6.00
2011	7600 C	E	0	W	0	9.50	53.70	5.30
2010	7400 C	E	0	W	0	9.94	54.40	7.40
2009	7600 C	E	0	W	0	9.78	54.18	3.10
2008	7500 C	E	0	W	0	9.82	54.63	5.70

Table 4 reflects an estimate of the hourly distribution of entering and leaving vehicle trips per land use. The hourly distribution was only analyzed for Weekdays due to no available data for Saturdays and Sundays. The hours between 2:00 AM and 3:00 PM were not taken into consideration since the proposed hours of operation will be from 4:00 PM to 2:00 AM. The Distribution Factor (D Factor) of 54.3% from Table 3 was used to estimate the number of vehicles entering the site from Northbound with 45.7% vehicles entering the site from Southbound.

Table 4. Hourly Distribution of Entering and Exiting Vehicle Trips

Land Use Code	495				
Land Use	Recreational Community Center				
Setting	General Urban/Suburban				
Time Period	Weekday				
Expected Daily Trips	409				
	% of 24-Hour Vehicle Trips			Traffic Enterring The Site	
Time	Total	In (47%)	Out (53%)	Northbound	Southbound
12:00 - 1:00 AM	20.5	9.6	10.8	5.2	5.0
1:00 - 2:00 AM	20.5	9.6	10.8	5.2	5.0
2:00 - 3:00 AM	0	0	0	0	0
3:00 - 4:00 AM	0	0	0	0	0
4:00 - 5:00 AM	0	0	0	0	0
5:00 - 6:00 AM	0	0	0	0	0
6:00 - 7:00 AM	0	0	0	0	0
7:00 - 8:00 AM	0	0	0	0	0
8:00 - 9:00 AM	0	0	0	0	0
9:00 - 10:00 AM	0	0	0	0	0
10:00 - 11:00 AM	0	0	0	0	0
11:00 - 12:00 PM	0	0	0	0	0
12:00 - 1:00 PM	0	0	0	0	0
1:00 - 2:00 PM	0	0	0	0	0
2:00 - 3:00 PM	0	0	0	0	0
3:00 - 4:00 PM	40.9	19.2	21.7	10.4	10.0
4:00 - 5:00 PM	40.9	19.2	21.7	10.4	10.0
5:00 - 6:00 PM	41.7	19.6	22.1	10.6	10.2
6:00 - 7:00 PM	41.7	19.6	22.1	10.6	9.0
7:00 - 8:00 PM	42.1	19.8	22.3	10.7	9.1
8:00 - 9:00 PM	41.3	19.4	21.9	10.5	8.9
9:00 - 10:00 PM	40.9	19.2	21.7	10.4	8.8
10:00 - 11:00 PM	40.9	19.2	21.7	10.4	8.8
11:00 - 12:00 AM	37.6	17.7	19.9	9.5	8.1

Right Turn Lane Analysis

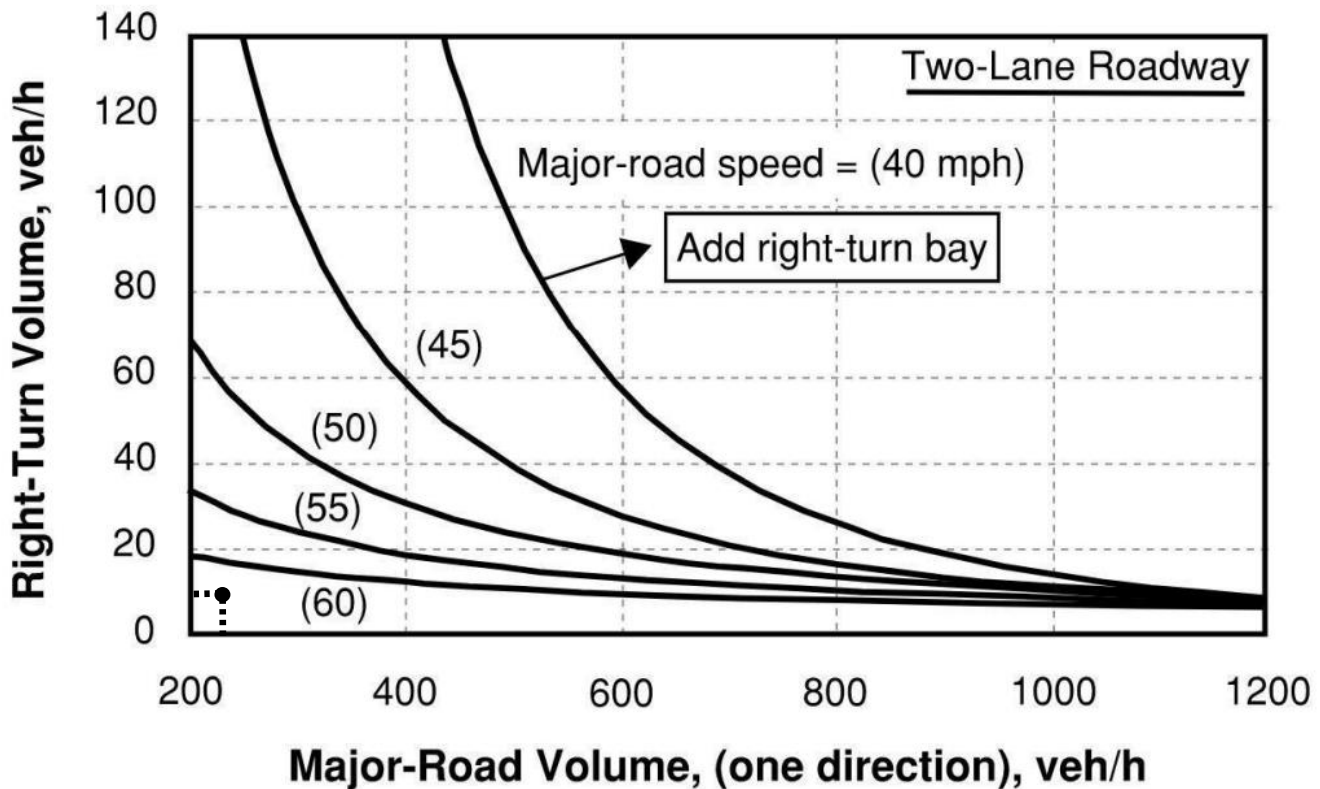
Right-turn Lane analysis was conducted using the guidelines contained in the Multimodal Access Management Guidebook (Oct 2023) Chapter 6.2.

As previously shown in Table 3, the 2023 Historical Annual Average Daily Trips is 9,800 trips and if considered the distribution factor, it is assumed that 5,292 of those trips will approach the site from Northbound and it is safe to assume that the hourly through lane volume will be approximately 220 vehicle trips.

The site is estimated to generate a PM peak hour flow of 41 inbound vehicle trips per hour (approximately 20 vehicles entering the site), which will be distributed between the northbound and southbound directions as shown previously in Table 4.

Using this data with Figure 1 to find the point where the right- turn and the mayor road volume (one direction) intersect, the need of an exclusive right-turn lane is determined.

Figure 1. Recommended Guidelines for Exclusive Right-Turn Lanes to Unsignalized Driveway/Intersection



As a conclusion, it is safe to assume that an exclusive right-turn lane is not warranted for the proposed development.