

TRAFFIC IMPACT STUDY

Eastwood Preserve Neighborhood Alachua County, Florida

May 19, 2025

prepared for:

Alachua County

submitted on behalf of:



prepared by:



PROFESSIONAL ENGINEER ENDORSEMENT

I hereby certify that I am a Registered Professional Engineer in the State of Florida and currently practicing as the principal of Hagen Consulting Services, LLC.

Hagen Consulting Services, LLC is authorized via Registry No: 27955 to operate as an Engineering Business by the Florida Board of Professional Engineers, State of Florida, Department of Professional Regulation.

I have prepared or supervised the preparation of the evaluation, findings, conclusions, recommendations, and professional opinions/advice contained in this document. My endorsement constitutes my approval of these items.

PROJECT: Eastwood Preserve Neighborhood

LOCATION: Alachua County, Florida

CLIENT: eda Consultants, Inc.

The results contained in this report were developed using procedures and references standard to the transportation engineering practice. These references and procedures were applied using professional judgment and experience.

Name: Lawrence T. Hagen, P.E., PTOE, RSP

Florida P.E. No.: 43968



This item has been digitally signed and sealed by Lawrence T. Hagen on the date adjacent to the seal.

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INTRODUCTION

Hagen Consulting Services, LLC is providing transportation engineering services to eda Consultants, Inc. for the proposed Eastwood Preserve residential development on the north side of Hawthorne Road between SE 51st Street and CR 329B / SE 55th Boulevard / Lakeshore Drive. The proposed residential development will contain no more than 150 single-family detached homes. The project location is shown in **Figure 1** below.



Figure 1 - Project Location Map

The preliminary concept plans for the proposed Eastwood Preserve Neighborhood residential development are included as **Appendix A** to this report.

EXISTING CONDITIONS

The proposed residential development is planned to be located on the north side of Hawthorne Road between SE 51st Street and Lake Shore Drive. Driveway access for the proposed development will be provided on both SE 51st Street and on Lake Shore Drive as well as a proposed connection onto Hawthorne Road. Florida DOT will be coordinated with for the connection to Hawthorne Road (State Road 20). Hawthorne Road will be the primary roadway providing access to the development. Hawthorne Road is a four-lane divided section with curb and gutter and buffered bicycle lanes in both directions. According to the FDOT Straight-Line Diagram for State Road 20, the access class for this segment is class 5 and the posted speed limit is 45 mph.

The 2024 daily traffic volumes in the vicinity of the proposed residential development are shown in **Figure 2** below from FDOT’s Florida Traffic Online website. Hawthorne Road carries an AADT of 13,700 and Lake Shore Drive carries an AADT of 350. The AADT of SE 51st Street is unknown but is estimated to be less than that of Lake Shore Drive.

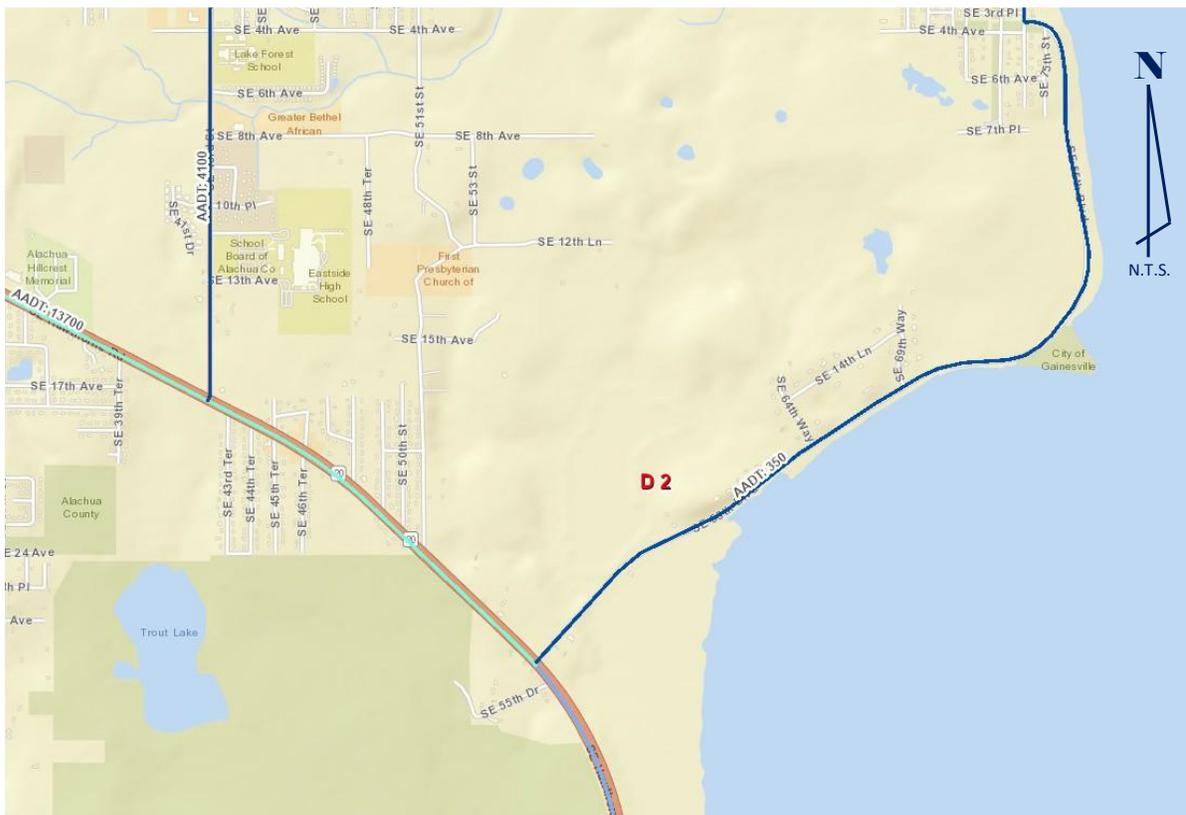


Figure 2 - Daily Traffic Volumes

EXISTING TRAFFIC COUNTS

Existing turning movement count data was collected at the two existing intersections adjacent to the subject project site on Tuesday, April 15, 2025. Four hours of count data were collected representing the AM and PM peak hours. The hours counted were 7 – 9 AM and 4 – 6 PM. The intersections counted are as follows:

- Hawthorne Road & SE 51st Street
- Hawthorne Road & Lakeshore Drive

The peak hour turning movement counts for these intersections are shown in **Figure 3**:

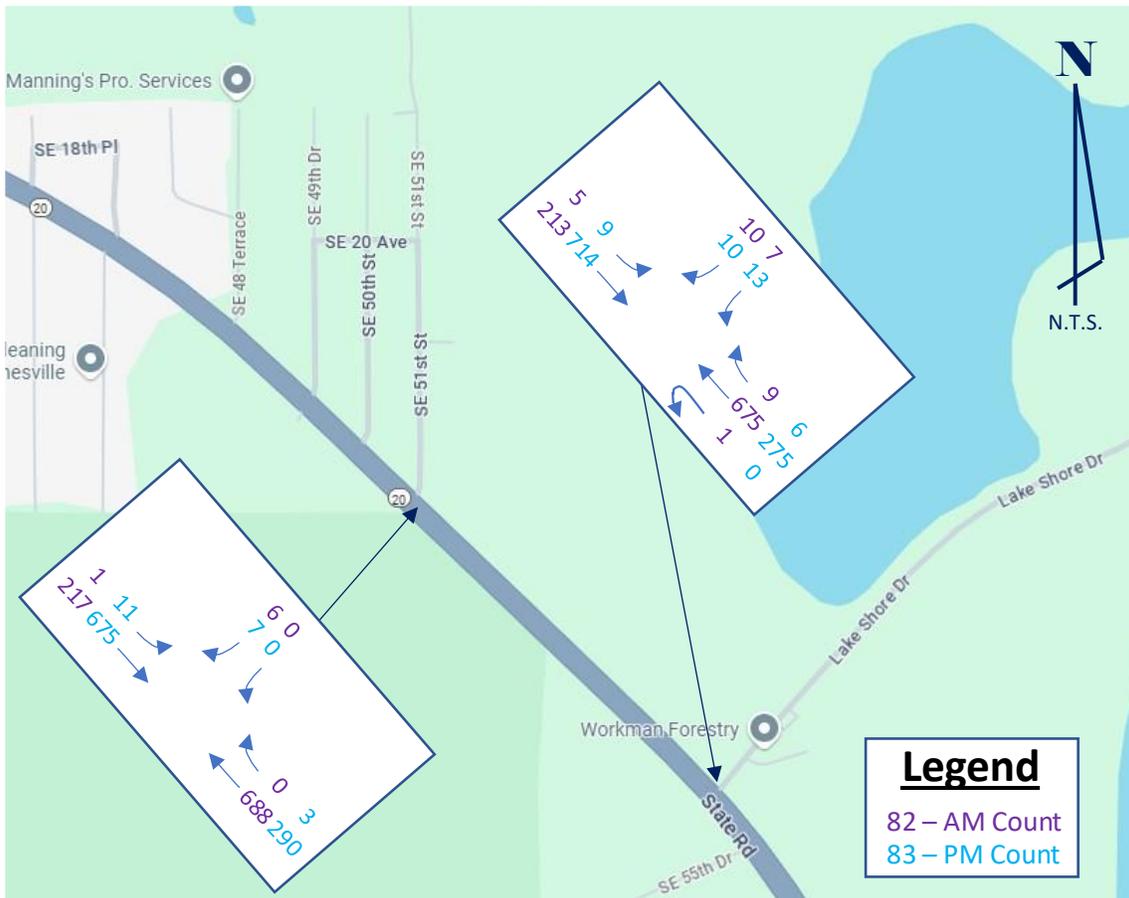


Figure 3 - Turning Movement Counts

The raw turning movement count data is included in **Appendix B**.

TRIP GENERATION

The Institute of Transportation Engineers (ITE) *Trip Generation* 11th Edition was used to calculate the project trip estimates for the new land uses at the project site. Trip generation estimates are shown in terms of daily traffic, as well as the AM and PM peak hours. The proposed residential development falls under ITE Land Use Code 210 – Single Family Detached Housing. The trip generation information for the build-out of the proposed Eastwood Preserve residential development is shown in **Table 1** below:

**TABLE 1: Trip Generation
Single Family Detached Housing – ITE Land Use Code 210**

Period	ITE Equation	Units	Trips	Distribution		Trips	
				% In	% Out	In	Out
Weekday	$\ln(T) = 0.92 \ln(X) + 2.68$	150	1,465	50%	50%	733	733
AM Peak	$\ln(T) = 0.91 \ln(X) + 0.12$	150	108	25%	75%	27	81
PM Peak	$\ln(T) = 0.94 \ln(X) + 0.27$	150	145	63%	37%	92	54

Source: ITE 11th Edition of Trip Generation - Units: # of dwelling units

The plots from ITE’s Trip Generation are included in **Appendix C**.

TRIP DISTRIBUTION

The distribution of project trips on the roadway network is a manual assignment derived from the AM and PM peak period traffic data collected on the adjacent roadway. The distribution is based on engineering judgment of the expected routes that people would take to / from the proposed development. Although Lake Shore Drive does provide a connection to E University Avenue to the North, it is a narrow, winding, low-speed roadway that would not provide good travel. The amount of project traffic from Eastwood Preserve that would use Lake Shore Drive beyond the connection to the development is expected to be minimal. If a generous 3% of the project traffic were to be assigned to Lake Shore Drive to the north, the impact would just be a total of 44 trips per day, and 4 trips in the AM and PM Peaks. For the purpose of these analyses, all of the project traffic is expected to utilize Hawthorne Road for their travel. The AM and PM Peak trip distribution of the project trips onto Hawthorne Road are shown in **Figure 4**.

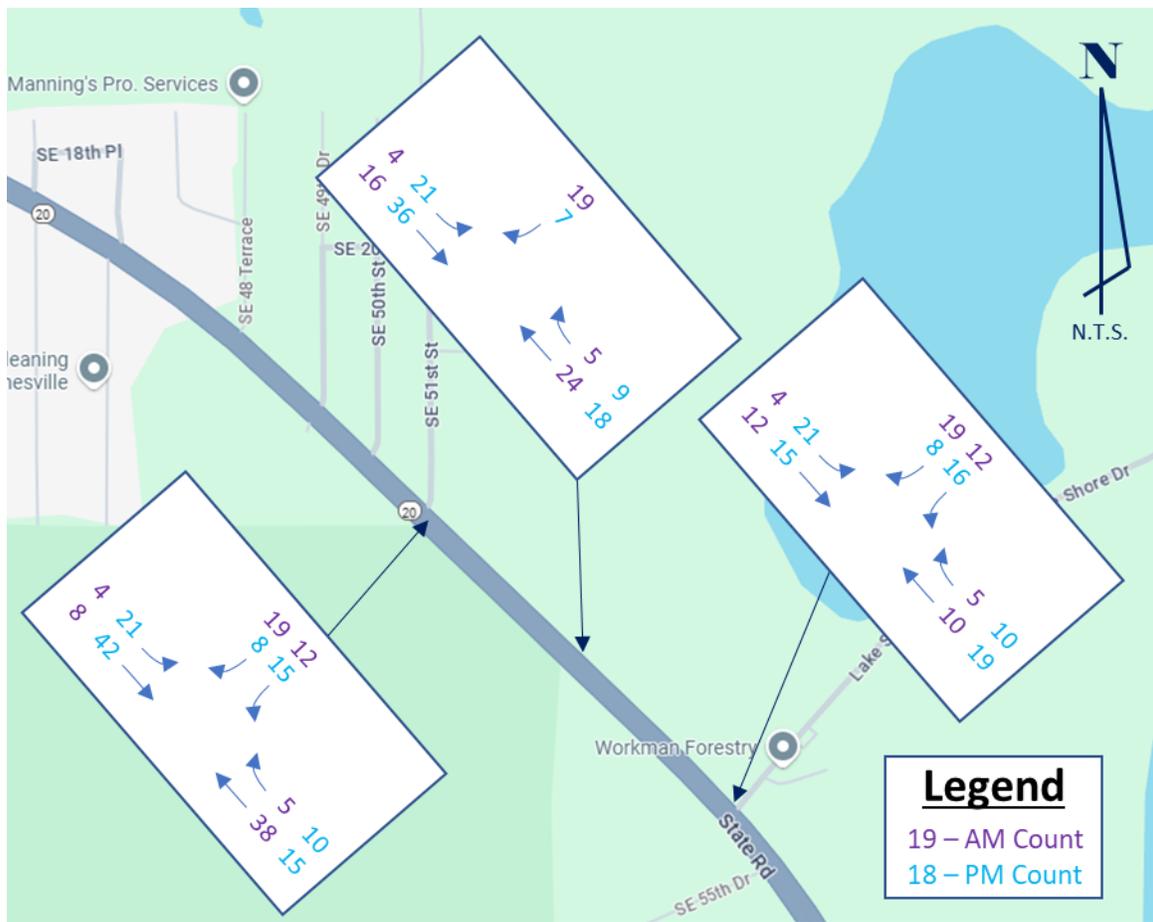


Figure 4 - AM and PM Peak Period Trip Distribution

INTERSECTION LEVEL OF SERVICE (LOS) ANALYSIS

The roadway Level of Service (LOS) analysis is conducted using the procedures outlined in the Transportation Research Board’s *Highway Capacity Manual* (HCM). The HCM procedures represent the state-of-the-practice for the analysis of transportation facilities. The HCM analysis will be performed using the Highway Capacity Software (HCS) that is maintained and distributed by the McTrans Center.

To examine the expected operations of the study intersections in the AM and PM Peak Hours, the current 2025 traffic counts must be seasonally adjusted. The seasonal adjustment for Alachua County is obtained from the Florida DOT Peak Season Factor Category Report. The seasonal adjustment factor for these counts is 0.95 based on the date of the counts. The raw turning movement counts and the seasonal adjustment factors are included as **Appendix B**.

Florida DOT has a traffic count site located on Hawthorne Road just 0.1 miles to the SE of the intersection with Lake Shore Drive. Using historical AADT data from the site and the FDOT Traffic Trends Analysis Tool, we can determine the appropriate growth rate to be used for Hawthorne Road in this vicinity. Based on 2008-2024 AADT data from FDOT, the traffic growth rate is significantly less than 1% per year. The growth rate analysis is summarized in **Table 2** below and included in **Appendix B**:

TABLE 2: Historical Traffic Growth Rate

FDOT Site	Location	Years of Historical AADT	Historic Trend Analysis		
			Type	R Square	Annual Growth Rate
#260479	SR 20 .1 MI. SE OF CR 329-B (SE 55TH BLVD.)	2008 to 2024	Linear	7.33%	0.28%
			Exponential	6.84%	0.26%
			Decaying Exponential	2.74%	0.19%

To be conservative in the analysis, a 1% growth rate will be used. Construction of the Eastwood Preserve development is expected to begin in 2026 and be completed in 2027. Therefore, the seasonally adjusted 2025 counts are then factored by two years of 1% compounding growth to develop the 2027 background traffic volumes. The assigned project traffic volumes based on the trip generation and trip distribution are then added to the 2027 background traffic volumes to arrive at the traffic volumes with the project.

The Traffic Volumes for Analysis shown for the AM and PM Peak Hours in **Table 3**. Note that Table 3 contains the traffic volumes for the three intersections serving the project on Hawthorne Road.

Table 3: Traffic Volumes for Analysis

			Eastbound		Westbound			Southbound	
			L	T	U	T	R	L	R
SE 51st St	AM	Count	1	217	0	688	0	0	6
		Seasonal	1	206	0	654	0	0	6
		2027	1	210	0	667	0	0	6
		Project	4	8	0	38	5	12	19
		Build-out	5	218	0	705	5	12	25
	PM	Count	11	675	0	290	3	0	7
		Seasonal	10	641	0	276	3	0	7
		2027	11	654	0	281	3	0	7
		Project	21	42	0	15	10	15	8
		Build-out	32	696	0	296	13	15	15
New Connection	AM	Count	0	218	0	688	0	0	0
		Seasonal	0	207	0	654	0	0	0
		2027	0	211	0	667	0	0	0
		Project	4	16	0	24	5	0	19
		Build-out	4	227	0	691	5	0	19
	PM	Count	0	725	0	293	0	0	0
		Seasonal	0	689	0	278	0	0	0
		2027	0	703	0	284	0	0	0
		Project	21	36	0	18	9	0	7
		Build-out	21	739	0	302	9	0	7
Lake Shore Drive	AM	Count	5	213	1	675	9	7	10
		Seasonal	5	202	1	641	9	7	10
		2027	5	206	1	654	9	7	10
		Project	4	12	0	10	5	12	19
		Build-out	9	218	1	664	14	19	29
	PM	Count	9	714	0	275	6	13	10
		Seasonal	9	678	0	261	6	12	10
		2027	9	692	0	267	6	13	10
		Project	21	15	0	19	10	16	8
		Build-out	30	707	0	286	16	29	18

Note that in the table, the “New Connection” represents a new connection to Hawthorne Road serving the development. Prior to build-out of the project, there would be no intersection, so analysis for this intersection is only pertinent to the build-out scenario.

In Table 3, the row labeled “Count” represents the raw traffic count numbers. The row labeled “Seasonal” is with the application of the seasonal adjustment factor. The row labeled “2027” adds two years of 1% compounded growth. The row labeled “Project” reflects the distributed project trips (from Figure 4), and the row labeled “Build-out” adds the project trips to the 2027 background traffic to obtain the traffic volumes after completion of the project. Thus, the “Seasonal” traffic volumes reflect the existing year 2025 traffic conditions. The “2027” reflects background traffic growth with no project traffic. The “Build-out” reflects the traffic volumes upon completion of the project. These three scenarios will be analyzed for the intersections of SE 51st Street and Lake Shore Drive with Hawthorne Road. The new connection to Hawthorne Road to serve the Eastwood Preserve development will be analyzed just for the “Build-out” scenario.

The Highway Capacity Software (HCS) Two-Way STOP-Controlled Intersection module was used to analyze the intersections under the scenarios indicated above. These three intersections are all T-intersections with no connections to the west of Hawthorne Road. Although Hawthorne Road runs NW to SE at the location of the development, it is considered an E-W roadway in the analyses. Since the through traffic on Hawthorne Road is in uninterrupted flow conditions, the only movements that experience control delay are the Eastbound left turns and the Southbound STOP-controlled movements. The volume to capacity ratio (v/c), delay, and level of service (LOS) for those movements are what measure and determine the adequacy of the operation at the intersections.

The results of the Highway Capacity Analysis are summarized in **Table 4**. The results of the analyses show that all of the intersections are expected to continue to operate at an acceptable level of service in the build-out year of the new Eastwood Preserve residential project. The outputs from the HCS analyses are contained in **Appendix D**.

Table 4: Highway Capacity Analysis Results

			Eastbound			Southbound		
			v/c	Delay	LOS	v/c	Delay	LOS
SE 51st Street	AM	2025	0.00	9.2	A	0.01	10.8	B
		2027	0.00	9.4	A	0.01	11.1	B
		Build-out	0.01	9.5	A	0.09	13.3	B
	PM	2025	0.01	7.9	A	0.01	9.2	A
		2027	0.01	7.9	A	0.01	9.2	A
		Build-out	0.03	8.1	A	0.06	11.6	B
New Connection	AM	Build-out	0.01	9.4	A	0.03	11.1	B
	PM	Build-out	0.02	8.0	A	0.01	9.3	A
Lake Shore Drive	AM	2025	0.01	9.2	A	0.04	12.6	B
		2027	0.01	9.2	A	0.04	12.7	B
		Build-out	0.01	9.3	A	0.11	13.4	B
	PM	2025	0.01	7.9	A	0.04	11.1	B
		2027	0.01	7.9	A	0.04	11.2	B
		Build-out	0.03	8.0	A	0.09	12.2	B

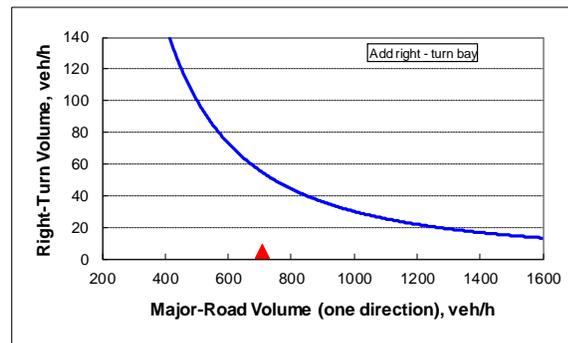
TURN LANE WARRANTS

To evaluate the need for right turn lanes from Hawthorne Road into the three intersections serving the Eastwood Preserve development, the analytical procedures from NCHRP Report 457 – *Evaluating Intersection Improvements: An Engineering Study Guide* will be used. For this analysis, the AM peak times at build-out are used since they have the highest volumes on Hawthorne Road. The procedures from the NCHRP report are automated in an Excel spreadsheet and the results are shown below.

SE 51st Street

INPUT	
Roadway geometry:	4-lane roadway
Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	710
Right-turn volume, veh/h:	5

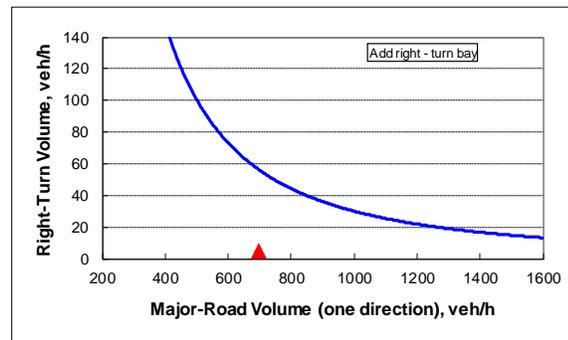
OUTPUT	
Variable	Value
Limiting right-turn volume, veh/h:	54
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Do NOT add right-turn bay.	



New Connection

INPUT	
Roadway geometry:	4-lane roadway
Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	696
Right-turn volume, veh/h:	5

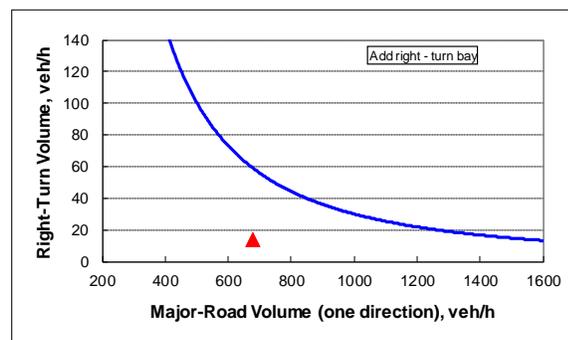
OUTPUT	
Variable	Value
Limiting right-turn volume, veh/h:	56
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Do NOT add right-turn bay.	



Lake Shore Drive

INPUT	
Roadway geometry:	4-lane roadway
Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	679
Right-turn volume, veh/h:	14

OUTPUT	
Variable	Value
Limiting right-turn volume, veh/h:	59
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Do NOT add right-turn bay.	



The construction of right turn lanes at these locations is not justified.

CONCLUSIONS AND RECOMMENDATIONS

Based on the foregoing data and analyses provided, the following conclusions and recommendations are offered:

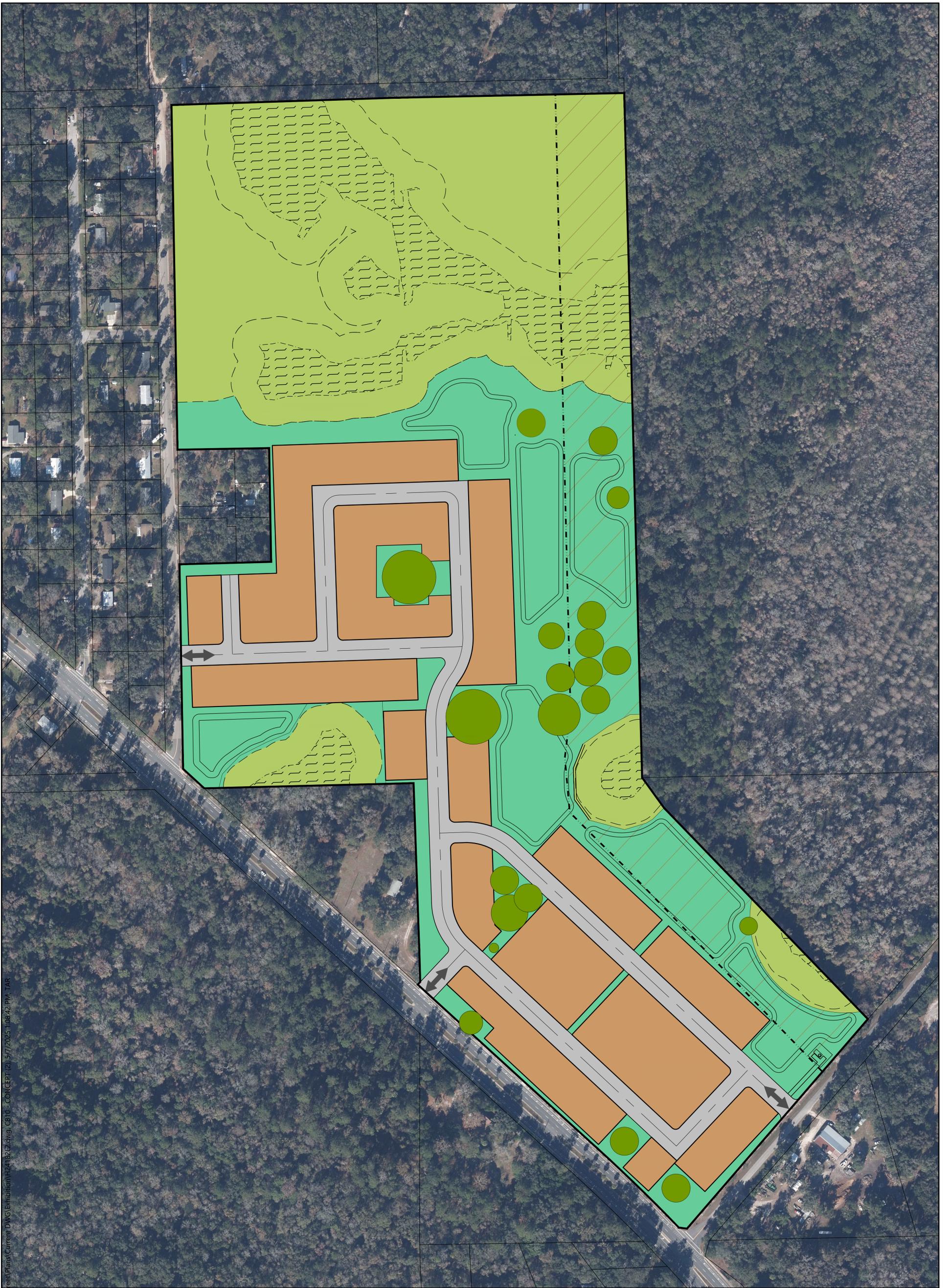
Conclusions:

- The proposed Eastwood Preserve Neighborhood development will result in 1465 new daily trips, with 108 trips in the AM Peak and 145 trips in the PM Peak.
- The existing transportation network has the available capacity to easily accommodate the trips generated by the proposed Eastwood Preserve Neighborhood development. The highway capacity and level of service analyses indicate that the impacted intersections will continue to operate at a very good level of service with the addition of the project trips.
- Westbound right turn lanes on Hawthorne Road are not warranted to serve the Eastwood Preserve Neighborhood development.

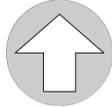
Recommendation:

- Approve the development of the Eastwood Preserve Neighborhood residential development.

APPENDIX A: Preliminary Concept Plans



\\fs1\eg\projects\Hawthorne\eg\Garden Street\Plans\Current\DWG\Exhibition\H24182\EG.dwg, C810 - CONCEPT (2), 5/7/2025 1:08:42 PM, TAR

Sheet No.: C810	Sheet title: MASTER PLAN	Project title: EASTWOOD PRESERVE ALACHUA COUNTY, FLORIDA		 NORTH SCALE: 1" = 120'  GRAPHIC SCALE		 EB 2389 720 S.W. 2nd Ave, South Tower, Suite 300 GAINESVILLE, FLORIDA 32601 TEL. (352) 373-3541 www.edafl.com permitting@edafl.com	
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APPENDIX B: Turning Movement Count Data Growth Rate Analysis

Hawthorne Rd & SE 51st St - TMC

Tue Apr 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288622, Location: 29.630122, -82.264057, Site Code: SE 51st St & Hawthorne Rd



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

Leg Direction	Hawthorne Road Eastbound					Hawthorne Road Westbound					SE 51st Street Southbound					Int
	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	
2025-04-15 7:00AM	0	51	0	51	0	149	0	0	149	0	0	0	0	0	0	200
7:15AM	0	44	0	44	0	180	0	0	180	0	0	2	0	2	0	226
7:30AM	0	55	0	55	0	202	0	0	202	0	0	3	0	3	0	260
7:45AM	1	67	0	68	0	157	0	0	157	0	0	1	0	1	0	226
Hourly Total	1	217	0	218	0	688	0	0	688	0	0	6	0	6	0	912
8:00AM	0	58	0	58	0	130	0	0	130	0	1	1	1	3	0	191
8:15AM	0	61	0	61	0	130	0	0	130	0	1	1	0	2	0	193
8:30AM	0	62	0	62	0	128	0	0	128	0	0	3	0	3	0	193
8:45AM	0	46	0	46	0	86	0	0	86	0	0	1	0	1	0	133
Hourly Total	0	227	0	227	0	474	0	0	474	0	2	6	1	9	0	710
4:00PM	2	151	0	153	0	76	0	0	76	0	0	2	0	2	0	231
4:15PM	4	149	2	155	0	89	0	0	89	0	0	1	0	1	0	245
4:30PM	0	148	1	149	0	53	0	0	53	0	0	1	0	1	0	203
4:45PM	2	153	0	155	0	69	1	0	70	1	0	2	0	2	0	227
Hourly Total	8	601	3	612	0	287	1	0	288	1	0	6	0	6	0	906
5:00PM	3	184	0	187	0	77	1	0	78	0	0	3	0	3	0	268
5:15PM	2	172	0	174	0	75	1	0	76	0	0	1	0	1	0	251
5:30PM	4	166	0	170	0	69	0	0	69	0	0	1	0	1	0	240
5:45PM	1	125	0	126	0	67	0	0	67	0	0	2	0	2	0	195
Hourly Total	10	647	0	657	0	288	2	0	290	0	0	7	0	7	0	954
Total	19	1692	3	1714	0	1737	3	0	1740	1	2	25	1	28	0	3482
% Approach	1.1%	98.7%	0.2%	-	-	99.8%	0.2%	0%	-	-	7.1%	89.3%	3.6%	-	-	-
% Total	0.5%	48.6%	0.1%	49.2%	-	49.9%	0.1%	0%	50.0%	-	0.1%	0.7%	0%	0.8%	-	-
Lights and Motorcycles	19	1656	3	1678	-	1700	3	0	1703	-	2	25	1	28	-	3409
% Lights and Motorcycles	100%	97.9%	100%	97.9%	-	97.9%	100%	0%	97.9%	-	100%	100%	100%	100%	-	97.9%
Heavy	0	36	0	36	-	37	0	0	37	-	0	0	0	0	-	73
% Heavy	0%	2.1%	0%	2.1%	-	2.1%	0%	0%	2.1%	-	0%	0%	0%	0%	-	2.1%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hawthorne Rd & SE 51st St - TMC

Tue Apr 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288622, Location: 29.630122, -82.264057, Site Code: SE 51st St & Hawthorne Rd



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

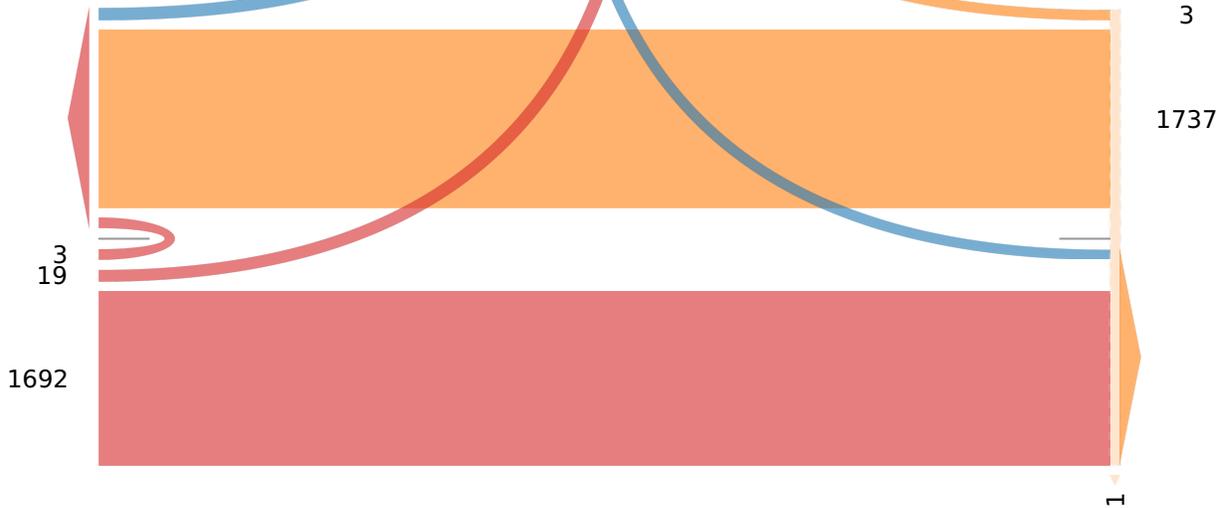
[N] SE 51st Street

Total: 51

In: 28 Out: 23

25
21

[W] Hawthorne Road
Total: 3479
In: 1714 Out: 1765



Hawthorne Rd & SE 51st St - TMC

Tue Apr 15, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288622, Location: 29.630122, -82.264057, Site Code: SE 51st St & Hawthorne Rd



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

Leg Direction	Hawthorne Road Eastbound					Hawthorne Road Westbound					SE 51st Street Southbound					Int
	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	
2025-04-15 7:00AM	0	51	0	51	0	149	0	0	149	0	0	0	0	0	0	200
7:15AM	0	44	0	44	0	180	0	0	180	0	0	2	0	2	0	226
7:30AM	0	55	0	55	0	202	0	0	202	0	0	3	0	3	0	260
7:45AM	1	67	0	68	0	157	0	0	157	0	0	1	0	1	0	226
Total	1	217	0	218	0	688	0	0	688	0	0	6	0	6	0	912
% Approach	0.5%	99.5%	0%	-	-	100%	0%	0%	-	-	0%	100%	0%	-	-	-
% Total	0.1%	23.8%	0%	23.9%	-	75.4%	0%	0%	75.4%	-	0%	0.7%	0%	0.7%	-	-
PHF	0.250	0.810	-	0.801	-	0.851	-	-	0.851	-	-	0.500	-	0.500	-	0.877
Lights and Motorcycles	1	211	0	212	-	679	0	0	679	-	0	6	0	6	-	897
% Lights and Motorcycles	100%	97.2%	0%	97.2%	-	98.7%	0%	0%	98.7%	-	0%	100%	0%	100%	-	98.4%
Heavy	0	6	0	6	-	9	0	0	9	-	0	0	0	0	-	15
% Heavy	0%	2.8%	0%	2.8%	-	1.3%	0%	0%	1.3%	-	0%	0%	0%	0%	-	1.6%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hawthorne Rd & SE 51st St - TMC

Tue Apr 15, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

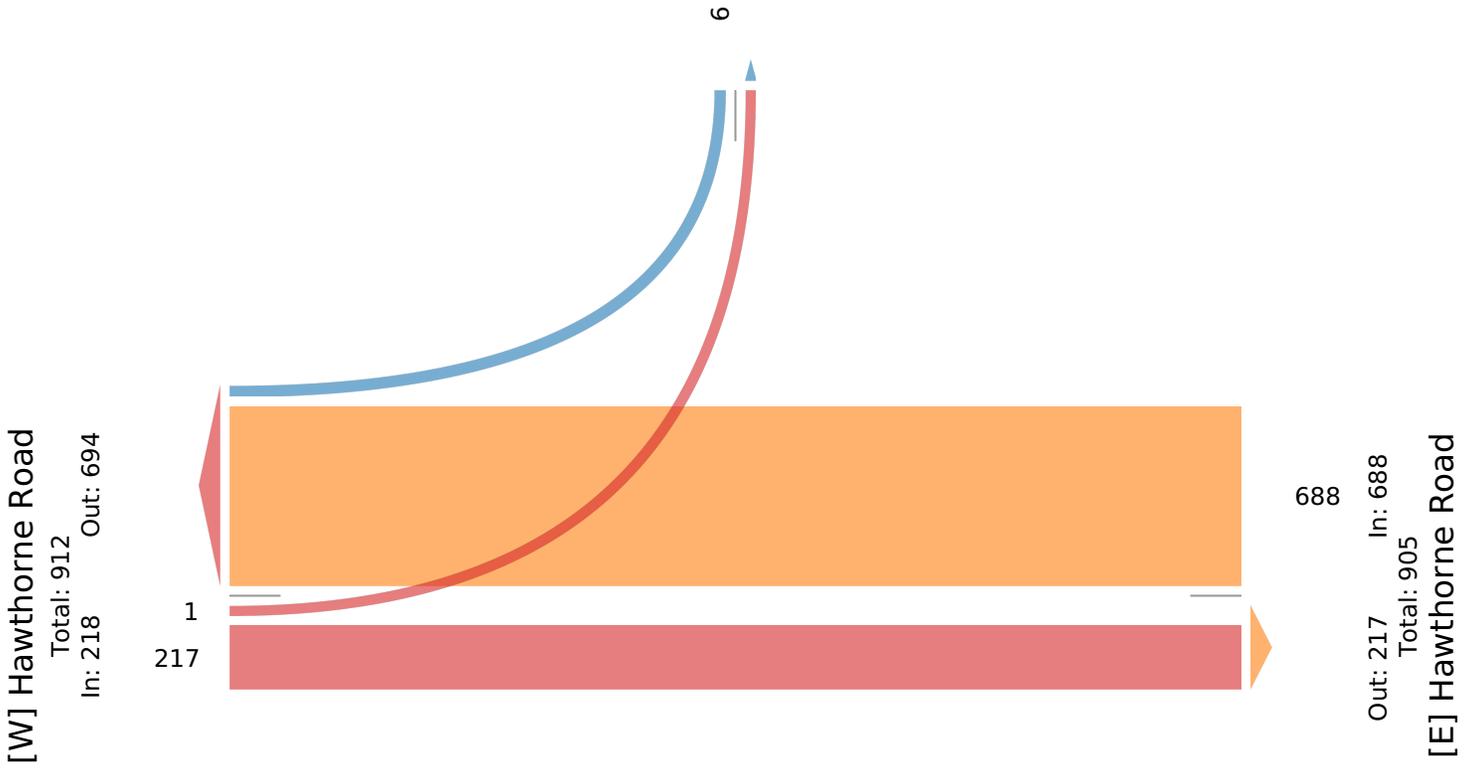
ID: 1288622, Location: 29.630122, -82.264057, Site Code: SE 51st St & Hawthorne Rd



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

[N] SE 51st Street

Total: 7
In: 6 Out: 1



Hawthorne Rd & SE 51st St - TMC

Tue Apr 15, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288622, Location: 29.630122, -82.264057, Site Code: SE 51st St & Hawthorne Rd



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

Leg Direction	Hawthorne Road Eastbound					Hawthorne Road Westbound					SE 51st Street Southbound					Int
	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	
Time																
2025-04-15 4:45PM	2	153	0	155	0	69	1	0	70	1	0	2	0	2	0	227
5:00PM	3	184	0	187	0	77	1	0	78	0	0	3	0	3	0	268
5:15PM	2	172	0	174	0	75	1	0	76	0	0	1	0	1	0	251
5:30PM	4	166	0	170	0	69	0	0	69	0	0	1	0	1	0	240
Total	11	675	0	686	0	290	3	0	293	1	0	7	0	7	0	986
% Approach	1.6%	98.4%	0%	-	-	99.0%	1.0%	0%	-	-	0%	100%	0%	-	-	-
% Total	1.1%	68.5%	0%	69.6%	-	29.4%	0.3%	0%	29.7%	-	0%	0.7%	0%	0.7%	-	-
PHF	0.688	0.917	-	0.917	-	0.942	0.750	-	0.939	-	-	0.583	-	0.583	-	0.920
Lights and Motorcycles	11	666	0	677	-	286	3	0	289	-	0	7	0	7	-	973
% Lights and Motorcycles	100%	98.7%	0%	98.7%	-	98.6%	100%	0%	98.6%	-	0%	100%	0%	100%	-	98.7%
Heavy	0	9	0	9	-	4	0	0	4	-	0	0	0	0	-	13
% Heavy	0%	1.3%	0%	1.3%	-	1.4%	0%	0%	1.4%	-	0%	0%	0%	0%	-	1.3%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hawthorne Rd & SE 51st St - TMC

Tue Apr 15, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288622, Location: 29.630122, -82.264057, Site Code: SE 51st St & Hawthorne Rd

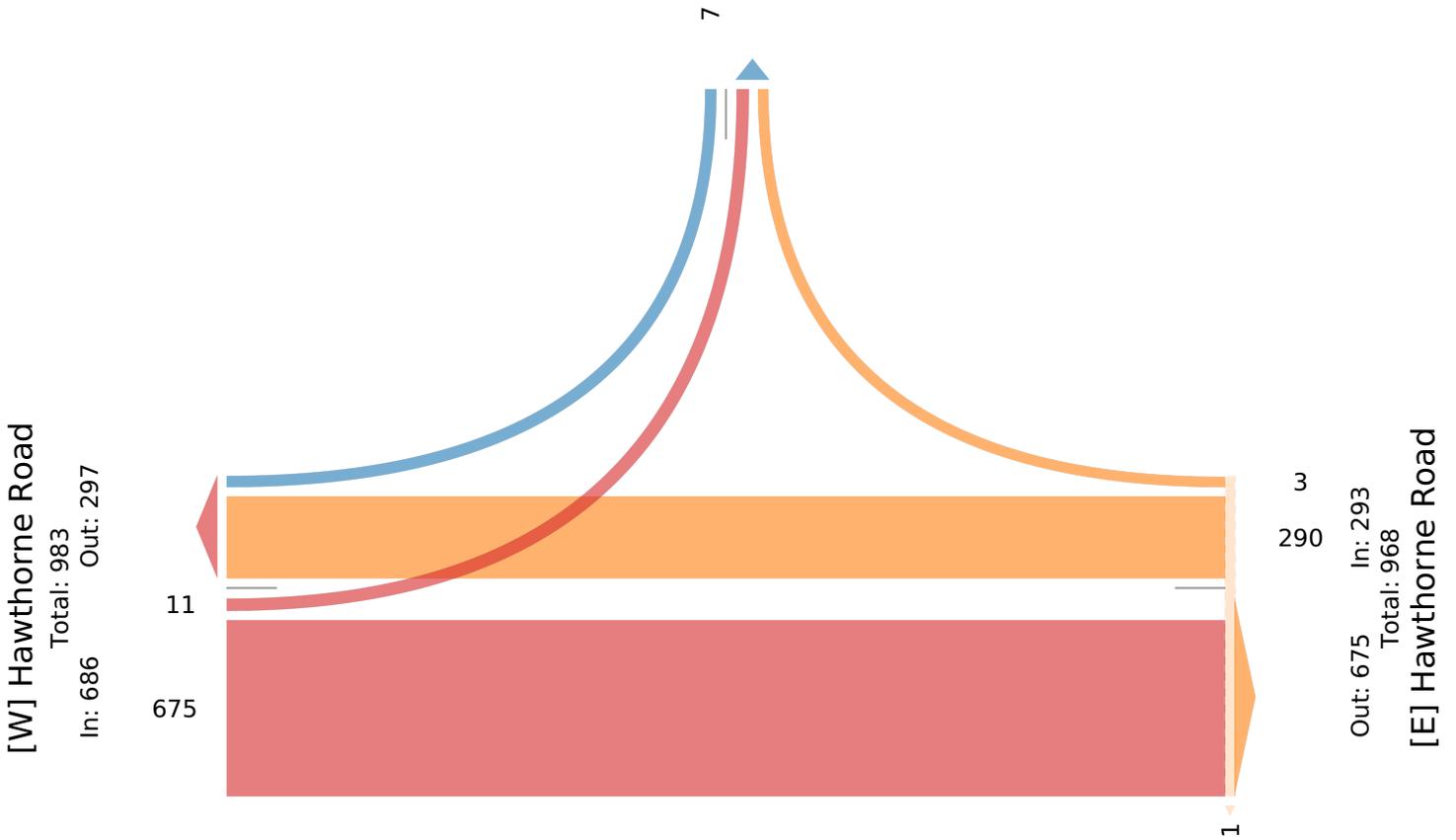


Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

[N] SE 51st Street

Total: 21

In: 7 Out: 14



Hawthorne Rd & Lake Shore Dr - TMC

Tue Apr 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288161, Location: 29.626249, -82.259417, Site Code: Lake Shore Dr



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

Leg Direction	Hawthorne Road Eastbound					Hawthorne Road Westbound					Lake Shore Drive Southbound					Int
	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	
2025-04-15 7:00AM	1	46	0	47	0	154	0	0	154	0	1	0	0	1	0	202
7:15AM	2	47	0	49	0	175	6	0	181	0	2	0	0	2	0	232
7:30AM	1	52	0	53	0	195	3	1	199	0	1	2	0	3	0	255
7:45AM	1	68	0	69	0	151	0	0	151	0	3	8	0	11	0	231
Hourly Total	5	213	0	218	0	675	9	1	685	0	7	10	0	17	0	920
8:00AM	2	57	0	59	0	133	0	0	133	0	1	1	0	2	0	194
8:15AM	1	62	0	63	0	139	0	0	139	0	1	2	0	3	0	205
8:30AM	2	61	0	63	0	127	3	0	130	0	0	2	0	2	0	195
8:45AM	0	48	0	48	0	86	2	0	88	0	5	0	0	5	0	141
Hourly Total	5	228	0	233	0	485	5	0	490	0	7	5	0	12	0	735
4:00PM	5	150	0	155	0	72	0	0	72	0	2	3	0	5	0	232
4:15PM	1	144	0	145	0	84	1	1	86	0	2	2	0	4	0	235
4:30PM	3	135	0	138	0	55	1	0	56	0	5	1	0	6	0	200
4:45PM	2	135	0	137	0	69	1	0	70	0	3	1	0	4	0	211
Hourly Total	11	564	0	575	0	280	3	1	284	0	12	7	0	19	0	878
5:00PM	6	183	0	189	0	76	1	0	77	0	6	0	0	6	0	272
5:15PM	1	182	0	183	0	72	0	0	72	0	3	3	0	6	0	261
5:30PM	1	192	0	193	0	64	3	0	67	0	3	5	0	8	0	268
5:45PM	1	157	0	158	0	63	2	0	65	0	1	2	0	3	0	226
Hourly Total	9	714	0	723	0	275	6	0	281	0	13	10	0	23	0	1027
Total	30	1719	0	1749	0	1715	23	2	1740	0	39	32	0	71	0	3560
% Approach	1.7%	98.3%	0%	-	-	98.6%	1.3%	0.1%	-	-	54.9%	45.1%	0%	-	-	-
% Total	0.8%	48.3%	0%	49.1%	-	48.2%	0.6%	0.1%	48.9%	-	1.1%	0.9%	0%	2.0%	-	-
Lights and Motorcycles	28	1683	0	1711	-	1681	23	1	1705	-	39	30	0	69	-	3485
% Lights and Motorcycles	93.3%	97.9%	0%	97.8%	-	98.0%	100%	50.0%	98.0%	-	100%	93.8%	0%	97.2%	-	97.9%
Heavy	2	36	0	38	-	34	0	1	35	-	0	2	0	2	-	75
% Heavy	6.7%	2.1%	0%	2.2%	-	2.0%	0%	50.0%	2.0%	-	0%	6.3%	0%	2.8%	-	2.1%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hawthorne Rd & Lake Shore Dr - TMC

Tue Apr 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288161, Location: 29.626249, -82.259417, Site Code: Lake Shore Dr



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

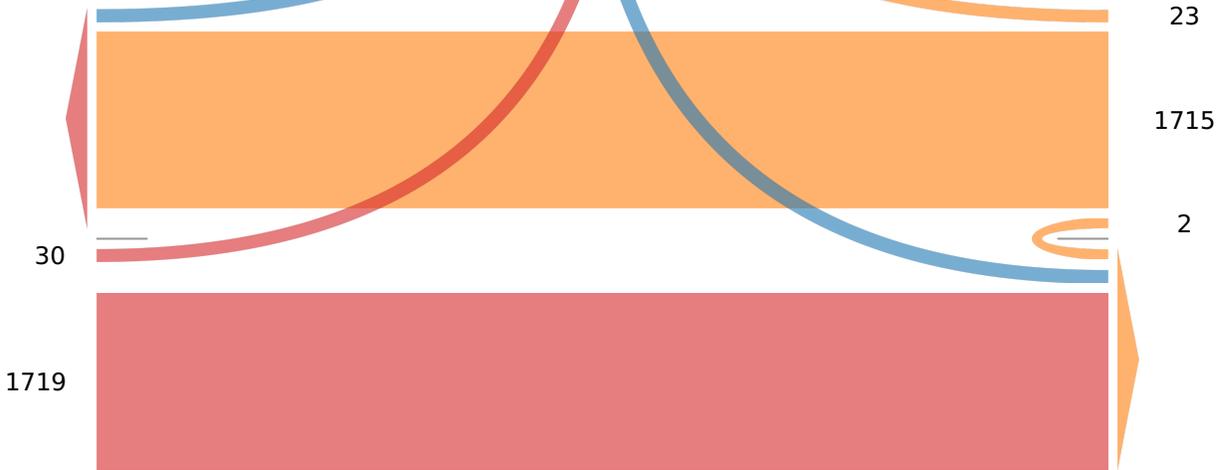
[N] Lake Shore Drive

Total: 124

In: 71 Out: 53

30

[W] Hawthorne Road
Total: 3496
In: 1749 Out: 1747



[E] Hawthorne Road
Total: 3500
In: 1740 Out: 1760

Hawthorne Rd & Lake Shore Dr - TMC

Tue Apr 15, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288161, Location: 29.626249, -82.259417, Site Code: Lake Shore Dr



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

Leg Direction	Hawthorne Road Eastbound					Hawthorne Road Westbound					Lake Shore Drive Southbound					Int
	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	
2025-04-15 7:00AM	1	46	0	47	0	154	0	0	154	0	1	0	0	1	0	202
7:15AM	2	47	0	49	0	175	6	0	181	0	2	0	0	2	0	232
7:30AM	1	52	0	53	0	195	3	1	199	0	1	2	0	3	0	255
7:45AM	1	68	0	69	0	151	0	0	151	0	3	8	0	11	0	231
Total	5	213	0	218	0	675	9	1	685	0	7	10	0	17	0	920
% Approach	2.3%	97.7%	0%	-	-	98.5%	1.3%	0.1%	-	-	41.2%	58.8%	0%	-	-	-
% Total	0.5%	23.2%	0%	23.7%	-	73.4%	1.0%	0.1%	74.5%	-	0.8%	1.1%	0%	1.8%	-	-
PHF	0.625	0.783	-	0.790	-	0.865	0.375	0.250	0.861	-	0.583	0.313	-	0.386	-	0.902
Lights and Motorcycles	5	208	0	213	-	668	9	1	678	-	7	8	0	15	-	906
% Lights and Motorcycles	100%	97.7%	0%	97.7%	-	99.0%	100%	100%	99.0%	-	100%	80.0%	0%	88.2%	-	98.5%
Heavy	0	5	0	5	-	7	0	0	7	-	0	2	0	2	-	14
% Heavy	0%	2.3%	0%	2.3%	-	1.0%	0%	0%	1.0%	-	0%	20.0%	0%	11.8%	-	1.5%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hawthorne Rd & Lake Shore Dr - TMC

Tue Apr 15, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288161, Location: 29.626249, -82.259417, Site Code: Lake Shore Dr



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

[N] Lake Shore Drive

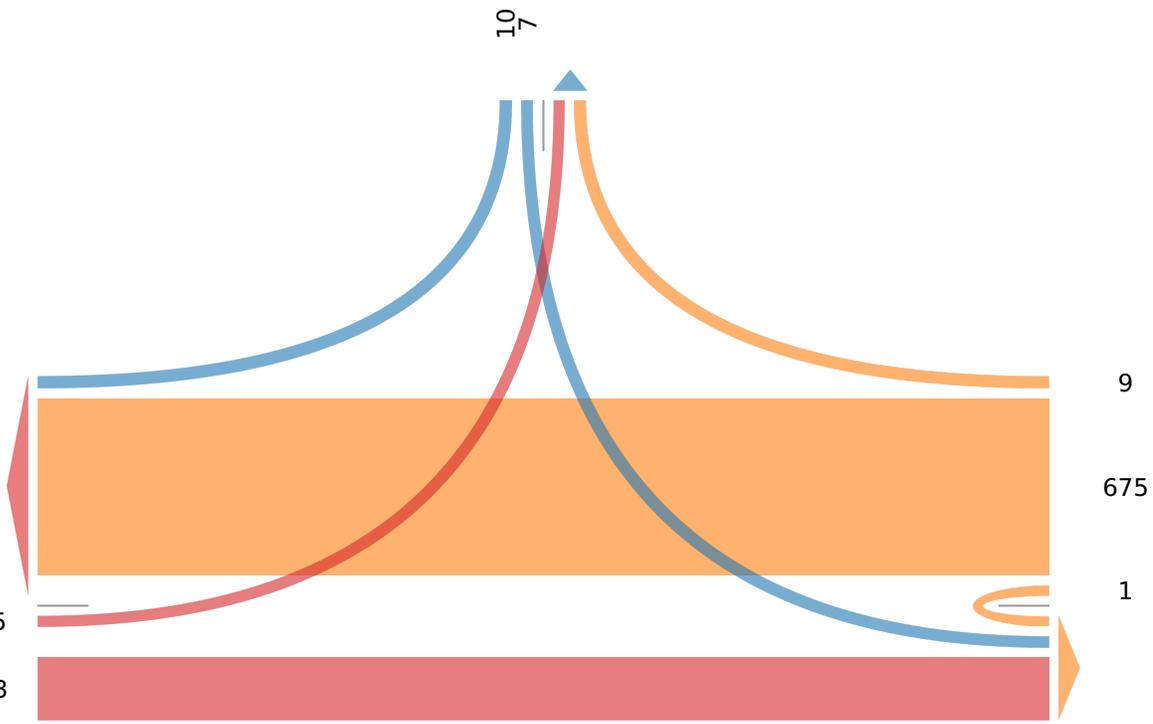
Total: 31

In: 17 Out: 14

10
7

[W] Hawthorne Road
Total: 903
In: 218 Out: 685

5
213



9
675
1
Out: 221 In: 685

Total: 906
[E] Hawthorne Road

Hawthorne Rd & Lake Shore Dr - TMC

Tue Apr 15, 2025

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288161, Location: 29.626249, -82.259417, Site Code: Lake Shore Dr



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

Leg Direction	Hawthorne Road Eastbound					Hawthorne Road Westbound					Lake Shore Drive Southbound					Int
	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	
2025-04-15 5:00PM	6	183	0	189	0	76	1	0	77	0	6	0	0	6	0	272
5:15PM	1	182	0	183	0	72	0	0	72	0	3	3	0	6	0	261
5:30PM	1	192	0	193	0	64	3	0	67	0	3	5	0	8	0	268
5:45PM	1	157	0	158	0	63	2	0	65	0	1	2	0	3	0	226
Total	9	714	0	723	0	275	6	0	281	0	13	10	0	23	0	1027
% Approach	1.2%	98.8%	0%	-	-	97.9%	2.1%	0%	-	-	56.5%	43.5%	0%	-	-	-
% Total	0.9%	69.5%	0%	70.4%	-	26.8%	0.6%	0%	27.4%	-	1.3%	1.0%	0%	2.2%	-	-
PHF	0.375	0.930	-	0.937	-	0.905	0.500	-	0.912	-	0.542	0.500	-	0.719	-	0.944
Lights and Motorcycles	9	710	0	719	-	269	6	0	275	-	13	10	0	23	-	1017
% Lights and Motorcycles	100%	99.4%	0%	99.4%	-	97.8%	100%	0%	97.9%	-	100%	100%	0%	100%	-	99.0%
Heavy	0	4	0	4	-	6	0	0	6	-	0	0	0	0	-	10
% Heavy	0%	0.6%	0%	0.6%	-	2.2%	0%	0%	2.1%	-	0%	0%	0%	0%	-	1.0%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hawthorne Rd & Lake Shore Dr - TMC

Tue Apr 15, 2025

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 1288161, Location: 29.626249, -82.259417, Site Code: Lake Shore Dr



Provided by: Hagen Consulting Services
361 Strawder Road, Ray City, GA, 31645, US

[N] Lake Shore Drive

Total: 38

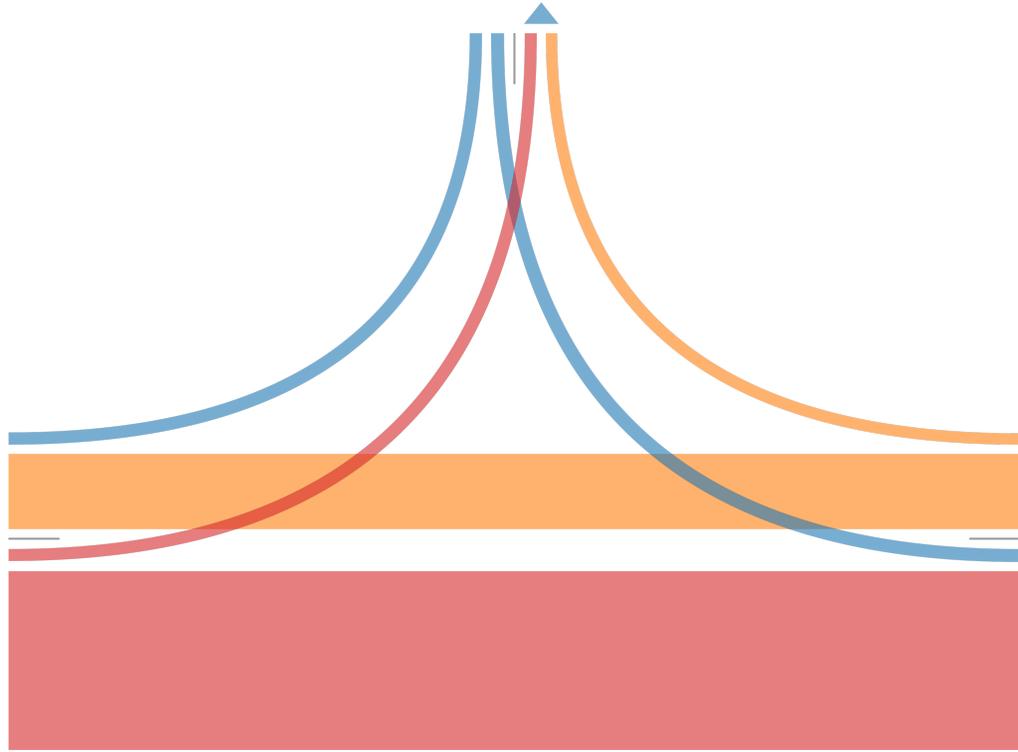
In: 23 Out: 15

10
13

[W] Hawthorne Road

Total: 1008
In: 723 Out: 285

9
714



6
275

Out: 727 In: 281
Total: 1008
[E] Hawthorne Road

2024 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 2600 ALACHUA COUNTYWIDE

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2024 - 01/06/2024	1.05	1.08
2	01/07/2024 - 01/13/2024	1.05	1.08
3	01/14/2024 - 01/20/2024	1.05	1.08
4	01/21/2024 - 01/27/2024	1.03	1.06
5	01/28/2024 - 02/03/2024	1.01	1.04
6	02/04/2024 - 02/10/2024	1.00	1.03
7	02/11/2024 - 02/17/2024	0.98	1.01
* 8	02/18/2024 - 02/24/2024	0.98	1.01
* 9	02/25/2024 - 03/02/2024	0.98	1.01
*10	03/03/2024 - 03/09/2024	0.98	1.01
*11	03/10/2024 - 03/16/2024	0.98	1.01
*12	03/17/2024 - 03/23/2024	0.97	1.00
*13	03/24/2024 - 03/30/2024	0.97	1.00
*14	03/31/2024 - 04/06/2024	0.96	0.99
*15	04/07/2024 - 04/13/2024	0.96	0.99
*16	04/14/2024 - 04/20/2024	0.95	0.98
*17	04/21/2024 - 04/27/2024	0.96	0.99
*18	04/28/2024 - 05/04/2024	0.97	1.00
*19	05/05/2024 - 05/11/2024	0.97	1.00
*20	05/12/2024 - 05/18/2024	0.98	1.01
21	05/19/2024 - 05/25/2024	0.99	1.02
22	05/26/2024 - 06/01/2024	1.00	1.03
23	06/02/2024 - 06/08/2024	1.00	1.03
24	06/09/2024 - 06/15/2024	1.01	1.04
25	06/16/2024 - 06/22/2024	1.02	1.05
26	06/23/2024 - 06/29/2024	1.03	1.06
27	06/30/2024 - 07/06/2024	1.04	1.07
28	07/07/2024 - 07/13/2024	1.05	1.08
29	07/14/2024 - 07/20/2024	1.06	1.09
30	07/21/2024 - 07/27/2024	1.05	1.08
31	07/28/2024 - 08/03/2024	1.04	1.07
32	08/04/2024 - 08/10/2024	1.03	1.06
33	08/11/2024 - 08/17/2024	1.02	1.05
34	08/18/2024 - 08/24/2024	1.02	1.05
35	08/25/2024 - 08/31/2024	1.03	1.06
36	09/01/2024 - 09/07/2024	1.03	1.06
37	09/08/2024 - 09/14/2024	1.03	1.06
38	09/15/2024 - 09/21/2024	1.03	1.06
39	09/22/2024 - 09/28/2024	1.01	1.04
40	09/29/2024 - 10/05/2024	1.00	1.03
41	10/06/2024 - 10/12/2024	0.98	1.01
42	10/13/2024 - 10/19/2024	0.96	0.99
43	10/20/2024 - 10/26/2024	0.97	1.00
44	10/27/2024 - 11/02/2024	0.98	1.01
45	11/03/2024 - 11/09/2024	0.99	1.02
46	11/10/2024 - 11/16/2024	1.00	1.03
47	11/17/2024 - 11/23/2024	1.01	1.04
48	11/24/2024 - 11/30/2024	1.02	1.05
49	12/01/2024 - 12/07/2024	1.03	1.06
50	12/08/2024 - 12/14/2024	1.04	1.07
51	12/15/2024 - 12/21/2024	1.05	1.08
52	12/22/2024 - 12/28/2024	1.05	1.08
53	12/29/2024 - 12/31/2024	1.05	1.08

* PEAK SEASON

04-MAR-2025 16:32:51

830UPD

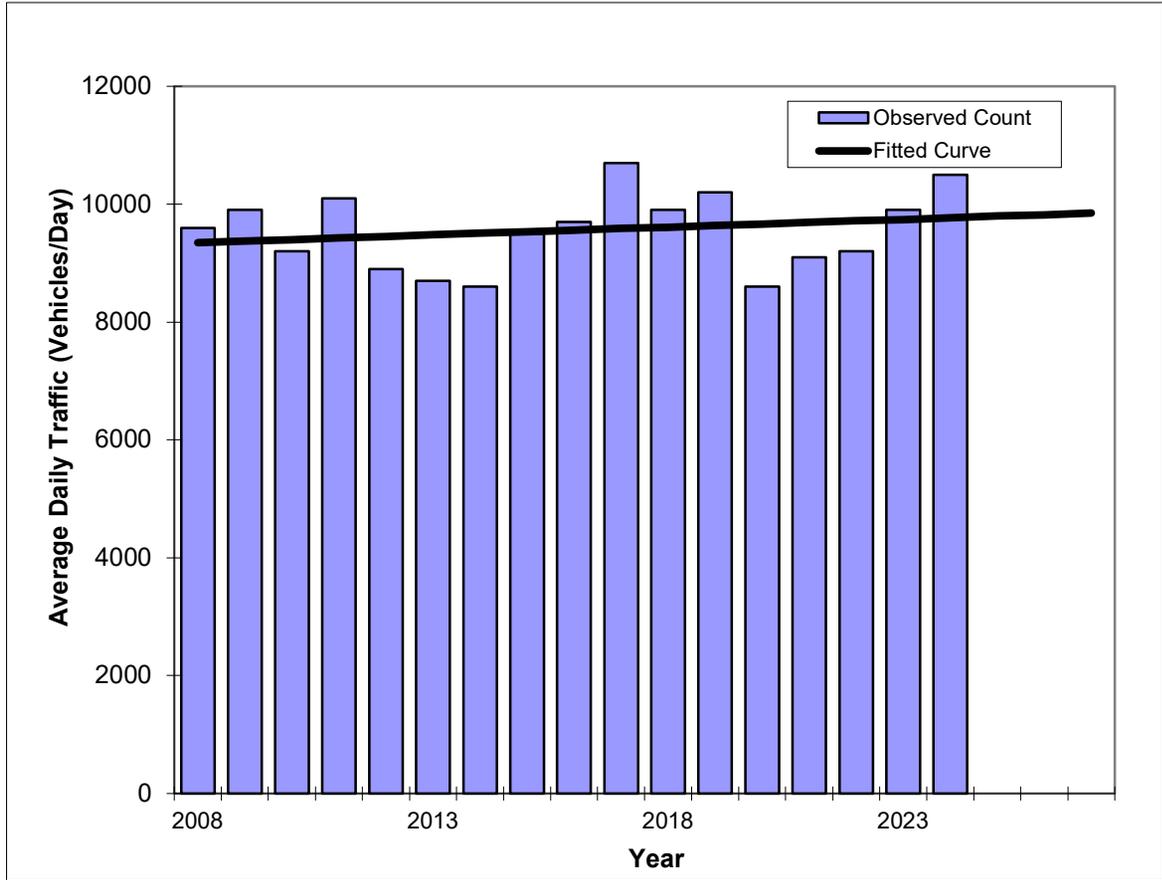
2_2600_PKSEASON.TXT

Traffic Trends - V2023

-- SR 20 .1 MI. SE OF CR 329-B (SE 55TH BLVD.)

FM #	1234
Location	1

County:	Alachua (26)
Station #:	260479
Roadway:	



Year	Traffic (ADT/AADT)	
	Count*	Trend
2008	9,600	9,350
2009	9,900	9,370
2010	9,200	9,400
2011	10,100	9,430
2012	8,900	9,450
2013	8,700	9,480
2014	8,600	9,510
2015	9,500	9,530
2016	9,700	9,560
2017	10,700	9,590
2018	9,900	9,610
2019	10,200	9,640
2020	8,600	9,660
2021	9,100	9,690
2022	9,200	9,720
2023	9,900	9,740
2024	10,500	9,770
2025 Opening Year Trend		
2025	N/A	9,800
2026 Interim Year Trend		
2026	N/A	9,820
2027 Design Year Trend		
2027	N/A	9,850
FSUTMS Forecasts/Trends		

Annual Trend Increase:	26
Trend R-squared:	7.33%
Trend Annual Historic Growth Rate:	0.28%
Trend Growth Rate (2024 to Design Year)	0.27%
Printed:	5/6/2025
Linear Growth Option	

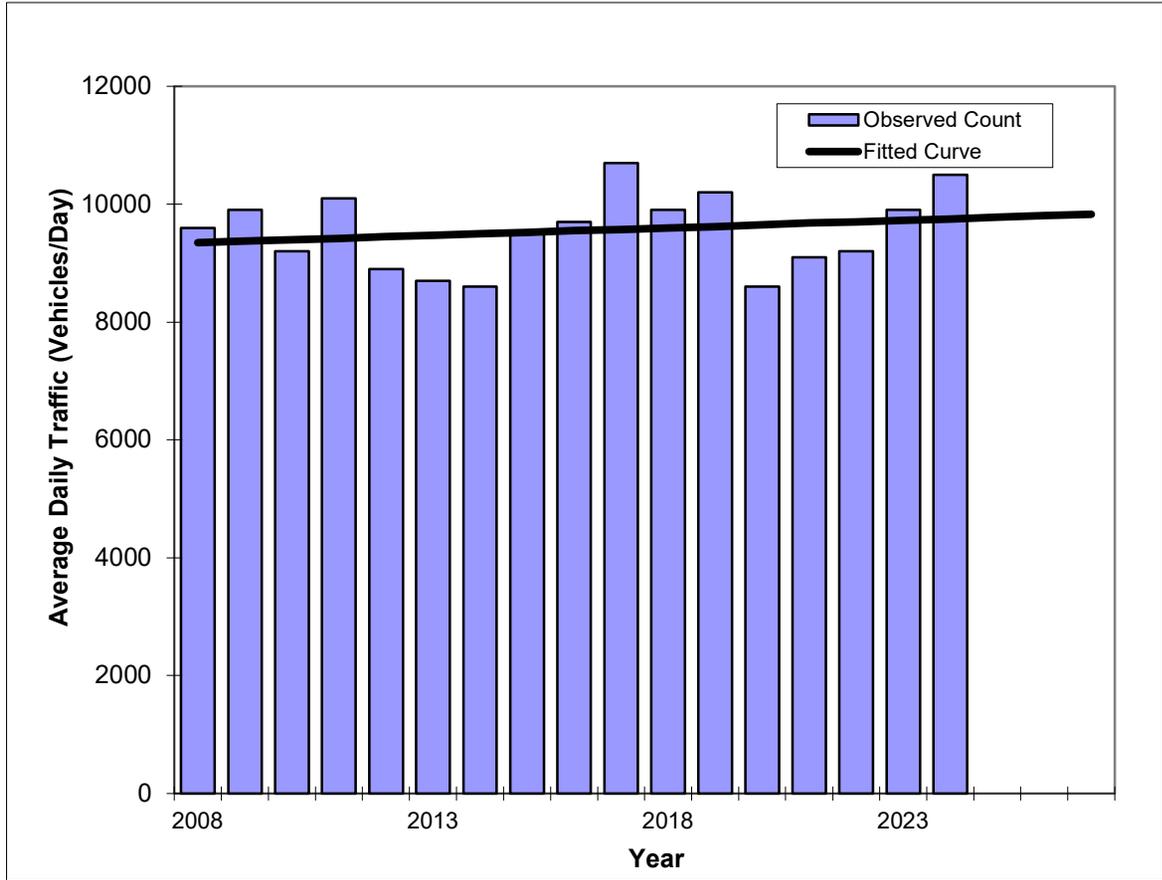
*Axle-Adjusted

Traffic Trends - V2023

-- SR 20 .1 MI. SE OF CR 329-B (SE 55TH BLVD.)

FM #	1234
Location	1

County:	Alachua (26)
Station #:	260479
Roadway:	



Year	Traffic (ADT/AADT)	
	Count*	Trend
2008	9,600	9,350
2009	9,900	9,370
2010	9,200	9,400
2011	10,100	9,420
2012	8,900	9,450
2013	8,700	9,470
2014	8,600	9,500
2015	9,500	9,520
2016	9,700	9,550
2017	10,700	9,570
2018	9,900	9,600
2019	10,200	9,620
2020	8,600	9,650
2021	9,100	9,680
2022	9,200	9,700
2023	9,900	9,730
2024	10,500	9,750
2025 Opening Year Trend		
2025	N/A	9,780
2026 Interim Year Trend		
2026	N/A	9,810
2027 Design Year Trend		
2027	N/A	9,830
FSUTMS Forecasts/Trends		

Trend R-squared:	6.84%
Compounded Annual Historic Growth Rate:	0.26%
Compounded Growth Rate (2024 to Design Year):	0.27%
Printed:	5/6/2025
Exponential Growth Option	

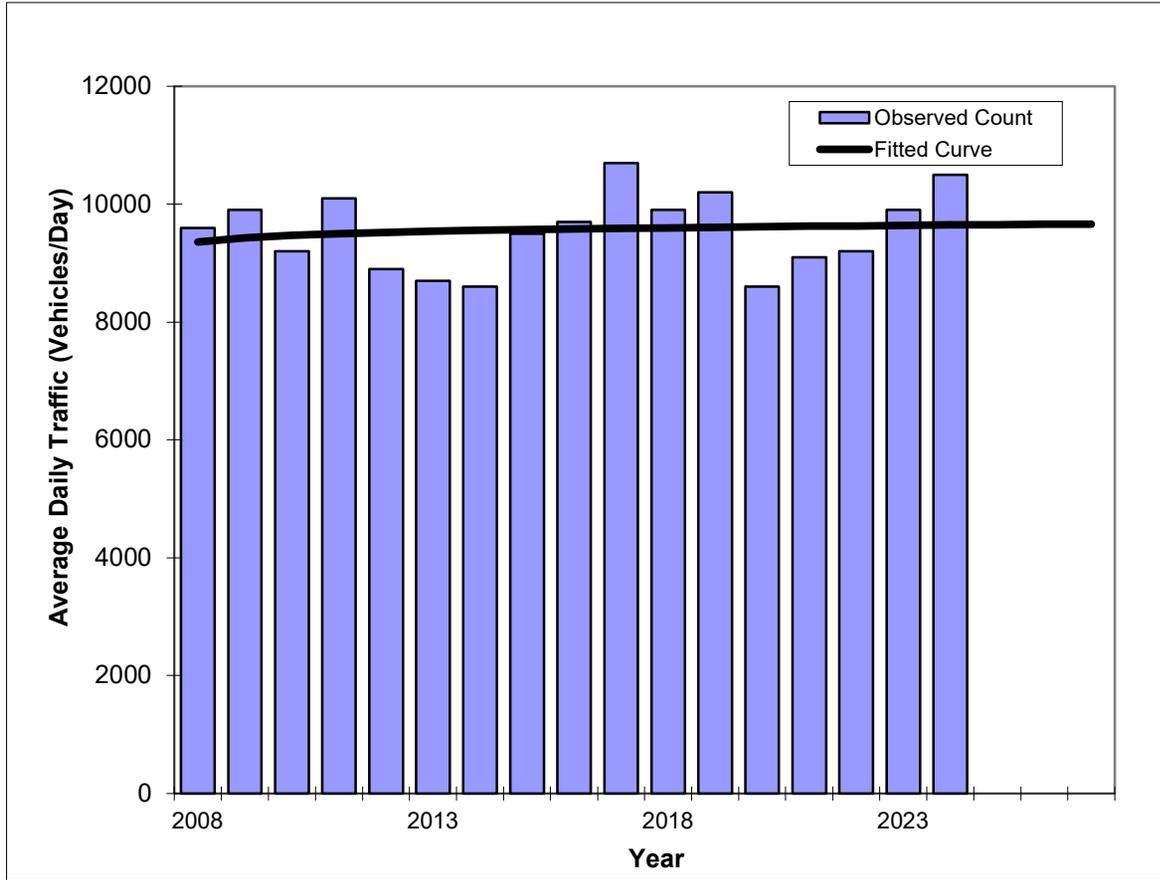
*Axle-Adjusted

Traffic Trends - V2023

-- SR 20 .1 MI. SE OF CR 329-B (SE 55TH BLVD.)

FM #	1234
Location	1

County:	Alachua (26)
Station #:	260479
Roadway:	



Year	Traffic (ADT/AADT)	
	Count*	Trend
2008	9,600	9,360
2009	9,900	9,430
2010	9,200	9,470
2011	10,100	9,500
2012	8,900	9,520
2013	8,700	9,540
2014	8,600	9,560
2015	9,500	9,570
2016	9,700	9,580
2017	10,700	9,590
2018	10,300	9,600
2019	9,600	9,610
2020	9,300	9,620
2021	9,000	9,630
2022	9,200	9,630
2023	9,900	9,640
2024	10,500	9,650
2025 Opening Year Trend		
2025	N/A	9,650
2026 Interim Year Trend		
2026	N/A	9,660
2027 Design Year Trend		
2027	N/A	9,660
FSUTMS Forecasts/Trends		

Trend R-squared:	2.74%
Compounded Annual Historic Growth Rate:	0.19%
Compounded Growth Rate (2024 to Design Year)	0.03%
Printed:	5/6/2025
Decaying Exponential Growth Option	

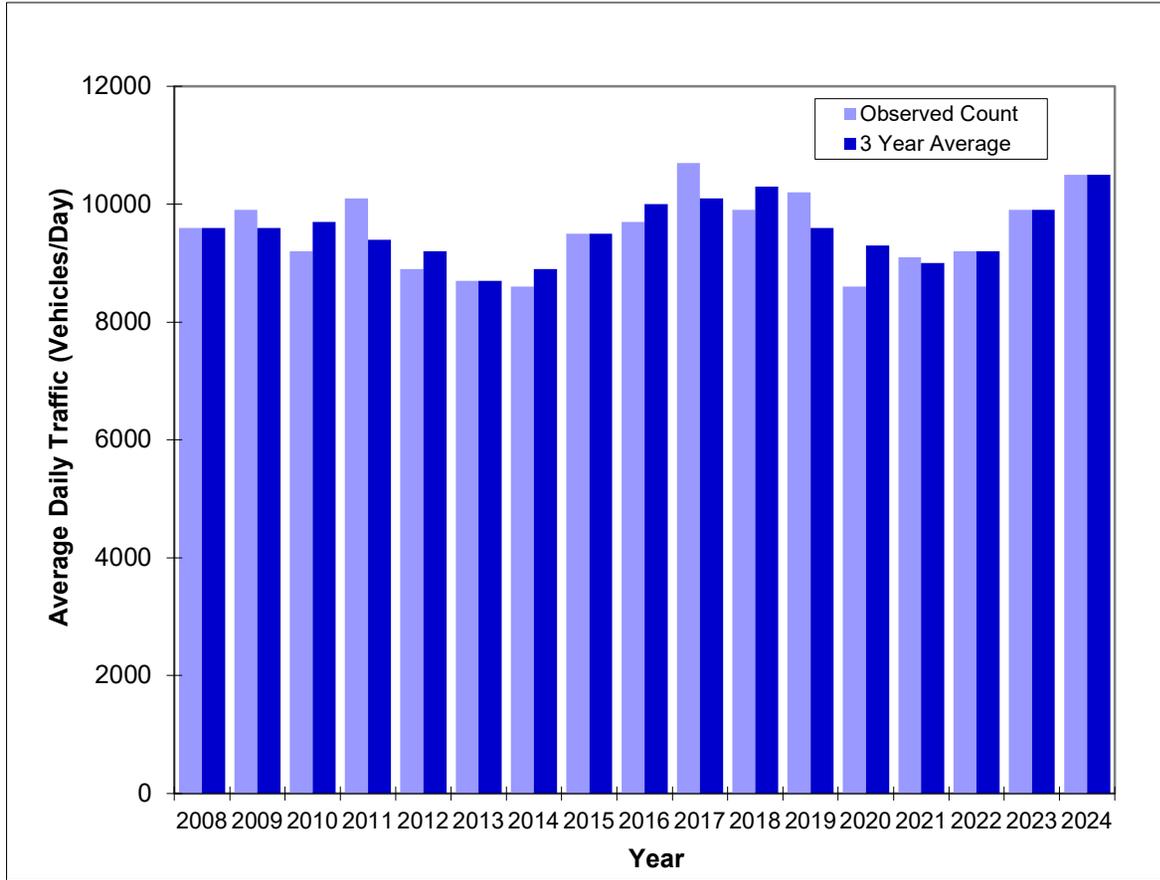
*Axle-Adjusted

Traffic Trends - V2023

-- SR 20 .1 MI. SE OF CR 329-B (SE 55TH BLVD.)

FM #	1234
Location	1

County:	Alachua (26)
Station #:	260479
Roadway:	



Year	Traffic (ADT/AADT)	
	Count*	3 Yr Avg
2008	9,600	9,600
2009	9,900	9,600
2010	9,200	9,700
2011	10,100	9,400
2012	8,900	9,200
2013	8,700	8,700
2014	8,600	8,900
2015	9,500	9,500
2016	9,700	10,000
2017	10,700	10,100
2018	9,900	10,300
2019	10,200	9,600
2020	8,600	9,300
2021	9,100	9,000
2022	9,200	9,200
2023	9,900	9,900
2024	10,500	10,500

Actual AADT vs 3 Year Average

*Axle-Adjusted

APPENDIX C: Trip Generation Plots

Single-Family Detached Housing (210)

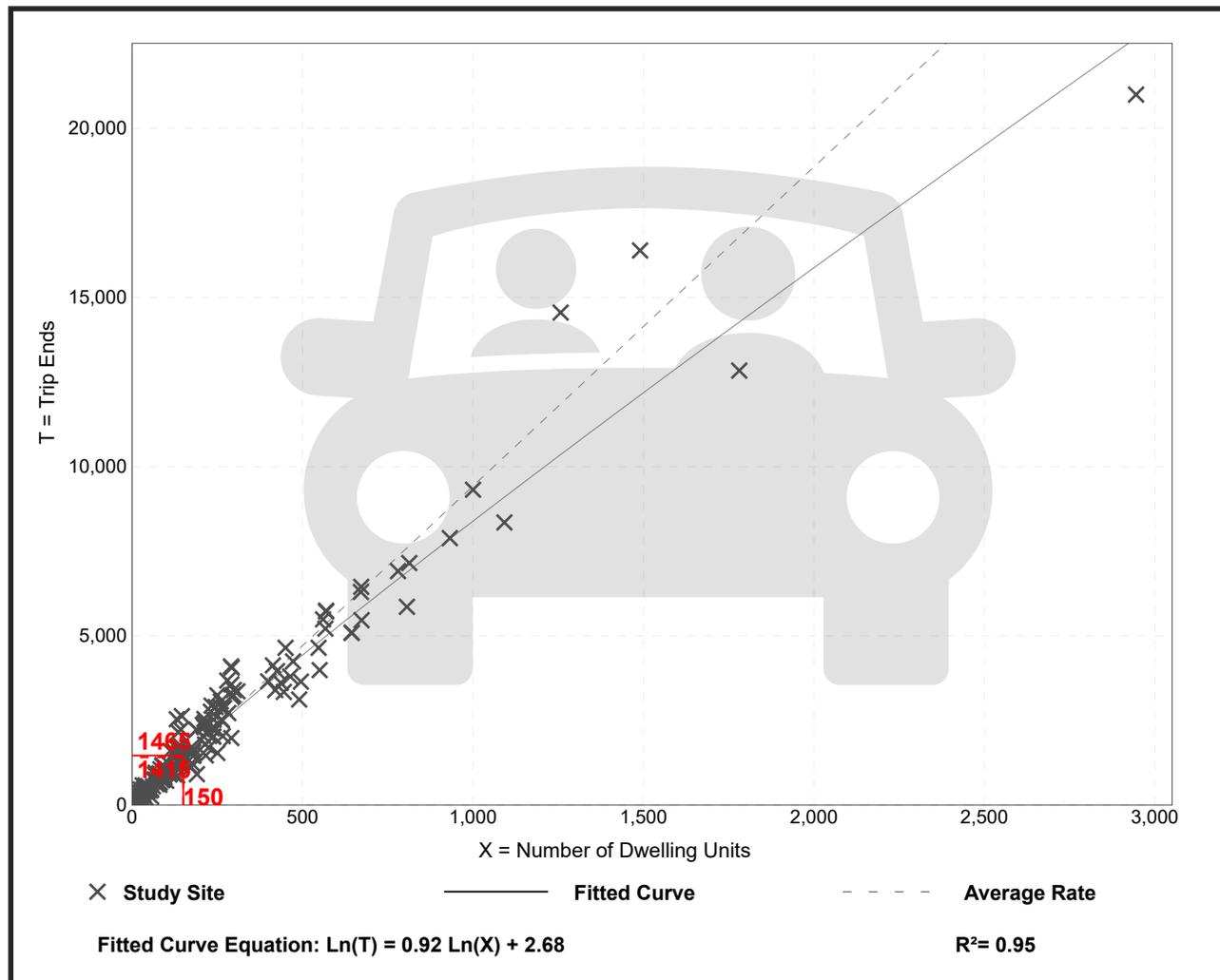
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



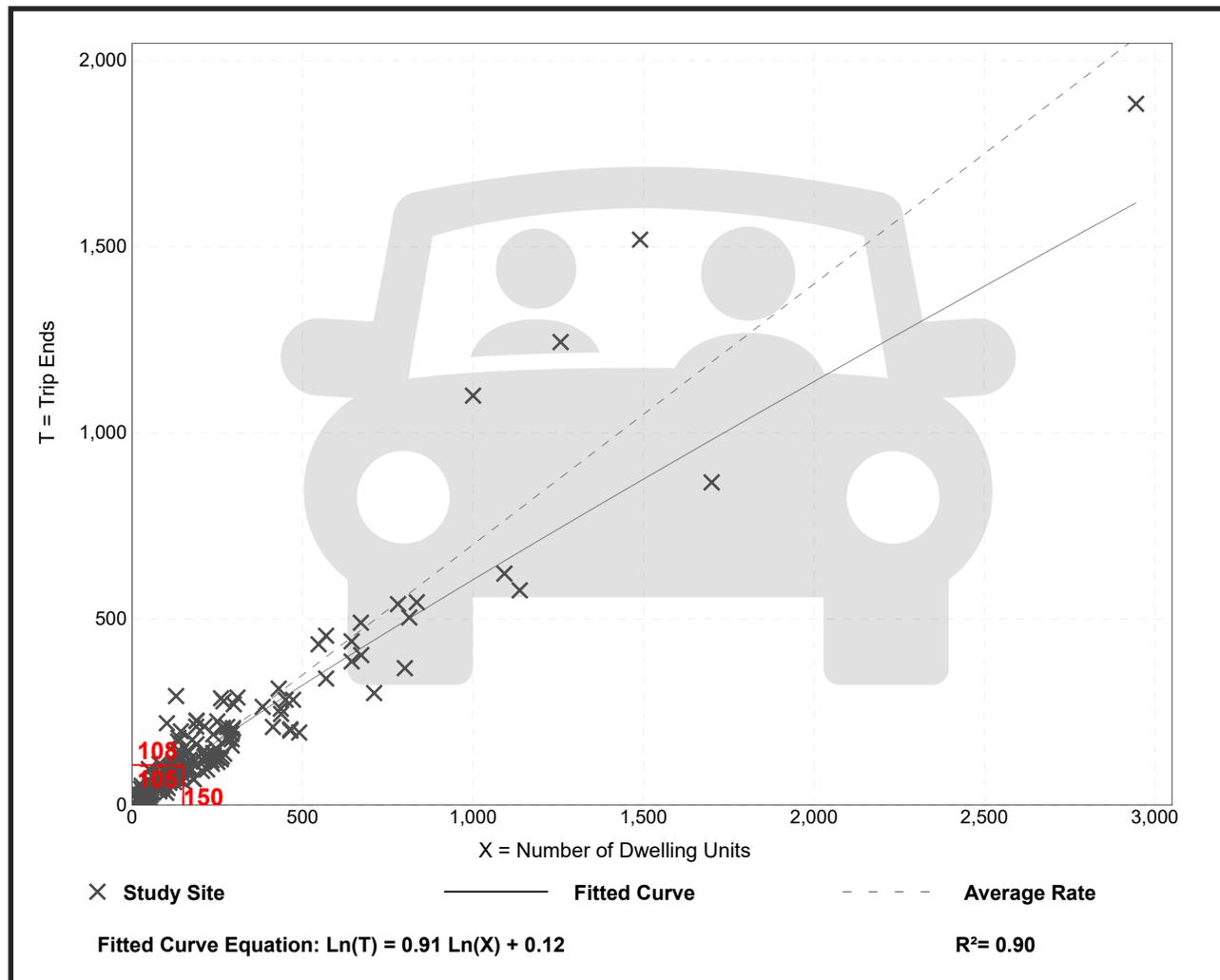
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 192
 Avg. Num. of Dwelling Units: 226
 Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

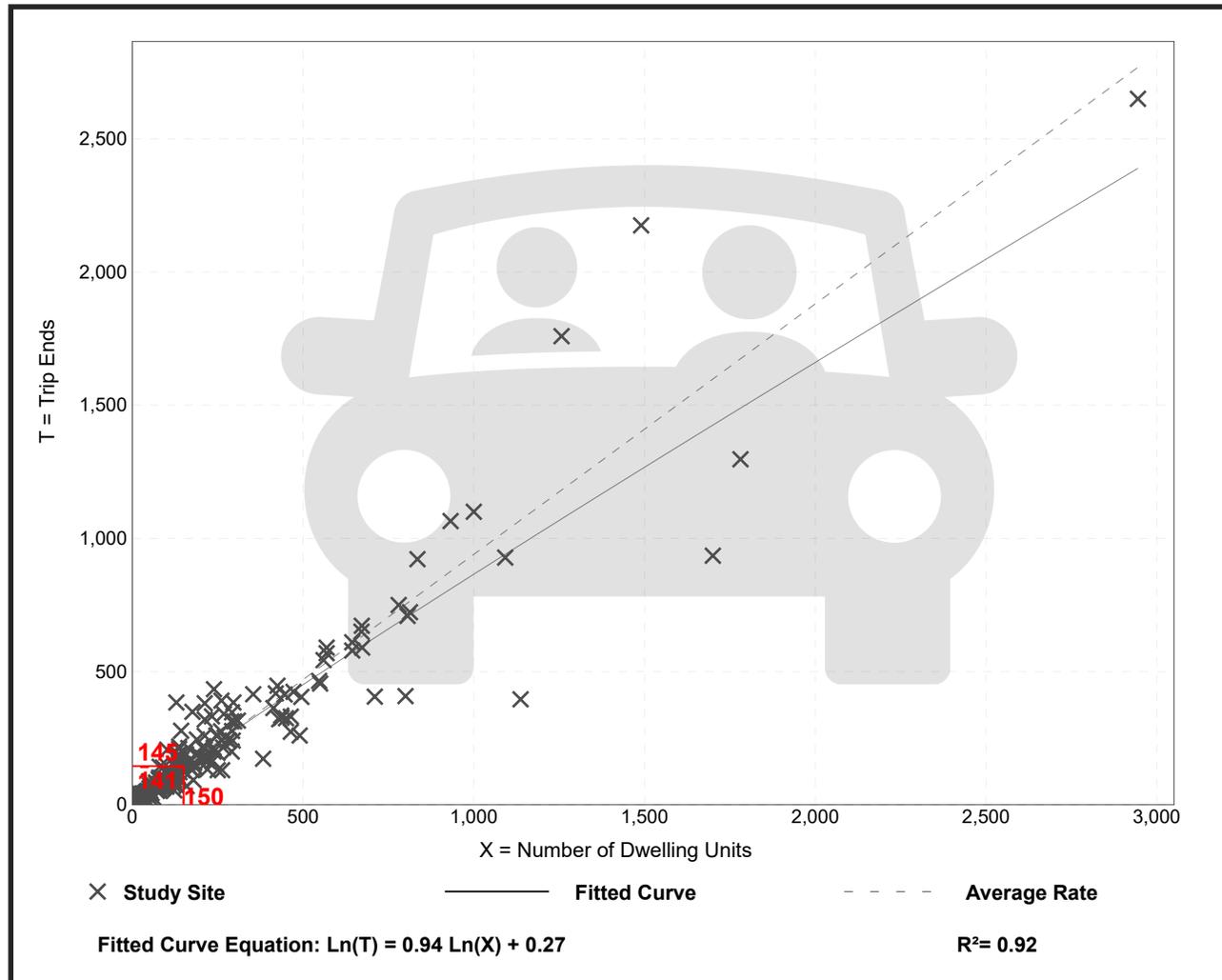
Setting/Location: General Urban/Suburban

Number of Studies: 208
 Avg. Num. of Dwelling Units: 248
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation

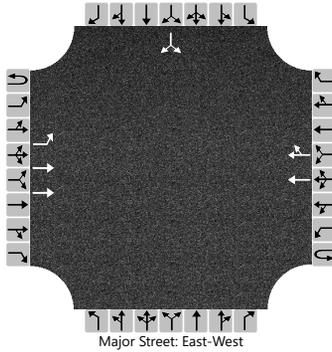


APPENDIX D: Highway Capacity Analyses

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & SE 51st Street
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2025	North/South Street	SE 51st Street
Time Analyzed	AM Peak	Peak Hour Factor	0.88
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Existing 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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	1	206				654	0						0		6
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

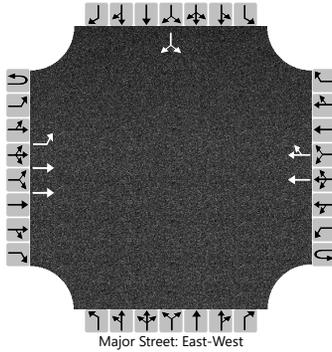
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		1														7	
Capacity, c (veh/h)		853														623	
v/c Ratio		0.00														0.01	
95% Queue Length, Q ₉₅ (veh)		0.0														0.0	
95% Queue Length, Q ₉₅ (ft)		0.0														0.0	
Control Delay (s/veh)		9.2														10.8	
Level of Service (LOS)		A														B	
Approach Delay (s/veh)		0.0												10.8			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & SE 51st Street
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	SE 51st Street
Time Analyzed	AM Peak	Peak Hour Factor	0.88
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Background 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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	1	210				697	0						0		6
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

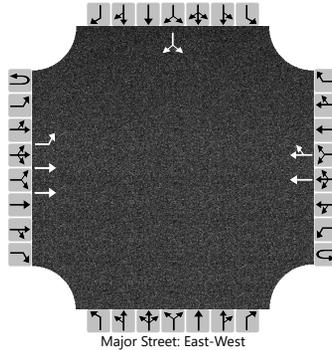
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		1													7		
Capacity, c (veh/h)		818													600		
v/c Ratio		0.00													0.01		
95% Queue Length, Q ₉₅ (veh)		0.0													0.0		
95% Queue Length, Q ₉₅ (ft)		0.0													0.0		
Control Delay (s/veh)		9.4													11.1		
Level of Service (LOS)		A													B		
Approach Delay (s/veh)		0.0												11.1			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & SE 51st Street
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	SE 51st Street
Time Analyzed	AM Peak	Peak Hour Factor	0.88
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Build-out 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	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0		0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	5	218				705	5					12		25	
Percent Heavy Vehicles (%)	3	3											3		3	
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

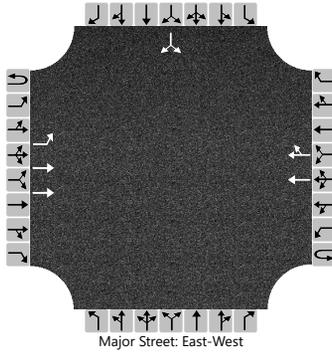
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6													42		
Capacity, c (veh/h)		807													478		
v/c Ratio		0.01													0.09		
95% Queue Length, Q ₉₅ (veh)		0.0													0.3		
95% Queue Length, Q ₉₅ (ft)		0.0													7.7		
Control Delay (s/veh)		9.5													13.3		
Level of Service (LOS)		A													B		
Approach Delay (s/veh)		0.2												13.3			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & SE 51st Street
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2025	North/South Street	SE 51st Street
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Existing 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	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	10	641				276	3						0		7
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

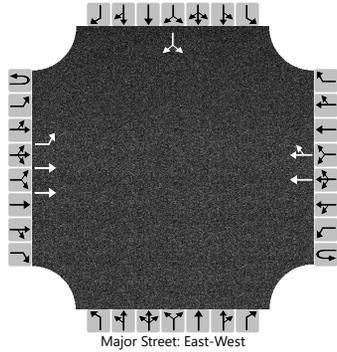
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		11														8	
Capacity, c (veh/h)		1247														864	
v/c Ratio		0.01														0.01	
95% Queue Length, Q ₉₅ (veh)		0.0														0.0	
95% Queue Length, Q ₉₅ (ft)		0.0														0.0	
Control Delay (s/veh)		7.9														9.2	
Level of Service (LOS)		A														A	
Approach Delay (s/veh)		0.1												9.2			
Approach LOS		A												A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & SE 51st Street
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	SE 51st Street
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Background 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	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	11	654				281	3						0		7
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

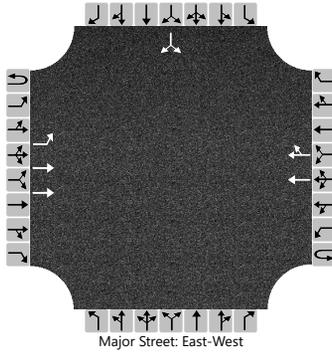
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		12														8	
Capacity, c (veh/h)		1241														861	
v/c Ratio		0.01														0.01	
95% Queue Length, Q ₉₅ (veh)		0.0														0.0	
95% Queue Length, Q ₉₅ (ft)		0.0														0.0	
Control Delay (s/veh)		7.9														9.2	
Level of Service (LOS)		A														A	
Approach Delay (s/veh)		0.1												9.2			
Approach LOS		A												A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & SE 51st Street
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	SE 51st Street
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Build-out 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	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	32	696				296	13						15		15
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

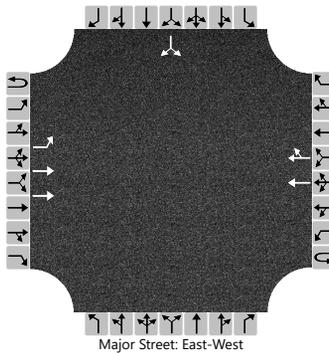
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35														33	
Capacity, c (veh/h)		1213														576	
v/c Ratio		0.03														0.06	
95% Queue Length, Q ₉₅ (veh)		0.1														0.2	
95% Queue Length, Q ₉₅ (ft)		2.6														5.1	
Control Delay (s/veh)		8.1														11.6	
Level of Service (LOS)		A														B	
Approach Delay (s/veh)		0.4												11.6			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	L. Hagen			Intersection	Hawthorne Road & New Connection		
Agency/Co.	Hagen Consulting Services			Jurisdiction	Alachua County		
Date Performed	5/6/2025			East/West Street	Hawthorne Road		
Analysis Year	2027			North/South Street	New Connection		
Time Analyzed	AM Peak			Peak Hour Factor	0.90		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Garden Street - Build-out 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	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0		0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	4	227				691	5					0		19	
Percent Heavy Vehicles (%)	3	3											3		3	
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

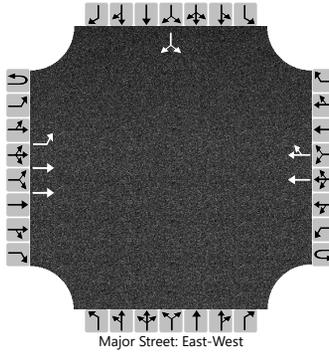
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4														21
Capacity, c (veh/h)		831														609
v/c Ratio		0.01														0.03
95% Queue Length, Q ₉₅ (veh)		0.0														0.1
95% Queue Length, Q ₉₅ (ft)		0.0														2.6
Control Delay (s/veh)		9.4														11.1
Level of Service (LOS)		A														B
Approach Delay (s/veh)	0.2												11.1			
Approach LOS	A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & New Connection
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	New Connection
Time Analyzed	PM Peak	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Build-out 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	1	2	0	0	0	2	0		0	0	0		0	1	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	21	739				302	9						0		7
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Left Only												1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

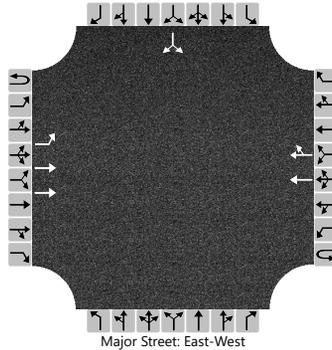
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		22														7	
Capacity, c (veh/h)		1218														847	
v/c Ratio		0.02														0.01	
95% Queue Length, Q ₉₅ (veh)		0.1														0.0	
95% Queue Length, Q ₉₅ (ft)		2.6														0.0	
Control Delay (s/veh)		8.0														9.3	
Level of Service (LOS)		A														A	
Approach Delay (s/veh)		0.2												9.3			
Approach LOS		A												A			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	L. Hagen			Intersection	Hawthorne Road & Lake Shore Drive		
Agency/Co.	Hagen Consulting Services			Jurisdiction	Alachua County		
Date Performed	5/6/2025			East/West Street	Hawthorne Road		
Analysis Year	2025			North/South Street	Lake Shore Drive		
Time Analyzed	AM Peak			Peak Hour Factor	0.90		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Garden Street - Existing 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	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0		0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	5	202				641	9					7		10	
Percent Heavy Vehicles (%)	3	3											3		3	
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

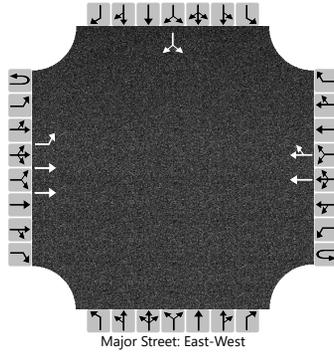
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6														19
Capacity, c (veh/h)		869														495
v/c Ratio		0.01														0.04
95% Queue Length, Q ₉₅ (veh)		0.0														0.1
95% Queue Length, Q ₉₅ (ft)		0.0														2.6
Control Delay (s/veh)		9.2														12.6
Level of Service (LOS)		A														B
Approach Delay (s/veh)	0.2								0.2				12.6			
Approach LOS	A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & Lake Shore Drive
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	Lake Shore Drive
Time Analyzed	AM Peak	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Background 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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	5	206				654	9						7		10
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

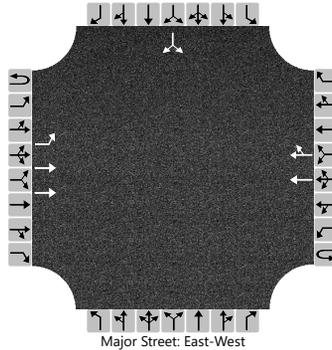
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6														19	
Capacity, c (veh/h)		858														488	
v/c Ratio		0.01														0.04	
95% Queue Length, Q ₉₅ (veh)		0.0														0.1	
95% Queue Length, Q ₉₅ (ft)		0.0														2.6	
Control Delay (s/veh)		9.2														12.7	
Level of Service (LOS)		A														B	
Approach Delay (s/veh)		0.2												12.7			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & Lake Shore Drive
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	Lake Shore Drive
Time Analyzed	AM Peak	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Build-out 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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	9	218				664	14						19		29
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

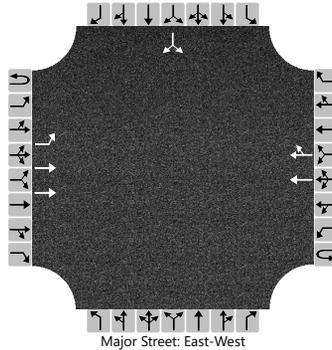
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10													53		
Capacity, c (veh/h)		846													483		
v/c Ratio		0.01													0.11		
95% Queue Length, Q ₉₅ (veh)		0.0													0.4		
95% Queue Length, Q ₉₅ (ft)		0.0													10.2		
Control Delay (s/veh)		9.3													13.4		
Level of Service (LOS)		A													B		
Approach Delay (s/veh)		0.4												13.4			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	L. Hagen			Intersection	Hawthorne Road & Lake Shore Drive		
Agency/Co.	Hagen Consulting Services			Jurisdiction	Alachua County		
Date Performed	5/6/2025			East/West Street	Hawthorne Road		
Analysis Year	2025			North/South Street	Lake Shore Drive		
Time Analyzed	PM Peak			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Garden Street - Existing 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	1	2	0	0	0	2	0	0	0	0		0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	9	678				261	6					12		10	
Percent Heavy Vehicles (%)	3	3											3		3	
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

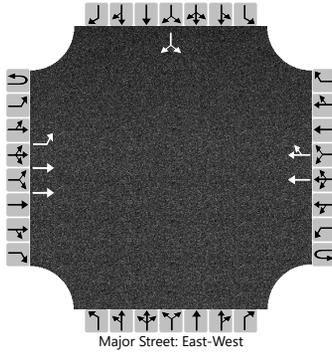
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10														23	
Capacity, c (veh/h)		1268														616	
v/c Ratio		0.01														0.04	
95% Queue Length, Q ₉₅ (veh)		0.0														0.1	
95% Queue Length, Q ₉₅ (ft)		0.0														2.6	
Control Delay (s/veh)		7.9														11.1	
Level of Service (LOS)		A														B	
Approach Delay (s/veh)		0.1												11.1			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
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Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	Lake Shore Drive
Time Analyzed	PM Peak	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Background 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	1	2	0	0	0	2	0	0	0	0	0	0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	9	692				267	6						13		10
Percent Heavy Vehicles (%)	3	3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

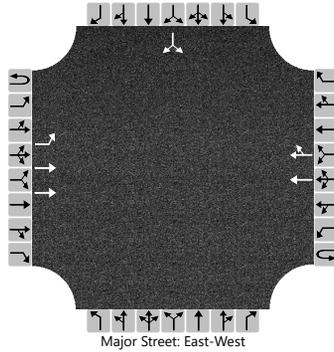
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10														24	
Capacity, c (veh/h)		1261														603	
v/c Ratio		0.01														0.04	
95% Queue Length, Q ₉₅ (veh)		0.0														0.1	
95% Queue Length, Q ₉₅ (ft)		0.0														2.6	
Control Delay (s/veh)		7.9														11.2	
Level of Service (LOS)		A														B	
Approach Delay (s/veh)		0.1												11.2			
Approach LOS		A												B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	L. Hagen	Intersection	Hawthorne Road & Lake Shore Drive
Agency/Co.	Hagen Consulting Services	Jurisdiction	Alachua County
Date Performed	5/6/2025	East/West Street	Hawthorne Road
Analysis Year	2027	North/South Street	Lake Shore Drive
Time Analyzed	PM Peak	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Garden Street - Build-out 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	1	2	0	0	0	2	0	0	0	0		0	1	0	
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	30	707				286	16					29		18	
Percent Heavy Vehicles (%)	3	3											3		3	
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		32														50			
Capacity, c (veh/h)		1228														547			
v/c Ratio		0.03														0.09			
95% Queue Length, Q ₉₅ (veh)		0.1														0.3			
95% Queue Length, Q ₉₅ (ft)		2.6														7.7			
Control Delay (s/veh)		8.0														12.2			
Level of Service (LOS)		A														B			
Approach Delay (s/veh)		0.3									0.3					12.2			
Approach LOS		A									A					B			