



Lake City Convenience Store – Lake City, FL

Traffic Impact Analysis

April 2024

Kimley»Horn

A decorative graphic element in the bottom right corner consisting of several overlapping, rounded geometric shapes in shades of blue, red, and grey.

TRAFFIC IMPACT ANALYSIS

Lake City Convenience Store

Lake City, FL

Prepared for:

Wagner Property Group

Prepared by:

Kimley-Horn and Associates, Inc.

Digitally signed by Vincent E Spahr
DN: cn=Vincent E Spahr, c=US,
o=Florida,
email=vincent.spahr@kimley-
horn.com
Date: 2024.04.11 11:48:19 -04'00'

VINCENT E. SPAHR, P.E.

STATE OF FLORIDA,
PROFESSIONAL ENGINEER,
LICENSE NO. 88747

THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY VINCENT E. SPAHR, P.E.
ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED
AND THE SIGNATURE MUST BE VERIFIED
ON ANY ELECTRONIC COPIES.

Revised April 2024

©Kimley-Horn and Associates, Inc. 2024

K:\GVL_TPTO\147779016 - Lake City C-Store Traffic Study\doc\2 - traffic study\Lake City C Store TIA_FDOT.docx

Table of Contents

1.0	INTRODUCTION.....	1
2.0	EXISTING CONDITIONS ANALYSIS.....	3
2.1	<i>Existing Traffic Data.....</i>	3
2.2	<i>Existing Intersection Conditions</i>	5
3.0	PROJECT DEVELOPMENT	6
3.1	<i>Site Access</i>	6
3.2	<i>Trip Generation.....</i>	6
3.3	<i>Trip Distribution</i>	7
3.4	<i>Trip Assignment.....</i>	7
4.0	BACKGROUND CONDITIONS ANALYSIS – YEAR 2025	10
4.1	<i>Historical Traffic Growth.....</i>	10
4.2	<i>Background Traffic</i>	10
4.3	<i>Background Intersection Analysis</i>	10
5.0	BUILDOUT CONDITIONS ANALYSIS – YEAR 2025.....	13
5.1	<i>Buildout Traffic</i>	13
5.2	<i>Buildout Intersection Analysis</i>	13
5.3	<i>Site Access Analysis.....</i>	15
6.0	CONCLUSION.....	16

Figures

Figure 1: Project Location and Study Area	2
Figure 2: Existing (2023) Intersection Volumes	4
Figure 3: Project Trip Distribution	8
Figure 4: Project Trip Assignment.....	9
Figure 5: Background Intersection Volumes.....	12
Figure 6: Buildout Intersection Volumes.....	14

Tables

Table 1: Existing Intersection Conditions	5
Table 2: Trip Generation Summary.....	7
Table 3: Background Intersection Conditions	10
Table 4: Buildout Intersection Conditions.....	13

Appendices

Appendix A: Approved Methodology

Appendix B: Conceptual Site Plan

Appendix C: Traffic Data

Appendix D: Intersection Volume Development Worksheets

Appendix E: Synchro Output Reports

Appendix F: FDOT *Trend* Worksheet

Appendix G: NCHRP Report 457 Worksheets

1.0 INTRODUCTION

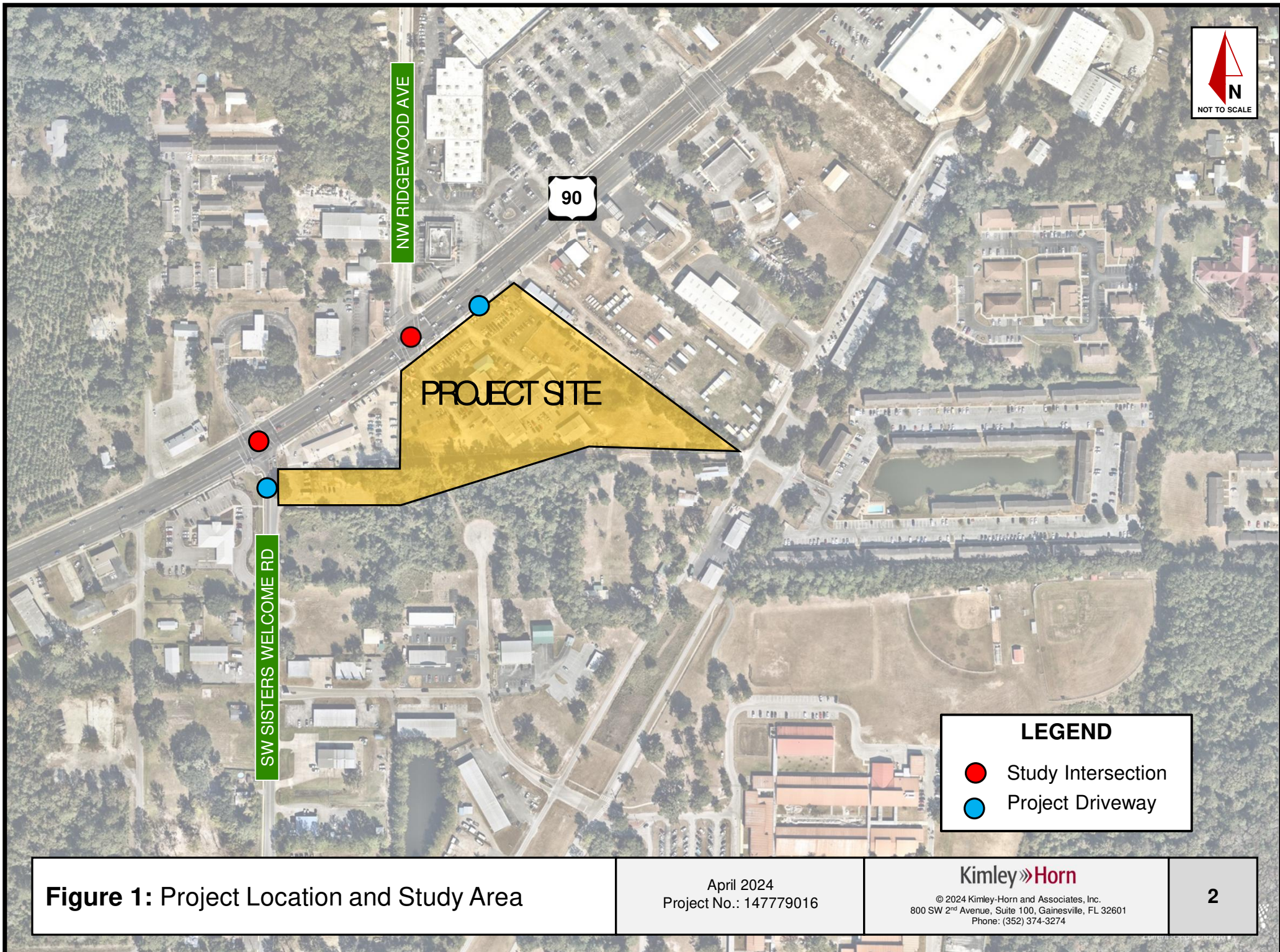
Kimley-Horn has been retained by Wagner Property Group to analyze and document the traffic impacts associated with the development of a convenience store and gas station on the south side of the intersection of US Highway 90 (US 90) and NW Ridgewood Avenue in Lake City, Florida.

The site is currently occupied by a defunct automotive dealership that is proposed to be demolished. The proposed redevelopment is anticipated to include a 5,915-square-foot convenience store/gas station with 16 vehicle fueling positions and a commercial outparcel. The proposed buildout year is 2025. The project location is shown in **Figure 1**.

The methodology for this Traffic Impact Analysis (TIA) was reviewed and approved by Columbia County and by the Florida Department of Transportation (FDOT). The approved methodology is provided in **Appendix A**. A revised conceptual site plan is provided in **Appendix B**.

In accordance with the approved methodology, the study area for this traffic impact analysis includes the project driveways and two signalized intersections:

- US 90 and NW Ridgewood Avenue
- US 90 and SW Sisters Welcome Road



2.0 EXISTING CONDITIONS ANALYSIS

2.1 EXISTING TRAFFIC DATA

Turning movement counts were collected at the study intersections on Thursday, September 7, 2023, during the AM (7:00 AM – 9:00 AM) and PM (3:00 PM – 6:00 PM) peak periods. The PM peak period was extended to 3:00 PM to capture school PM peak hour conditions due to the proximity of the project site to Lake City Middle School. Raw turning movement counts are provided in **Appendix C**.

Turning movement volumes were adjusted using the appropriate peak season conversion factor from the FDOT Florida Traffic Online (FTO) database. Seasonal factor data is included in **Appendix C**. Existing signal timings were provided by Lake City staff for use in the analysis; signal timing worksheets are included in **Appendix C**. At the request of FDOT, the signal timings at US 90 and NW Ridgewood Avenue were modified to reflect concurrent phasing on the minor street approaches.

Figure 2 illustrates turning movement volumes for existing peak season conditions at the study intersections. The intersection volume development worksheets can be found in **Appendix D**.

LEGEND

- Existing Volumes: AM (MD) [PM]
- # Study Intersection

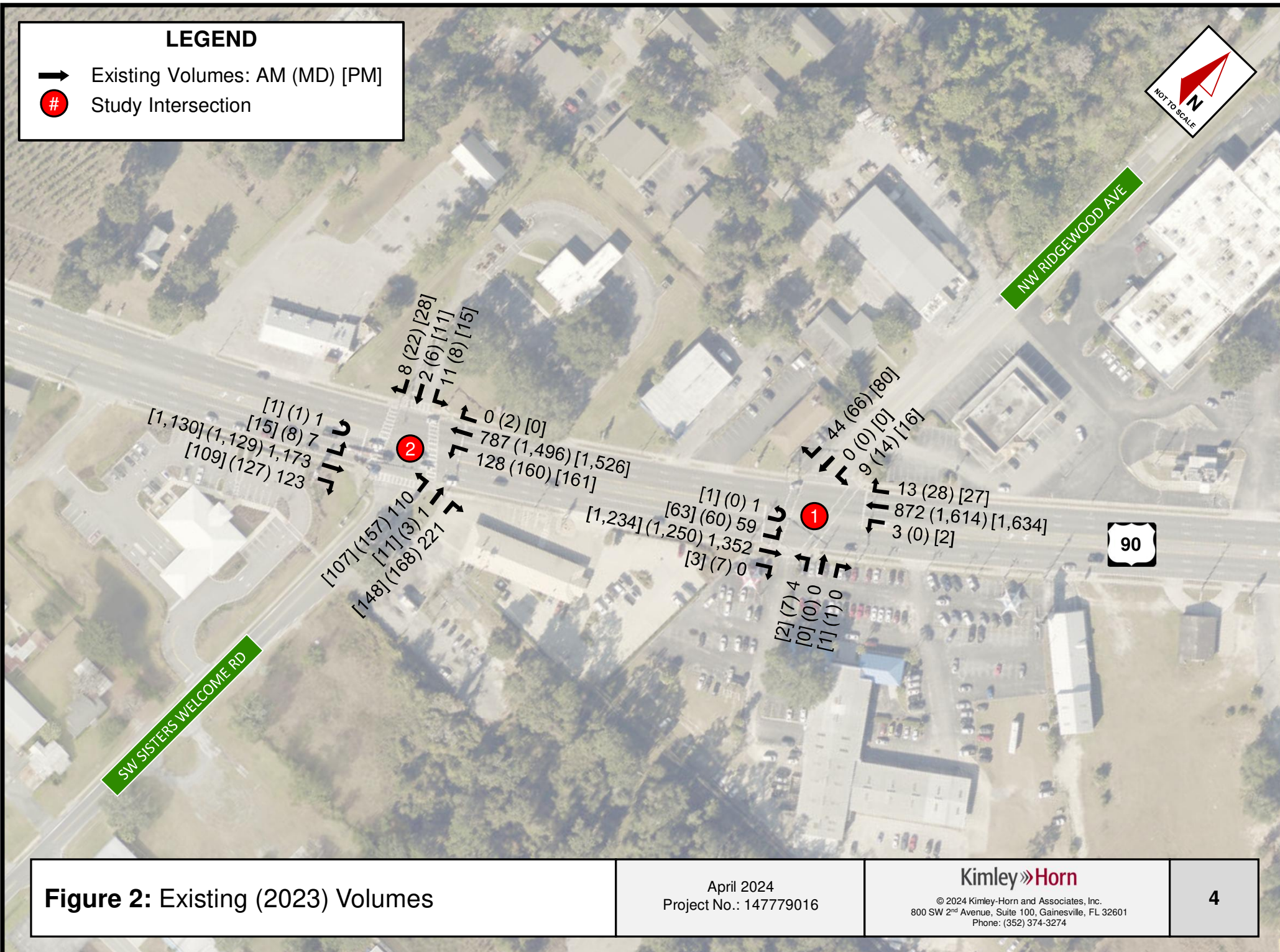


Figure 2: Existing (2023) Volumes

April 2024
Project No.: 147779016

Kimley»Horn

© 2024 Kimley-Horn and Associates, Inc.
800 SW 2nd Avenue, Suite 100, Gainesville, FL 32601
Phone: (352) 374-3274

2.2 EXISTING INTERSECTION CONDITIONS

Intersection capacity analyses were performed for existing (2023) conditions using the operational analysis procedures outlined in the *Highway Capacity Manual, 6th Edition* (HCM 6). Specifically, *Synchro* (v11) software was used to evaluate existing operational conditions at study area intersections by reporting level of service (LOS), delay, volume-to-capacity (v/c) ratios, and the 95th percentile queue for each movement. **Table 1** summarizes the operational analyses for the existing AM, School PM, and PM peak hour conditions at the study intersections. Synchro outputs are provided in **Appendix D**.

Table 1: Existing Intersection Conditions

		AM Peak Hour				School PM Peak Hour				PM Peak Hour			
		LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)	LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)	LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)
US 90 & NW Ridgewood Ave	Overall Intersection	A	3.1	-	-	A	2.3	-	-	A	2.8	-	-
	Eastbound	A	3.7	-	-	A	1.9	-	-	A	3.3	-	-
	EBL	A	2.5	0.13	25	A	2.2	0.19	25	A	2.6	0.19	25
	EBT/R	A	3.8	0.39	125	A	2.0	0.29	75	A	3.4	0.29	125
	Westbound	A	0.3	-	-	A	0.6	-	-	A	0.6	-	-
	WBL	A	3.4	0.01	0	A	0.0	0.00	0	A	3.1	0.01	0
	WBT/R	A	0.5	0.27	25	A	0.9	0.41	25	A	0.8	0.40	25
	Northbound	E	60.8	-	-	E	69.7	-	-	E	69.5	-	-
	NBL/T/R	E	60.8	0.04	25	E	69.7	0.07	25	E	69.5	0.03	25
US 90 & SW Sisters Welcome Rd	Southbound	E	63.0	-	-	E	73.7	-	-	E	74.2	-	-
	SBL/T/R	E	63.0	0.27	50	E	73.7	0.41	75	E	74.2	0.44	75
	Overall Intersection	B	16.5	-	-	B	15.0	-	-	B	11.9	-	-
	Eastbound	B	14.1	-	-	B	14.5	-	-	B	11.8	-	-
	EBL	A	8.9	0.02	25	A	9.8	0.03	25	A	7.9	0.05	25
	EBT/R	B	14.6	0.46	325	B	14.9	0.41	300	B	12.1	0.36	275
	Westbound	A	4.4	-	-	A	4.6	-	-	A	3.1	-	-
	WBL	B	11.4	0.48	75	B	11.3	0.49	100	A	9.0	0.43	75
	WBT/R	A	3.2	0.28	50	A	4.3	0.45	125	A	2.5	0.43	75
	Northbound	E	74.1	-	-	F	81.2	-	-	E	76.6	-	-
	NBL	E	64.8	0.69	200	F	89.2	0.86	300	E	79.8	0.77	200
	NBT/R	F	82.6	0.84	250	E	65.6	0.49	150	E	71.6	0.55	125
	Southbound	E	70.3	-	-	F	81.6	-	-	F	87.7	-	-
	SBL/T/R	E	70.3	0.42	50	F	81.6	0.53	75	F	87.7	0.70	100

The intersection of US 90 and NW Ridgewood Avenue operates with LOS A during existing (2023) AM peak hour, School PM peak hour, and PM peak hour conditions. All movements operate with v/c ratios less than 1.00 under existing (2023) AM, School PM, and PM peak hour conditions. The northbound and southbound approaches operate with LOS E during the AM peak hour, School PM peak hour, and PM peak hour due to the prioritization of green time for the mainline US 90 movements.

The intersection of US 90 and SW Sisters Welcome Road operates with LOS B during existing (2023) AM peak hour, School PM peak hour, and PM peak hour conditions. All movements operate with v/c ratios less than 1.00 under existing (2023) AM, School PM, and PM peak hour conditions. The northbound approach operates with LOS E during the AM and PM peak hours and LOS F during the School PM peak hour due to the prioritization of green time for the mainline US 90 movements. The southbound approach operates with LOS E during the AM peak hour and LOS F during the School PM and PM peak hours due to the prioritization of green time for the mainline US 90 movements.

3.0 PROJECT DEVELOPMENT

The existing site is currently occupied by a defunct automotive dealership that is proposed to be demolished. The proposed redevelopment is anticipated to include a 5,915-square-foot convenience store/gas station with 16 vehicle fueling positions and a commercial outparcel. The latest industry standards were referenced to evaluate the amount of new external trips to be generated by the site at buildout.

3.1 SITE ACCESS

Access to the site is proposed via one (1) connection at the existing traffic signal at the intersection of US 90 with NW Ridgewood Avenue, one (1) right-out only connection to US 90, and one (1) right-in/right-out (RI/RO) connection to SW Sisters Welcome Road, as shown in the conceptual site plan provided in **Appendix B**. The right-out only connection to US 90 was added at the request of FDOT.

3.2 TRIP GENERATION

Trip generation and pass-by rates for the proposed development were calculated using the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Code (LUC) 945 (Gasoline Station with Convenience Market) and LUC 934 (Fast-Food Restaurant with Drive-Through Window) were used to calculate the trip generation potential for the proposed development and the commercial outparcel, respectively. The use and intensity of the commercial outparcel is not yet known, so conservative assumptions were made to consider the potential trip generation impacts.

Internal capture calculations were determined based on procedures outlined in the ITE *Trip Generation Handbook, 3rd Edition*. Pass-by capture rates published in the ITE *Trip Generation Manual, 11th Edition* were utilized to account for project trips already on the existing roadway network that are expected to travel to and from the subject property upon project buildout. Pass-by capture is limited to 20% of the adjacent street traffic along US 90, according to data collected on Thursday, September 7, 2023. The collected traffic data are provided in **Appendix B**.

The proposed development is anticipated to generate approximately 2,246 net new external daily trips, 164 net new external AM peak hour trips (83 in/81 out), 146 net new external School PM peak hour trips (73 in/73 out), and 136 net new external PM peak hour trips (70 in/ 66 out). In addition, the proposed development is anticipated to capture 5,808 daily pass-by trips, 424 AM peak hour pass-by trips, 394 school PM peak hour pass-by trips, and 360 PM peak hour pass-by trips. **Table 2** summarizes the trip generation potential of the proposed development.

Table 2: Trip Generation Summary

ITE Land Use Code	Land Use	Size	Units	Daily Trips ¹	AM Peak Hour ¹			School PM Peak Hour ¹			PM Peak Hour ¹		
					Total	In	Out	Total	In	Out	Total	In	Out
Gross Trip Generation													
934	Quick Serve Restaurant	3,000 KSF		1,402	134	68	66	80	40	40	99	51	48
945	Convenience Store/Gas Station	5,915 KSF		7,592	540	270	270	516	258	258	467	234	233
Total				8,994	674	338	336	596	298	298	566	285	281
		Daily	AM	School PM	PM								
	Retail	6.2%	8.0%	5.4%	7.5%	470	43	9	34	28	16	12	35
	Restaurant	33.5%	32.1%	35.0%	35.4%	470	43	34	9	28	12	16	35
Internal Capture ²				940	86	43	43	56	28	28	70	35	35
Driveway Volumes													
	Quick Serve Restaurant			932	91	34	57	52	28	24	64	36	28
	Convenience Store/Gas Station			7,122	497	261	236	488	242	246	432	214	218
Total				8,054	588	295	293	540	270	270	496	250	246
Pass-by Trips													
		Daily ³	AM ³	School PM ⁶	PM								
	Quick Serve Restaurant	50%	50%	55%	55%	466	46	23	23	28	14	14	36
	Convenience Store/Gas Station	75%	76%	75%	75%	5,342	378	189	189	366	183	183	324
20% of Adjacent Street Traffic ⁴				6,300	456	228	228	590	295	295	592	296	296
Total Pass-by Trips				5,808	424	212	212	394	197	197	360	180	180
Net New External Trips													
	Quick Serve Restaurant			466	25	10	15	24	14	10	28	18	10
	Convenience Store/Gas Station			1,780	139	73	66	122	59	63	108	52	56
Total				2,246	164	83	81	146	73	73	136	70	66

1. Source: ITE Trip Generation Manual, 11th Edition and ITE Trip Generation Handbook, 3rd Edition.

2. Internal capture calculated based on methodologies outline in the ITE Trip Generation

3. Where unavailable, daily, AM peak hour, and school PM peak hour pass-by rates are assumed to be consistent with the minimum of AM peak hour or PM peak hour pass-by rates.

4. Pass-by traffic is limited to 20% of adjacent street traffic on US 90.

ITE Land Use Code 934 - Fast-Food Restaurant with Drive-Through Window

Daily: T = 467.48*(X); X is 1,000 sq. ft. GFA

AM Peak Hour of Adj. Street: T = 44.61*(X) (51% entering, 49% exiting); X is 1,000 sq. ft. GFA

Weekday AM Peak Pass-by: P = 50%

% of 24 Hour Vehicle Trips (3PM - 4PM) P = 5.7%

PM Peak Hour of Adj. Street: T = 33.03*(X) (52% entering, 48% exiting); X is 1,000 sq. ft. GFA

Weekday PM Peak Pass-by: P = 55%

ITE Land Use Code 945 - Convenience Store/Gas Station (VFP [16-24])

Daily: T = 1283.38*(X); X is 1,000 sq. ft. GFA

AM Peak Hour of Adj. Street: T = 91.35*(X) (50% entering, 50% exiting); X is 1,000 sq. ft. GFA

Weekday AM Peak Pass-by: P = 76%

% of 24 Hour Vehicle Trips (3PM - 4PM) P = 6.8%

PM Peak Hour of Adj. Street: T = 78.95*(X) (50% entering, 50% exiting); X is 1,000 sq. ft. GFA

Weekday PM Peak Pass-by: P = 75%

3.3 TRIP DISTRIBUTION

The project's trip distribution was developed based on observed traffic patterns within the study area roadway network and engineering judgment. Percent distribution varies slightly from the estimated distribution that was included in the approved TIA methodology to more accurately reflect existing travel patterns. **Figure 3** displays the anticipated trip distribution for the proposed convenience store/gas station at buildout.

3.4 TRIP ASSIGNMENT

Site distribution percentages were used to assign anticipated project trips to the study area intersections and driveways. **Figure 4** shows the anticipated AM, School PM, and PM peak hour project movements at the study area intersections and project driveways.

LEGEND

- % Trips In <%Pass-By In: AM, MD, PM>
- % Trips Out <%Pass-By Out: AM, MD, PM>
- # Study Intersection
- # Project Driveway

NW RIDGEWOOD AVE

90

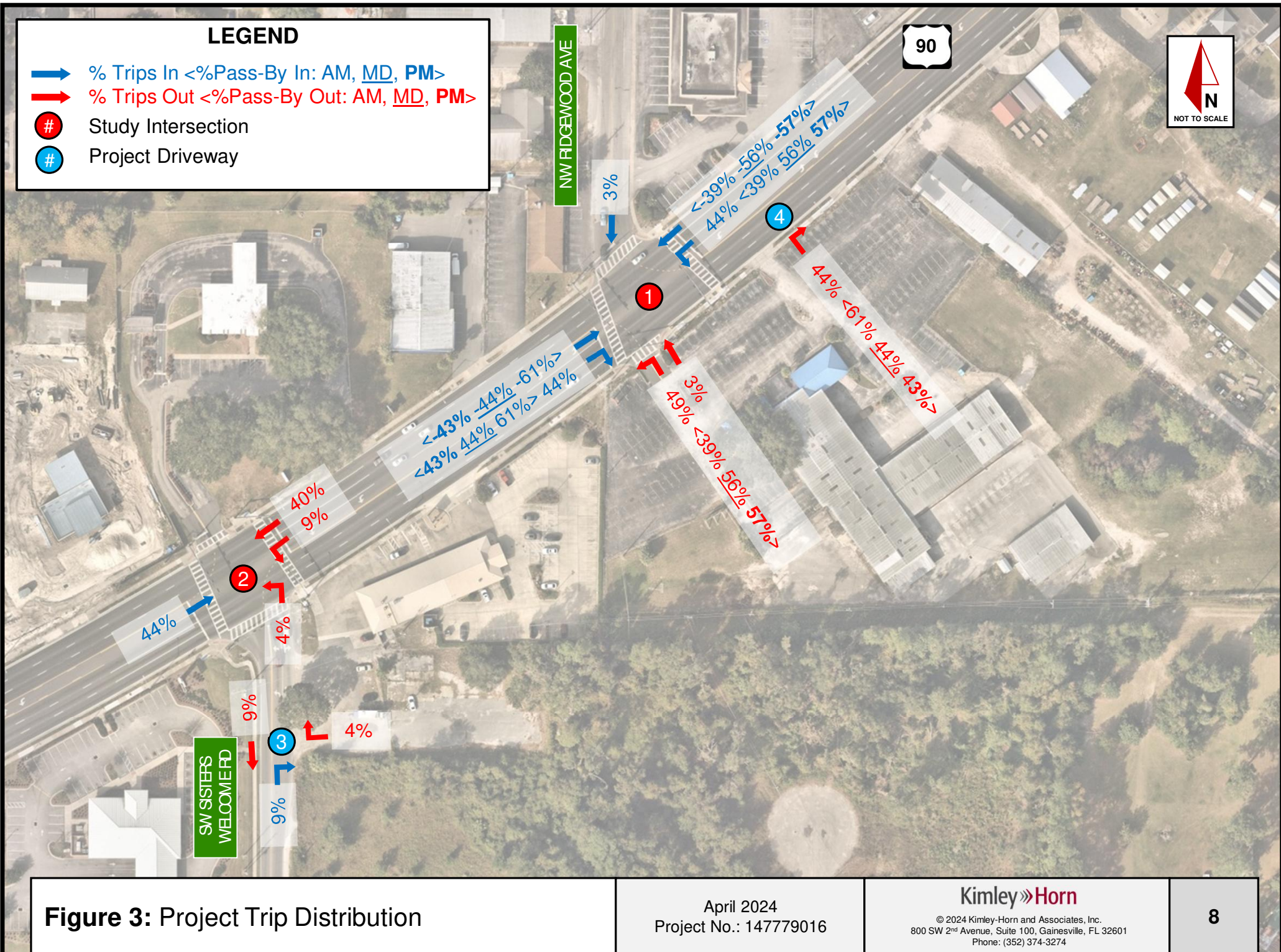


Figure 3: Project Trip Distribution

April 2024
Project No.: 147779016

Kimley»Horn

© 2024 Kimley-Horn and Associates, Inc.
800 SW 2nd Avenue, Suite 100, Gainesville, FL 32601
Phone: (352) 374-3274

LEGEND

- ➔ Project Trips In: Net New + **Pass-By**: AM (MD) [PM]
- ➔ Project Trips Out: Net New + **Pass-By**: AM (MD) [PM]
- # Study Intersection
- # Project Driveway

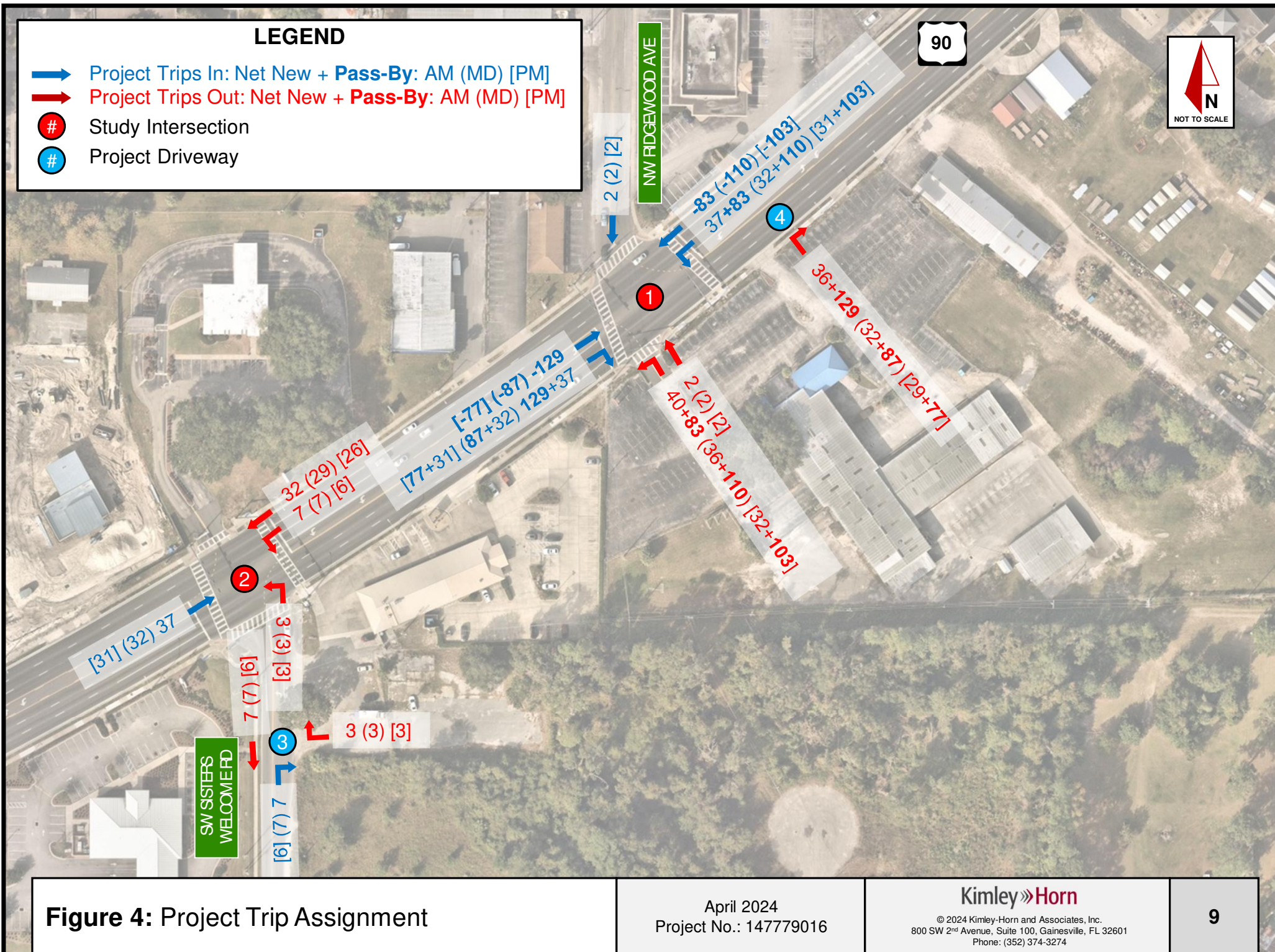


Figure 4: Project Trip Assignment

April 2024
Project No.: 147779016

Kimley»Horn
© 2024 Kimley-Horn and Associates, Inc.
800 SW 2nd Avenue, Suite 100, Gainesville, FL 32601
Phone: (352) 374-3274

4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025

4.1 HISTORICAL TRAFFIC GROWTH

Historical traffic growth rates were calculated based on historical Annual Average Daily Traffic (AADT) volumes available at FDOT count station 290102, near the subject property. The historical AADT for years 2020 and 2021 were not included in the calculation of growth rates because 2020 and 2021 traffic volumes are considered outliers due to the COVID-19 pandemic. The historical traffic growth rate indicated an areawide annual growth rate of less than one percent. An areawide growth rate of one percent (1.00%) is proposed to forecast future background traffic volumes, consistent with the approved methodology. The FDOT growth trend worksheet can be found in **Appendix E**.

4.2 BACKGROUND TRAFFIC

Traffic conditions were evaluated for the year 2025 background conditions prior to the addition of project traffic. Background volumes at study area intersections were derived by applying 1.00% annual growth to existing (2023) traffic counts, consistent with the approved methodology. **Figure 5** illustrates the AM peak hour, School PM peak hour, and PM peak hour turning movement volumes for background conditions at the study intersections. The intersection volume development worksheet can be found in **Appendix C**.

4.3 BACKGROUND INTERSECTION ANALYSIS

Intersection operational analyses were performed for 2025 background conditions in the AM, school PM, and PM peak hours using procedures outlined in the *Highway Capacity Manual 6* with *Synchro* (v11) software. **Table 3** summarizes the operational analyses for the 2025 background AM, School PM, and PM peak hour conditions at the study intersections. Synchro outputs are provided in **Appendix D**.

Table 3: Background Intersection Conditions

		AM Peak Hour				School PM Peak Hour				PM Peak Hour			
		LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)	LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)	LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)
US 90 & NW Ridgewood Ave	Overall Intersection	A	3.1	-	-	A	2.3	-	-	A	2.8	-	-
	Eastbound	A	3.8	-	-	A	2.0	-	-	A	3.3	-	-
	EBL	A	2.5	0.14	25	A	2.3	0.20	25	A	2.6	0.20	25
	EBT/R	A	3.9	0.40	150	A	2.1	0.30	75	A	3.5	0.30	125
	Westbound	A	0.4	-	-	A	0.6	-	-	A	0.6	-	-
	WBL	A	3.4	0.01	0	A	0.0	0.00	0	A	3.1	0.01	0
	WBT/R	A	0.5	0.27	25	A	0.9	0.42	25	A	0.8	0.41	25
	Northbound	E	60.7	-	-	F	69.6	-	-	E	69.4	-	-
	NBLT/R	E	60.7	0.04	25	F	69.6	0.07	25	E	69.4	0.03	25
US 90 & SW Sisters Welcome Rd	Southbound	E	63.0	-	-	F	73.8	-	-	E	74.3	-	-
	SBLT/R	E	63.0	0.28	50	F	73.8	0.42	75	E	74.3	0.45	100
	Overall Intersection	B	16.9	-	-	B	15.2	-	-	B	16.1	-	-
	Eastbound	B	14.6	-	-	B	14.9	-	-	B	12.0	-	-
	EBL	A	9.1	0.02	25	A	10.0	0.04	25	A	8.9	0.06	25
	EBT/R	B	15.1	0.47	325	B	15.3	0.42	325	B	12.3	0.37	275
	Westbound	A	4.6	-	-	A	4.8	-	-	B	10.5	-	-
	WBL	B	12.0	0.51	75	B	11.7	0.51	100	A	9.3	0.44	75
	WBT/R	A	3.4	0.28	75	A	4.4	0.46	125	B	10.7	0.44	300
	Northbound	E	74.6	-	-	F	81.5	-	-	E	77.8	-	-
	NBL	E	64.2	0.68	200	F	89.7	0.86	325	F	81.3	0.79	225
	NBT/R	F	84.0	0.84	250	E	65.6	0.50	150	E	72.4	0.57	150
	Southbound	E	70.3	-	-	F	81.6	-	-	F	88.4	-	-
	SBLT/R	E	70.3	0.42	50	F	81.6	0.53	75	F	88.4	0.71	100

The intersection of US 90 and NW Ridgewood Avenue is expected to operate with LOS A during background (2025) AM peak hour, School PM peak hour, and PM peak hour conditions. All movements are expected to operate with v/c ratios less than 1.00 under background (2025) AM, School PM, and PM peak hour conditions.

The intersection of US 90 and SW Sisters Welcome Road is expected to operate with LOS B during background (2025) AM peak hour, School PM peak hour, and PM peak hour conditions. All movements are expected to operate with v/c ratios less than 1.00 under background (2025) AM, School PM, and PM peak hour conditions.

Consistent with the existing (2023) conditions analyses, the northbound and southbound approaches at the study intersections are expected to operate with LOS E or LOS F due to the prioritization of green time to the mainline US 90 movements at the study intersections.

LEGEND

- Background Volumes: AM (MD) [PM]
- # Study Intersection

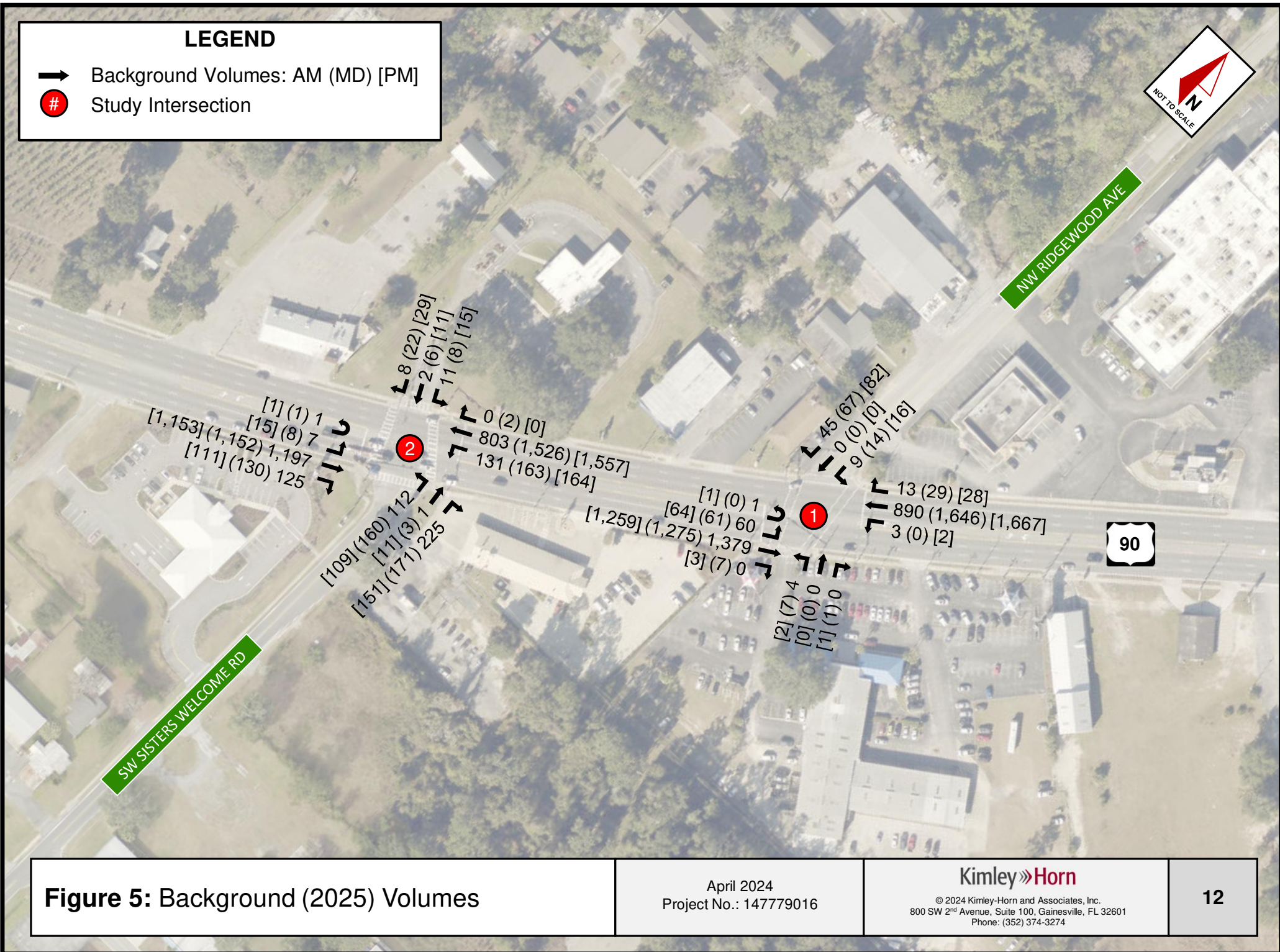


Figure 5: Background (2025) Volumes

April 2024
Project No.: 147779016

Kimley»Horn

© 2024 Kimley-Horn and Associates, Inc.
800 SW 2nd Avenue, Suite 100, Gainesville, FL 32601
Phone: (352) 374-3274

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025

5.1 BUILDOUT TRAFFIC

Future traffic conditions for the proposed development were evaluated for the year 2025 conditions with the inclusion of project traffic. Buildout volumes were developed by adding anticipated project trips to background (2025) volumes. **Figure 6** illustrates the forecasted turning movement volumes under buildout AM, School PM, and PM peak hour conditions at the study intersection and the proposed driveway. The intersection volume development worksheets can be found in **Appendix C**.

5.2 BUILDOUT INTERSECTION ANALYSIS

Intersection operational analyses were performed for 2025 buildout conditions in the AM, School PM, and PM peak hour conditions using procedures outlined in the *Highway Capacity Manual 6* with *Synchro* (v11) software. **Table 4** summarizes the operational analyses for the 2025 buildout AM, School PM, and PM peak hour conditions at the study intersection.

To accommodate anticipated project traffic, the recommended geometry for the northbound approach at the intersection of US 90 and NW Ridgewood Avenue consists of an exclusive left-turn lane and a shared left/through/right lane. Exiting eastbound project traffic on US 90 will utilize the right-out only driveway on US 90. The minor street phasing was updated to reflect split phasing to accommodate the shared northbound left turn lane. The adjustments reappropriated six (6) seconds of green time from the main line to the minor street under AM peak hour, School PM peak hour, and PM peak hour conditions. As shown in **Table 4**, the signal timing modifications are not expected to have significant detrimental impact on the mainline US 90 operations. Synchro outputs are provided in **Appendix D**.

Table 4: Buildout Intersection Conditions

		AM Peak Hour				School PM Peak Hour				PM Peak Hour			
		LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)	LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)	LOS	Delay (s/veh)	v/c Ratio	95th %ile Queue (ft)
US 90 & NW Ridgewood Ave	Overall Intersection	B	11.6	-	-	B	10.1	-	-	A	9.5	-	-
	Eastbound	B	11.2	-	-	B	10.0	-	-	A	9.4	-	-
	EBL	A	6.1	0.15	25	A	6.3	0.21	25	A	6.0	0.21	25
	EBT/R	B	11.8	0.49	300	B	10.4	0.39	250	B	9.8	0.36	250
	Westbound	A	3.8	-	-	A	3.0	-	-	A	2.7	-	-
	WBL	B	10.6	0.52	75	B	8.1	0.43	75	A	7.3	0.37	50
	WBT/R	A	2.9	0.28	50	A	2.8	0.45	75	A	2.6	0.43	75
	Northbound	E	65.1	-	-	E	75.0	-	-	E	75.3	-	-
	NBL	E	65.1	0.72	125	E	75.0	0.75	150	E	75.3	0.73	125
	NBL/T/R	A	0.0	0.00	0	A	0.0	0.00	0	A	0.0	0.00	0
US 90 & SW Sisters Welcome Rd	Southbound	E	68.9	-	-	F	82.6	-	-	F	82.6	-	-
	SBL/T/R	E	68.9	0.51	50	F	82.6	0.67	100	F	82.6	0.67	100
	Overall Intersection	B	17.0	-	-	B	15.5	-	-	B	12.3	-	-
	Eastbound	B	14.9	-	-	B	15.3	-	-	B	12.3	-	-
	EBL	A	9.2	0.02	25	B	10.2	0.04	25	A	8.1	0.06	25
	EBT/R	B	15.5	0.49	350	B	15.8	0.43	325	B	12.7	0.38	275
	Westbound	A	4.7	-	-	A	5.0	-	-	A	3.3	-	-
	WBL	B	12.7	0.54	75	B	12.3	0.54	100	A	9.5	0.47	75
	WBT/R	A	3.4	0.30	75	A	4.5	0.47	125	A	2.6	0.45	75
	Northbound	E	75.1	-	-	F	82.0	-	-	E	77.5	-	-
SW Sisters Welcome Rd & R/O Driveway	NBL	E	65.6	0.70	225	F	90.5	0.87	325	F	81.2	0.80	225
	NBT/R	F	84.0	0.84	250	E	65.1	0.49	150	E	71.8	0.56	150
US 90 & Right Out Only Driveway	Southbound	E	70.3	-	-	F	81.6	-	-	F	88.4	-	-
	SBL/T/R	E	70.3	0.42	50	F	81.6	0.53	75	F	88.4	0.71	100
	Westbound	B	10.5	-	-	B	10.3	-	-	A	9.7	-	-
US 90 & Right Out Only Driveway	WBR	B	10.5	0.01	0	B	10.3	0.01	0	A	9.7	0.00	0
	Northbound	D	34.7	-	-	C	19.9	-	-	C	18.3	-	-
	NBR	D	34.7	0.63	100	C	19.9	0.34	50	C	18.3	0.28	50

LEGEND

- ➔ Buildout Volumes: AM (MD) [PM]
- Ⓝ Study Intersection
- Ⓞ Project Driveway

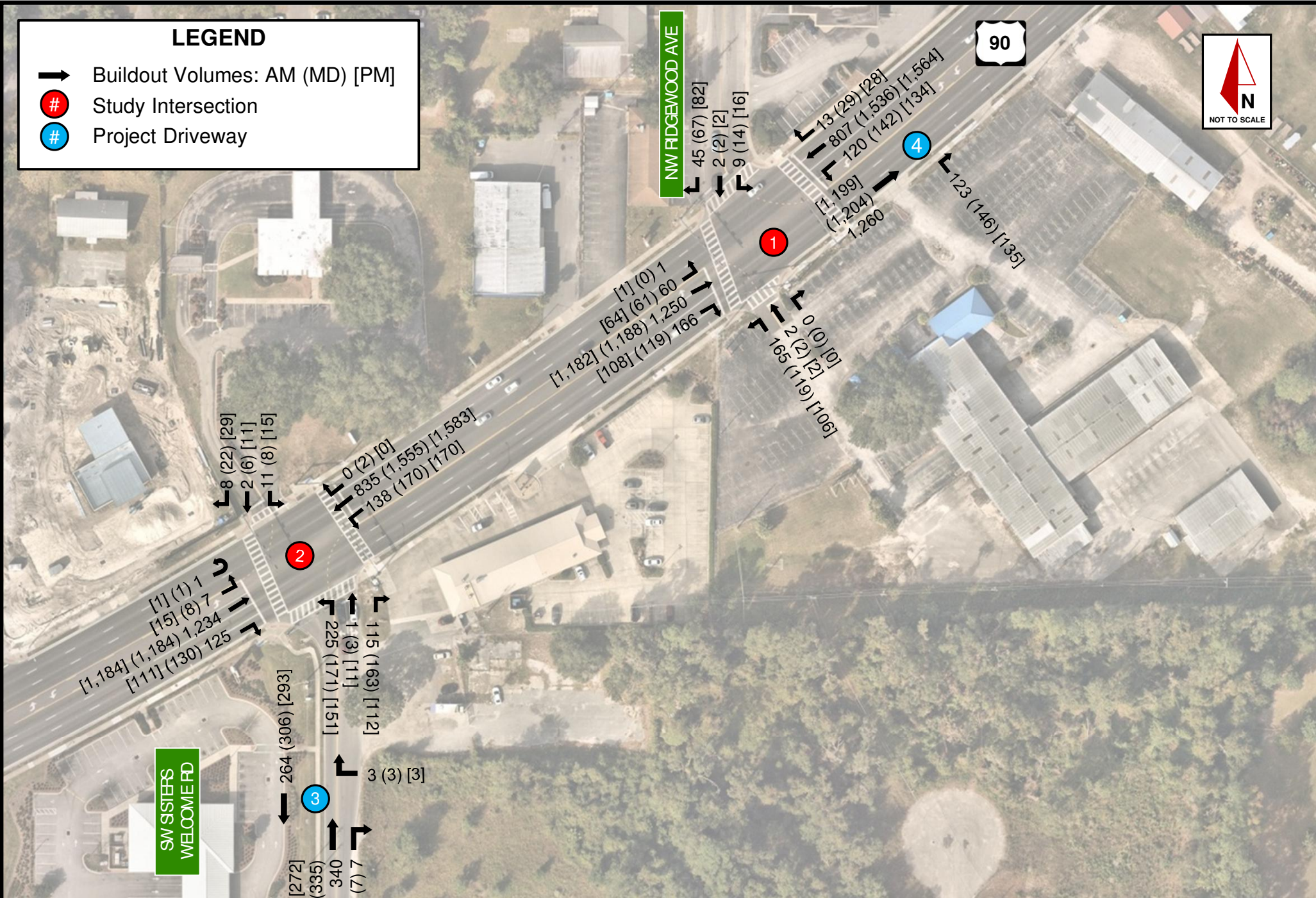


Figure 6: Buildout (2025) Volumes

April 2024
Project No.: 147779016

Kimley»Horn
© 2024 Kimley-Horn and Associates, Inc.
800 SW 2nd Avenue, Suite 100, Gainesville, FL 32601
Phone: (352) 374-3274

The intersection of US 90 and NW Ridgewood Avenue is expected to operate with LOS A or LOS B under buildout (2025) AM peak hour, School PM peak hour, and PM peak hour conditions. All movements are expected to operate with v/c ratios less than 1.00 under buildout (2025) AM peak hour, School PM peak hour, and PM peak hour conditions.

The intersection of US 90 and SW Sisters Welcome Road is expected to operate with LOS B under buildout (2025) AM peak hour, School PM peak hour, and PM peak hour conditions. All movements are expected to operate with v/c ratios less than 1.00 under buildout (2025) AM, School PM, and PM peak hour conditions.

Consistent with the background (2025) conditions analyses, the northbound and southbound approaches at both intersections are expected to operate with LOS E and LOS F due to the prioritization of green time to the mainline US 90 movements at the study intersections. No new deficiencies are identified with the addition of project traffic.

The stop-controlled westbound approach at the proposed RI/RO driveway on SW Sisters Welcome Road is expected to operate with LOS B during the AM peak hour, LOS B during the School PM peak hour, and LOS A during the PM peak hour. The northbound right-only exit along US 90 is anticipated to operate with LOS D during the AM peak hour and LOS C during the School PM peak hour and the PM peak hour.

The westbound left-turn lane at the intersection of US 90 and NW Ridgewood Avenue is expected to have a 95th percentile queue of approximately 3 vehicles (75 feet) under buildout conditions. The existing left-turn lane at this intersection has a length of 125 feet from the stop bar to the beginning of a two-way left turn. It is recommended that the paved median be repainted to be approximately 260 feet in length in order to accommodate 185 feet for deceleration from the posted 45 mph speed limit and 75 feet for queue storage.

5.3 SITE ACCESS ANALYSIS

The need for a dedicated right-turn lane on northbound SW Sisters Welcome Road at the subject development's proposed RI/RO driveway was evaluated utilizing the procedures outlined in the *National Highway Cooperative Research Program (NCHRP) Report 457*. Based on the anticipated buildout traffic at the proposed RI/RO driveway, a dedicated northbound right-turn lane is not warranted. NCHRP worksheets are provided in **Appendix F**.

5.4 ACCESS SPACING STANDARDS

US 90 is classified as an Access Class 6 roadway along the project frontage. For an Access Class 6 roadway with a posted speed limit of 45 mph or less, FDOT's minimum driveway spacing requirement is 245 feet measured from edge of the driveway to edge of the nearest driveway or intersection. However, at FDOT's request, a right-out driveway was added to the site plan to provide additional egress from the project site and reduce the egress volumes at the intersection of US 90 and NW Ridgewood Avenue.

6.0 CONCLUSION

This traffic impact analysis was performed to assess the transportation impacts associated with the development of a convenience store and gas station on the south side of the intersection of US Highway 90 (US 90) and NW Ridgewood Avenue in Lake City, Florida.

The expansion, proposed for buildout in the year 2025, will include a 5,915-square-foot convenience store/gas station with 16 vehicle fueling positions and a commercial outparcel. The site is currently occupied by a defunct automotive dealership that is proposed to be demolished. Access to the site is proposed via one (1) connection at the existing traffic signal at US 90 and NW Ridgewood Avenue, one right-out only connection to US 90, and one (1) right-in/right-out connection to SW Sisters Welcome Road. The right-out only connection along US 90 was added at the request of FDOT.

The proposed convenience store and gas station is anticipated to generate 164 net new AM peak hour trips (83 in, 81 out), 146 net new School PM peak hour trips (73 in, 73 out), and 136 net new PM peak hour trips (70 in, 66 out) at buildout. An additional 424 AM peak hour pass-by trips, 394 School PM peak hour pass-by trips, and 360 PM peak hour pass-by trips are expected to be captured from existing vehicles already utilizing US 90.

Operational analyses were performed utilizing *Synchro* software for the existing (2023), background (2025), and buildout (2025) conditions at the study intersections of US 90 with NW Ridgewood Avenue and US 90 with SW Sisters Welcome Road under AM, School PM, and PM peak hour conditions. Under buildout (2025) conditions, the northbound approach at the intersection of US 90 and NW Ridgewood Avenue is proposed to include an exclusive left turn lane and a shared left/through/right lane to accommodate project traffic exiting the project site. Signal timing modifications are recommended to allow split phasing on the northbound approach at US 90 and NW Ridgewood Avenue to accommodate buildout (2025) traffic volumes and to prevent conflicts from the minor street left turns. The overall intersection and the mainline US 90 approaches are expected to operate with LOS B or better with the proposed signal timing modifications.

Operational analysis results indicated that the two study intersections are expected to operate at LOS B or better through the buildout year with the addition of project traffic. All movements at both intersections are expected to continue to operate with v/c ratios less than 1.00 through project buildout, and no new operational deficiencies are expected at the study intersection under buildout (2025) conditions.

A site access analysis was performed at the proposed RI/RO connection on SW Sisters Welcome Road in accordance with procedures outlined in *NCHRP Report 457*. The site access analysis found that a dedicated ingress right-turn lane will not be warranted to accommodate project traffic.

APPENDIX A

Approved Methodology

Memorandum

To: Carlos Nieto, P.E.
Florida Department of Transportation, District Two
Traffic Operations

From: Vincent Spahr, P.E.
Kimley-Horn

Date: August 15, 2023

**Subject: Lake City Convenience Store Development
Traffic Analysis Methodology**

The purpose of this memorandum is to summarize the proposed traffic analysis methodology for a convenience store/gas station development in Lake City, Florida. The subject property (parcel IDs 31-3S-17-06185-000 and 31-3S-17-06233-000) is located on the south side of US 90, east of SW Sisters Welcome Road. The site is currently occupied by a defunct automotive dealership that is proposed to be demolished. The proposed redevelopment is anticipated to include a 5,915-square foot convenience store/gas station with 16 vehicle fueling positions and a commercial outparcel. The proposed buildout year is 2025.

Access to the site is proposed via one (1) full-access connection to US 90 at the existing traffic signal at the intersection of US 90 with NW Ridgewood Avenue and one (1) right-in/right-out connection to SW Sisters Welcome Road.

A conceptual site plan is provided as **Attachment A**. The project location is illustrated in **Figure 1**.

DATA COLLECTION

Turning movement counts will be collected during the AM peak period (7:00 AM to 9:00 AM) and an extended PM peak period (3:00 PM to 6:00 PM) on a typical weekday (Tuesday, Wednesday, or Thursday) once the Columbia County School District is in session at the following intersections:

- US 90 & SW Sisters Welcome Road (signalized)
- US 90 & NW Ridgewood Avenue (signalized)

The extended PM peak hour is to account for the dismissal period of Lake City Middle School located southeast of the project, which is known to impact traffic operations during the late afternoon period (3:00 PM to 4:00 PM).

Turning movement counts will be adjusted to peak season conditions using the appropriate Florida Department of Transportation (FDOT) peak season conversion factor. The counts will include pedestrian, bicyclist, and heavy vehicle counts.



Figure 1: Project Location and Study Area

TRIP GENERATION

The trip generation potential of the proposed development has been calculated using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. ITE Land Use Code (LUC) 945 (Convenience Store/Gas Station) and LUC 934 (Fast-Food Restaurant with Drive-Through Window) were referenced for the proposed development and the commercial outparcel, respectively. The use and intensity of the commercial outparcel is not yet known, so conservative assumptions were made to consider the potential trip generation impacts. Relevant excerpts from the ITE *Trip Generation Manual* are provided as **Attachment B**.

Internal capture calculations were determined based on procedures outlined in the ITE *Trip Generation Handbook*, 3rd Edition. Pass-by capture rates published in the ITE *Trip Generation Manual*, 11th Edition were utilized to account for trips already on the existing roadway network that are expected to travel to and from the subject property upon project buildout. Internal capture calculations are provided as **Attachment C**. Pass-by capture is limited to 20% of adjacent street traffic along US 90 according to the latest traffic data available from FDOT count station 290102; the synopsis report with 2022 traffic data is provided as **Attachment D**. AM peak hour, school PM peak hour, and PM peak hour background traffic will be updated once existing (2023) traffic data is collected at the study intersections.

The proposed development is anticipated to generate approximately 2,246 net new external daily trips, 244 net new external AM peak hour trips (123 in/121 out), 146 net new external school PM peak hour (73 in/73 out) and 136 net new external PM peak hour trips (70 in/66 out). In addition, the proposed development is anticipated to capture 5,808 daily pass-by trips, 344 AM peak hour pass-by trips, 394 school PM peak hour pass-by trips, and 360 PM peak hour pass-by trips. **Table 1** summarizes the trip generation potential of the proposed development.

Table 1: Trip Generation Summary

ITE Land Use Code	Land Use	Size	Units	Daily Trips ¹	AM Peak Hour ¹			School PM Peak Hour ¹			PM Peak Hour ¹				
					Total	In	Out	Total	In	Out	Total	In	Out		
Gross Trip Generation															
934	Quick Serve Restaurant	3,000 KSF		1,402	134	68	66	80	40	40	99	51	48		
945	Convenience Store/Gas Station	5,915 KSF		7,592	540	270	270	516	258	258	467	234	233		
Total				8,994	674	338	336	596	298	298	566	285	281		
		Daily	AM	School PM	PM										
	Retail	6.2%	8.0%	5.4%	7.5%	470	43	9	34	28	16	12	35	20	15
	Restaurant	33.5%	32.1%	35.0%	35.4%	470	43	34	9	28	12	16	35	15	20
Internal Capture ²				940	86	43	43	56	28	28	70	35	35		
Driveway Volumes															
	Quick Serve Restaurant			932	91	34	57	52	28	24	64	36	28		
	Convenience Store/Gas Station			7,122	497	261	236	488	242	246	432	214	218		
Total				8,054	588	295	293	540	270	270	496	250	246		
		Daily ³	AM ³	School PM ³	PM										
	Quick Serve Restaurant	50%	50%	55%	55%	466	46	23	23	28	14	14	36	18	18
	Convenience Store/Gas Station	75%	76%	75%	75%	5,342	378	189	189	366	183	183	324	162	162
20% of Adjacent Street Traffic ⁴				6,300	344	172	172	498	249	249	514	257	257		
Total Pass-by Trips				5,808	344	172	172	394	197	197	360	180	180		
Net New External Trips															
	Quick Serve Restaurant			466	38	14	34	24	14	10	28	18	10		
	Convenience Store/Gas Station			1,780	206	109	47	122	59	63	108	52	56		
Total				2,246	244	123	81	146	73	73	136	70	66		

1. Source: ITE Trip Generation Manual, 11th Edition and ITE Trip Generation Handbook, 3rd Edition.

2. Internal capture calculated based on methodologies outline in the ITE Trip Generation

3. Where unavailable, daily, AM peak hour, and school PM peak hour pass-by rates are assumed to be consistent with the minimum of AM peak hour or PM peak hour pass-by rates.

4. Pass-by traffic is limited to 20% of adjacent street traffic on US 90.

ITE Land Use Code 934 - Fast-Food Restaurant with Drive-Through Window

Daily: T = 467.48*(X); X is 1,000 sq. ft. GFA

AM Peak Hour of Adj. Street: T = 44.61*(X) (51% entering, 49% exiting); X is 1,000 sq. ft. GFA

Weekday AM Peak Pass-by: P = 50%

% of 24 Hour Vehicle Trips (3PM - 4PM) P = 5.7%

PM Peak Hour of Adj. Street: T = 33.03*(X) (52% entering, 48% exiting); X is 1,000 sq. ft. GFA

Weekday PM Peak Pass-by: P = 55%

ITE Land Use Code 945 - Convenience Store/Gas Station (VFP [16-24])

Daily: T = 1283.38*(X); X is 1,000 sq. ft. GFA

AM Peak Hour of Adj. Street: T = 91.35*(X) (50% entering, 50% exiting); X is 1,000 sq. ft. GFA

Weekday AM Peak Pass-by: P = 76%

% of 24 Hour Vehicle Trips (3PM - 4PM) P = 6.8%

PM Peak Hour of Adj. Street: T = 78.95*(X) (50% entering, 50% exiting); X is 1,000 sq. ft. GFA

Weekday PM Peak Pass-by: P = 75%

TRIP DISTRIBUTION

The distribution of project trips to and from the proposed development will be estimated based on existing travel patterns observed in the traffic data collected within the study area. **Figure 2** illustrates an approximation of the trip distribution based on available FDOT data, but the distribution will be refined after existing (2023) traffic data is collected at the study intersections.



Figure 2: Approximate Trip Distribution

BACKGROUND TRAFFIC

Historical growth rates were calculated based on historical Annual Average Daily Traffic (AADT) volumes reported at FDOT traffic count station 290102, near the subject property. The historical AADT for years 2020 and 2021 were not included in the calculation of growth rates because 2020 and 2021 traffic volumes are considered aberrations due to the Covid pandemic. The historical traffic growth rate indicated an areawide annual growth rate of less than one percent. An areawide growth rate of one percent (1.00%) is proposed to forecast future background traffic volumes in the forthcoming traffic study. The FDOT trend growth worksheet is provided in **Attachment E**.

INTERSECTION OPERATIONAL ANALYSES

Intersection operational analyses will be conducted for the AM peak hour, school PM peak hour, and PM peak hour at the study intersections and the proposed driveway connections. Intersection analyses will be performed using *Synchro 11* traffic engineering analysis software which applies the methodologies from the Transportation Research Board's *Highway Capacity Manual*, 6th Edition. Operational analyses will be conducted at the study intersections for existing (2023), future background (without project), and future buildout (with project traffic) conditions. If significant improvements are required at the intersection of US 90 and NW Ridgewood Avenue to accommodate future buildout (with project traffic) conditions, an Intersection Control Evaluation (ICE) Study will be performed in coordination with FDOT.

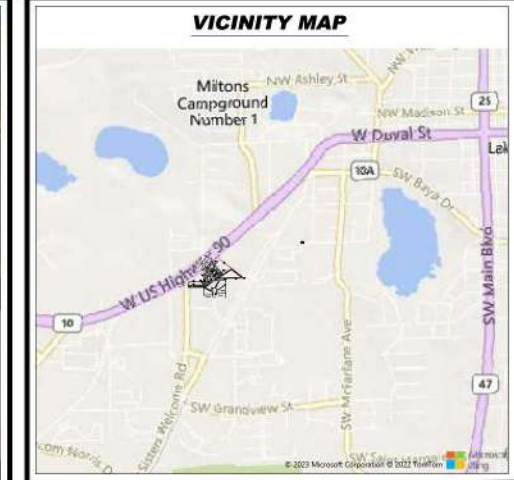
DOCUMENTATION

The results of the traffic analysis will be summarized in a technical letter. The letter will include supporting documents including data collection, volume development worksheets, and software output reports. The letter will include tables and graphics necessary to summarize the analysis and results, as well as any recommendations resulting from the analysis.

K:\GVL_TPTO\147779016 - Lake City C-Store Traffic Study\doc\1 - methodology\Traffic Methodology_Lake City C-Store.docx

Attachment A

Conceptual Site Plan



SITE DATA TABLE

JURISDICTION	CITY OF LAKE CITY
SITE AREA	3.31 AC (144,400 SF)
BUILDING AREA	5,915 SF
CURRENT ZONING	CI - COMMERCIAL INTENSIVE
OVERLAY DISTRICT	N/A
FUTURE LAND USE	COMMERCIAL
FRONT SETBACK (ROW)	20'
SIDE SETBACK	0'
REAR SETBACK	15'
FRONT/SIDE/REAR YARD BUFFER	10' / 0' / 10'
REQUIRED PARKING	20 SPACES (1 / 300 SF OFA)
PROVIDED 10'X20' PARKING	77 SPACES
PROVIDED 12'X20' ADA PARKING	3 SPACES
PARKING PROVIDED (TOTAL)	80 SPACES
BUILDING TYPE	USE-FB-L
CANOPY CONFIGURATION	STACKED
CANOPY TYPE	SLOPED
# OF MPD'S	8

NOTES:

1. THE CONCEPT REPRESENTED HEREIN IDENTIFIES A DESIGN CONCEPT RESULTING FROM LAYOUT PREFERENCES IDENTIFIED BY OWNER COUPLED WITH A PRELIMINARY REVIEW OF ZONING AND LAND DEVELOPMENT REQUIREMENTS AND ISSUES. THE FEASIBILITY WITH RESPECT TO OBTAINING LOCAL, COUNTY, STATE, AND OTHER APPLICABLE APPROVALS IS NOT WARRANTED AND CAN ONLY BE ASSESSED AFTER FURTHER EXAMINATION AND VERIFICATION OF SAME REQUIREMENTS AND PROCUREMENT OF JURISDICTIONAL APPROVALS.
2. THE CONCEPTUAL PLAN IS PREPARED FOR CONCEPTUAL PRESENTATION PURPOSES ONLY AND IS NOT INTENDED FOR UTILIZATION AS A ZONING AND/OR CONSTRUCTION DOCUMENT. THE EXISTING CONDITIONS SHOWN HEREON ARE BASED UPON INFORMATION THAT WAS SUPPLIED TO BOHLER ENGINEERING AT THE TIME OF PLAN PREPARATION AND MAY BE SUBJECT TO CHANGE UPON AVAILABILITY OF ADDITIONAL INFORMATION.

BOHLER

600 N WESTSHORE BLVD. STE. 950
TAMPA, FLORIDA 33609
Phone: (813) 812-4100
Fax: (813) 812-4101

FLORIDA BUSINESS CERT. OF AUTH. No. 30780

LAKE CITY GOVERNANCE PLAN

1518 W US HWY 90
LAKE CITY, FL 32055

CITY OF LAKE CITY

Appendix A: Approved Methodology
Page 7 of 48

8/1/2023 | SD | FLA230039-CPTD-5

Attachment B

ITE Trip Generation Manual Excerpts

Land Use: 934

Fast-Food Restaurant with Drive-Through Window

Description

This land use includes any fast-food restaurant with a drive-through window. This type of restaurant is characterized by a large drive-through and large carry-out clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. The restaurant does not provide table service. A patron generally orders from a menu board and pays before receiving the meal. A typical duration of stay for an eat-in patron is less than 30 minutes. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

If the restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alaska, Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

163, 164, 168, 180, 181, 241, 245, 278, 294, 300, 301, 319, 338, 340, 342, 358, 389, 438, 502, 552, 577, 583, 584, 617, 640, 641, 704, 715, 728, 810, 866, 867, 869, 885, 886, 927, 935, 962, 977, 1050, 1053, 1054

Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 71

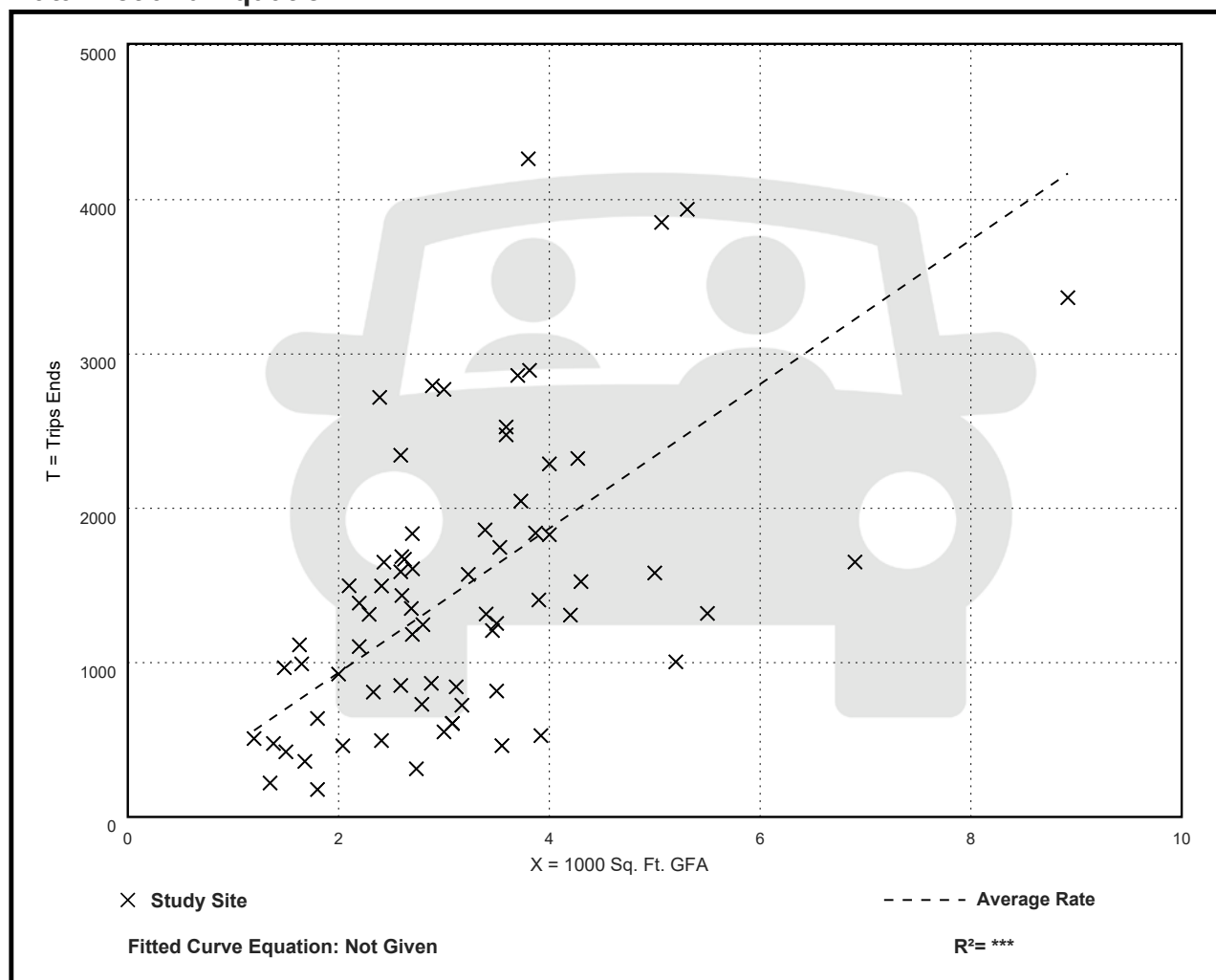
Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
467.48	98.89 - 1137.66	238.62

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 96

Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 190

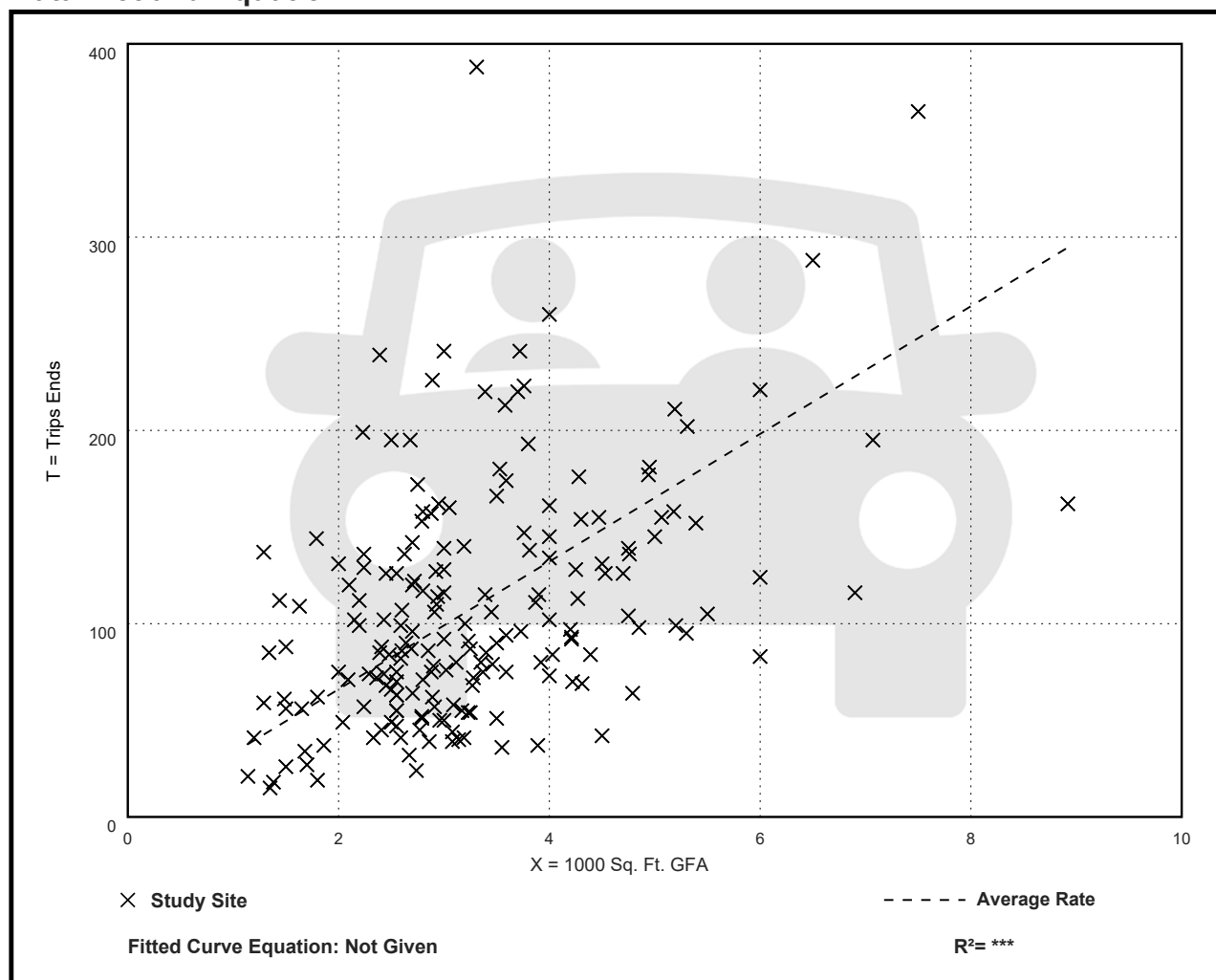
Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59

Data Plot and Equation



Land Use: 945

Convenience Store/Gas Station

Description

A convenience store/gas station is a facility with a co-located convenience store and gas station. The convenience store sells grocery and other everyday items that a person may need or want as a matter of convenience. The gas station sells automotive fuels such as gasoline and diesel.

A convenience store/gas station is typically located along a major thoroughfare to optimize motorist convenience. Extended hours of operation (with many open 24 hours, 7 days a week) are common at these facilities.

The convenience store product mix typically includes pre-packaged grocery items, beverages, dairy products, snack foods, confectionary, tobacco products, over-the-counter drugs, and toiletries. A convenience store may sell alcohol, often limited to beer and wine. Coffee and pre-made sandwiches are also commonly sold at a convenience store. Made-to-order food orders are sometimes offered. Some stores offer limited seating.

The sites in this land use include both self-pump and attendant-pumped fueling positions and both pre-pay and post-pay operations.

Convenience store (Land Use 851), gasoline/service station (Land Use 944), and truck stop (Land Use 950) are related uses.

Land Use Subcategory

Multiple subcategories were added to this land use to allow for multi-variable evaluation of sites with single-variable data plots. All study sites are assigned to one of three subcategories, based on the number of vehicle fueling positions (VFP) at the site: between 2 and 8 VFP, between 9 and 15 VFP, and between 16 and 24 VFP. For each VFP range subcategory, data plots are presented with GFA as the independent variable for all time periods and trip types for which data are available. The use of both GFA and VFP (as the independent variable and land use subcategory, respectively) provides a significant improvement in the reliability of a trip generation estimate when compared to the single-variable data plots in prior editions of *Trip Generation Manual*.

Further, the study sites were also assigned to one of three other subcategories, based on the gross floor area (GFA) of the convenience store at the site: between 2,000 and 4,000 square feet, between 4,000 and 5,500 square feet, and between 5,500 and 10,000 square feet. For each GFA subcategory range, data plots are presented with VFP as the independent variable for all time periods and trip types for which data are available. The use of both VFP and GFA (as the independent variable and land use subcategory, respectively) provides a significant improvement in the reliability of a trip generation estimate when compared to the single-variable data plots in prior editions of *Trip Generation Manual*.

When analyzing the convenience store/gas station land use with each combination of GFA and VFP values as described above, the two sets of data plots will produce two estimates of site-generated trips. Both values can be considered when determining a site trip generation estimate.

Data plots are also provided for three additional independent variables: AM peak hour traffic on adjacent street, PM peak hour traffic on adjacent street, and employees. These independent variables are intended to be analyzed as single independent variables and do not have sub-categories associated with them. Within the data plots and within the ITETripGen web app, these plots are found under the land use subcategory “none.”

Additional Data

ITE recognizes there are existing convenience store/gas station sites throughout North America that are larger than the sites presented in the data plots. However, the ITE database does not include any site with more than 24 VFP or any site with gross floor area greater than 10,000 square feet. Submission of trip generation data for larger sites is encouraged.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), Arkansas, California, Connecticut, Delaware, Florida, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Vermont, Washington, and Wisconsin.

Source Numbers

221, 245, 274, 288, 300, 340, 350, 351, 352, 355, 359, 385, 440, 617, 718, 810, 813, 844, 850, 853, 864, 865, 867, 869, 882, 883, 888, 904, 926, 927, 936, 938, 954, 960, 962, 977, 1004, 1024, 1025, 1027, 1052

Convenience Store/Gas Station - VFP (16-24) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 8

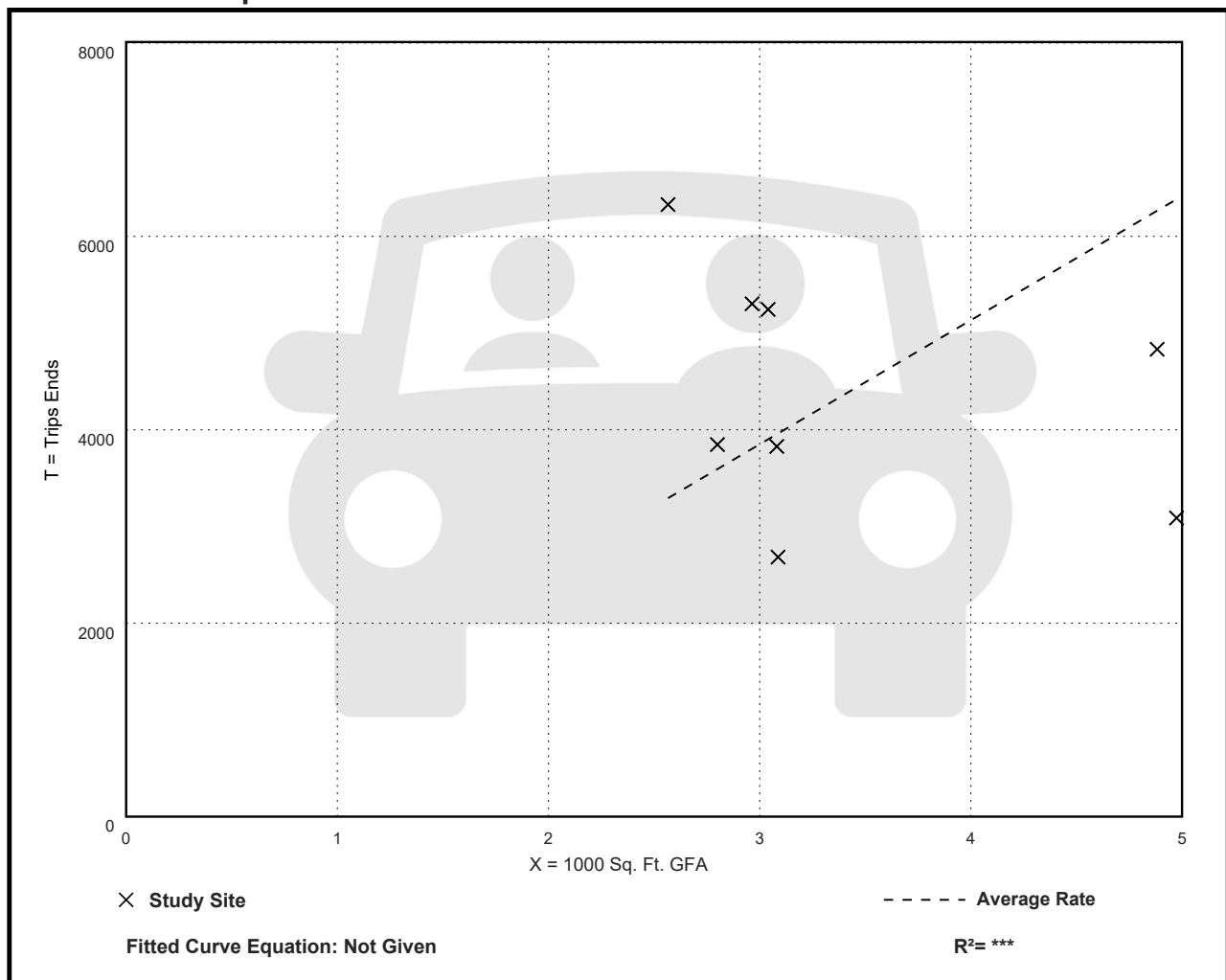
Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1283.38	620.83 - 2466.48	581.47

Data Plot and Equation



Convenience Store/Gas Station - VFP (16-24) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 32

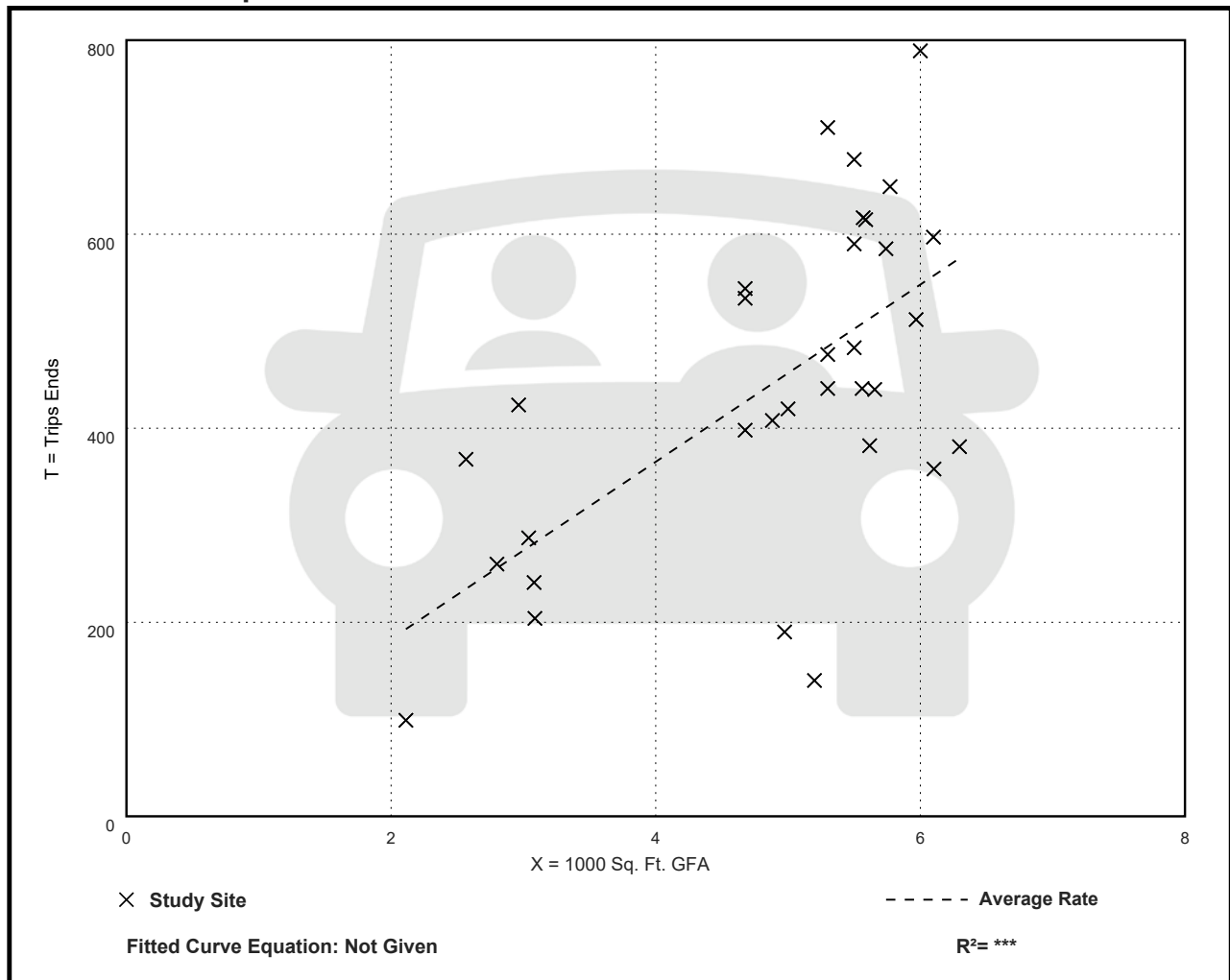
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
91.35	26.92 - 143.41	27.59

Data Plot and Equation



Convenience Store/Gas Station - VFP (16-24) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 39

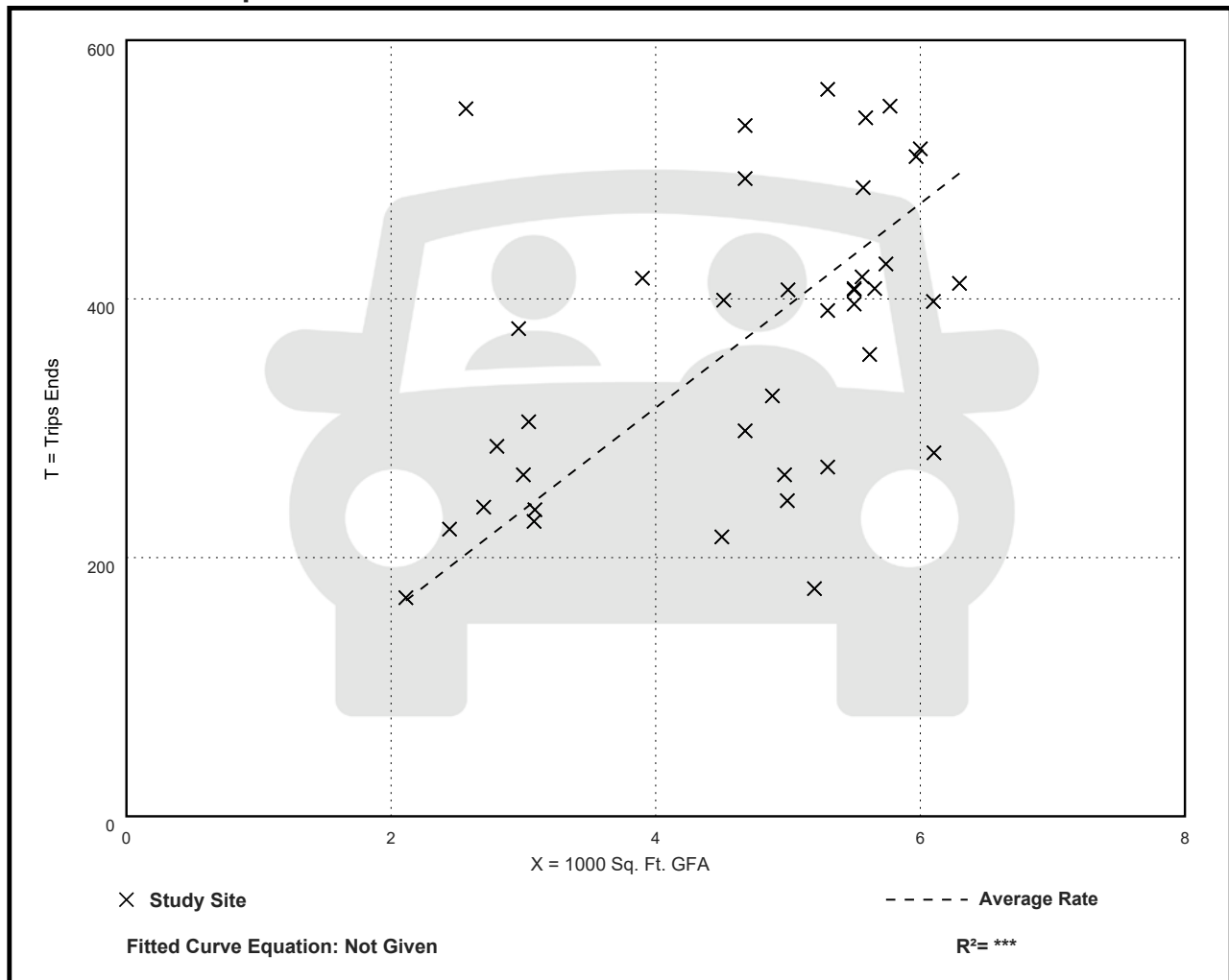
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
78.95	33.85 - 213.17	25.75

Data Plot and Equation



Vehicle Pass-By Rates by Land Use									
Source: ITE Trip Generation Manual , 11th Edition									
Land Use Code	934								
Land Use	Fast-Food Restaurant with Drive-Through Window								
Setting	General Urban/ Suburban								
Time Period	Weekday AM Peak Period								
# Data Sites	5								
Average Pass-By Rate	50%								
	Pass-By Characteristics for Individual Sites								
	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
GFA (000)					Primary (%)	Diverted (%)	Total (%)		
1.4	Kentucky	1993	—	62	22	16	38	1407	2
3	Kentucky	1993	—	43	14	43	57	2903	2
3.3	--	1996	—	68	—	—	32	—	21
3.6	Kentucky	1993	—	32	47	21	68	437	2
4.2	Indiana	1993	—	46	23	31	54	1049	2

Vehicle Pass-By Rates by Land Use									
Source: ITE Trip Generation Manual , 11th Edition									
Land Use Code	934								
Land Use	Fast-Food Restaurant with Drive-Through Window								
Setting	General Urban/ Suburban								
Time Period	Weekday PM Peak Period								
# Data Sites	11								
Average Pass-By Rate	55%								
	Pass-By Characteristics for Individual Sites								
GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
1.3	Kentucky	1993	—	68	22	10	32	2055	2
1.9	Kentucky	1993	33	67	24	9	33	2447	2
2.8	Florida	1995	47	66	—	—	34	—	30
2.9	Florida	1996	271	41	41	18	59	—	30
3	Kentucky	1993	—	31	31	38	69	4250	2
3.1	Florida	1995	28	71	—	—	29	—	30
3.1	Florida	1996	29	38	—	—	62	—	30
3.2	Florida	1996	202	40	39	21	60	—	30
3.3	—	1996	—	62	—	—	38	—	21
4.2	Indiana	1993	—	56	25	19	44	1632	2
4.3	Florida	1994	304	62	—	—	38	—	30

Vehicle Pass-By Rates by Land Use										
Source: ITE Trip Generation Manual , 11th Edition										
Land Use Code	945									
Land Use	Convenience Store/ Gas Station									
Setting	General Urban/ Suburban									
Time Period	Weekday AM Peak Period									
# Data Sites	16 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	60%for Sites with between 2 and 8 VFP					76%for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
		State or Province	Survey Year		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP		Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2	8	Maryland	1992	46	87	13	0	13	2235	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.2	8	Maryland	1992	31	47	34	19	53	1785	25
2.2	< 8	Indiana	1993	79	56	6	38	44	635	2
2.2	8	Maryland	1992	35	78	9	13	22	7080	25
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.3	< 8	Kentucky	1993	58	64	5	31	36	1255	2
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.4	< 8	Kentucky	1993	—	48	17	35	52	1210	2
2.6	< 8	Kentucky	1993	—	72	15	13	28	940	2
2.8	< 8	Kentucky	1993	—	54	11	35	46	1240	2
3	< 8	Indiana	1993	62	74	10	16	26	790	2
3.6	< 8	Kentucky	1993	49	67	4	29	33	1985	2
3.7	< 8	Kentucky	1993	49	66	16	18	34	990	2
4.694	12	Maryland	2000	—	72	—	—	28	2440	30
4.694	12	Maryland	2000	—	78	—	—	22	1561	30
4.694	12	Maryland	2000	—	79	—	—	21	2764	30
4.848	12	Virginia	2000	—	55	—	—	45	1398	30
5.06	12	Pennsylvania	2000	—	84	—	—	16	3219	30
5.242	12	Virginia	2000	—	74	—	—	26	1160	30
5.242	12	Virginia	2000	—	71	—	—	29	548	30
5.488	12	Delaware	2000	—	80	—	—	20	—	30

5.5	12	Pennsylvania	2000	—	85	—	—	15	2975	30
4.2	< 8	Kentucky	1993	47	62	19	19	38	1705	2
4.694	16	Maryland	2000	—	90	—	—	10	2278	30
4.694	16	Delaware	2000	—	74	—	—	26	2185	30
4.694	16	Delaware	2000	—	58	—	—	42	962	30
4.694	16	Delaware	2000	—	84	—	—	16	2956	30
4.694	16	New Jersey	2000	—	79	—	—	21	1859	30
4.694	20	Delaware	2000	—	84	—	—	16	3864	30
4.848	16	Virginia	2000	—	68	—	—	32	2106	30
4.848	16	Virginia	2000	—	85	—	—	15	2676	30
4.848	16	Virginia	2000	—	75	—	—	25	3244	30
4.848	16	Virginia	2000	—	71	—	—	29	1663	30
4.993	16	Pennsylvania	2000	—	75	—	—	25	1991	30
5.094	16	New Jersey	2000	—	86	—	—	14	1260	30
5.5	16	Pennsylvania	2000	—	82	—	—	18	1570	30
5.543	16	Pennsylvania	2000	—	84	—	—	16	1933	30
5.565	16	Pennsylvania	2000	—	77	—	—	23	2262	30
5.565	16	Pennsylvania	2000	—	68	—	—	32	2854	30
5.565	16	New Jersey	2000	—	58	—	—	42	1253	30
5.565	16	New Jersey	2000	—	79	—	—	21	1928	30
5.565	16	New Jersey	2000	---	84	---	---	16	1953	30

Vehicle Pass-By Rates by Land Use										
Source: ITE Trip Generation Manual , 11th Edition										
Land Use Code	945									
Land Use	Convenience Store/ Gas Station									
Setting	General Urban/ Suburban									
Time Period	Weekday PM Peak Period									
# Data Sites	12 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	56%for Sites with between 2 and 8 VFP					75%for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
		State or Province	Survey Year		Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP			# Interviews		Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2.1	8	Maryland	1992	31	52	13	35	48	1785	25
2.1	6	Maryland	1992	30	53	20	27	47	1060	25
2.2	< 8	Indiana	1993	115	48	16	36	52	820	2
2.3	< 8	Kentucky	1993	67	57	16	27	43	1954	2
2.3	6	Maryland	1992	55	40	11	49	60	2760	25
2.4	< 8	Kentucky	1993	—	58	13	29	42	2655	2
2.6	< 8	Kentucky	1993	68	67	15	18	33	950	2
2.8	< 8	Kentucky	1993	—	62	11	27	38	2875	2
3	< 8	Indiana	1993	80	65	15	20	35	1165	2
3.6	< 8	Kentucky	1993	60	56	17	27	44	2505	2
3.7	< 8	Kentucky	1993	70	61	16	23	39	2175	2
4.2	< 8	Kentucky	1993	61	58	26	16	42	2300	2
4.694	12	Maryland	2000	—	78	—	—	22	3549	30
4.694	12	Maryland	2000	—	67	—	—	33	2272	30
4.694	12	Maryland	2000	—	66	—	—	34	3514	30
4.848	12	Virginia	2000	—	71	—	—	29	2350	30
5.06	12	Pennsylvania	2000	—	91	—	—	9	4181	30
5.242	12	Virginia	2000	—	70	—	—	30	2445	30
5.242	12	Virginia	2000	—	56	—	—	44	950	30
5.488	12	Delaware	2000	—	73	—	—	27	—	30
5.5	12	Pennsylvania	2000	—	84	—	—	16	4025	30
4.694	16	Maryland	2000	—	89	—	—	11	2755	30
4.694	16	Delaware	2000	—	73	—	—	27	1858	30

4.694	16	Delaware	2000	—	59	—	—	41	1344	30
4.694	16	Delaware	2000	—	72	—	—	28	3434	30
4.694	16	New Jersey	2000	—	81	—	—	19	1734	30
4.694	20	Delaware	2000	—	76	—	—	24	1616	30
4.848	16	Virginia	2000	—	67	—	—	33	2.954	30
4.848	16	Virginia	2000	—	78	—	—	22	3086	30
4.848	16	Virginia	2000	—	83	—	—	17	4143	30
4.848	16	Virginia	2000	—	73	—	—	27	2534	30
4.993	16	Pennsylvania	2000	—	72	—	—	28	2917	30
5.094	16	New Jersey	2000	—	86	—	—	14	1730	30
5.5	16	Pennsylvania	2000	—	90	—	—	10	2616	30
5.543	16	Pennsylvania	2000	—	87	—	—	13	2363	30
5.565	16	Pennsylvania	2000	—	81	—	—	19	2770	30
5.565	16	Pennsylvania	2000	—	76	—	—	24	3362	30
5.565	16	New Jersey	2000	—	61	—	—	39	1713	30
5.565	16	New Jersey	2000	—	86	—	—	14	1721	30
5.565	16	New Jersey	2000	---	81	---	---	19	2227	30

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use Source: ITE Trip Generation Manual , 11th Edition																				
Land Use Code	934				934				934				934				934			
Land Use	Fast-Food Restaurant with Drive-Through Window				Fast-Food Restaurant with Drive-Through Window				Fast-Food Restaurant with Drive-Through Window				Fast-Food Restaurant with Drive-Through Window				Fast-Food Restaurant with Drive-Through Window			
Setting	General Urban/Suburban				General Urban/Suburban				General Urban/Suburban				Dense Multi-Use Urban				Dense Multi-Use Urban			
Time Period	Weekday				Saturday				Sunday				Weekday				Saturday			
# Data Stes	53				6				4				1				1			
	% of 24-Hour Vehicle Trips				% of 24-Hour Vehicle Trips				% of 24-Hour Vehicle Trips				% of 24-Hour Vehicle Trips				% of 24-Hour Vehicle Trips			
Time	Total	Entering	Exiting		Total	Entering	Exiting		Total	Entering	Exiting		Total	Entering	Exiting		Total	Entering	Exiting	
12:00 - 1:00 AM	0.8%	0.8%	0.8%		0.4%	0.4%	0.4%		0.4%	0.4%	0.4%		0.1%	0.3%	0.4%		0.6%	0.2%	1.1%	
1:00 - 2:00 AM	0.4%	0.4%	0.5%		0.1%	0.0%	0.1%		0.1%	0.0%	0.1%		0.3%	0.2%	0.5%		0.1%	0.1%	0.1%	
2:00 - 3:00 AM	0.3%	0.3%	0.3%		0.1%	0.3%	0.2%		0.0%	0.1%	0.0%		0.0%	0.0%	0.0%		0.4%	0.2%	0.6%	
3:00 - 4:00 AM	0.3%	0.2%	0.3%		0.1%	0.1%	0.1%		0.0%	0.0%	0.0%		0.0%	0.0%	0.0%		0.1%	0.0%	0.1%	
4:00 - 5:00 AM	0.3%	0.3%	0.3%		0.1%	0.3%	0.1%		0.0%	0.0%	0.0%		0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	
5:00 - 6:00 AM	0.7%	0.8%	0.7%		0.1%	0.2%	0.1%		0.1%	0.1%	0.1%		0.0%	0.0%	0.0%		0.5%	0.5%	0.4%	
6:00 - 7:00 AM	2.1%	2.3%	1.9%		0.4%	0.5%	0.4%		0.5%	0.6%	0.4%		0.1%	0.2%	0.0%		0.1%	0.1%	0.1%	
7:00 - 8:00 AM	3.3%	3.4%	3.1%		1.0%	1.2%	0.8%		0.8%	0.9%	0.7%		0.2%	0.2%	0.1%		0.2%	0.3%	0.1%	
8:00 - 9:00 AM	3.5%	3.5%	3.4%		1.5%	1.5%	1.4%		0.8%	0.9%	0.7%		0.3%	0.3%	0.2%		0.4%	0.4%	0.3%	
9:00 - 10:00 AM	3.3%	3.4%	3.3%		2.1%	2.2%	2.0%		2.1%	2.5%	1.7%		0.3%	0.4%	0.2%		0.2%	0.3%	0.1%	
10:00 - 11:00 AM	3.8%	4.0%	3.7%		3.0%	3.2%	2.7%		2.4%	2.2%	2.7%		1.3%	1.6%	1.0%		1.7%	1.9%	1.5%	
11:00 - 12:00 PM	8.4%	9.1%	7.7%		6.6%	7.2%	6.0%		5.0%	5.7%	4.3%		8.3%	9.4%	7.2%		4.6%	5.4%	3.7%	
12:00 - 1:00 PM	11.9%	11.9%	12.0%		10.1%	10.4%	9.8%		8.9%	9.7%	8.1%		10.6%	10.4%	10.8%		7.6%	7.5%	7.8%	
1:00 - 2:00 PM	8.3%	7.9%	8.7%		8.7%	8.4%	9.0%		9.2%	8.7%	9.7%		7.0%	6.2%	7.8%		6.0%	6.0%	6.0%	
2:00 - 3:00 PM	6.2%	5.9%	6.5%		7.8%	7.7%	8.0%		7.6%	7.4%	7.9%		4.3%	4.1%	4.4%		7.9%	8.1%	7.6%	
3:00 - 4:00 PM	5.7%	5.7%	5.7%		7.3%	7.2%	7.3%		8.4%	8.5%	8.4%		5.7%	5.7%	5.2%		8.0%	7.5%	8.6%	
4:00 - 5:00 PM	5.7%	5.9%	5.6%		7.4%	7.7%	7.2%		8.3%	8.5%	8.1%		5.8%	5.7%	5.8%		4.7%	4.6%	4.8%	
5:00 - 6:00 PM	6.7%	6.9%	6.5%		8.4%	8.7%	8.1%		9.9%	10.7%	9.2%		7.2%	7.3%	7.0%		6.4%	7.1%	5.7%	
6:00 - 7:00 PM	7.4%	7.4%	7.4%		8.2%	8.1%	8.3%		10.9%	10.4%	11.4%		8.1%	8.3%	7.9%		9.4%	9.3%	9.4%	
7:00 - 8:00 PM	6.5%	6.3%	6.6%		8.0%	7.6%	8.4%		10.6%	10.5%	10.7%		8.2%	8.5%	7.8%		7.6%	7.5%	7.8%	
8:00 - 9:00 PM	5.7%	5.6%	5.8%		7.3%	7.5%	7.2%		7.6%	7.0%	8.3%		8.6%	8.1%	9.1%		9.7%	9.0%	10.5%	
9:00 - 10:00 PM	4.4%	4.1%	4.6%		6.4%	6.7%	7.0%		4.0%	3.7%	4.4%		8.9%	8.6%	9.2%		10.0%	11.6%	8.4%	
10:00 - 11:00 PM	2.7%	2.5%	2.9%		3.2%	2.6%	3.8%		1.4%	0.9%	1.8%		9.4%	9.6%	9.1%		8.7%	7.2%	10.1%	
11:00 - 12:00 AM	1.6%	1.4%	1.8%		1.4%	1.1%	1.6%		0.6%	0.5%	0.8%		5.3%	4.5%	6.1%		5.0%	4.9%	5.1%	

12:00 - 1:00 AM	0.8%	0.8%	0.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%	0.1%	0.4%	0.6%	0.2%	1.1%
12:15 - 1:15 AM	0.7%	0.6%	0.7%	0.3%	0.3%	0.4%	0.3%	0.4%	0.4%	0.2%	0.3%	0.3%	0.2%	0.1%	0.3%
12:30 - 1:30 AM	0.6%	0.5%	0.6%	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	0.3%	0.2%	0.5%	0.2%	0.1%	0.3%
12:45 - 1:45 AM	0.5%	0.4%	0.5%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.3%	0.2%	0.5%	0.1%	0.1%	0.3%
1:00 - 2:00 AM	0.4%	0.4%	0.5%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.3%	0.2%	0.5%	0.1%	0.1%	0.1%
1:15 - 2:15 AM	0.4%	0.4%	0.4%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.3%	0.1%	0.5%	0.3%	0.7%	0.3%
1:30 - 2:30 AM	0.3%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.3%	0.5%	0.3%	0.7%
1:45 - 2:45 AM	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.3%	0.5%	0.3%	0.7%
2:00 - 3:00 AM	0.3%	0.3%	0.3%	0.1%	0.1%	0.2%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.4%	0.2%	0.6%
2:15 - 3:15 AM	0.3%	0.3%	0.3%	0.1%	0.0%	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.2%
2:30 - 3:30 AM	0.3%	0.3%	0.3%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
2:45 - 3:45 AM	0.3%	0.2%	0.3%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
3:00 - 4:00 AM	0.3%	0.2%	0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
3:15 - 4:15 AM	0.2%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3:30 - 4:30 AM	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3:45 - 4:45 AM	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4:00 - 5:00 AM	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4:15 - 5:15 AM	0.4%	0.5%	0.4%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%
4:30 - 5:30 AM	0.5%	0.6%	0.5%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.4%
4:45 - 5:45 AM	0.6%	0.7%	0.6%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.4%
5:00 - 6:00 AM	0.7%	0.8%	0.7%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.5%	0.5%	0.4%
5:15 - 6:15 AM	1.0%	1.1%	0.9%	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.2%	0.3%	0.1%
5:30 - 6:30 AM	1.2%	1.3%	1.1%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
5:45 - 6:45 AM	1.6%	1.8%	1.4%	0.4%	0.4%	0.3%	0.4%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
6:00 - 7:00 AM	2.1%	2.3%	1.9%	0.4%	0.5%	0.4%	0.5%	0.6%	0.4%	0.1%	0.2%	0.0%	0.1%	0.1%	0.1%
6:15 - 7:15 AM	2.4%	2.6%	2.3%	0.6%	0.6%	0.5%	0.6%	0.5%	0.6%	0.1%	0.2%	0.0%	0.3%	0.4%	0.2%
6:30 - 7:30 AM	2.8%	2.9%	2.6%	0.6%	0.7%	0.6%	0.6%	0.7%	0.6%	0.1%	0.2%	0.0%	0.3%	0.4%	0.1%
6:45 - 7:45 AM	3.1%	3.2%	2.9%	0.7%	0.8%	0.7%	0.6%	0.7%	0.6%	0.2%	0.3%	0.1%	0.3%	0.4%	0.1%
7:00 - 8:00 AM	3.3%	3.4%	3.1%	1.0%	1.2%	0.8%	0.8%	0.9%	0.7%	0.2%	0.2%	0.1%	0.2%	0.3%	0.1%
7:15 - 8:15 AM	3.4%	3.5%	3.2%	1.2%	1.2%	1.2%	0.8%	0.9%	0.7%	0.3%	0.4%	0.1%	0.2%	0.2%	0.1%
7:30 - 8:30 AM	3.5%	3.6%	3.3%	1.2%	1.4%	1.1%	0.8%	1.0%	0.6%	0.3%	0.4%	0.1%	0.2%	0.2%	0.1%
7:45 - 8:45 AM	3.5%	3.6%	3.4%	1.4%	1.6%	1.3%	0.8%	1.0%	0.7%	0.3%	0.4%	0.1%	0.3%	0.3%	0.3%
8:00 - 9:00 AM	3.5%	3.5%	3.4%	1.5%	1.5%	1.4%	0.8%	0.9%	0.7%	0.3%	0.3%	0.2%	0.4%	0.4%	0.3%
8:15 - 9:15 AM	3.4%	3.4%	3.4%	1.6%	1.7%	1.5%	0.9%	1.2%	0.7%	0.2%	0.3%	0.2%	0.2%	0.3%	0.2%
8:30 - 9:30 AM	3.4%	3.3%	3.4%	1.8%	1.9%	1.7%	1.3%	1.4%	1.3%	0.3%	0.3%	0.2%	0.3%	0.3%	0.3%
8:45 - 9:45 AM	3.4%	3.4%	3.3%	1.9%	2.0%	1.7%	1.5%	1.8%	1.3%	0.3%	0.3%	0.3%	0.2%	0.3%	0.1%
9:00 - 10:00 AM	3.3%	3.4%	3.3%	2.1%	2.2%	2.0%	2.1%	2.5%	1.7%	0.3%	0.4%	0.2%	0.2%	0.3%	0.1%
9:15 - 10:15 AM	3.4%	3.5%	3.3%	2.2%	2.5%	1.9%	2.4%	2.6%	2.2%	0.2%	0.3%	0.2%	0.5%	0.4%	0.4%
9:30 - 10:30 AM	3.5%	3.6%	3.3%	2.3%	2.5%	2.1%	2.4%	2.6%	2.2%	0.4%	0.7%	0.2%	0.8%	1.2%	0.3%
9:45 - 10:45 AM	3.5%	3.6%	3.4%	2.5%	2.7%	2.3%	2.6%	2.7%	2.5%	0.9%	1.2%	0.7%	1.5%	1.9%	1.1%
10:00 - 11:00 AM	3.8%	4.0%	3.7%	3.0%	3.2%	2.7%	2.4%	2.2%	2.7%	1.3%	1.6%	1.0%	1.7%	1.9%	1.5%
10:15 - 11:15 AM	4.4%	4.8%	4.1%	3.4%	3.8%	3.0%	2.6%	2.8%	2.4%	2.5%	3.0%	1.9%	2.0%	2.6%	1.4%
10:30 - 11:30 AM	5.4%	5.9%	4.9%	4.2%	4.8%	3.6%	3.1%	3.5%	2.8%	4.1%	5.4%	2.8%	2.4%	2.7%	2.0%
10:45 - 11:45 AM	6.9%	7.7%	6.2%	5.6%	6.1%	4.3%	4.7%	3.8%	3.8%	5.9%	7.2%	4.6%	3.2%	4.4%	2.0%
11:00 - 12:00 PM	8.4%	9.1%	7.7%	6.6%	7.2%	6.0%	5.0%	5.7%	4.3%	8.3%	9.4%	7.2%	4.6%	5.4%	3.7%
11:15 - 12:15 PM	10.0%	10.8%	9.3%	7.7%	8.3%	7.2%	6.3%	6.9%	5.6%	10.2%	11.7%	8.7%	5.0%	5.6%	4.3%

11:30 - 12:30 PM	11.3%	11.9%	10.7%	8.9%	9.6%	8.2%	7.3%	8.1%	6.5%	10.8%	11.1%	10.5%	7.1%	7.7%	6.5%
11:45 - 12:45 PM	11.8%	12.0%	11.6%	9.4%	10.1%	8.8%	7.8%	9.0%	6.6%	11.3%	11.4%	11.3%	7.6%	7.5%	7.8%
12:00 - 1:00 PM	11.9%	11.9%	12.0%	10.1%	10.4%	9.8%	8.9%	9.7%	8.1%	10.6%	10.4%	10.8%	7.6%	7.5%	7.8%
12:15 - 1:15 PM	11.3%	10.9%	11.7%	10.3%	10.4%	10.2%	9.3%	9.9%	8.7%	10.0%	9.1%	10.9%	8.2%	7.9%	8.4%
12:30 - 1:30 PM	10.2%	9.6%	10.8%	10.0%	9.7%	10.4%	9.7%	9.8%	9.6%	9.0%	8.1%	9.9%	6.6%	6.0%	7.2%
12:45 - 1:45 PM	9.2%	8.8%	9.7%	9.5%	9.1%	9.8%	9.5%	8.7%	10.2%	7.8%	6.9%	8.6%	6.1%	5.6%	6.5%
1:00 - 2:00 PM	8.3%	7.9%	8.7%	8.7%	8.4%	9.0%	8.7%	9.2%	7.0%	6.2%	6.0%	7.8%	6.0%	6.0%	6.0%
1:15 - 2:15 PM	7.7%	7.3%	8.1%	8.3%	8.1%	8.5%	8.6%	8.0%	9.2%	5.6%	4.8%	6.3%	5.8%	5.8%	6.7%
1:30 - 2:30 PM	7.1%	6.8%	7.5%	8.0%	8.1%	8.0%	8.1%	7.4%	8.8%	5.3%	4.8%	5.7%	6.5%	6.5%	6.5%
1:45 - 2:45 PM	6.7%	6.3%	7.0%	8.1%	7.9%	8.3%	7.9%	7.6%	8.3%	4.9%	4.9%	4.9%	7.6%	8.1%	7.1%
2:00 - 3:00 PM	6.2%	5.9%	6.5%	7.8%	7.7%	8.0%	7.6%	7.4%	7.9%	4.3%	4.1%	4.4%	7.9%	8.1%	7.6%
2:15 - 3:15 PM	5.8%	5.7%	5.9%	7.7%	7.6%	7.9%	8.0%	8.0%	8.0%	5.0%	5.4%	4.6%	9.0%	9.8%	8.2%
2:30 - 3:30 PM	5.6%	5.4%	5.7%	7.5%	7.1%	7.8%	8.3%	8.7%	7.9%	4.9%	5.1%	4.8%	9.5%	10.0%	9.0%
2:45 - 3:45 PM	5.5%	5.4%	5.6%	7.2%	6.9%	7.5%	8.4%	8.5%	8.3%	5.2%	5.4%	5.0%	8.0%	7.5%	8.5%
3:00 - 4:00 PM	5.7%	5.7%	5.7%	7.3%	7.2%	7.3%	7.3%	8.5%	8.4%	5.7%	6.2%	5.2%	8.0%	7.5%	8.6%
3:15 - 4:15 PM	5.6%	5.6%	5.7%	7.3%	7.3%	7.3%	8.4%	8.3%	8.6%	5.3%	5.2%	5.5%	6.8%	6.5%	7.1%
3:30 - 4:30 PM	5.6%	5.6%	5.7%	7.4%	7.5%	7.4%	8.0%	8.3%	7.8%	5.7%	6.0%	5.4%	6.1%	5.6%	6.5%
3:45 - 4:45 PM	5.7%	5.8%	5.7%	7.3%	7.6%	7.1%	8.1%	8.4%	7.9%	5.8%	5.7%	6.0%	5.7%	5.2%	6.2%
4:00 - 5:00 PM	5.7%	5.9%	5.6%	7.4%	7.7%	7.2%	8.3%	8.5%	8.1%	5.8%	5.7%	5.8%	4.7%	4.6%	4.8%
4:15 - 5:15 PM	6.0%	6.2%	5.8%	7.4%	7.7%	7.1%	8.6%	9.1%	8.0%	6.0%	6.2%	5.9%	4.3%	4.2%	4.5%
4:30 - 5:30 PM	6.3%	6.6%	6.0%	7.6%	7.9%	7.4%	9.4%	9.4%	9.4%	6.5%	6.2%	6.7%	4.3%	4.4%	4.3%
4:45 - 5:45 PM	6.5%	6.8%	6.2%	8.3%	8.8%	7.8%	9.5%	9.9%	9.1%	6.8%	6.8%	6.7%	4.9%	5.4%	4.4%
5:00 - 6:00 PM	6.7%	6.9%	6.5%	8.4%	8.7%	8.1%	9.9%	10.7%	9.2%	7.2%	7.3%	7.0%	6.4%	7.1%	5.7%
5:15 - 6:15 PM	7.0%	7.2%	6.8%	8.5%	8.6%	8.5%	10.3%	10.5%	10.1%	7.3%	7.8%	6.8%	6.9%	7.5%	6.4%
5:30 - 6:30 PM	7.3%	7.4%	7.1%	8.6%	8.7%	8.5%	10.3%	10.7%	9.8%	7.4%	8.0%	6.8%	8.2%	8.6%	7.7%
5:45 - 6:45 PM	7.4%	7.4%	7.3%	8.3%	8.0%	8.6%	11.1%	11.0%	11.1%	7.7%	8.5%	7.0%	9.0%	9.3%	8.7%
6:00 - 7:00 PM	7.4%	7.4%	7.4%	8.2%	8.1%	8.3%	10.9%	10.4%	11.4%	8.1%	8.3%	7.9%	9.4%	9.3%	9.4%
6:15 - 7:15 PM	7.3%	7.2%	7.3%	8.4%	8.3%	8.6%	10.8%	10.7%	10.9%	8.1%	8.3%	7.9%	9.7%	9.6%	9.7%
6:30 - 7:30 PM	7.0%	6.8%	7.2%	8.3%	8.0%	8.6%	10.9%	10.5%	11.3%	7.9%	8.0%	7.8%	8.8%	9.1%	8.4%
6:45 - 7:45 PM	6.7%	6.6%	6.9%	8.2%	8.0%	8.4%	10.6%	10.3%	11.0%	8.3%	7.8%	8.8%	8.2%	8.3%	8.0%
7:00 - 8:00 PM	6.5%	6.3%	6.6%	8.0%	7.6%	8.4%	10.6%	10.5%	10.7%	8.2%	8.5%	7.8%	7.6%	7.5%	7.8%
7:15 - 8:15 PM	6.2%	6.0%	6.4%	7.6%	7.5%	7.6%	10.2%	10.0%	10.5%	8.6%	8.1%	9.2%	8.3%	9.1%	7.4%
7:30 - 8:30 PM	6.0%	5.9%	6.2%	7.5%	7.6%	7.3%	9.6%	9.3%	9.9%	8.8%	8.7%	9.0%	9.8%	9.8%	9.9%
7:45 - 8:45 PM	5.9%	5.8%	6.1%	7.5%	7.5%	7.4%	8.5%	8.1%	8.9%	7.8%	8.1%	7.5%	9.8%	9.4%	10.3%
8:00 - 9:00 PM	5.7%	5.6%	5.8%	7.3%	7.5%	7.2%	7.6%	7.0%	8.3%	8.6%	8.1%	9.1%	9.7%	9.0%	10.5%
8:15 - 9:15 PM	5.5%	5.3%	5.7%	7.1%	6.9%	7.3%	6.8%	6.0%	7.7%	9.1%	9.4%	8.9%	9.1%	7.9%	10.2%
8:30 - 9:30 PM	5.3%	5.0%	5.5%	7.0%	6.9%	7.1%	5.6%	4.8%	6.5%	9.0%	8.8%	9.2%	8.5%	8.7%	8.4%
8:45 - 9:45 PM	4.8%	4.6%	4.9%	6.9%	7.0%	6.9%	4.8%	4.4%	5.3%	9.5%	9.3%	9.7%	9.1%	10.5%	7.6%
9:00 - 10:00 PM	4.4%	4.1%	4.6%	6.7%	6.4%	7.0%	4.0%	3.7%	4.4%	8.9%	8.6%	9.2%	10.0%	11.6%	8.4%
9:15 - 10:15 PM	3.9%	3.7%	4.2%	6.1%	5.8%	6.5%	3.1%	2.6%	3.7%	8.0%	7.8%	8.1%	12.0%	11.5%	12.5%
9:30 - 10:30 PM	3.4%	3.2%	3.6%	5.2%	4.6%	5.9%	2.5%	2.0%	3.0%	7.6%	7.9%	7.4%	10.8%	9.7%	11.8%
9:45 - 10:45 PM	3.1%	2.9%	3.4%	4.0%	3.2%	4.8%	1.8%	1.4%	2.2%	8.8%	8.8%	8.8%	10.2%	8.6%	11.7%
10:00 - 11:00 PM	2.7%	2.5%	2.9%	3.2%	2.6%	3.8%	1.4%	0.9%	1.8%	9.4%	9.6%	9.1%	8.7%	7.2%	10.1%
10:15 - 11:15 PM	2.3%	2.1%	2.5%	2.7%	2.2%	3.2%	1.0%	0.9%	1.1%	10.0%	9.5%	10.6%	5.5%	5.2%	5.7%
10:30 - 11:30 PM	2.1%	1.9%	2.2%	2.0%	1.7%	2.3%	0.8%	0.9%	0.8%	9.8%	8.6%	11.1%	6.0%	6.0%	5.9%
10:45 - 11:45 PM	1.8%	1.6%	1.9%	1.8%	1.5%	2.1%	0.8%	0.6%	1.1%	7.2%	6.3%	8.0%	5.4%	5.1%	5.7%
11:00 - 12:00 AM	1.6%	1.4%	1.8%	1.4%	1.1%	1.6%	0.6%	0.5%	0.8%	5.3%	4.5%	6.1%	5.0%	4.9%	5.1%
11:15 - 12:15 AM	1.4%	1.2%	1.5%	1.0%	0.9%	1.2%	0.5%	0.3%	0.6%	2.9%	2.5%	3.3%	4.6%	4.4%	4.8%
11:30 - 12:30 AM	1.2%	1.1%	1.2%	1.0%	0.8%	1.2%	0.4%	0.2%	0.6%	1.5%	1.5%	1.5%	2.6%	2.1%	3.1%
11:45 - 12:45 AM	1.0%	0.9%	1.0%	0.6%	0.5%	0.6%	0.3%	0.3%	0.3%	1.0%	0.9%	1.1%	1.8%	1.3%	2.4%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use				Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE Trip Generation Manual , 11th Edition				Source: ITE Trip Generation Manual , 11th Edition			
Land Use Code	945			Land Use Code	945		
Land Use	Convenience Store/ Gas Station			Land Use	Convenience Store/ Gas Station		
Subcategory	GFA (2-4k)			Subcategory	GFA (4-10k)		
Setting	General Urban/ Suburban			Setting	General Urban/ Suburban		
Time Period	Weekday			Time Period	Weekday		
# Data Sites	38			# Data Sites	5		
	% of 24-Hour Vehicle Trips				% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting	Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.9%	0.9%	0.9%	12:00 - 1:00 AM	1.3%	1.2%	1.3%
1:00 - 2:00 AM	0.5%	0.5%	0.5%	1:00 - 2:00 AM	0.8%	0.8%	0.9%
2:00 - 3:00 AM	0.5%	0.4%	0.5%	2:00 - 3:00 AM	0.6%	0.6%	0.6%
3:00 - 4:00 AM	0.5%	0.5%	0.6%	3:00 - 4:00 AM	0.8%	0.8%	0.7%
4:00 - 5:00 AM	1.0%	1.0%	1.1%	4:00 - 5:00 AM	1.5%	1.6%	1.5%
5:00 - 6:00 AM	2.3%	2.3%	2.2%	5:00 - 6:00 AM	3.1%	3.1%	3.0%
6:00 - 7:00 AM	4.6%	4.7%	4.5%	6:00 - 7:00 AM	4.6%	4.7%	4.5%
7:00 - 8:00 AM	6.2%	6.2%	6.1%	7:00 - 8:00 AM	5.9%	6.0%	5.9%
8:00 - 9:00 AM	5.9%	5.8%	5.9%	8:00 - 9:00 AM	6.5%	6.5%	6.4%
9:00 - 10:00 AM	5.0%	5.0%	5.1%	9:00 - 10:00 AM	5.7%	5.6%	5.7%
10:00 - 11:00 AM	5.2%	5.2%	5.2%	10:00 - 11:00 AM	5.3%	5.3%	5.3%
11:00 - 12:00 PM	5.3%	5.3%	5.2%	11:00 - 12:00 PM	5.8%	5.8%	5.7%
12:00 - 1:00 PM	5.8%	5.8%	5.8%	12:00 - 1:00 PM	6.6%	6.6%	6.6%
1:00 - 2:00 PM	5.4%	5.4%	5.3%	1:00 - 2:00 PM	6.1%	6.2%	5.9%
2:00 - 3:00 PM	5.9%	6.1%	5.8%	2:00 - 3:00 PM	6.1%	6.0%	6.2%
3:00 - 4:00 PM	6.5%	6.5%	6.4%	3:00 - 4:00 PM	6.8%	6.8%	6.8%
4:00 - 5:00 PM	7.1%	7.2%	7.1%	4:00 - 5:00 PM	6.4%	6.3%	6.5%
5:00 - 6:00 PM	6.9%	7.0%	6.9%	5:00 - 6:00 PM	6.8%	6.7%	6.9%
6:00 - 7:00 PM	6.5%	6.5%	6.6%	6:00 - 7:00 PM	5.4%	5.3%	5.4%
7:00 - 8:00 PM	5.3%	5.3%	5.3%	7:00 - 8:00 PM	4.0%	3.9%	4.0%
8:00 - 9:00 PM	4.4%	4.3%	4.5%	8:00 - 9:00 PM	3.4%	3.4%	3.4%
9:00 - 10:00 PM	3.7%	3.7%	3.7%	9:00 - 10:00 PM	2.7%	2.8%	2.7%
10:00 - 11:00 PM	2.8%	2.7%	2.8%	10:00 - 11:00 PM	2.1%	2.1%	2.1%
11:00 - 12:00 AM	1.9%	1.8%	1.9%	11:00 - 12:00 AM	1.9%	1.9%	2.0%

12:00 - 1:00 AM	0.9%	0.9%	0.9%	12:00 - 1:00 AM	1.3%	1.2%	1.3%
12:15 - 1:15 AM	0.8%	0.7%	0.8%	12:15 - 1:15 AM	1.1%	1.1%	1.2%

12:30 - 1:30 AM	0.6%	0.6%	0.7%	12:30 - 1:30 AM	1.0%	0.9%	1.0%
12:45 - 1:45 AM	0.5%	0.5%	0.6%	12:45 - 1:45 AM	0.9%	0.9%	0.9%
1:00 - 2:00 AM	0.5%	0.5%	0.5%	1:00 - 2:00 AM	0.8%	0.8%	0.9%
1:15 - 2:15 AM	0.5%	0.5%	0.5%	1:15 - 2:15 AM	0.7%	0.6%	0.7%
1:30 - 2:30 AM	0.5%	0.5%	0.5%	1:30 - 2:30 AM	0.6%	0.6%	0.7%
1:45 - 2:45 AM	0.5%	0.5%	0.5%	1:45 - 2:45 AM	0.5%	0.5%	0.5%
2:00 - 3:00 AM	0.5%	0.4%	0.5%	2:00 - 3:00 AM	0.6%	0.6%	0.6%
2:15 - 3:15 AM	0.4%	0.4%	0.4%	2:15 - 3:15 AM	0.7%	0.7%	0.7%
2:30 - 3:30 AM	0.4%	0.4%	0.4%	2:30 - 3:30 AM	0.7%	0.8%	0.7%
2:45 - 3:45 AM	0.5%	0.5%	0.5%	2:45 - 3:45 AM	0.8%	0.7%	0.8%
3:00 - 4:00 AM	0.5%	0.5%	0.6%	3:00 - 4:00 AM	0.8%	0.8%	0.7%
3:15 - 4:15 AM	0.6%	0.6%	0.7%	3:15 - 4:15 AM	0.8%	0.9%	0.8%
3:30 - 4:30 AM	0.8%	0.7%	0.8%	3:30 - 4:30 AM	1.0%	1.0%	1.0%
3:45 - 4:45 AM	0.9%	0.8%	0.9%	3:45 - 4:45 AM	1.2%	1.3%	1.2%
4:00 - 5:00 AM	1.0%	1.0%	1.1%	4:00 - 5:00 AM	1.5%	1.6%	1.5%
4:15 - 5:15 AM	1.3%	1.2%	1.3%	4:15 - 5:15 AM	1.9%	1.9%	1.8%
4:30 - 5:30 AM	1.5%	1.5%	1.5%	4:30 - 5:30 AM	2.3%	2.4%	2.2%
4:45 - 5:45 AM	1.9%	1.9%	1.9%	4:45 - 5:45 AM	2.7%	2.8%	2.6%
5:00 - 6:00 AM	2.3%	2.3%	2.2%	5:00 - 6:00 AM	3.1%	3.1%	3.0%
5:15 - 6:15 AM	3.0%	3.0%	2.9%	5:15 - 6:15 AM	3.5%	3.7%	3.3%
5:30 - 6:30 AM	3.6%	3.7%	3.5%	5:30 - 6:30 AM	4.0%	4.0%	3.9%
5:45 - 6:45 AM	4.1%	4.2%	4.0%	5:45 - 6:45 AM	4.2%	4.3%	4.1%
6:00 - 7:00 AM	4.6%	4.7%	4.5%	6:00 - 7:00 AM	4.6%	4.7%	4.5%
6:15 - 7:15 AM	5.0%	5.0%	5.0%	6:15 - 7:15 AM	5.0%	5.0%	5.0%
6:30 - 7:30 AM	5.3%	5.3%	5.3%	6:30 - 7:30 AM	5.1%	5.2%	5.1%
6:45 - 7:45 AM	5.8%	5.8%	5.8%	6:45 - 7:45 AM	5.6%	5.7%	5.5%
7:00 - 8:00 AM	6.2%	6.2%	6.1%	7:00 - 8:00 AM	5.9%	6.0%	5.9%
7:15 - 8:15 AM	6.3%	6.3%	6.2%	7:15 - 8:15 AM	6.2%	6.2%	6.2%
7:30 - 8:30 AM	6.3%	6.3%	6.3%	7:30 - 8:30 AM	6.6%	6.5%	6.6%
7:45 - 8:45 AM	6.2%	6.2%	6.2%	7:45 - 8:45 AM	6.5%	6.6%	6.5%
8:00 - 9:00 AM	5.9%	5.8%	5.9%	8:00 - 9:00 AM	6.5%	6.5%	6.4%
8:15 - 9:15 AM	5.7%	5.6%	5.7%	8:15 - 9:15 AM	6.2%	6.3%	6.2%
8:30 - 9:30 AM	5.4%	5.4%	5.5%	8:30 - 9:30 AM	6.1%	6.1%	6.1%
8:45 - 9:45 AM	5.2%	5.1%	5.2%	8:45 - 9:45 AM	5.9%	5.8%	6.0%
9:00 - 10:00 AM	5.0%	5.0%	5.1%	9:00 - 10:00 AM	5.7%	5.6%	5.7%
9:15 - 10:15 AM	5.0%	5.1%	5.0%	9:15 - 10:15 AM	5.3%	5.3%	5.3%
9:30 - 10:30 AM	5.0%	5.0%	5.0%	9:30 - 10:30 AM	5.2%	5.3%	5.1%
9:45 - 10:45 AM	5.1%	5.1%	5.0%	9:45 - 10:45 AM	5.4%	5.4%	5.3%
10:00 - 11:00 AM	5.2%	5.2%	5.2%	10:00 - 11:00 AM	5.3%	5.3%	5.3%
10:15 - 11:15 AM	5.1%	5.1%	5.1%	10:15 - 11:15 AM	5.6%	5.6%	5.5%

10:30 - 11:30 AM	5.2%	5.2%	5.1%	10:30 - 11:30 AM	5.6%	5.7%	5.6%
10:45 - 11:45 AM	5.2%	5.2%	5.1%	10:45 - 11:45 AM	5.6%	5.6%	5.5%
11:00 - 12:00 PM	5.3%	5.3%	5.2%	11:00 - 12:00 PM	5.8%	5.8%	5.7%
11:15 - 12:15 PM	5.6%	5.7%	5.5%	11:15 - 12:15 PM	5.9%	6.1%	5.7%
11:30 - 12:30 PM	5.7%	5.7%	5.6%	11:30 - 12:30 PM	6.1%	6.2%	6.0%
11:45 - 12:45 PM	5.8%	5.9%	5.7%	11:45 - 12:45 PM	6.4%	6.4%	6.4%
12:00 - 1:00 PM	5.8%	5.8%	5.8%	12:00 - 1:00 PM	6.6%	6.6%	6.6%
12:15 - 1:15 PM	5.5%	5.5%	5.6%	12:15 - 1:15 PM	6.4%	6.3%	6.5%
12:30 - 1:30 PM	5.5%	5.5%	5.5%	12:30 - 1:30 PM	6.4%	6.3%	6.4%
12:45 - 1:45 PM	5.4%	5.4%	5.4%	12:45 - 1:45 PM	6.2%	6.3%	6.1%
1:00 - 2:00 PM	5.4%	5.4%	5.3%	1:00 - 2:00 PM	6.1%	6.2%	5.9%
1:15 - 2:15 PM	5.4%	5.5%	5.4%	1:15 - 2:15 PM	6.1%	6.1%	6.1%
1:30 - 2:30 PM	5.6%	5.7%	5.5%	1:30 - 2:30 PM	6.1%	6.1%	6.2%
1:45 - 2:45 PM	5.8%	5.9%	5.7%	1:45 - 2:45 PM	6.2%	6.3%	6.2%
2:00 - 3:00 PM	5.9%	6.1%	5.8%	2:00 - 3:00 PM	6.1%	6.0%	6.2%
2:15 - 3:15 PM	6.1%	6.2%	6.1%	2:15 - 3:15 PM	6.3%	6.4%	6.2%
2:30 - 3:30 PM	6.2%	6.2%	6.1%	2:30 - 3:30 PM	6.3%	6.3%	6.3%
2:45 - 3:45 PM	6.3%	6.4%	6.2%	2:45 - 3:45 PM	6.4%	6.4%	6.5%
3:00 - 4:00 PM	6.5%	6.5%	6.4%	3:00 - 4:00 PM	6.8%	6.8%	6.8%
3:15 - 4:15 PM	6.8%	6.9%	6.7%	3:15 - 4:15 PM	6.9%	6.7%	7.1%
3:30 - 4:30 PM	7.0%	7.1%	6.9%	3:30 - 4:30 PM	6.9%	6.7%	7.1%
3:45 - 4:45 PM	7.1%	7.2%	7.0%	3:45 - 4:45 PM	6.6%	6.5%	6.8%
4:00 - 5:00 PM	7.1%	7.2%	7.1%	4:00 - 5:00 PM	6.4%	6.3%	6.5%
4:15 - 5:15 PM	7.0%	7.0%	6.9%	4:15 - 5:15 PM	6.5%	6.6%	6.4%
4:30 - 5:30 PM	7.0%	7.1%	6.9%	4:30 - 5:30 PM	6.6%	6.6%	6.5%
4:45 - 5:45 PM	7.0%	7.0%	7.0%	4:45 - 5:45 PM	6.8%	6.8%	6.8%
5:00 - 6:00 PM	6.9%	7.0%	6.9%	5:00 - 6:00 PM	6.8%	6.7%	6.9%
5:15 - 6:15 PM	6.9%	6.9%	6.9%	5:15 - 6:15 PM	6.4%	6.2%	6.5%
5:30 - 6:30 PM	6.7%	6.7%	6.8%	5:30 - 6:30 PM	6.1%	5.9%	6.2%
5:45 - 6:45 PM	6.6%	6.6%	6.6%	5:45 - 6:45 PM	5.7%	5.6%	5.8%
6:00 - 7:00 PM	6.5%	6.5%	6.6%	6:00 - 7:00 PM	5.4%	5.3%	5.4%
6:15 - 7:15 PM	6.3%	6.3%	6.3%	6:15 - 7:15 PM	4.9%	4.8%	5.0%
6:30 - 7:30 PM	6.0%	6.0%	6.0%	6:30 - 7:30 PM	4.6%	4.5%	4.7%
6:45 - 7:45 PM	5.6%	5.5%	5.7%	6:45 - 7:45 PM	4.1%	4.0%	4.2%
7:00 - 8:00 PM	5.3%	5.3%	5.3%	7:00 - 8:00 PM	4.0%	3.9%	4.0%
7:15 - 8:15 PM	5.0%	5.0%	5.1%	7:15 - 8:15 PM	4.1%	4.1%	4.1%
7:30 - 8:30 PM	4.8%	4.7%	4.8%	7:30 - 8:30 PM	3.9%	3.9%	3.9%
7:45 - 8:45 PM	4.6%	4.6%	4.6%	7:45 - 8:45 PM	3.7%	3.7%	3.7%
8:00 - 9:00 PM	4.4%	4.3%	4.5%	8:00 - 9:00 PM	3.4%	3.4%	3.4%
8:15 - 9:15 PM	4.2%	4.1%	4.3%	8:15 - 9:15 PM	3.0%	3.0%	3.0%

8:30 - 9:30 PM	4.1%	4.0%	4.2%	8:30 - 9:30 PM	2.9%	2.9%	2.8%
8:45 - 9:45 PM	4.0%	3.9%	4.0%	8:45 - 9:45 PM	2.8%	2.8%	2.8%
9:00 - 10:00 PM	3.7%	3.7%	3.7%	9:00 - 10:00 PM	2.7%	2.8%	2.7%
9:15 - 10:15 PM	3.5%	3.5%	3.5%	9:15 - 10:15 PM	2.5%	2.5%	2.5%
9:30 - 10:30 PM	3.2%	3.2%	3.2%	9:30 - 10:30 PM	2.5%	2.5%	2.4%
9:45 - 10:45 PM	2.9%	2.9%	2.9%	9:45 - 10:45 PM	2.3%	2.4%	2.2%
10:00 - 11:00 PM	2.8%	2.7%	2.8%	10:00 - 11:00 PM	2.1%	2.1%	2.1%
10:15 - 11:15 PM	2.5%	2.4%	2.5%	10:15 - 11:15 PM	2.1%	2.2%	2.0%
10:30 - 11:30 PM	2.3%	2.2%	2.3%	10:30 - 11:30 PM	2.0%	2.0%	2.0%
10:45 - 11:45 PM	2.1%	2.0%	2.2%	10:45 - 11:45 PM	1.9%	1.8%	2.0%
11:00 - 12:00 AM	1.9%	1.8%	1.9%	11:00 - 12:00 AM	1.9%	1.9%	2.0%
11:15 - 12:15 AM	1.6%	1.6%	1.6%	11:15 - 12:15 AM	1.7%	1.7%	1.8%
11:30 - 12:30 AM	1.3%	1.3%	1.4%	11:30 - 12:30 AM	1.6%	1.5%	1.8%
11:45 - 12:45 AM	1.1%	1.1%	1.1%	11:45 - 12:45 AM	1.5%	1.5%	1.6%

Attachment C

Internal Capture Calculation Worksheets

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the Trip Generation Handbook , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION							
INPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office						
	Retail	3,796	3,796	270	270	234	233
	Restaurant	701	701	68	66	51	48
	Cinema/ Entertainment						
	Residential						
	Hotel						
		4,497	4,497	338	336	285	281

INTERNAL TRIPS							
OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	0	0	0	0	0	0
	Retail	193	277	9	34	20	15
	Restaurant	277	193	34	9	15	20
	Cinema/ Entertainment	0	0	0	0	0	0
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		470	470	43	43	35	35

OUTPUT	Total % Reduction	10.5%		12.8%		12.4%	
	Office						
	Retail	6.2%		8.0%		7.5%	
	Restaurant	33.5%		32.1%		35.4%	
	Cinema/ Entertainment						
	Residential						
	Hotel						

EXTERNAL TRIPS							
OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	0	0	0	0	0	0
	Retail	3,603	3,519	261	236	214	218
	Restaurant	424	508	34	57	36	28
	Cinema/ Entertainment	0	0	0	0	0	0
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		4,027	4,027	295	293	250	246

DAILY

GROSS TRIP GENERATION

DAILY	Land Use	Daily	
		Enter	Exit
	Office	0	0
	Retail	3,796	3,796
	Restaurant	701	701
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		4,497	4,497

Estimated Trip Origins within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		24%	34%	0%	2%	0%
	Retail	16%		21%	2%	20%	3%
	Restaurant	17%	28%		4%	11%	5%
	Cinema/Entertainment	1%	11%	16%		4%	1%
	Residential	3%	22%	21%	0%		2%
	Hotel	38%	15%	39%	0%	1%	

Estimated Trip Destinations within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		20%	13%	1%	2%	0%
	Retail	18%		40%	13%	24%	9%
	Restaurant	22%	29%		16%	11%	38%
	Cinema/Entertainment	3%	2%	2%		2%	1%
	Residential	30%	14%	17%	0%		6%
	Hotel	2%	3%	6%	0%	0%	

*** BASED ON EXIT ***

DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	588		797	76	759	95
	Restaurant	119	193		28	77	35
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel

DAILY	Office		759	88	0	0	0
	Retail	0		277	0	0	0
	Restaurant	0	1,101		0	0	0
	Cinema/Entertainment	0	76	11		0	0
	Residential	0	512	119	0		0
	Hotel	0	114	39	0	0	
*** MINIMUM ***							
DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		277	0	0	0
	Restaurant	0	193		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
DAILY	Land Use	Daily					
		Enter	Exit				
	Office	0	0				
	Retail	193	277				
	Restaurant	277	193				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		470	470				

A.M. PEAK HOUR

GROSS TRIP GENERATION

A.M. PEAK	Land Use	A.M. Peak Hour	
		Enter	Exit
	Office	0	0
	Retail	270	270
	Restaurant	68	66
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		338	336

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		28%	63%	0%	1%	0%
	Retail	29%		13%	0%	14%	0%
	Restaurant	31%	14%		0%	4%	3%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	2%	1%	20%	0%		0%
	Hotel	75%	14%	9%	0%	0%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		32%	23%	0%	0%	0%
	Retail	4%		50%	0%	2%	0%
	Restaurant	14%	8%		0%	5%	4%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	3%	17%	20%	0%		0%
	Hotel	3%	4%	6%	0%	0%	

*** BASED ON EXIT ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	78		35	0	38	0
	Restaurant	20	9		0	3	2
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel

A.M. PEAK	Office		86	16	0	0	0
	Retail	0		34	0	0	0
	Restaurant	0	22		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	46	14	0		0
	Hotel	0	11	4	0	0	
*** MINIMUM ***							
A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		34	0	0	0
	Restaurant	0	9		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
A.M. PEAK	Land Use	A. M. Peak Hour					
		Enter	Exit				
	Office	0	0				
	Retail	9	34				
	Restaurant	34	9				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		43	43				

P.M. PEAK HOUR

GROSS TRIP GENERATION

P.M. PEAK	Land Use	P.M. Peak Hour	
		Enter	Exit
	Office	0	0
	Retail	234	233
	Restaurant	51	48
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		285	281

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		20%	4%	0%	2%	0%
	Retail	2%		29%	4%	26%	5%
	Restaurant	3%	41%		8%	18%	7%
	Cinema/Entertainment	2%	21%	31%		8%	2%
	Residential	4%	42%	21%	0%		3%
	Hotel	0%	16%	68%	0%	2%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		8%	2%	1%	4%	0%
	Retail	31%		29%	26%	46%	17%
	Restaurant	30%	50%		32%	16%	71%
	Cinema/Entertainment	6%	4%	3%		4%	1%
	Residential	57%	10%	14%	0%		12%
	Hotel	0%	2%	5%	0%	0%	

*** BASED ON EXIT ***

P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	5		68	9	61	12
	Restaurant	1	20		4	9	3
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel

P.M. PEAK	Office		19	1	0	0	0
	Retail	0		15	0	0	0
	Restaurant	0	117		0	0	0
	Cinema/Entertainment	0	9	2		0	0
	Residential	0	23	7	0		0
	Hotel	0	5	3	0	0	
*** MINIMUM ***							
P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		15	0	0	0
	Restaurant	0	20		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
P.M. PEAK	Land Use	P.M. Peak Hour					
		Enter	Exit				
	Office	0	0				
	Retail	20	15				
	Restaurant	15	20				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		35	35				

School PM Peak Hour

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the Trip Generation Handbook , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION							
INPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office						
	Retail					258	258
	Restaurant					40	40
	Cinema/ Entertainment						
	Residential						
	Hotel						
		0	0	0	0	298	298

INTERNAL TRIPS							
OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	0	0	0	0	0	0
	Retail	0	0	0	0	16	12
	Restaurant	0	0	0	0	12	16
	Cinema/ Entertainment	0	0	0	0	0	0
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		0	0	0	0	28	28

OUTPUT	Total % Reduction	0.0%		0.0%		9.4%	
	Office						
	Retail					5.4%	
	Restaurant					35.0%	
	Cinema/ Entertainment						
	Residential						
	Hotel						

EXTERNAL TRIPS							
OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	0	0	0	0	0	0
	Retail	0	0	0	0	242	246
	Restaurant	0	0	0	0	28	24
	Cinema/ Entertainment	0	0	0	0	0	0
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		0	0	0	0	270	270

DAILY

GROSS TRIP GENERATION

DAILY	Land Use	Daily	
		Enter	Exit
	Office	0	0
	Retail	0	0
	Restaurant	0	0
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		0	0

Estimated Trip Origins within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		24%	34%	0%	2%	0%
	Retail	16%		21%	2%	20%	3%
	Restaurant	17%	28%		4%	11%	5%
	Cinema/Entertainment	1%	11%	16%		4%	1%
	Residential	3%	22%	21%	0%		2%
	Hotel	38%	15%	39%	0%	1%	

Estimated Trip Destinations within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		20%	13%	1%	2%	0%
	Retail	18%		40%	13%	24%	9%
	Restaurant	22%	29%		16%	11%	38%
	Cinema/Entertainment	3%	2%	2%		2%	1%
	Residential	30%	14%	17%	0%		6%
	Hotel	2%	3%	6%	0%	0%	

*** BASED ON EXIT ***

DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel

DAILY	Office		0	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
*** MINIMUM ***							
DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
DAILY	Land Use	Daily					
		Enter	Exit				
	Office	0	0				
	Retail	0	0				
	Restaurant	0	0				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		0	0				

A.M. PEAK HOUR

GROSS TRIP GENERATION

A.M. PEAK	Land Use	A.M. Peak Hour	
		Enter	Exit
	Office	0	0
	Retail	0	0
	Restaurant	0	0
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		0	0

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		28%	63%	0%	1%	0%
	Retail	29%		13%	0%	14%	0%
	Restaurant	31%	14%		0%	4%	3%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	2%	1%	20%	0%		0%
	Hotel	75%	14%	9%	0%	0%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		32%	23%	0%	0%	0%
	Retail	4%		50%	0%	2%	0%
	Restaurant	14%	8%		0%	5%	4%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	3%	17%	20%	0%		0%
	Hotel	3%	4%	6%	0%	0%	

*** BASED ON EXIT ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel

A.M. PEAK	Office		0	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
*** MINIMUM ***							
A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
A.M. PEAK	Land Use	A. M. Peak Hour					
		Enter	Exit				
	Office	0	0				
	Retail	0	0				
	Restaurant	0	0				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		0	0				

P.M. PEAK HOUR

GROSS TRIP GENERATION

P.M. PEAK	Land Use	P.M. Peak Hour	
		Enter	Exit
	Office	0	0
	Retail	258	258
	Restaurant	40	40
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		298	298

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		20%	4%	0%	2%	0%
	Retail	2%		29%	4%	26%	5%
	Restaurant	3%	41%		8%	18%	7%
	Cinema/Entertainment	2%	21%	31%		8%	2%
	Residential	4%	42%	21%	0%		3%
	Hotel	0%	16%	68%	0%	2%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		8%	2%	1%	4%	0%
	Retail	31%		29%	26%	46%	17%
	Restaurant	30%	50%		32%	16%	71%
	Cinema/Entertainment	6%	4%	3%		4%	1%
	Residential	57%	10%	14%	0%		12%
	Hotel	0%	2%	5%	0%	0%	

*** BASED ON EXIT ***

P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	5		75	10	67	13
	Restaurant	1	16		3	7	3
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/ Ent.	Residential	Hotel

P.M. PEAK	Office		21	1	0	0	0
	Retail	0		12	0	0	0
	Restaurant	0	129		0	0	0
	Cinema/Entertainment	0	10	1		0	0
	Residential	0	26	6	0		0
	Hotel	0	5	2	0	0	
*** MINIMUM ***							
P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		0	0	0	0	0
	Retail	0		12	0	0	0
	Restaurant	0	16		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
P.M. PEAK	Land Use	P.M. Peak Hour					
		Enter	Exit				
	Office	0	0				
	Retail	16	12				
	Restaurant	12	16				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		28	28				

Attachment D

Historical Growth Calculations

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 29 - COLUMBIA

SITE: 0102 - SR 10 200' W. OF BURK ST.

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	31500	C	E 16500		W 15000	9.00	54.70	6.10
2021	32500	S	E 16500		W 16000	9.00	54.20	5.90
2020	31500	F	E 16000		W 15500	9.00	54.80	6.80
2019	31500	C	E 16000		W 15500	9.00	54.80	6.20
2018	31000	C	E 15500		W 15500	9.00	54.70	6.20
2017	35000	C	E 16000		W 19000	9.00	55.50	5.80
2016	32000	C	E 16000		W 16000	9.00	53.90	5.40
2015	32000	C	E 16000		W 16000	9.00	54.50	5.70
2014	33000	C	E 16500		W 16500	9.00	54.40	5.90
2013	37000	C	E 18500		W 18500	9.00	55.30	6.40
2012	33500	C	E 16500		W 17000	9.00	54.70	5.50
2011	34500	C	E 17000		W 17500	9.00	53.70	5.30
2010	33500	C	E 17000		W 16500	9.94	54.40	4.90
2009	35000	C	E 17500		W 17500	9.78	54.18	5.30
2008	37500	C	E 19000		W 18500	9.82	54.63	6.20
2007	36000	C	E 17500		W 18500	9.99	54.46	6.40

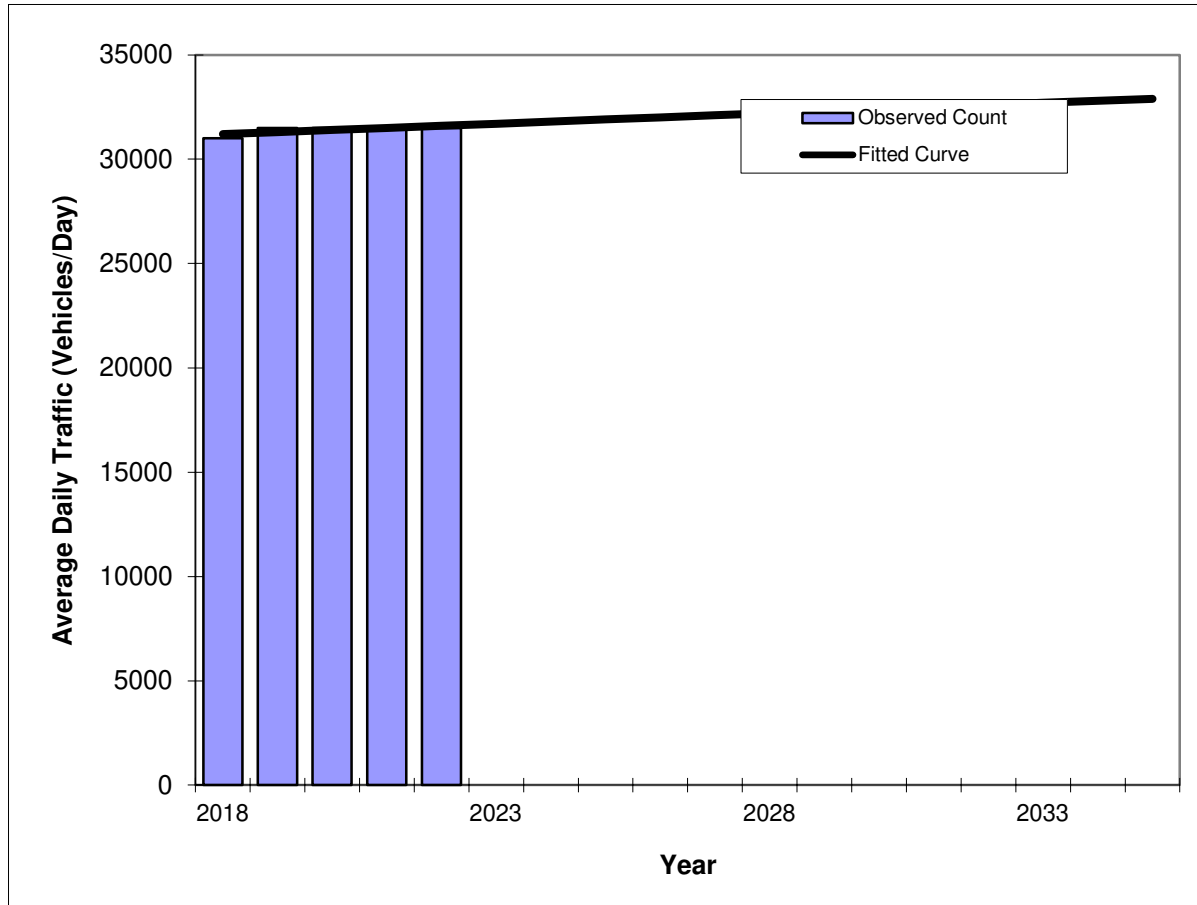
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V03.a

US 90/SR 10 -- 200' W OF BURK ST

FIN#	0
Location	1

County:	Columbia (29)
Station #:	0102
Highway:	US 90/SR 10



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	31000	31200
2019	31500	31300
2020	31500	31400
2021	31500	31500
2022	31500	31600
2023 Opening Year Trend		
2023	N/A	31700
2024 Mid-Year Trend		
2024	N/A	31800
2025 Design Year Trend		
2025	N/A	31900
TRANPLAN Forecasts/Trends		

Trend R-squared:	50.00%
Compounded Annual Historic Growth Rate:	0.32%
Compounded Growth Rate (2022 to Design Year):	0.32%
Printed:	9-Aug-23
Exponential Growth Option	

*Axle-Adjusted

COUNTY: 29
STATION: 0102
DESCRIPTION: SR 10 200' W. OF BURK ST.
START DATE: 07/28/2022
START TIME: 0000

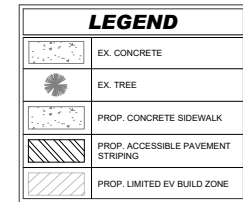
TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	26	24	17	16	83	30	19	17	25	91	174	
0100	25	20	18	17	80	11	11	12	9	43	123	
0200	22	13	17	32	84	9	22	17	8	56	140	
0300	9	27	27	35	98	12	18	4	18	52	150	
0400	45	41	41	43	170	14	23	18	19	74	244	
0500	58	96	96	137	387	22	25	33	57	137	524	
0600	136	149	202	195	682	36	50	74	92	252	934	
0700	227	237	291	249	1004	101	116	149	202	568	1572	
0800	257	232	245	220	954	165	171	176	258	770	1724	
0900	241	223	297	230	991	240	231	228	269	968	1959	
1000	232	297	275	262	1066	237	240	272	279	1028	2094	
1100	294	288	323	278	1183	288	305	300	318	1211	2394	
1200	333	310	332	344	1319	338	337	309	265	1249	2568	
1300	313	318	313	305	1249	284	309	308	300	1201	2450	
1400	332	270	328	271	1201	292	285	292	326	1195	2396	
1500	304	272	305	286	1167	328	341	338	311	1318	2485	
1600	283	271	282	302	1138	327	303	356	331	1317	2455	
1700	306	280	237	254	1077	368	345	312	297	1322	2399	
1800	258	202	230	201	891	241	216	227	185	869	1760	
1900	180	185	171	188	724	192	176	150	161	679	1403	
2000	143	148	134	121	546	132	149	143	110	534	1080	
2100	116	104	82	73	375	113	78	90	68	349	724	
2200	71	53	44	67	235	63	52	50	43	208	443	
2300	34	32	38	27	131	57	49	33	44	183	314	
24-HOUR TOTALS:					16835						15674	32509

		PEAK VOLUME INFORMATION					
		DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME		HOUR	VOLUME	HOUR	VOLUME
A.M.	715	1034		845	957	845	1938
P.M.	1200	1319		1630	1400	1630	2570
DAILY	1200	1319		1630	1400	1630	2570

GENERATED BY SPS 5.0.0.61

APPENDIX B

Conceptual Site Plan



CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

[illegible]

ISSUED FOR MUNICIPAL &
AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: FLA230039.00
DRAWN BY: MV
CHECKED BY:
DATE: 4/8/2015
CAD I.D.: P-CIVL-S

PROJECT:

SITE DEVELOPMENT PLANS

FOR



PROPOSED
Wawa
1518 W US HWY 90
LAKE CITY, FL 32055
CITY OF LAKE CITY
S 31 - T 3 S - R 17 E

BOHLER

**600 N. WESTSHORE BLVD. SUITE 9
TAMPA, FLORIDA 33609
Phone: (813) 812-4100
Fax: (813) 812-4101**

FLORIDA BUSINESS CERT. OF AUTH. No. 30780

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KYLE STEVEN MOREL, PE, ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

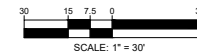
SHEET TITLE:

SITE LAYOUT PLAN

SHEET NUMBER:

C-3.02

REVISION 1 - 03/15/24



APPENDIX C

Traffic Data



(303) 216-2439
www.alltrafficdata.net

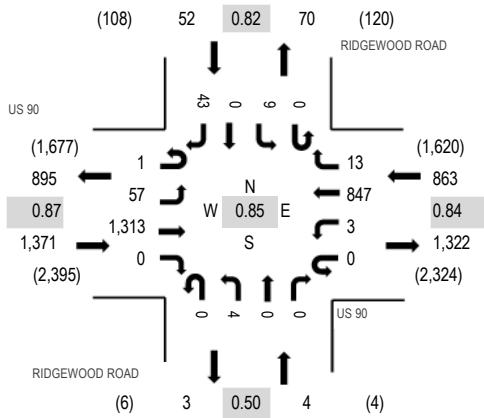
Location: 1 RIDGEWOOD ROAD & US 90 AM

Date: Thursday, September 7, 2023

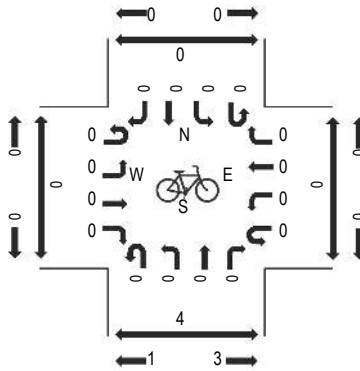
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

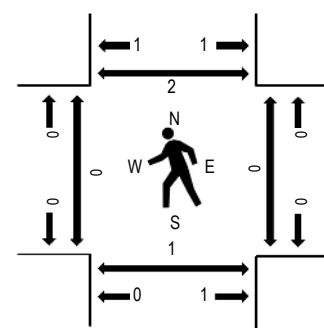
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	US 90 Eastbound				US 90 Westbound				RIDGEWOOD ROAD Northbound				RIDGEWOOD ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	6	206	0	0	0	123	3	0	0	0	0	1	5	0	12	356	2,059	0	0	0	0
7:15 AM	0	14	266	0	0	0	169	4	0	0	0	0	0	3	0	13	469	2,256	0	0	0	0
7:30 AM	0	13	339	0	0	0	187	3	0	1	0	0	0	2	0	12	557	2,290	0	0	0	0
7:45 AM	0	17	375	0	0	1	266	6	0	1	0	0	0	1	0	10	677	2,255	0	0	1	1
8:00 AM	1	16	330	0	0	1	191	2	0	0	0	0	0	3	0	9	553	2,068	0	0	0	0
8:15 AM	0	11	269	0	0	1	203	2	0	2	0	0	0	3	0	12	503		0	0	0	1
8:30 AM	0	9	259	0	0	1	248	0	0	0	0	0	0	0	0	5	522		0	0	1	0
8:45 AM	0	8	256	0	0	2	202	5	0	0	0	0	0	7	0	10	490		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	7	0	0	0	20	0	0	0	0	0	0	0	0	0	27
Lights	1	55	1,273	0	0	3	784	12	0	4	0	0	0	9	0	39	2,180
Mediums	0	2	33	0	0	0	43	1	0	0	0	0	0	0	0	4	83
Total	1	57	1,313	0	0	3	847	13	0	4	0	0	0	9	0	43	2,290

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		3.1%				7.4%				0.0%				7.7%			4.8%
Heavy Vehicle %	0.0%	3.5%	3.0%	0.0%	0.0%	0.0%	7.4%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.3%	4.8%
Peak Hour Factor		0.87				0.84				0.50				0.82			0.85
Peak Hour Factor	0.25	0.88	0.88	0.00	0.00	0.63	0.85	0.67	0.00	0.50	0.00	0.00	0.25	0.46	0.00	0.90	0.85



(303) 216-2439
www.alltrafficdata.net

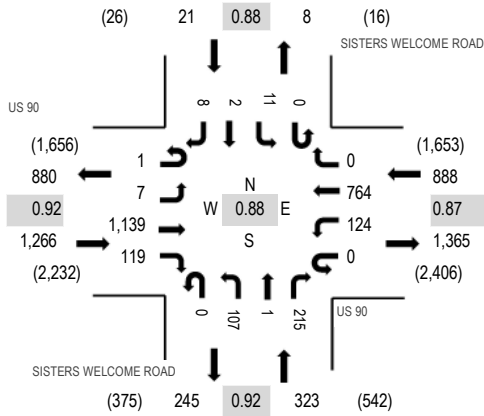
Location: 2 SISTERS WELCOME ROAD & US 90 AM

Date: Thursday, September 7, 2023

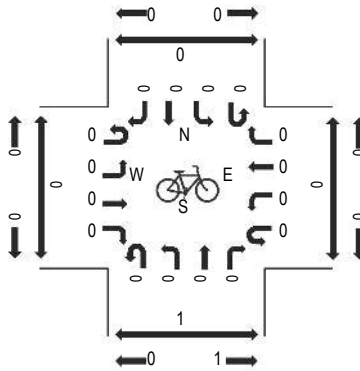
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

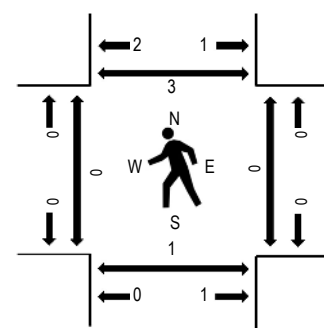
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	US 90				US 90				SISTERS WELCOME ROAD				SISTERS WELCOME ROAD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	190	7	0	13	115	0	0	12	0	28	0	0	0	0	365	2,178	0	0	1	0
7:15 AM	0	2	245	13	0	28	155	0	0	19	0	32	0	1	0	0	495	2,426	0	0	0	0
7:30 AM	0	1	301	26	0	29	170	0	0	25	0	54	0	1	2	1	610	2,498	0	0	0	0
7:45 AM	0	2	315	27	0	44	224	0	0	23	0	67	0	5	0	1	708	2,472	0	0	1	1
8:00 AM	1	2	302	32	0	19	178	0	0	26	0	47	0	1	0	5	613	2,275	0	0	0	0
8:15 AM	0	2	221	34	0	32	192	0	0	33	1	47	0	4	0	1	567		0	0	0	2
8:30 AM	0	2	229	22	0	18	224	0	0	40	1	45	0	0	1	2	584		0	0	1	0
8:45 AM	0	2	245	9	0	19	193	0	0	16	1	25	0	1	0	0	511		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	7	0	0	1	19	0	0	0	0	0	0	0	0	0	27
Lights	1	7	1,110	115	0	112	710	0	0	105	1	204	0	11	2	8	2,386
Mediums	0	0	22	4	0	11	35	0	0	2	0	11	0	0	0	0	85
Total	1	7	1,139	119	0	124	764	0	0	107	1	215	0	11	2	8	2,498

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		2.6%				7.4%				4.0%				0.0%			4.5%
Heavy Vehicle %	0.0%	0.0%	2.5%	3.4%	0.0%	9.7%	7.1%	0.0%	0.0%	1.9%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	4.5%
Peak Hour Factor		0.92				0.87				0.92				0.88			0.88
Peak Hour Factor	0.25	1.00	0.92	0.88	0.00	0.70	0.91	0.00	0.00	0.76	0.75	0.80	0.00	0.55	0.25	0.45	0.88



(303) 216-2439
www.alltrafficdata.net

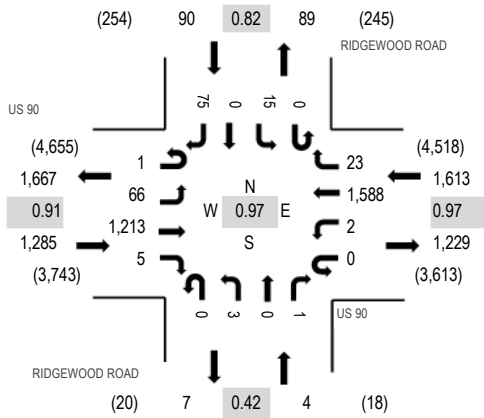
Location: 1 RIDGEWOOD ROAD & US 90 PM

Date: Thursday, September 7, 2023

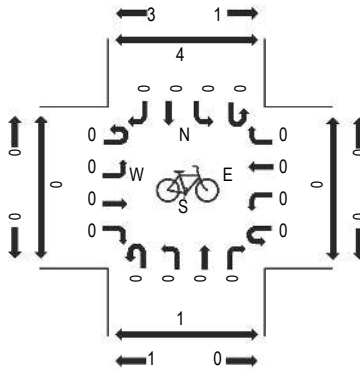
Peak Hour: 03:45 PM - 04:45 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

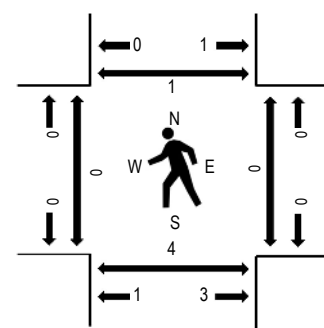
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	US 90 Eastbound				US 90 Westbound				RIDGEWOOD ROAD Northbound				RIDGEWOOD ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:00 PM	0	14	342	3	0	1	328	5	0	3	0	0	0	7	0	11	714	2,924	0	0	1	0
3:15 PM	0	12	294	2	0	0	374	8	0	5	0	1	0	4	0	15	715	2,959	0	0	0	1
3:30 PM	0	12	292	3	0	0	392	7	0	0	0	0	0	4	0	16	726	2,981	0	0	0	1
3:45 PM	0	18	314	2	0	0	408	6	0	1	0	0	0	4	0	16	769	2,992	0	0	0	0
4:00 PM	0	16	314	0	0	0	393	6	0	1	0	0	0	2	0	17	749	2,974	0	0	0	0
4:15 PM	1	12	302	0	0	1	392	8	0	0	0	1	0	3	0	17	737	2,959	0	0	0	0
4:30 PM	0	20	283	3	0	1	395	3	0	1	0	0	0	6	0	25	737	2,890	0	0	4	1
4:45 PM	0	13	299	0	0	0	406	9	0	0	0	0	0	5	0	19	751	2,790	0	0	2	0
5:00 PM	0	9	270	0	0	1	410	9	0	1	0	1	0	12	0	21	734	2,635	0	0	1	0
5:15 PM	0	13	300	1	0	0	332	4	0	1	0	0	0	3	0	14	668		0	0	1	0
5:30 PM	0	13	282	0	0	1	318	4	0	1	0	0	0	2	0	16	637		0	0	0	0
5:45 PM	0	20	263	1	0	0	292	4	0	1	0	0	0	3	0	12	596		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	15
Lights	1	62	1,176	5	0	2	1,542	23	0	3	0	1	0	15	0	73	2,903
Mediums	0	4	31	0	0	0	37	0	0	0	0	0	0	0	0	2	74
Total	1	66	1,213	5	0	2	1,588	23	0	3	0	1	0	15	0	75	2,992

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		3.2%				2.9%				0.0%				2.2%			3.0%
Heavy Vehicle %	0.0%	6.1%	3.1%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	3.0%
Peak Hour Factor		0.91				0.97				0.42				0.82			0.97
Peak Hour Factor	0.25	0.83	0.91	0.83	0.00	0.75	0.98	0.81	0.00	0.45	0.00	0.50	0.00	0.54	0.00	0.82	0.97



(303) 216-2439
www.alltrafficdata.net

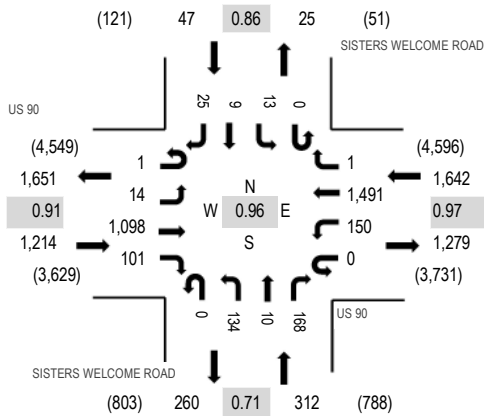
Location: 2 SISTERS WELCOME ROAD & US 90 PM

Date: Thursday, September 7, 2023

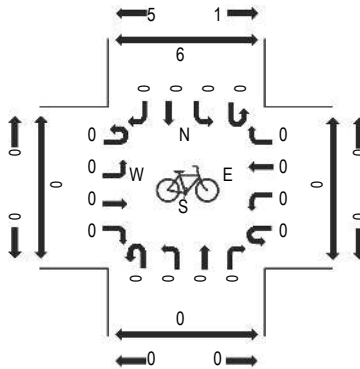
Peak Hour: 03:45 PM - 04:45 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

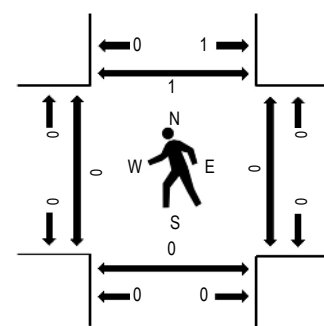
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	US 90				US 90				SISTERS WELCOME ROAD				SISTERS WELCOME ROAD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
3:00 PM	1	3	321	20	0	30	308	0	0	17	3	27	0	6	1	3	740	3,147	0	0	0	0
3:15 PM	0	2	280	43	0	41	349	0	0	22	0	25	0	1	3	6	772	3,190	0	0	0	1
3:30 PM	0	2	262	31	0	40	362	1	0	45	0	43	0	2	0	6	794	3,214	0	1	0	0
3:45 PM	0	2	267	28	0	33	384	1	0	54	1	61	0	3	2	5	841	3,215	0	0	0	0
4:00 PM	1	2	287	21	0	41	357	0	0	31	2	34	0	2	1	4	783	3,169	0	0	0	0
4:15 PM	0	4	286	17	0	30	385	0	0	28	3	27	0	5	3	8	796	3,166	0	0	0	0
4:30 PM	0	6	258	35	0	46	365	0	0	21	4	46	0	3	3	8	795	3,088	0	0	0	1
4:45 PM	0	3	266	33	0	39	375	0	0	24	2	37	0	5	4	7	795	2,985	0	0	0	0
5:00 PM	0	0	253	21	0	48	383	0	0	42	0	24	0	2	2	5	780	2,818	0	0	0	0
5:15 PM	0	1	283	27	0	47	297	0	0	20	1	34	0	1	2	5	718		0	0	0	0
5:30 PM	0	2	260	32	0	32	300	1	0	21	0	37	0	0	3	4	692		0	1	0	0
5:45 PM	0	2	247	20	1	24	276	0	0	16	3	33	0	2	0	4	628		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	15
Lights	1	14	1,067	99	0	137	1,456	1	0	127	10	156	0	13	9	25	3,115
Mediums	0	0	25	2	0	13	26	0	0	7	0	12	0	0	0	0	85
Total	1	14	1,098	101	0	150	1,491	1	0	134	10	168	0	13	9	25	3,215

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	2.7%				2.9%				6.1%				0.0%				3.1%
Heavy Vehicle %	0.0%	0.0%	2.8%	2.0%	0.0%	8.7%	2.3%	0.0%	0.0%	5.2%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	3.1%
Peak Hour Factor	0.91				0.97				0.71				0.86				0.96
Peak Hour Factor	0.25	0.63	0.88	0.72	0.25	0.94	0.98	0.50	0.00	0.73	0.69	0.69	0.00	0.75	0.75	0.88	0.96

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 2900 COLUMBIA COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2022 - 01/01/2022	1.02	1.04
2	01/02/2022 - 01/08/2022	1.05	1.07
3	01/09/2022 - 01/15/2022	1.08	1.10
4	01/16/2022 - 01/22/2022	1.07	1.09
5	01/23/2022 - 01/29/2022	1.05	1.07
6	01/30/2022 - 02/05/2022	1.03	1.05
7	02/06/2022 - 02/12/2022	1.02	1.04
8	02/13/2022 - 02/19/2022	1.00	1.02
9	02/20/2022 - 02/26/2022	1.00	1.02
10	02/27/2022 - 03/05/2022	0.99	1.01
11	03/06/2022 - 03/12/2022	0.99	1.01
*12	03/13/2022 - 03/19/2022	0.98	1.00
*13	03/20/2022 - 03/26/2022	0.98	1.00
*14	03/27/2022 - 04/02/2022	0.98	1.00
*15	04/03/2022 - 04/09/2022	0.97	0.99
*16	04/10/2022 - 04/16/2022	0.97	0.99
*17	04/17/2022 - 04/23/2022	0.97	0.99
*18	04/24/2022 - 04/30/2022	0.97	0.99
*19	05/01/2022 - 05/07/2022	0.97	0.99
*20	05/08/2022 - 05/14/2022	0.97	0.99
*21	05/15/2022 - 05/21/2022	0.98	1.00
*22	05/22/2022 - 05/28/2022	0.98	1.00
*23	05/29/2022 - 06/04/2022	0.99	1.01
*24	06/05/2022 - 06/11/2022	0.99	1.01
25	06/12/2022 - 06/18/2022	1.00	1.02
26	06/19/2022 - 06/25/2022	1.00	1.02
27	06/26/2022 - 07/02/2022	1.01	1.03
28	07/03/2022 - 07/09/2022	1.02	1.04
29	07/10/2022 - 07/16/2022	1.03	1.05
30	07/17/2022 - 07/23/2022	1.02	1.04
31	07/24/2022 - 07/30/2022	1.01	1.03
32	07/31/2022 - 08/06/2022	1.01	1.03
33	08/07/2022 - 08/13/2022	1.00	1.02
34	08/14/2022 - 08/20/2022	0.99	1.01
35	08/21/2022 - 08/27/2022	1.00	1.02
36	08/28/2022 - 09/03/2022	1.00	1.02
37	09/04/2022 - 09/10/2022	1.01	1.03
38	09/11/2022 - 09/17/2022	1.01	1.03
39	09/18/2022 - 09/24/2022	1.00	1.02
40	09/25/2022 - 10/01/2022	0.99	1.01
41	10/02/2022 - 10/08/2022	0.98	1.00
42	10/09/2022 - 10/15/2022	0.97	0.99
43	10/16/2022 - 10/22/2022	0.98	1.00
44	10/23/2022 - 10/29/2022	0.99	1.01
45	10/30/2022 - 11/05/2022	1.00	1.02
46	11/06/2022 - 11/12/2022	1.01	1.03
47	11/13/2022 - 11/19/2022	1.02	1.04
48	11/20/2022 - 11/26/2022	1.02	1.04
49	11/27/2022 - 12/03/2022	1.02	1.04
50	12/04/2022 - 12/10/2022	1.02	1.04
51	12/11/2022 - 12/17/2022	1.02	1.04
52	12/18/2022 - 12/24/2022	1.05	1.07
53	12/25/2022 - 12/31/2022	1.08	1.10

* PEAK SEASON

23-FEB-2023 09:11:19

830UPD

2_2900_PKSEASON.TXT

Location Details			
Signal ID:	75	Date:	May 25, 2023
Major Street:	US 90	Orientation:	E-W
Minor Street:	Ridgewood Ave	Orientation:	N-S

Controller Timings (seconds)

Movement # (Controller Phase Ø)	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Notes
Direction	EBLT	WB		NB	WBLT	EB		SB									
Turn Type	FYA				FYA												
Min Green	5	15		7	5	15		7									
Ext	3.0	4.0		3.0	3.0	4.0		3.0									
Yellow	4.8	4.8		3.4	4.8	4.8		3.4									
All Red	2.0	2.0		2.5	2.0	2.0		2.9									
Max I	20	50		30	20	50		30									
Max II	15	110		15	15	110		15									
Walk		7		7		7		7									
Flashing Don't Walk		20		24		12		28									
Detector Memory	OFF	OFF		OFF	OFF	OFF		OFF									
Det. Switching to:																	
Recall		Min				Min											
CNA																	

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits																Offset	Seq	Coord Ø
			Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16			
1		130	23	74 Max	16	16	15	82 Max	16	17									17	1	2
2		130	20	77 Min	16	16	17	80 Min	16	17									59	1	2
3		150	21	93 Max	20	16	15	99 Max	16	20									60	1	2
4		110	19	58 Max	16	16	15	62 Max	16	17									91	1	2
5		100	19	48 Max	16	16	15	52 Max	16	17									25	1	2
6		140	25	82 Max	16	16	18	89 Max	16	17									26	1	2
7		110	24	53 Max	16	16	16	61 Max	16	17									33	1	2
8		100	19	48 Max	16	16	15	52 Max	16	17									25	1	2
9		140	25	82 Max	16	16	18	89 Max	16	17									26	1	2
10		110	24	53 Max	16	16	16	61 Max	16	17									33	1	2

Offset Reference Point	Phase Mode
End of Green of first through movement	User

Notes:
1) Use 'Max I' during FREE Operation.

SEQ 1				
Ring - 1	1	2	4	3
Ring - 2	5	6	7	8

Location Details			
Signal ID:	103	Date:	May 25, 2023
Major Street:	US 90	Orientation:	E-W
Minor Street:	Sisters Welcome	Orientation:	N-S

Controller Timings (seconds)

Movement # (Controller Phase Ø)	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Notes
Direction	EBLT	WB		NB	WBLT	EB		SB									
Turn Type	FYA				FYA												
Min Green	5	15		7	5	15		7									
Ext	3.0	4.0		4.0	3.0	4.0		4.0									
Yellow	4.9	4.9		3.7	4.9	4.9		3.7									
All Red	2.0	2.0		2.4	2.0	2.0		2.4									
Max I	20	45		35	20	45		35									
Max II	13	95		15	27	95		15									
Walk		7		7		7		7									
Flashing Don't Walk		12		24		23		27									
Detector Memory	OFF	ON		OFF	OFF	ON		OFF									
Det. Switching to:																	
Recall		Min				Min											
CNA																	

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits																Offset	Seq	Coord Ø
			Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16			
1		130	15	76 Max	17	22	29	62 Max	22	17									9	1	2
2		130	15	76 Max	17	22	21	70 Max	22	17									41	1	2
3		150	15	91 Max	17	27	31	75 Max	27	17									47	1	2
4		110	15	58 Max	17	20	23	50 Max	20	17									73	1	2
5		100	15	48 Max	17	20	17	46 Max	20	17									1	1	2
6		140	17	73 Max	20	30	23	67 Max	30	20									4	1	2
7		110	15	56 Max	17	22	18	53 Max	22	17									7	1	2
8		100	15	48 Max	17	20	17	46 Max	20	17									1	1	2
9		140	17	73 Max	20	30	23	67 Max	30	20									4	1	2
10		110	15	56 Max	17	22	18	53 Max	22	17									7	1	2

Offset Reference Point	Phase Mode
End of Green of first through movement	User

Notes:

1) Use 'Max I' during FREE Operation.

	SEQ 1			
Ring - 1	1	2	3	4
Ring - 2	5	6	8	7

APPENDIX D

Intersection Volume Development Worksheets

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: US 90 & NW Ridgewood Ave
COUNT DATE: September 7, 2023
AM PEAK HOUR FACTOR: 0.85
SCHOOL PM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.99

"AM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
AM Raw Turning Movements		1	57	1,313	0		3	847	13		4	0	0		9	0	43		
Peak Season Conversion Factor		1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03		
AM EXISTING CONDITIONS		1	59	1,352	0		3	872	13		4	0	0		9	0	44		
"SCHOOL PM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements		1	58	1,214	7		0	1,567	27		7	0	1		14	0	64		
Peak Season Conversion Factor		1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03		
SCHOOL PM EXISTING CONDITIONS			60	1,250	7		0	1,614	28		7	0	1		14	0	66		
"PM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements		1	61	1,198	3		2	1,586	26		2	0	1		16	0	78		
Peak Season Conversion Factor		1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03		
PM EXISTING CONDITIONS		1	63	1,234	3		2	1,634	27		2	0	1		16	0	80		
"AM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Yearly Growth Rate		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
AM BACKGROUND TRAFFIC GROWTH		0	1	27	0		0	18	0		0	0	0		0	0	1		
AM NON-PROJECT TRAFFIC		1	60	1,379	0		3	890	13		4	0	0		9	0	45		
"SCHOOL PM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Yearly Growth Rate		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
SCHOOL PM BACKGROUND TRAFFIC GROWTH		0	1	25	0		0	32	1		0	0	0		0	0	1		
SCHOOL PM NON-PROJECT TRAFFIC			61	1,275	7		0	1,646	29		7	0	1		14	0	67		
"PM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Yearly Growth Rate		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
PM BACKGROUND TRAFFIC GROWTH		0	1	25	0		0	33	1		0	0	0		0	0	2		
PM NON-PROJECT TRAFFIC		1	64	1,259	3		2	1,667	28		2	0	1		16	0	82		
"AM PROJECT DISTRIBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering				-61.0%	61.0%		39.0%	-39.0%				39.0%						
	Exiting																		
Net New Distribution	Entering					44.0%		44.0%										3.0%	
	Exiting												49.0%	3.0%					
"SCHOOL PM PROJECT DISTRIBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering				-44.0%	44.0%		56.0%	-56.0%										
	Exiting												56.0%		10.0%				
Net New Distribution	Entering					44.0%		44.0%										3.0%	
	Exiting												49.0%	3.0%					
"PM PROJECT DISTRIBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering				-43.0%	43.0%		57.0%	-57.0%										
	Exiting												57.0%					3.0%	
Net New Distribution	Entering					44.0%		44.0%											
	Exiting												49.0%	3.0%					
"AM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS							0		-3				-4	0	0			0	
Project Trips	Pass - By				-129	129		83	-83				83						
	Net New					37		37					40	2				2	
AM TOTAL PROJECT TRAFFIC				0	0	-129	166		117	-83	0		119	2	0		0	2	0
AM TOTAL TRAFFIC				1	60	1,250	166		120	807	13		123	2	0		9	2	45
"SCHOOL PM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SCHOOL PM TRAFFIC DIVERSIONS							-7		0				-7	0	-1			0	
Project Trips	Pass - By				-87	87		110	-110				110		20				
	Net New					32		32					36	2				2	
SCHOOL PM TOTAL PROJECT TRAFFIC						-87	112		142	-110			139	2	19			2	
SCHOOL PM TOTAL TRAFFIC					61	1,188	119		142	1,536	29		146	2	20		14	2	67
"PM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS							-3		-2				-2	0	-1			0	
Project Trips	Pass - By				-77	77		103	-103				103						
	Net New					31		31					32	2				2	
PM TOTAL PROJECT TRAFFIC				0	0	-77	105		132	-103	0		133	2	-1		0	2	0
PM TOTAL TRAFFIC				1	64	1,182	108		134	1,564	28		135	2	0		16	2	82

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: US 90 & SW Sisters Welcome Rd
COUNT DATE: September 7, 2023
AM PEAK HOUR FACTOR: 0.88
SCHOOL PM PEAK HOUR FACTOR: 0.95
PM PEAK HOUR FACTOR: 1.00

"AM EXISTING TRAFFIC"				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
AM Raw Turning Movements				1	7	1,139	119		124	764	0		107	1	215		11	2	8		
Peak Season Conversion Factor				1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03		
AM EXISTING CONDITIONS				1	7	1,173	123		128	787	0		110	1	221		11	2	8		
"SCHOOL PM EXISTING TRAFFIC"				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements				1	8	1,096	123		155	1,452	2		152	3	163		8	6	21		
Peak Season Conversion Factor				1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03		
SCHOOL PM EXISTING CONDITIONS				1	8	1,129	127		160	1,496	2		157	3	168		8	6	22		
"PM EXISTING TRAFFIC"				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements				1	15	1,097	106		156	1,482	0		104	11	144		15	11	27		
Peak Season Conversion Factor				1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03		
PM EXISTING CONDITIONS				1	15	1,130	109		161	1,526	0		107	11	148		15	11	28		
"AM BACKGROUND TRAFFIC"				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Yearly Growth Rate				1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
AM BACKGROUND TRAFFIC GROWTH				0	0	24	2		3	16	0		2	0	4		0	0	0		
AM NON-PROJECT TRAFFIC				1	7	1,197	125		131	803	0		112	1	225		11	2	8		
"SCHOOL PM BACKGROUND TRAFFIC"				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Yearly Growth Rate				1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
SCHOOL PM BACKGROUND TRAFFIC GROWTH				0	0	23	3		3	30	0		3	0	3		0	0	0		
SCHOOL PM NON-PROJECT TRAFFIC				1	8	1,152	130		163	1,526	2		160	3	171		8	6	22		
"PM BACKGROUND TRAFFIC"				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Yearly Growth Rate				1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
PM BACKGROUND TRAFFIC GROWTH				0	0	23	2		3	31	0		2	0	3		0	0	1		
PM NON-PROJECT TRAFFIC				1	15	1,153	111		164	1,557	0		109	11	151		15	11	29		
"AM PROJECT DISTRIBUTION"				LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution				Entering																	
				Exiting																	
Net New Distribution				Entering			44.0%														
				Exiting						9.0%	40.0%			4.0%							
"SCHOOL PM PROJECT DISTRIBUTION"				LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution				Entering																	
				Exiting																	
Net New Distribution				Entering			44.0%														
				Exiting						9.0%	40.0%			4.0%							
"PM PROJECT DISTRIBUTION"				LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution				Entering																	
				Exiting																	
Net New Distribution				Entering			44.0%														
				Exiting						9.0%	40.0%			4.0%							
"AM PROJECT TRAFFIC"				LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips				Pass - By																	
				Net New			37			7	33			3							
AM TOTAL PROJECT TRAFFIC						0	0	37	0		7	33	0		3	0	0		0	0	0
AM TOTAL TRAFFIC				1	7	1,234	125		138	836	0		115	1	225		11	2	8		
"SCHOOL PM PROJECT TRAFFIC"				LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips				Pass - By																	
				Net New			32			7	29			3							
SCHOOL PM TOTAL PROJECT TRAFFIC							32			7	29			3	3						
SCHOOL PM TOTAL TRAFFIC				1	8	1,184	130		170	1,555	2		163	3	171		8	6	22		
"PM PROJECT TRAFFIC"				LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips				Pass - By																	
				Net New			31			6	26			3							
PM TOTAL PROJECT TRAFFIC						0	0	31	0		6	26	0		3	0	0		0	0	0
PM TOTAL TRAFFIC				1	15	1,184	111		170	1,583	0		112	11	151		15	11	29		

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: SW Sisters Welcome Rd & RIRO Driveway
COUNT DATE: September 7, 2023
AM PEAK HOUR FACTOR: 0.88
SCHOOL PM PEAK HOUR FACTOR: 0.95
PM PEAK HOUR FACTOR: 1.00

"AM EXISTING TRAFFIC"													
AM Raw Turning Movements	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Peak Season Conversion Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	
AM EXISTING CONDITIONS													
		0	0	0		0	323	0		0	252	0	
"SCHOOL PM EXISTING TRAFFIC"													
PM Raw Turning Movements	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Peak Season Conversion Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	
SCHOOL PM EXISTING CONDITIONS													
		0	0	0		0	328	0		0	293	0	
"PM EXISTING TRAFFIC"													
PM Raw Turning Movements	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Peak Season Conversion Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	
PM EXISTING CONDITIONS													
		0	0	0		0	267	0		0	281	0	
"AM BACKGROUND TRAFFIC"													
Years To Buildout	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Yearly Growth Rate	2	2	2	2	2	2	2	2	2	2	2	2	
AM BACKGROUND TRAFFIC GROWTH	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
	0	0	0	0	0	7	0	0	0	5	0	0	
AM NON-PROJECT TRAFFIC													
		0	0	0		0	340	0		0	257	0	
"SCHOOL PM BACKGROUND TRAFFIC"													
Years To Buildout	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Yearly Growth Rate	2	2	2	2	2	2	2	2	2	2	2	2	
SCHOOL PM BACKGROUND TRAFFIC GROWTH	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
	0	0	0	0	0	7	0	0	0	6	0	0	
SCHOOL PM NON-PROJECT TRAFFIC													
		0	0	0		0	335	0		0	299	0	
"PM BACKGROUND TRAFFIC"													
Years To Buildout	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Yearly Growth Rate	2	2	2	2	2	2	2	2	2	2	2	2	
PM BACKGROUND TRAFFIC GROWTH	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
	0	0	0	0	0	5	0	0	0	6	0	0	
PM NON-PROJECT TRAFFIC													
		0	0	0		0	272	0		0	287	0	
"AM PROJECT DISTRIBUTION"													
LAND USE	TYPE	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By	Entering												
Distribution	Exiting												
Net New	Entering							9.0%					
Distribution	Exiting				4.0%							9.0%	
"SCHOOL PM PROJECT DISTRIBUTION"													
LAND USE	TYPE	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By	Entering												
Distribution	Exiting												
Net New	Entering							9.0%					
Distribution	Exiting				4.0%							9.0%	
"PM PROJECT DISTRIBUTION"													
LAND USE	TYPE	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By	Entering												
Distribution	Exiting												
Net New	Entering							9.0%					
Distribution	Exiting				4.0%							9.0%	
"AM PROJECT TRAFFIC"													
LAND USE	TYPE	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project	Pass - By												
Trips	Net New				3				7			7	
AM TOTAL PROJECT TRAFFIC		0	0	3	0	0	7	0	0	7	0	0	
AM TOTAL TRAFFIC													
		0	0	3		0	340	7		0	264	0	
"SCHOOL PM PROJECT TRAFFIC"													
LAND USE	TYPE	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project	Pass - By												
Trips	Net New				3				7			7	
SCHOOL PM TOTAL PROJECT TRAFFIC					3				7			7	
SCHOOL PM TOTAL TRAFFIC													
		0	0	3		0	335	7		0	306	0	
"PM PROJECT TRAFFIC"													
LAND USE	TYPE	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project	Pass - By												
Trips	Net New				3				6			6	
PM TOTAL PROJECT TRAFFIC		0	0	3	0	0	6	0	0	6	0	0	
PM TOTAL TRAFFIC													
		0	0	3		0	272	6		0	293	0	

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: US 90 & Right-Out Only Driveway
COUNT DATE: September 7, 2023
AM PEAK HOUR FACTOR: 0.85
SCHOOL PM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.99

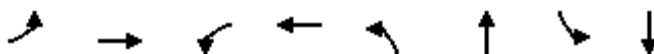
"AM EXISTING TRAFFIC"			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
AM Raw Turning Movements					1,322				863					
Peak Season Conversion Factor			1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
AM EXISTING CONDITIONS					1,362				889					
"SCHOOL PM EXISTING TRAFFIC"			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
PM Raw Turning Movements				0	1,229				1,594	0		0	0	0
Peak Season Conversion Factor			1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
SCHOOL PM EXISTING CONDITIONS				0	1,266				1,642	0		0	0	0
"PM EXISTING TRAFFIC"			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
PM Raw Turning Movements				0	1,215				1,614	0		0	0	0
Peak Season Conversion Factor			1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
PM EXISTING CONDITIONS				0	1,251				1,662	0		0	0	0
"AM BACKGROUND TRAFFIC"			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Years To Buildout			2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate			1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH					27				18					
AM NON-PROJECT TRAFFIC					1,389				907					
"SCHOOL PM BACKGROUND TRAFFIC"			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Years To Buildout			2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate			1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
SCHOOL PM BACKGROUND TRAFFIC GROWTH				0	25				33	0		0	0	0
SCHOOL PM NON-PROJECT TRAFFIC				0	1,291				1,675	0		0	0	0
"PM BACKGROUND TRAFFIC"			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Years To Buildout			2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate			1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH				0	25				33	0		0	0	0
PM NON-PROJECT TRAFFIC				0	1,276				1,695	0		0	0	0
"AM PROJECT DISTRIBUTION"														
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Pass-By Distribution	Entering			-61.0%										
	Exiting			0.0%									61.0%	
Net New Distribution	Entering							44.0%						
	Exiting			0.0%									44.0%	
"SCHOOL PM PROJECT DISTRIBUTION"														
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Pass-By Distribution	Entering			-44.0%										
	Exiting			0.0%									44.0%	
Net New Distribution	Entering							44.0%						
	Exiting			0.0%									44.0%	
"PM PROJECT DISTRIBUTION"														
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Pass-By Distribution	Entering			-43.0%										
	Exiting			0.0%									43.0%	
Net New Distribution	Entering							44.0%						
	Exiting			0.0%									44.0%	
"AM PROJECT TRAFFIC"														
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Project Trips	Pass - By			-129									129	
	Net New			0				37					36	
AM TOTAL PROJECT TRAFFIC				-129				37					165	
AM TOTAL TRAFFIC					1,260				944					165
"SCHOOL PM PROJECT TRAFFIC"														
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Project Trips	Pass - By			-87									87	
	Net New			0				32					32	
SCHOOL PM TOTAL PROJECT TRAFFIC				-87				32					119	
SCHOOL PM TOTAL TRAFFIC				0	1,204				1,707	0		0	0	119
"PM PROJECT TRAFFIC"														
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Project Trips	Pass - By			-77									77	
	Net New			0				31					29	
PM TOTAL PROJECT TRAFFIC			0	-77				31	0		0	0	106	
PM TOTAL TRAFFIC				0	1,199				1,726	0		0	0	106

APPENDIX E

Synchro Output Reports

Timings 1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Existing (2023) Conditions, AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	1352	3	872	4	0	9	0
Future Volume (vph)	60	1352	3	872	4	0	9	0
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2		4		8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	42.9	42.9	41.3	41.3
Total Split (s)	23.0	88.0	15.0	80.0	27.0	27.0	27.0	27.0
Total Split (%)	17.7%	67.7%	11.5%	61.5%	20.8%	20.8%	20.8%	20.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8		5.9		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 17 (13%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90



HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Existing (2023) Conditions, AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑			↕			↕	
Traffic Volume (veh/h)	60	1352	0	3	872	13	4	0	0	9	0	44
Future Volume (veh/h)	60	1352	0	3	872	13	4	0	0	9	0	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1796	1796	1796	1870	1870	1870	1781	1781	1781
Adj Flow Rate, veh/h	71	1591	0	4	1026	13	5	0	0	11	0	14
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	7	7	7	2	2	2	8	8	8
Cap, veh/h	536	4084	0	285	3872	49	111	0	0	58	5	29
Arrive On Green	0.04	0.81	0.00	0.01	1.00	1.00	0.04	0.00	0.00	0.04	0.00	0.04
Sat Flow, veh/h	1767	5233	0	1711	4991	63	1574	0	0	514	133	823
Grp Volume(v), veh/h	71	1591	0	4	672	367	5	0	0	25	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	0	1711	1635	1785	1574	0	0	1469	0	0
Q Serve(g_s), s	1.0	11.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	1.0	11.5	0.0	0.1	0.0	0.0	0.4	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.04	1.00		0.00	0.44		0.56
Lane Grp Cap(c), veh/h	536	4084	0	285	2536	1385	111	0	0	92	0	0
V/C Ratio(X)	0.13	0.39	0.00	0.01	0.26	0.27	0.04	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	693	4084	0	384	2536	1385	289	0	0	270	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.4	3.6	0.0	3.3	0.0	0.0	60.6	0.0	0.0	61.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	0.3	0.5	0.2	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	5.0	0.0	0.0	0.2	0.3	0.3	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.5	3.8	0.0	3.4	0.3	0.5	60.8	0.0	0.0	63.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1662				1043				5		25	
Approach Delay, s/veh	3.7				0.3				60.8		63.0	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	107.7		10.9	7.5	111.6		10.9				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		6.3				
Max Green Setting (Gmax), s	16.2	73.2		* 21	8.2	81.2		20.7				
Max Q Clear Time (g_c+I1), s	3.0	2.0		2.4	2.1	13.5		4.1				
Green Ext Time (p_c), s	0.1	12.3		0.0	0.0	26.6		0.1				

Intersection Summary

HCM 6th Ctrl Delay	3.1
HCM 6th LOS	A

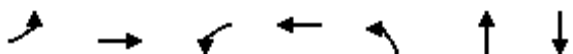
Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Existing (2023) Conditions, AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	8	1173	128	787	110	1	2
Future Volume (vph)	8	1173	128	787	110	1	2
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	62.0	29.0	76.0	22.0	22.0	17.0
Total Split (%)	11.5%	47.7%	22.3%	58.5%	16.9%	16.9%	13.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 9 (7%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Existing (2023) Conditions, AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↰	
Traffic Volume (veh/h)	8	1173	123	128	787	0	110	1	221	11	2	8
Future Volume (veh/h)	8	1173	123	128	787	0	110	1	221	11	2	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1796	1796	1796	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	9	1333	138	145	894	0	125	1	135	12	2	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	7	7	7	4	4	4	2	2	2
Cap, veh/h	457	2882	298	300	3225	0	182	1	161	29	5	14
Arrive On Green	0.01	0.62	0.62	0.06	0.87	0.00	0.10	0.10	0.10	0.03	0.03	0.03
Sat Flow, veh/h	1767	4651	482	1711	5065	0	1753	11	1550	1035	173	518
Grp Volume(v), veh/h	9	968	503	145	894	0	125	0	136	20	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1756	1711	1635	0	1753	0	1562	1725	0	0
Q Serve(g_s), s	0.2	19.9	19.9	4.0	3.9	0.0	8.9	0.0	11.1	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.2	19.9	19.9	4.0	3.9	0.0	8.9	0.0	11.1	1.5	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.00	1.00		0.99	0.60		0.30
Lane Grp Cap(c), veh/h	457	2093	1088	300	3225	0	182	0	162	48	0	0
V/C Ratio(X)	0.02	0.46	0.46	0.48	0.28	0.00	0.69	0.00	0.84	0.42	0.00	0.00
Avail Cap(c_a), veh/h	548	2093	1088	508	3225	0	214	0	191	145	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.9	13.2	13.2	10.2	3.0	0.0	56.2	0.0	57.2	62.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	1.4	1.2	0.2	0.0	8.6	0.0	25.5	8.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	11.5	12.1	2.5	2.0	0.0	7.8	0.0	9.4	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	13.9	14.6	11.4	3.2	0.0	64.8	0.0	82.6	70.3	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	E	A	F	E	A	A
Approach Vol, veh/h		1480			1039			261			20	
Approach Delay, s/veh		14.1			4.4			74.1			70.3	
Approach LOS		B			A			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	92.4		19.6	13.2	87.5		9.7				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	69.1		* 16	22.1	55.1		10.9				
Max Q Clear Time (g_c+I1), s	2.2	5.9		13.1	6.0	21.9		3.5				
Green Ext Time (p_c), s	0.0	10.5		0.4	0.3	16.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay 16.5

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Existing (2023) Conditions, School PM Peak Hour



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	60	1250	1614	7	0	14	0	
Future Volume (vph)	60	1250	1614	7	0	14	0	
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA	
Protected Phases	1	6	2		4		8	5
Permitted Phases	6			4		8		
Detector Phase	1	6	2	4	4	8	8	
Switch Phase								
Minimum Initial (s)	5.0	15.0	15.0	7.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.8	25.8	33.8	36.9	36.9	41.3	41.3	11.8
Total Split (s)	21.0	103.0	97.0	32.0	32.0	32.0	32.0	15.0
Total Split (%)	14.0%	68.7%	64.7%	21.3%	21.3%	21.3%	21.3%	10%
Yellow Time (s)	4.8	4.8	4.8	3.4	3.4	3.4	3.4	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.9	2.9	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	
Total Lost Time (s)	6.8	6.8	6.8		5.9		6.3	
Lead/Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes					Yes
Recall Mode	None	Max	C-Max	None	None	None	None	None
Act Effct Green (s)	128.6	128.6	118.0		8.7		8.3	
Actuated g/C Ratio	0.86	0.86	0.79		0.06		0.06	
v/c Ratio	0.26	0.31	0.43		0.06		0.54	
Control Delay	7.0	0.7	6.0		0.9		29.0	
Queue Delay	0.0	0.0	0.0		0.0		0.0	
Total Delay	7.0	0.7	6.1		0.9		29.0	
LOS	A	A	A		A		C	
Approach Delay		1.0	6.1		0.9		29.0	
Approach LOS		A	A		A		C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 60 (40%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 4.5

Intersection LOS: A

Intersection Capacity Utilization 58.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90



HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Existing (2023) Conditions, School PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑			↕			↕	
Traffic Volume (veh/h)	60	1250	7	0	1614	28	7	0	1	14	0	66
Future Volume (veh/h)	60	1250	7	0	1614	28	7	0	1	14	0	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	62	1302	7	0	1681	28	7	0	1	15	0	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	4	4	4
Cap, veh/h	326	4500	24	381	4085	68	100	3	8	52	5	38
Arrive On Green	0.03	0.87	0.87	0.00	1.00	1.00	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1753	5157	28	1767	5130	85	1367	76	206	462	124	938
Grp Volume(v), veh/h	62	846	463	0	1107	602	8	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1835	1767	1689	1838	1649	0	0	1524	0	0
Q Serve(g_s), s	0.9	6.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	6.5	6.5	0.0	0.0	0.0	0.6	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.05	0.87		0.12	0.38		0.62
Lane Grp Cap(c), veh/h	326	2923	1601	381	2690	1464	111	0	0	94	0	0
V/C Ratio(X)	0.19	0.29	0.29	0.00	0.41	0.41	0.07	0.00	0.00	0.41	0.00	0.00
Avail Cap(c_a), veh/h	438	2923	1601	477	2690	1464	300	0	0	290	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.0	1.6	1.6	0.0	0.0	0.0	69.4	0.0	0.0	70.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.4	0.0	0.5	0.9	0.3	0.0	0.0	2.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	1.9	2.3	0.0	0.3	0.6	0.6	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.2	1.9	2.0	0.0	0.5	0.9	69.7	0.0	0.0	73.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1371				1709				8		39	
Approach Delay, s/veh	1.9				0.6				69.7		73.7	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	126.3		12.3	0.0	137.7		12.3				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		6.3				
Max Green Setting (Gmax), s	14.2	90.2		* 26	8.2	96.2		25.7				
Max Q Clear Time (g_c+I1), s	2.9	2.0		2.6	0.0	8.5		5.7				
Green Ext Time (p_c), s	0.1	30.9		0.0	0.0	18.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay 2.3

HCM 6th LOS A

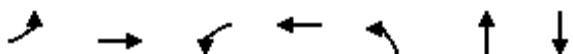
Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Existing (2023) Conditions, School PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	9	1129	160	1496	157	3	6
Future Volume (vph)	9	1129	160	1496	157	3	6
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	75.0	31.0	91.0	27.0	27.0	17.0
Total Split (%)	10.0%	50.0%	20.7%	60.7%	18.0%	18.0%	11.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None
Act Effct Green (s)	94.3	88.5	106.2	103.6	19.0	19.0	8.3
Actuated g/C Ratio	0.63	0.59	0.71	0.69	0.13	0.13	0.06
v/c Ratio	0.04	0.45	0.56	0.45	0.77	0.52	0.32
Control Delay	9.4	19.0	18.7	7.6	86.8	14.0	41.9
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	9.4	19.0	18.7	7.7	86.8	14.0	41.9
LOS	A	B	B	A	F	B	D
Approach Delay		18.9		8.7		48.8	41.9
Approach LOS		B		A		D	D

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 47 (31%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 17.0
Intersection LOS: B
Intersection Capacity Utilization 65.8%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Existing (2023) Conditions, School PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↰	
Traffic Volume (veh/h)	9	1129	127	160	1496	2	157	3	168	8	6	22
Future Volume (veh/h)	9	1129	127	160	1496	2	157	3	168	8	6	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1796	1796	1796	1870	1870	1870
Adj Flow Rate, veh/h	9	1188	132	168	1575	2	165	3	81	8	6	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	7	7	7	2	2	2
Cap, veh/h	264	2908	323	342	3497	4	192	6	165	15	11	32
Arrive On Green	0.01	0.63	0.63	0.07	0.89	0.67	0.11	0.11	0.11	0.03	0.03	0.03
Sat Flow, veh/h	1767	4614	513	1767	5225	7	1711	55	1472	433	324	919
Grp Volume(v), veh/h	9	869	451	168	1018	559	165	0	84	31	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1750	1767	1689	1854	1711	0	1527	1676	0	0
Q Serve(g_s), s	0.3	19.2	19.2	5.0	8.3	8.3	14.2	0.0	7.8	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.3	19.2	19.2	5.0	8.3	8.3	14.2	0.0	7.8	2.7	0.0	0.0
Prop In Lane	1.00		0.29	1.00		0.00	1.00		0.96	0.26		0.55
Lane Grp Cap(c), veh/h	264	2129	1103	342	2260	1241	192	0	171	58	0	0
V/C Ratio(X)	0.03	0.41	0.41	0.49	0.45	0.45	0.86	0.00	0.49	0.53	0.00	0.00
Avail Cap(c_a), veh/h	341	2129	1103	539	2260	1241	238	0	213	122	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.8	13.8	13.8	10.3	3.2	3.2	65.4	0.0	62.5	71.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	1.1	1.0	0.6	1.1	23.8	0.0	3.1	10.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	11.5	12.0	3.3	3.8	4.5	11.9	0.0	5.7	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	14.4	14.9	11.3	3.8	4.3	89.2	0.0	65.6	81.6	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	F	A	E	F	A	A
Approach Vol, veh/h		1329			1745			249			31	
Approach Delay, s/veh		14.5			4.6			81.2			81.6	
Approach LOS		B			A			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	107.3		22.9	14.3	101.4		11.3				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	84.1		* 21	24.1	68.1		10.9				
Max Q Clear Time (g_c+I1), s	2.3	10.3		16.2	7.0	21.2		4.7				
Green Ext Time (p_c), s	0.0	25.2		0.5	0.4	16.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

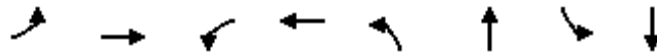
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Existing (2023) Conditions, PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↰	↑↑↑	↰	↑↑↑		↕		↕
Traffic Volume (vph)	64	1234	2	1634	2	0	16	0
Future Volume (vph)	64	1234	2	1634	2	0	16	0
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2		4		8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	36.9	36.9	41.3	41.3
Total Split (s)	21.0	103.0	15.0	97.0	32.0	32.0	32.0	32.0
Total Split (%)	14.0%	68.7%	10.0%	64.7%	21.3%	21.3%	21.3%	21.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8		5.9		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	C-Max	None	None	None	None
Act Effct Green (s)	127.2	125.7	121.9	117.5		9.1		8.7
Actuated g/C Ratio	0.85	0.84	0.81	0.78		0.06		0.06
v/c Ratio	0.26	0.30	0.01	0.42		0.02		0.58
Control Delay	6.3	0.9	2.0	6.1		0.3		32.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	6.3	1.0	2.0	6.1		0.3		32.8
LOS	A	A	A	A		A		C
Approach Delay		1.2		6.1		0.3		32.8
Approach LOS		A		A		A		C

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 60 (40%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 58.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90



HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Existing (2023) Conditions, PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑			↕			↕	
Traffic Volume (veh/h)	64	1234	3	2	1634	27	2	0	1	16	0	80
Future Volume (veh/h)	64	1234	3	2	1634	27	2	0	1	16	0	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	1246	3	2	1651	25	2	0	1	16	0	25
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	4307	10	396	4128	63	76	8	22	53	4	37
Arrive On Green	0.03	0.83	0.83	0.00	1.00	1.00	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1767	5217	13	1781	5179	78	928	192	560	489	114	942
Grp Volume(v), veh/h	65	806	443	2	1085	591	3	0	0	41	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1853	1781	1702	1854	1680	0	0	1544	0	0
Q Serve(g_s), s	1.0	8.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	1.0	8.2	8.2	0.0	0.0	0.0	0.2	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.04	0.67		0.33	0.39		0.61
Lane Grp Cap(c), veh/h	336	2788	1530	396	2713	1478	106	0	0	94	0	0
V/C Ratio(X)	0.19	0.29	0.29	0.01	0.40	0.40	0.03	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	449	2788	1530	488	2713	1478	301	0	0	294	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.3	3.0	3.0	3.1	0.0	0.0	69.4	0.0	0.0	71.1	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.2	0.4	0.0	0.4	0.8	0.1	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	3.7	4.2	0.0	0.3	0.6	0.2	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.6	3.2	3.4	3.1	0.4	0.8	69.5	0.0	0.0	74.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1314			1678			3			41		
Approach Delay, s/veh	3.3			0.6			69.5			74.2		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	126.4		12.2	7.2	130.6		12.2				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		6.3				
Max Green Setting (Gmax), s	14.2	90.2		* 26	8.2	96.2		25.7				
Max Q Clear Time (g_c+I1), s	3.0	2.0		2.2	2.0	10.2		5.9				
Green Ext Time (p_c), s	0.1	29.6		0.0	0.0	16.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay	2.8
HCM 6th LOS	A

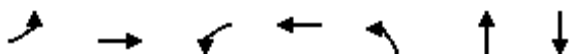
Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Existing (2023) Conditions, PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	16	1130	161	1526	107	11	11
Future Volume (vph)	16	1130	161	1526	107	11	11
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	75.0	31.0	91.0	27.0	27.0	17.0
Total Split (%)	10.0%	50.0%	20.7%	60.7%	18.0%	18.0%	11.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None
Act Effct Green (s)	98.3	92.3	108.8	103.8	15.5	15.5	8.8
Actuated g/C Ratio	0.66	0.62	0.73	0.69	0.10	0.10	0.06
v/c Ratio	0.07	0.40	0.49	0.43	0.60	0.54	0.43
Control Delay	8.9	16.6	14.1	8.4	77.7	17.8	47.6
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	8.9	16.6	14.1	8.4	77.7	17.8	47.6
LOS	A	B	B	A	E	B	D
Approach Delay		16.5		9.0		41.9	47.6
Approach LOS		B		A		D	D

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 47 (31%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 15.2
Intersection LOS: B
Intersection Capacity Utilization 66.7%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Existing (2023) Conditions, PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↰	
Traffic Volume (veh/h)	16	1130	109	161	1526	0	107	11	148	15	11	28
Future Volume (veh/h)	16	1130	109	161	1526	0	107	11	148	15	11	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1826	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	16	1130	108	161	1526	0	107	11	58	15	11	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	2	2	2	5	5	5	2	2	2
Cap, veh/h	298	3119	298	379	3535	0	135	20	104	21	16	31
Arrive On Green	0.02	0.66	0.66	0.06	0.92	0.00	0.08	0.08	0.08	0.04	0.04	0.04
Sat Flow, veh/h	1767	4702	449	1781	5274	0	1739	253	1333	532	390	781
Grp Volume(v), veh/h	16	811	427	161	1526	0	107	0	69	48	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1774	1781	1702	0	1739	0	1586	1703	0	0
Q Serve(g_s), s	0.4	16.0	16.0	4.4	5.9	0.0	9.1	0.0	6.3	4.2	0.0	0.0
Cycle Q Clear(g_c), s	0.4	16.0	16.0	4.4	5.9	0.0	9.1	0.0	6.3	4.2	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.00	1.00		0.84	0.31		0.46
Lane Grp Cap(c), veh/h	298	2240	1177	379	3535	0	135	0	123	69	0	0
V/C Ratio(X)	0.05	0.36	0.36	0.43	0.43	0.00	0.79	0.00	0.56	0.70	0.00	0.00
Avail Cap(c_a), veh/h	364	2240	1177	585	3535	0	242	0	221	124	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.8	11.2	11.2	8.2	2.1	0.0	68.0	0.0	66.7	71.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.9	0.7	0.4	0.0	13.5	0.0	5.5	16.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	9.7	10.2	2.8	2.6	0.0	8.0	0.0	4.9	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.9	11.6	12.1	8.9	2.4	0.0	81.5	0.0	72.2	87.7	0.0	0.0
LnGrp LOS	A	B	B	A	A	A	F	A	E	F	A	A
Approach Vol, veh/h	1254			1687			176			48		
Approach Delay, s/veh	11.7			3.0			77.8			87.7		
Approach LOS	B			A			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	110.7		17.8	13.7	106.4		12.2				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	84.1		* 21	24.1	68.1		10.9				
Max Q Clear Time (g_c+I1), s	2.4	7.9		11.1	6.4	18.0		6.2				
Green Ext Time (p_c), s	0.0	25.5		0.6	0.4	15.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay 11.9

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

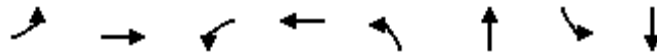
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Background (2025) Conditions, AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↰	↑↑↑	↰	↑↑↑		↕		↕
Traffic Volume (vph)	61	1379	3	890	4	0	9	0
Future Volume (vph)	61	1379	3	890	4	0	9	0
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2		4		8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	42.9	42.9	41.3	41.3
Total Split (s)	23.0	88.0	15.0	80.0	27.0	27.0	27.0	27.0
Total Split (%)	17.7%	67.7%	11.5%	61.5%	20.8%	20.8%	20.8%	20.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8		5.9		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	C-Max	None	None	None	None
Act Effct Green (s)	111.5	111.4	106.4	103.3		7.3		7.0
Actuated g/C Ratio	0.86	0.86	0.82	0.79		0.06		0.05
v/c Ratio	0.16	0.38	0.02	0.28		0.06		0.29
Control Delay	1.2	0.9	2.0	4.9		60.0		3.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	1.2	0.9	2.0	4.9		60.0		3.4
LOS	A	A	A	A		E		A
Approach Delay		0.9		4.9		60.0		3.4
Approach LOS		A		A		E		A

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 17 (13%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 2.6

Intersection LOS: A

Intersection Capacity Utilization 53.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90



HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Background (2025) Conditions, AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑			↕			↕	
Traffic Volume (veh/h)	61	1379	0	3	890	13	4	0	0	9	0	45
Future Volume (veh/h)	61	1379	0	3	890	13	4	0	0	9	0	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1796	1796	1796	1870	1870	1870	1781	1781	1781
Adj Flow Rate, veh/h	72	1622	0	4	1047	13	5	0	0	11	0	15
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	7	7	7	2	2	2	8	8	8
Cap, veh/h	527	4080	0	277	3869	48	113	0	0	57	5	31
Arrive On Green	0.04	0.81	0.00	0.01	1.00	1.00	0.04	0.00	0.00	0.04	0.00	0.04
Sat Flow, veh/h	1767	5233	0	1711	4992	62	1577	0	0	490	132	849
Grp Volume(v), veh/h	72	1622	0	4	686	374	5	0	0	26	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	0	1711	1635	1785	1577	0	0	1472	0	0
Q Serve(g_s), s	1.0	11.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	1.0	11.9	0.0	0.1	0.0	0.0	0.4	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.03	1.00		0.00	0.42		0.58
Lane Grp Cap(c), veh/h	527	4080	0	277	2534	1383	113	0	0	93	0	0
V/C Ratio(X)	0.14	0.40	0.00	0.01	0.27	0.27	0.04	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	685	4080	0	377	2534	1383	289	0	0	270	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.4	3.6	0.0	3.4	0.0	0.0	60.5	0.0	0.0	61.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	0.3	0.5	0.2	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	5.1	0.0	0.0	0.2	0.3	0.3	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.5	3.9	0.0	3.4	0.3	0.5	60.7	0.0	0.0	63.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1694				1064				5		26	
Approach Delay, s/veh	3.8				0.4				60.7		63.0	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	107.6		11.0	7.5	111.5		11.0				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		6.3				
Max Green Setting (Gmax), s	16.2	73.2		* 21	8.2	81.2		20.7				
Max Q Clear Time (g_c+I1), s	3.0	2.0		2.4	2.1	13.9		4.2				
Green Ext Time (p_c), s	0.1	12.7		0.0	0.0	27.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay	3.1
HCM 6th LOS	A

Notes

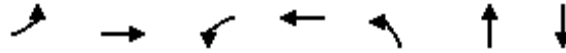
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store

Background (2025) Conditions, AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	8	1197	131	803	112	1	2
Future Volume (vph)	8	1197	131	803	112	1	2
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	62.0	29.0	76.0	22.0	22.0	17.0
Total Split (%)	11.5%	47.7%	22.3%	58.5%	16.9%	16.9%	13.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None
Act Effct Green (s)	81.8	76.1	93.9	91.3	14.2	14.2	8.0
Actuated g/C Ratio	0.63	0.59	0.72	0.70	0.11	0.11	0.06
v/c Ratio	0.02	0.52	0.56	0.27	0.67	0.65	0.21
Control Delay	8.6	18.7	15.7	5.6	72.9	14.4	45.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	18.7	15.7	5.6	72.9	14.4	45.5
LOS	A	B	B	A	E	B	D
Approach Delay		18.7		7.1		33.8	45.5
Approach LOS		B		A		C	D

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 9 (7%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 16.7

Intersection LOS: B

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Background (2025) Conditions, AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↑	
Traffic Volume (veh/h)	8	1197	125	131	803	0	112	1	225	11	2	8
Future Volume (veh/h)	8	1197	125	131	803	0	112	1	225	11	2	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1796	1796	1796	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	9	1360	140	149	912	0	127	1	140	12	2	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	7	7	7	4	4	4	2	2	2
Cap, veh/h	448	2865	295	294	3211	0	187	1	166	29	5	14
Arrive On Green	0.01	0.62	0.62	0.07	0.87	0.00	0.11	0.11	0.11	0.03	0.03	0.03
Sat Flow, veh/h	1767	4654	479	1711	5065	0	1753	11	1551	1035	173	518
Grp Volume(v), veh/h	9	987	513	149	912	0	127	0	141	20	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1756	1711	1635	0	1753	0	1562	1725	0	0
Q Serve(g_s), s	0.2	20.6	20.6	4.2	4.1	0.0	9.1	0.0	11.5	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.2	20.6	20.6	4.2	4.1	0.0	9.1	0.0	11.5	1.5	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.00	1.00		0.99	0.60		0.30
Lane Grp Cap(c), veh/h	448	2079	1081	294	3211	0	187	0	167	48	0	0
V/C Ratio(X)	0.02	0.47	0.47	0.51	0.28	0.00	0.68	0.00	0.84	0.42	0.00	0.00
Avail Cap(c_a), veh/h	539	2079	1081	500	3211	0	214	0	191	145	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.1	13.6	13.6	10.7	3.2	0.0	55.9	0.0	57.0	62.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	1.5	1.3	0.2	0.0	8.3	0.0	27.0	8.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	11.9	12.6	2.6	2.1	0.0	7.9	0.0	9.7	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	14.3	15.1	12.0	3.4	0.0	64.2	0.0	84.0	70.3	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	E	A	F	E	A	A
Approach Vol, veh/h	1509			1061			268			20		
Approach Delay, s/veh	14.6			4.6			74.6			70.3		
Approach LOS	B			A			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	92.0		20.0	13.4	86.9		9.7				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	69.1		* 16	22.1	55.1		10.9				
Max Q Clear Time (g_c+I1), s	2.2	6.1		13.5	6.2	22.6		3.5				
Green Ext Time (p_c), s	0.0	10.8		0.4	0.3	17.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay 16.9

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Background (2025) Conditions, School PM Peak Hour



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	61	1275	1646	7	0	14	0	
Future Volume (vph)	61	1275	1646	7	0	14	0	
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA	
Protected Phases	1	6	2		4		8	5
Permitted Phases	6			4		8		
Detector Phase	1	6	2	4	4	8	8	
Switch Phase								
Minimum Initial (s)	5.0	15.0	15.0	7.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.8	25.8	33.8	36.9	36.9	41.3	41.3	11.8
Total Split (s)	21.0	103.0	97.0	32.0	32.0	32.0	32.0	15.0
Total Split (%)	14.0%	68.7%	64.7%	21.3%	21.3%	21.3%	21.3%	10%
Yellow Time (s)	4.8	4.8	4.8	3.4	3.4	3.4	3.4	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.9	2.9	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	
Total Lost Time (s)	6.8	6.8	6.8		5.9		6.3	
Lead/Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes					Yes
Recall Mode	None	Max	C-Max	None	None	None	None	None
Act Effct Green (s)	128.5	128.5	117.9		8.8		8.4	
Actuated g/C Ratio	0.86	0.86	0.79		0.06		0.06	
v/c Ratio	0.28	0.31	0.44		0.06		0.54	
Control Delay	8.1	0.7	6.1		0.9		29.5	
Queue Delay	0.0	0.0	0.0		0.0		0.0	
Total Delay	8.1	0.7	6.2		0.9		29.5	
LOS	A	A	A		A		C	
Approach Delay		1.1	6.2		0.9		29.5	
Approach LOS		A	A		A		C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 60 (40%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 4.6

Intersection LOS: A

Intersection Capacity Utilization 59.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90



HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Background (2025) Conditions, School PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑			↕			↕	
Traffic Volume (veh/h)	61	1275	7	0	1646	29	7	0	1	14	0	67
Future Volume (veh/h)	61	1275	7	0	1646	29	7	0	1	14	0	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	64	1328	7	0	1715	29	7	0	1	15	0	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	4	4	4
Cap, veh/h	319	4499	24	373	4082	69	100	3	8	51	5	38
Arrive On Green	0.03	0.87	0.87	0.00	1.00	1.00	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1753	5158	27	1767	5128	87	1371	75	207	450	122	953
Grp Volume(v), veh/h	64	863	472	0	1129	615	8	0	0	40	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1835	1767	1689	1838	1653	0	0	1525	0	0
Q Serve(g_s), s	0.9	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	6.6	6.6	0.0	0.0	0.0	0.6	0.0	0.0	3.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.05	0.87		0.12	0.37		0.62
Lane Grp Cap(c), veh/h	319	2922	1601	373	2688	1463	112	0	0	95	0	0
V/C Ratio(X)	0.20	0.30	0.30	0.00	0.42	0.42	0.07	0.00	0.00	0.42	0.00	0.00
Avail Cap(c_a), veh/h	430	2922	1601	468	2688	1463	300	0	0	290	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.0	1.6	1.6	0.0	0.0	0.0	69.4	0.0	0.0	70.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.2	0.4	0.0	0.5	0.9	0.3	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	2.0	2.4	0.0	0.3	0.7	0.6	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.3	1.9	2.1	0.0	0.5	0.9	69.6	0.0	0.0	73.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1399				1744				8		40	
Approach Delay, s/veh	2.0				0.6				69.6		73.8	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	126.2		12.4	0.0	137.6		12.4				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		6.3				
Max Green Setting (Gmax), s	14.2	90.2		* 26	8.2	96.2		25.7				
Max Q Clear Time (g_c+I1), s	2.9	2.0		2.6	0.0	8.6		5.8				
Green Ext Time (p_c), s	0.1	32.2		0.0	0.0	18.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay 2.3
HCM 6th LOS A

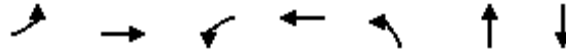
Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Background (2025) Conditions, School PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	9	1152	163	1526	160	3	6
Future Volume (vph)	9	1152	163	1526	160	3	6
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	75.0	31.0	91.0	27.0	27.0	17.0
Total Split (%)	10.0%	50.0%	20.7%	60.7%	18.0%	18.0%	11.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None
Act Effct Green (s)	93.8	88.0	106.1	103.4	19.1	19.1	8.3
Actuated g/C Ratio	0.63	0.59	0.71	0.69	0.13	0.13	0.06
v/c Ratio	0.04	0.46	0.58	0.46	0.78	0.53	0.32
Control Delay	9.6	19.5	20.6	7.7	87.5	13.9	41.9
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	9.6	19.5	20.6	7.7	87.5	13.9	41.9
LOS	A	B	C	A	F	B	D
Approach Delay		19.4		9.0		49.1	41.9
Approach LOS		B		A		D	D

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 47 (31%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 17.3
Intersection LOS: B
Intersection Capacity Utilization 66.6%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Background (2025) Conditions, School PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1152	130	163	1526	2	160	3	171	8	6	22
Future Volume (veh/h)	9	1152	130	163	1526	2	160	3	171	8	6	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1796	1796	1796	1870	1870	1870
Adj Flow Rate, veh/h	9	1213	135	172	1606	2	168	3	84	8	6	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	7	7	7	2	2	2
Cap, veh/h	257	2895	322	336	3488	4	195	6	168	15	11	32
Arrive On Green	0.01	0.63	0.63	0.07	0.89	0.89	0.11	0.11	0.11	0.03	0.03	0.03
Sat Flow, veh/h	1767	4613	513	1767	5225	7	1711	53	1474	433	324	919
Grp Volume(v), veh/h	9	888	460	172	1038	570	168	0	87	31	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1750	1767	1689	1854	1711	0	1526	1676	0	0
Q Serve(g_s), s	0.3	19.9	19.9	5.2	8.7	8.7	14.5	0.0	8.0	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.3	19.9	19.9	5.2	8.7	8.7	14.5	0.0	8.0	2.7	0.0	0.0
Prop In Lane	1.00		0.29	1.00		0.00	1.00		0.97	0.26		0.55
Lane Grp Cap(c), veh/h	257	2120	1098	336	2255	1238	195	0	174	58	0	0
V/C Ratio(X)	0.04	0.42	0.42	0.51	0.46	0.46	0.86	0.00	0.50	0.53	0.00	0.00
Avail Cap(c_a), veh/h	334	2120	1098	531	2255	1238	238	0	213	122	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.9	14.1	14.1	10.6	3.3	3.3	65.3	0.0	62.4	71.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	1.2	1.1	0.6	1.1	24.4	0.0	3.1	10.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	11.8	12.4	3.4	3.9	4.6	12.2	0.0	5.9	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	14.7	15.3	11.7	3.9	4.4	89.7	0.0	65.6	81.6	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	F	A	E	F	A	A
Approach Vol, veh/h	1357		1780				255		31			
Approach Delay, s/veh	14.9		4.8				81.5		81.6			
Approach LOS	B		A				F		F			
Timer - Assigned Phs												
Phs Duration (G+Y+Rc), s	8.5	107.0	23.2		14.5	101.0	11.3					
Change Period (Y+Rc), s	6.9	6.9	* 6.1		6.9	6.9	6.1					
Max Green Setting (Gmax), s	8.1	84.1	* 21		24.1	68.1	10.9					
Max Q Clear Time (g_c+I1), s	2.3	10.7	16.5		7.2	21.9	4.7					
Green Ext Time (p_c), s	0.0	26.1	0.5		0.4	17.2	0.0					

Intersection Summary

HCM 6th Ctrl Delay 15.2

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

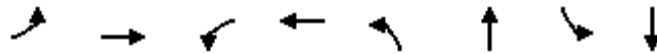
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Background (2025) Conditions, PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	1259	2	1667	2	0	16	0
Future Volume (vph)	65	1259	2	1667	2	0	16	0
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2		4		8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	36.9	36.9	41.3	41.3
Total Split (s)	21.0	103.0	15.0	97.0	32.0	32.0	32.0	32.0
Total Split (%)	14.0%	68.7%	10.0%	64.7%	21.3%	21.3%	21.3%	21.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8		5.9		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	C-Max	None	None	None	None
Act Effct Green (s)	127.1	125.7	121.9	117.5		9.1		8.7
Actuated g/C Ratio	0.85	0.84	0.81	0.78		0.06		0.06
v/c Ratio	0.27	0.30	0.01	0.43		0.02		0.59
Control Delay	7.3	0.9	2.5	6.2		0.3		32.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	7.3	1.0	2.5	6.2		0.3		32.6
LOS	A	A	A	A		A		C
Approach Delay		1.3		6.2		0.3		32.6
Approach LOS		A		A		A		C

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 60 (40%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90



HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Background (2025) Conditions, PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑			↕			↕	
Traffic Volume (veh/h)	65	1259	3	2	1667	28	2	0	1	16	0	82
Future Volume (veh/h)	65	1259	3	2	1667	28	2	0	1	16	0	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	1272	3	2	1684	26	2	0	1	16	0	26
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	329	4305	10	386	4125	64	77	8	22	52	4	38
Arrive On Green	0.03	0.83	0.83	0.00	1.00	1.00	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1767	5218	12	1781	5178	80	931	191	561	476	113	957
Grp Volume(v), veh/h	66	823	452	2	1107	603	3	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1853	1781	1702	1854	1683	0	0	1546	0	0
Q Serve(g_s), s	1.0	8.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	1.0	8.5	8.5	0.0	0.0	0.0	0.2	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.04	0.67		0.33	0.38		0.62
Lane Grp Cap(c), veh/h	329	2787	1529	386	2712	1477	107	0	0	94	0	0
V/C Ratio(X)	0.20	0.30	0.30	0.01	0.41	0.41	0.03	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	441	2787	1529	479	2712	1477	301	0	0	294	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.3	3.0	3.0	3.1	0.0	0.0	69.3	0.0	0.0	71.1	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.2	0.4	0.0	0.5	0.8	0.1	0.0	0.0	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	3.8	4.4	0.0	0.3	0.6	0.2	0.0	0.0	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.6	3.3	3.5	3.1	0.5	0.8	69.4	0.0	0.0	74.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1341			1712			3			42		
Approach Delay, s/veh	3.3			0.6			69.4			74.3		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	126.3		12.2	7.2	130.6		12.2				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		6.3				
Max Green Setting (Gmax), s	14.2	90.2		* 26	8.2	96.2		25.7				
Max Q Clear Time (g_c+I1), s	3.0	2.0		2.2	2.0	10.5		6.0				
Green Ext Time (p_c), s	0.1	30.9		0.0	0.0	17.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay	2.8
HCM 6th LOS	A

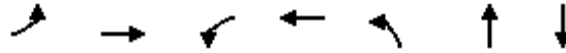
Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Background (2025) Conditions, PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	16	1153	164	1557	109	11	11
Future Volume (vph)	16	1153	164	1557	109	11	11
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	75.0	31.0	91.0	27.0	27.0	17.0
Total Split (%)	10.0%	50.0%	20.7%	60.7%	18.0%	18.0%	11.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None
Act Effct Green (s)	98.0	92.0	108.7	103.7	15.6	15.6	8.8
Actuated g/C Ratio	0.65	0.61	0.72	0.69	0.10	0.10	0.06
v/c Ratio	0.07	0.41	0.51	0.44	0.61	0.55	0.43
Control Delay	9.1	16.9	15.4	8.4	78.1	17.8	47.3
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	9.1	16.9	15.4	8.5	78.1	17.8	47.3
LOS	A	B	B	A	E	B	D
Approach Delay		16.8		9.2		42.1	47.3
Approach LOS		B		A		D	D

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 47 (31%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 15.4
Intersection LOS: B
Intersection Capacity Utilization 67.4%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Background (2025) Conditions, PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↰	
Traffic Volume (veh/h)	16	1153	111	164	1557	0	109	11	151	15	11	29
Future Volume (veh/h)	16	1153	111	164	1557	0	109	11	151	15	11	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1826	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	16	1153	110	164	1557	0	109	11	61	15	11	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	2	2	2	5	5	5	2	2	2
Cap, veh/h	259	3111	297	371	3527	0	138	19	106	21	16	32
Arrive On Green	0.02	0.66	0.66	0.05	0.69	0.00	0.08	0.08	0.08	0.04	0.04	0.04
Sat Flow, veh/h	1767	4703	448	1781	5274	0	1739	242	1342	521	382	798
Grp Volume(v), veh/h	16	828	435	164	1557	0	109	0	72	49	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1774	1781	1702	0	1739	0	1584	1701	0	0
Q Serve(g_s), s	0.4	16.5	16.5	4.5	20.4	0.0	9.2	0.0	6.6	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	16.5	16.5	4.5	20.4	0.0	9.2	0.0	6.6	4.3	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.00	1.00		0.85	0.31		0.47
Lane Grp Cap(c), veh/h	259	2234	1174	371	3527	0	138	0	125	69	0	0
V/C Ratio(X)	0.06	0.37	0.37	0.44	0.44	0.00	0.79	0.00	0.57	0.71	0.00	0.00
Avail Cap(c_a), veh/h	326	2234	1174	576	3527	0	242	0	221	124	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.8	11.4	11.4	8.5	10.3	0.0	67.9	0.0	66.6	71.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.9	0.7	0.4	0.0	13.5	0.0	5.8	17.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	9.9	10.5	2.9	11.2	0.0	8.1	0.0	5.2	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	11.9	12.3	9.3	10.7	0.0	81.3	0.0	72.4	88.4	0.0	0.0
LnGrp LOS	A	B	B	A	B	A	F	A	E	F	A	A
Approach Vol, veh/h	1279			1721			181			49		
Approach Delay, s/veh	12.0			10.5			77.8			88.4		
Approach LOS	B			B			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	110.5		18.0	13.7	106.1		12.2				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	84.1		* 21	24.1	68.1		10.9				
Max Q Clear Time (g_c+I1), s	2.4	22.4		11.2	6.5	18.5		6.3				
Green Ext Time (p_c), s	0.0	24.9		0.6	0.4	15.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay 16.1

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

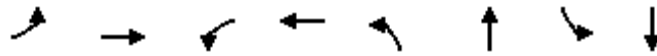
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Buildout (2025) Conditions, AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	1250	120	807	123	2	9	2
Future Volume (vph)	61	1250	120	807	123	2	9	2
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Perm	NA
Protected Phases	1	6	5	2	4	4		8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	42.9	42.9	41.3	41.3
Total Split (s)	23.0	82.0	15.0	74.0	18.0	18.0	15.0	15.0
Total Split (%)	17.7%	63.1%	11.5%	56.9%	13.8%	13.8%	11.5%	11.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	5.9	5.9		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90

Ø1	Ø2 (R)	Ø4	Ø8
23 s	74 s	18 s	15 s
Ø5	Ø6		
15 s	82 s		

HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Buildout (2025) Conditions, AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↑	
Traffic Volume (veh/h)	61	1250	166	120	807	13	123	2	0	9	2	45
Future Volume (veh/h)	61	1250	166	120	807	13	123	2	0	9	2	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1796	1796	1796	1870	1870	1870	1781	1781	1781
Adj Flow Rate, veh/h	72	1471	195	141	949	13	146	0	0	11	2	15
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	7	7	7	2	2	2	8	8	8
Cap, veh/h	494	3015	399	273	3364	46	202	106	0	21	4	29
Arrive On Green	0.04	0.67	0.67	0.06	0.90	0.90	0.06	0.00	0.00	0.03	0.03	0.03
Sat Flow, veh/h	1767	4511	597	1711	4985	68	3563	1870	0	627	114	855
Grp Volume(v), veh/h	72	1101	565	141	622	340	146	0	0	28	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1731	1711	1635	1784	1781	1870	0	1596	0	0
Q Serve(g_s), s	1.6	20.9	20.9	3.4	3.4	3.4	5.2	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	1.6	20.9	20.9	3.4	3.4	3.4	5.2	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.04	1.00		0.00	0.39		0.54
Lane Grp Cap(c), veh/h	494	2257	1157	273	2207	1204	202	106	0	55	0	0
V/C Ratio(X)	0.15	0.49	0.49	0.52	0.28	0.28	0.72	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	651	2257	1157	309	2207	1204	332	174	0	107	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	10.6	10.6	9.1	2.3	2.3	60.3	0.0	0.0	61.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	1.2	1.5	0.3	0.6	4.8	0.0	0.0	7.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	11.1	11.5	2.1	1.7	2.0	4.5	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.1	11.2	11.8	10.6	2.7	2.9	65.1	0.0	0.0	68.9	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	E	A	A	E	A	A
Approach Vol, veh/h	1738				1103				146			
Approach Delay, s/veh	11.2				3.8				65.1			
Approach LOS	B				A				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	94.5		13.3	12.3	93.7		10.8				
Change Period (Y+Rc), s	6.8	6.8		5.9	6.8	6.8		6.3				
Max Green Setting (Gmax), s	16.2	67.2		12.1	8.2	75.2		8.7				
Max Q Clear Time (g_c+I1), s	3.6	5.4		7.2	5.4	22.9		4.2				
Green Ext Time (p_c), s	0.1	10.8		0.2	0.1	25.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay 11.6

HCM 6th LOS B

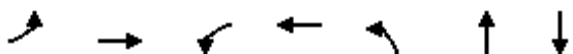
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Buildout (2025) Conditions, AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	8	1234	138	836	115	1	2
Future Volume (vph)	8	1234	138	836	115	1	2
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	62.0	29.0	76.0	22.0	22.0	17.0
Total Split (%)	11.5%	47.7%	22.3%	58.5%	16.9%	16.9%	13.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 9 (7%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 2: SW Sisters Welcome Rd & US 90



HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Buildout (2025) Conditions, AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↰	
Traffic Volume (veh/h)	8	1234	125	138	836	0	115	1	225	11	2	8
Future Volume (veh/h)	8	1234	125	138	836	0	115	1	225	11	2	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1796	1796	1796	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	9	1402	140	157	950	0	131	1	140	12	2	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	7	7	7	4	4	4	2	2	2
Cap, veh/h	433	2865	286	288	3211	0	187	1	166	29	5	14
Arrive On Green	0.01	0.61	0.61	0.07	0.87	0.00	0.11	0.11	0.11	0.03	0.03	0.03
Sat Flow, veh/h	1767	4670	466	1711	5065	0	1753	11	1551	1035	173	518
Grp Volume(v), veh/h	9	1014	528	157	950	0	131	0	141	20	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1759	1711	1635	0	1753	0	1562	1725	0	0
Q Serve(g_s), s	0.2	21.5	21.6	4.4	4.4	0.0	9.4	0.0	11.5	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.2	21.5	21.6	4.4	4.4	0.0	9.4	0.0	11.5	1.5	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.00	1.00		0.99	0.60		0.30
Lane Grp Cap(c), veh/h	433	2072	1079	288	3211	0	187	0	167	48	0	0
V/C Ratio(X)	0.02	0.49	0.49	0.54	0.30	0.00	0.70	0.00	0.84	0.42	0.00	0.00
Avail Cap(c_a), veh/h	525	2072	1079	491	3211	0	214	0	191	145	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.2	13.9	13.9	11.2	3.2	0.0	56.0	0.0	57.0	62.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	1.6	1.5	0.2	0.0	9.6	0.0	27.0	8.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	12.3	13.1	2.8	2.2	0.0	8.2	0.0	9.7	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.2	14.7	15.5	12.8	3.4	0.0	65.6	0.0	84.0	70.3	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	E	A	F	E	A	A
Approach Vol, veh/h	1551				1107				272			
Approach Delay, s/veh	14.9				4.7				75.1			
Approach LOS	B				A				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	92.0		20.0	13.6	86.7		9.7				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	69.1		* 16	22.1	55.1		10.9				
Max Q Clear Time (g_c+I1), s	2.2	6.4		13.5	6.4	23.6		3.5				
Green Ext Time (p_c), s	0.0	11.5		0.4	0.3	17.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 17.0

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC

3: SW Sisters Welcome Rd & Driveway

Lake City C Store
Buildout (2025) Conditions, AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	340	7	0	264
Future Vol, veh/h	0	3	340	7	0	264
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	3	386	8	0	300
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	390	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	658	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	658	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.5	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	658	-		
HCM Lane V/C Ratio	-	-	0.005	-		
HCM Control Delay (s)	-	-	10.5	-		
HCM Lane LOS	-	-	B	-		
HCM 95th %tile Q(veh)	-	-	0	-		

HCM 6th TWSC
4: Right Out Dwy & US 90

Lake City C Store
Buildout (2025) Conditions, AM Peak Hour

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1260	0	0	944	0	165
Future Vol, veh/h	1260	0	0	944	0	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	7	7	2	2
Mvmt Flow	1482	0	0	1111	0	194

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	- 741
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	- 7.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	- 3.92
Pot Cap-1 Maneuver	-	0	0 - 308
Stage 1	-	0	0 -
Stage 2	-	0	0 -
Platoon blocked, %	-		-
Mov Cap-1 Maneuver	-	-	- 308
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	34.7
HCM LOS			D

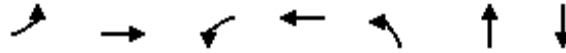
Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	308	-	-
HCM Lane V/C Ratio	0.63	-	-
HCM Control Delay (s)	34.7	-	-
HCM Lane LOS	D	-	-
HCM 95th %tile Q(veh)	4	-	-

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Buildout (2025) Conditions, School PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	61	1188	142	1536	146	2	2
Future Volume (vph)	61	1188	142	1536	146	2	2
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	36.9	36.9	41.3
Total Split (s)	21.0	97.0	15.0	91.0	23.0	23.0	15.0
Total Split (%)	14.0%	64.7%	10.0%	60.7%	15.3%	15.3%	10.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	5.9	5.9	6.3
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 60 (40%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90

Ø1	Ø2 (R)	Ø4	Ø8
21 s	91 s	23 s	15 s
Ø5	Ø6		
15 s	97 s		

HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Buildout (2025) Conditions, School PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↕			↕	
Traffic Volume (veh/h)	61	1188	119	142	1536	29	146	2	0	14	2	67
Future Volume (veh/h)	61	1188	119	142	1536	29	146	2	0	14	2	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	64	1238	124	148	1600	29	153	0	0	15	2	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	4	4	4
Cap, veh/h	304	3211	322	347	3589	65	205	107	0	23	3	38
Arrive On Green	0.03	0.69	0.69	0.05	0.93	0.93	0.06	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1753	4631	464	1767	5121	93	3563	1870	0	584	78	974
Grp Volume(v), veh/h	64	896	466	148	1055	574	153	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1745	1767	1689	1836	1781	1870	0	1636	0	0
Q Serve(g_s), s	1.6	16.8	16.8	3.7	5.4	5.4	6.3	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	1.6	16.8	16.8	3.7	5.4	5.4	6.3	0.0	0.0	3.8	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.05	1.00		0.00	0.36		0.60
Lane Grp Cap(c), veh/h	304	2323	1210	347	2367	1287	205	107	0	63	0	0
V/C Ratio(X)	0.21	0.39	0.39	0.43	0.45	0.45	0.75	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	416	2323	1210	375	2367	1287	406	213	0	95	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	9.6	9.6	7.3	1.7	1.7	69.6	0.0	0.0	71.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.8	0.8	0.6	1.1	5.4	0.0	0.0	11.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	9.4	9.9	2.3	2.4	3.0	5.5	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	10.1	10.4	8.1	2.3	2.8	75.0	0.0	0.0	82.6	0.0	0.0
LnGrp LOS	A	B	B	A	A	A	E	A	A	F	A	A
Approach Vol, veh/h	1426				1777				153		42	
Approach Delay, s/veh	10.0				3.0				75.0		82.6	
Approach LOS	B				A				E		F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	111.9		14.5	12.6	110.8		12.1				
Change Period (Y+Rc), s	6.8	6.8		5.9	6.8	6.8		6.3				
Max Green Setting (Gmax), s	14.2	84.2		17.1	8.2	90.2		8.7				
Max Q Clear Time (g_c+I1), s	3.6	7.4		8.3	5.7	18.8		5.8				
Green Ext Time (p_c), s	0.1	27.1		0.3	0.1	19.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 10.1

HCM 6th LOS B

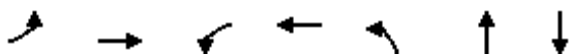
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Buildout (2025) Conditions, School PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	9	1184	170	1555	163	3	6
Future Volume (vph)	9	1184	170	1555	163	3	6
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	75.0	31.0	91.0	27.0	27.0	17.0
Total Split (%)	10.0%	50.0%	20.7%	60.7%	18.0%	18.0%	11.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 47 (31%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 2: SW Sisters Welcome Rd & US 90

Ø1	Ø2 (R)	Ø4	Ø8
15 s	91 s	27 s	17 s
Ø5	Ø6		
31 s	75 s		

HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Buildout (2025) Conditions, School PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↑	
Traffic Volume (veh/h)	9	1184	130	170	1555	2	163	3	171	8	6	22
Future Volume (veh/h)	9	1184	130	170	1555	2	163	3	171	8	6	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1796	1796	1796	1870	1870	1870
Adj Flow Rate, veh/h	9	1246	135	179	1637	2	172	3	84	8	6	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	7	7	7	2	2	2
Cap, veh/h	250	2887	313	329	3477	4	199	6	171	15	11	32
Arrive On Green	0.01	0.62	0.62	0.07	0.89	0.89	0.12	0.12	0.12	0.03	0.03	0.03
Sat Flow, veh/h	1767	4628	501	1767	5225	6	1711	53	1474	433	324	919
Grp Volume(v), veh/h	9	909	472	179	1058	581	172	0	87	31	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1752	1767	1689	1854	1711	0	1526	1676	0	0
Q Serve(g_s), s	0.3	20.8	20.8	5.4	9.3	9.3	14.8	0.0	8.0	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.3	20.8	20.8	5.4	9.3	9.3	14.8	0.0	8.0	2.7	0.0	0.0
Prop In Lane	1.00		0.29	1.00		0.00	1.00		0.97	0.26		0.55
Lane Grp Cap(c), veh/h	250	2106	1093	329	2248	1234	199	0	177	58	0	0
V/C Ratio(X)	0.04	0.43	0.43	0.54	0.47	0.47	0.87	0.00	0.49	0.53	0.00	0.00
Avail Cap(c_a), veh/h	327	2106	1093	521	2248	1234	238	0	213	122	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.1	14.5	14.5	11.1	3.4	3.4	65.2	0.0	62.1	71.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	1.2	1.2	0.6	1.1	25.4	0.0	3.0	10.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	12.3	12.9	3.5	4.1	4.9	12.4	0.0	5.9	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	15.2	15.8	12.3	4.0	4.5	90.5	0.0	65.1	81.6	0.0	0.0
LnGrp LOS	B	B	B	B	A	A	F	A	E	F	A	A
Approach Vol, veh/h	1390			1818			259			31		
Approach Delay, s/veh	15.3			5.0			82.0			81.6		
Approach LOS	B			A			F			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	106.7		23.5	14.7	100.5		11.3				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	84.1		* 21	24.1	68.1		10.9				
Max Q Clear Time (g_c+I1), s	2.3	11.3		16.8	7.4	22.8		4.7				
Green Ext Time (p_c), s	0.0	27.0		0.5	0.4	17.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay 15.5

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC 3: SW Sisters Welcome Rd & Driveway

Lake City C Store
Buildout (2025) Conditions, School PM Peak Hour

Intersection

Int Delay, s/veh 0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	335	7	0	306
Future Vol, veh/h	0	3	335	7	0	306
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	3	353	7	0	322

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	357	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.22	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.318	-
Pot Cap-1 Maneuver	0	687	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	687	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	687
HCM Lane V/C Ratio	-	-	0.005
HCM Control Delay (s)	-	-	10.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

HCM 6th TWSC 4: Right Out Dwy & US 90

Lake City C Store
Buildout (2025) Conditions, School PM Peak Hour

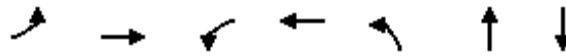
Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1204	0	0	1707	0	119
Future Vol, veh/h	1204	0	0	1707	0	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	1254	0	0	1778	0	124
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	-	-	-	-	627
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	0	0	-	0	365
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	365
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		19.9		
HCM LOS				C		
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	365	-	-			
HCM Lane V/C Ratio	0.34	-	-			
HCM Control Delay (s)	19.9	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	1.5	-	-			

Timings

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store

Buildout (2025) Conditions, PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	65	1182	134	1564	135	2	2
Future Volume (vph)	65	1182	134	1564	135	2	2
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.8	25.8	11.8	33.8	36.9	36.9	41.3
Total Split (s)	21.0	97.0	15.0	91.0	23.0	23.0	15.0
Total Split (%)	14.0%	64.7%	10.0%	60.7%	15.3%	15.3%	10.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.4	3.4	3.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	5.9	5.9	6.3
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 60 (40%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Splits and Phases: 1: Driveway/NW Ridgewood Ave & US 90

Ø1	Ø2 (R)	Ø4	Ø8
21 s	91 s	23 s	15 s
Ø5	Ø6		
15 s	97 s		

HCM 6th Signalized Intersection Summary

1: Driveway/NW Ridgewood Ave & US 90

Lake City C Store
Buildout (2025) Conditions, PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↑	
Traffic Volume (veh/h)	65	1182	108	134	1564	28	135	2	0	16	2	82
Future Volume (veh/h)	65	1182	108	134	1564	28	135	2	0	16	2	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	1194	109	135	1580	26	137	0	0	16	2	26
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	3300	301	365	3645	60	188	99	0	24	3	39
Arrive On Green	0.03	0.70	0.70	0.05	0.94	0.94	0.05	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1767	4712	430	1781	5171	85	3563	1870	0	605	76	983
Grp Volume(v), veh/h	66	856	447	135	1040	566	137	0	0	44	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1765	1781	1702	1852	1781	1870	0	1663	0	0
Q Serve(g_s), s	1.6	15.3	15.3	3.3	4.8	4.8	5.7	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	1.6	15.3	15.3	3.3	4.8	4.8	5.7	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.05	1.00		0.00	0.36		0.59
Lane Grp Cap(c), veh/h	314	2365	1236	365	2399	1306	188	99	0	65	0	0
V/C Ratio(X)	0.21	0.36	0.36	0.37	0.43	0.43	0.73	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	426	2365	1236	398	2399	1306	406	213	0	96	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.7	9.0	9.0	6.7	1.5	1.5	70.0	0.0	0.0	71.1	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.7	0.6	0.6	1.1	5.3	0.0	0.0	11.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	8.8	9.3	2.0	2.2	2.7	5.0	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.0	9.4	9.8	7.3	2.1	2.6	75.3	0.0	0.0	82.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	F	A	A
Approach Vol, veh/h	1369			1741			137			44		
Approach Delay, s/veh	9.4			2.7			75.3			82.6		
Approach LOS	A			A			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	112.5		13.8	12.2	111.8		12.2				
Change Period (Y+Rc), s	6.8	6.8		5.9	6.8	6.8		6.3				
Max Green Setting (Gmax), s	14.2	84.2		17.1	8.2	90.2		8.7				
Max Q Clear Time (g_c+I1), s	3.6	6.8		7.7	5.3	17.3		5.9				
Green Ext Time (p_c), s	0.1	26.4		0.3	0.1	18.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 9.5

HCM 6th LOS A

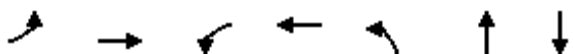
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Timings 2: SW Sisters Welcome Rd & US 90

Lake City C Store
Buildout (2025) Conditions, PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	16	1184	170	1583	112	11	11
Future Volume (vph)	16	1184	170	1583	112	11	11
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	NA
Protected Phases	1	6	5	2	4	4	8
Permitted Phases	6		2				
Detector Phase	1	6	5	2	4	4	8
Switch Phase							
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0
Minimum Split (s)	11.9	36.9	11.9	25.9	37.1	37.1	40.1
Total Split (s)	15.0	75.0	31.0	91.0	27.0	27.0	17.0
Total Split (%)	10.0%	50.0%	20.7%	60.7%	18.0%	18.0%	11.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	Max	None	C-Max	None	None	None

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 47 (31%), Referenced to phase 2:WBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 2: SW Sisters Welcome Rd & US 90

Ø1	Ø2 (R)		Ø4	Ø8	
15 s	91 s		27 s	17 s	
Ø5	Ø6				
31 s	75 s				

HCM 6th Signalized Intersection Summary

2: SW Sisters Welcome Rd & US 90

Lake City C Store
Buildout (2025) Conditions, PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑		↰	↑			↰	
Traffic Volume (veh/h)	16	1184	111	170	1583	0	112	11	151	15	11	29
Future Volume (veh/h)	16	1184	111	170	1583	0	112	11	151	15	11	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1826	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	16	1184	110	170	1583	0	112	11	61	15	11	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	2	2	2	5	5	5	2	2	2
Cap, veh/h	287	3096	287	366	3518	0	140	20	108	21	16	32
Arrive On Green	0.02	0.66	0.66	0.10	1.00	0.00	0.08	0.08	0.08	0.04	0.04	0.04
Sat Flow, veh/h	1767	4715	438	1781	5274	0	1739	242	1342	521	382	798
Grp Volume(v), veh/h	16	848	446	170	1583	0	112	0	72	49	0	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1776	1781	1702	0	1739	0	1584	1701	0	0
Q Serve(g_s), s	0.4	17.3	17.3	4.9	0.0	0.0	9.5	0.0	6.6	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	17.3	17.3	4.9	0.0	0.0	9.5	0.0	6.6	4.3	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.00	1.00		0.85	0.31		0.47
Lane Grp Cap(c), veh/h	287	2217	1166	366	3518	0	140	0	128	69	0	0
V/C Ratio(X)	0.06	0.38	0.38	0.46	0.45	0.00	0.80	0.00	0.56	0.71	0.00	0.00
Avail Cap(c_a), veh/h	354	2217	1166	565	3518	0	242	0	221	124	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.1	11.8	11.8	8.4	0.0	0.0	67.7	0.0	66.4	71.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	1.0	0.8	0.4	0.0	13.5	0.0	5.4	17.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	10.3	11.0	2.9	0.2	0.0	8.3	0.0	5.1	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.2	12.3	12.8	9.2	0.4	0.0	81.2	0.0	71.8	88.4	0.0	0.0
LnGrp LOS	A	B	B	A	A	A	F	A	E	F	A	A
Approach Vol, veh/h	1310			1753			184			49		
Approach Delay, s/veh	12.4			1.2			77.5			88.4		
Approach LOS	B			A			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	110.3		18.2	14.2	105.4		12.2				
Change Period (Y+Rc), s	6.9	6.9		* 6.1	6.9	6.9		6.1				
Max Green Setting (Gmax), s	8.1	84.1		* 21	24.1	68.1		10.9				
Max Q Clear Time (g_c+I1), s	2.4	2.0		11.5	6.9	19.3		6.3				
Green Ext Time (p_c), s	0.0	27.8		0.6	0.4	16.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC

3: SW Sisters Welcome Rd & Driveway

Lake City C Store
Buildout (2025) Conditions, PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	272	6	0	293
Future Vol, veh/h	0	3	272	6	0	293
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	5	5	2	2
Mvmt Flow	0	3	272	6	0	293
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	275	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	764	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	764	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.7	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	764		-		
HCM Lane V/C Ratio	-	0.004		-		
HCM Control Delay (s)	-	9.7		-		
HCM Lane LOS	-	A		-		
HCM 95th %tile Q(veh)	-	0		-		

HCM 6th TWSC
4: Right Out Dwy & US 90

Lake City C Store
Buildout (2025) Conditions, PM Peak Hour

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1199	0	0	1726	0	106
Future Vol, veh/h	1199	0	0	1726	0	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1211	0	0	1743	0	107

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	606
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	0	0	-	0 377
Stage 1	-	0	0	-	0 -
Stage 2	-	0	0	-	0 -
Platoon blocked, %	-			-	
Mov Cap-1 Maneuver	-	-	-	-	- 377
Mov Cap-2 Maneuver	-	-	-	-	- -
Stage 1	-	-	-	-	- -
Stage 2	-	-	-	-	- -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	377	-	-
HCM Lane V/C Ratio	0.284	-	-
HCM Control Delay (s)	18.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1.2	-	-

APPENDIX F
FDOT *Trend* Worksheet

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 29 - COLUMBIA

SITE: 0102 - SR 10 200' W. OF BURK ST.

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	31500	C	E 16500		W 15000	9.00	54.70	6.10
2021	32500	S	E 16500		W 16000	9.00	54.20	5.90
2020	31500	F	E 16000		W 15500	9.00	54.80	6.80
2019	31500	C	E 16000		W 15500	9.00	54.80	6.20
2018	31000	C	E 15500		W 15500	9.00	54.70	6.20
2017	35000	C	E 16000		W 19000	9.00	55.50	5.80
2016	32000	C	E 16000		W 16000	9.00	53.90	5.40
2015	32000	C	E 16000		W 16000	9.00	54.50	5.70
2014	33000	C	E 16500		W 16500	9.00	54.40	5.90
2013	37000	C	E 18500		W 18500	9.00	55.30	6.40
2012	33500	C	E 16500		W 17000	9.00	54.70	5.50
2011	34500	C	E 17000		W 17500	9.00	53.70	5.30
2010	33500	C	E 17000		W 16500	9.94	54.40	4.90
2009	35000	C	E 17500		W 17500	9.78	54.18	5.30
2008	37500	C	E 19000		W 18500	9.82	54.63	6.20
2007	36000	C	E 17500		W 18500	9.99	54.46	6.40

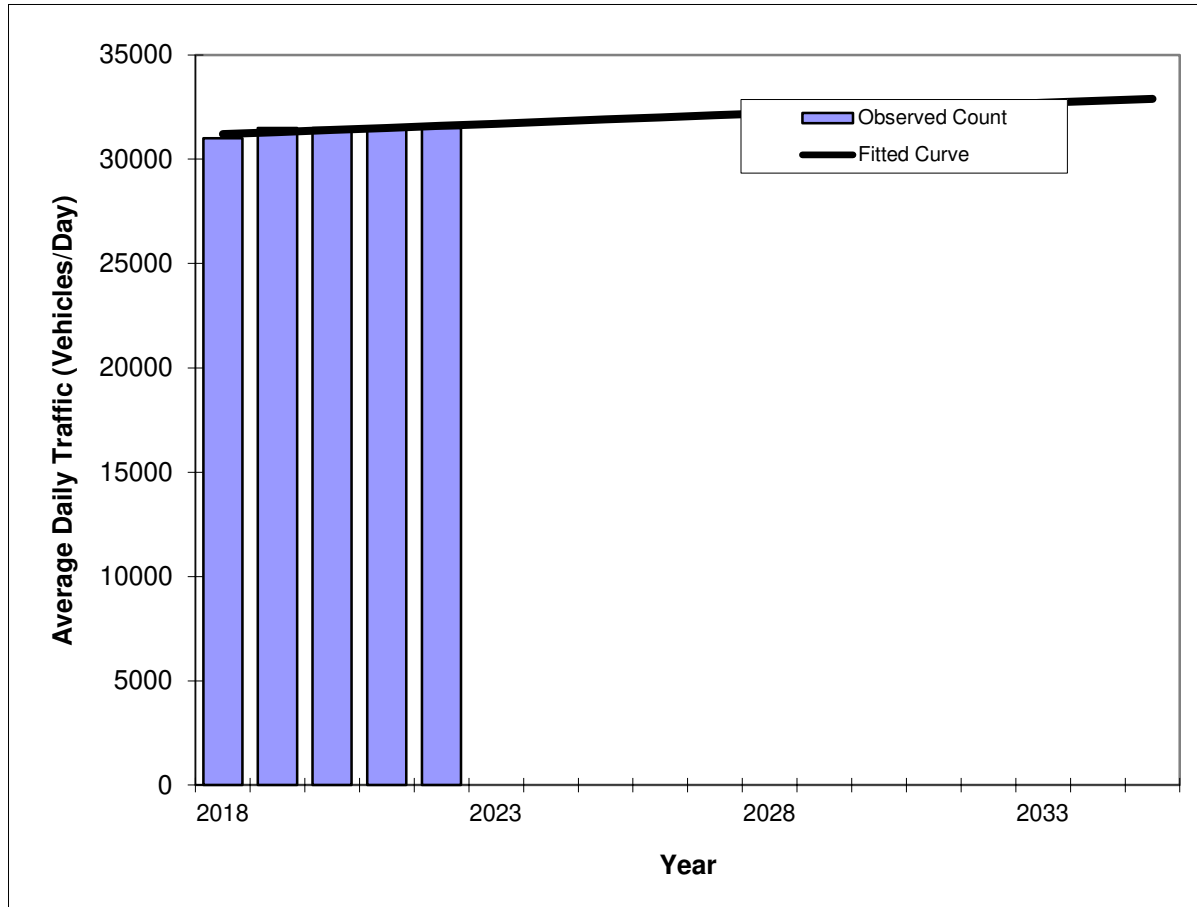
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V03.a

US 90/SR 10 -- 200' W OF BURK ST

FIN#	0
Location	1

County:	Columbia (29)
Station #:	0102
Highway:	US 90/SR 10



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	31000	31200
2019	31500	31300
2020	31500	31400
2021	31500	31500
2022	31500	31600
2023 Opening Year Trend		
2023	N/A	31700
2024 Mid-Year Trend		
2024	N/A	31800
2025 Design Year Trend		
2025	N/A	31900
TRANPLAN Forecasts/Trends		

Trend R-squared:	50.00%
Compounded Annual Historic Growth Rate:	0.32%
Compounded Growth Rate (2022 to Design Year):	0.32%
Printed:	9-Aug-23
Exponential Growth Option	

*Axle-Adjusted

APPENDIX G
NCHRP Report 457 Worksheets

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	347
Right-turn volume, veh/h:	7

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	3207
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

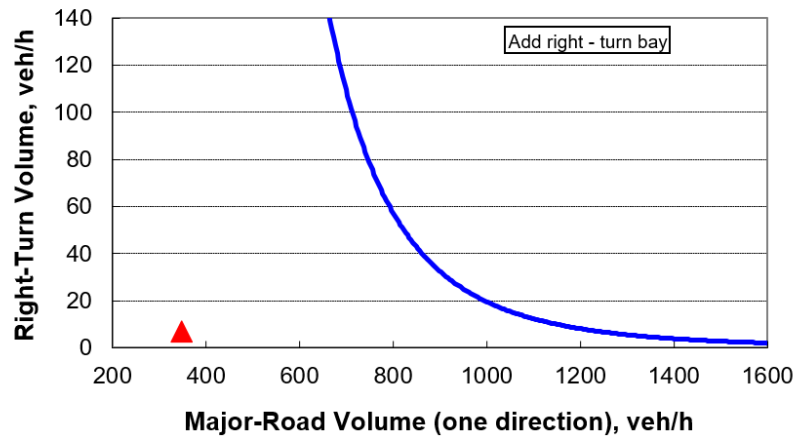


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	341
Right-turn volume, veh/h:	6

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	3488
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

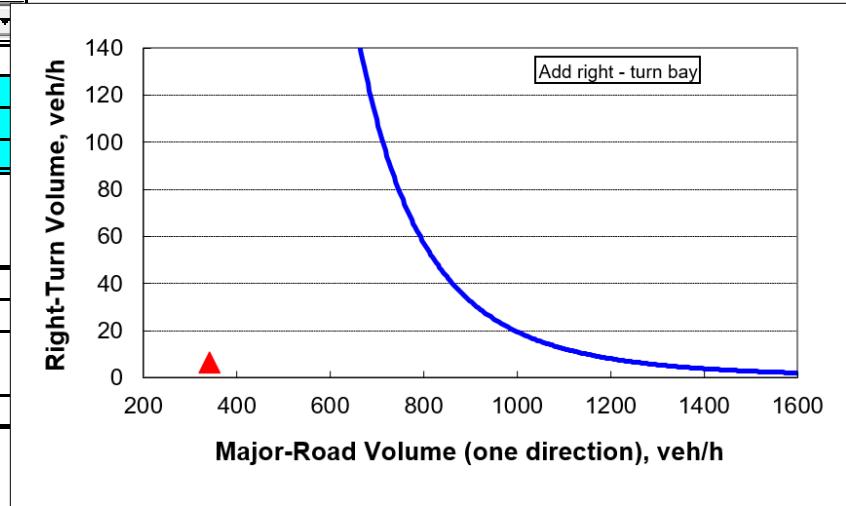


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	278
Right-turn volume, veh/h:	6

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	9334
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

