

BEAUMONT EARLY
CHILDHOOD
EDUCATION CENTER
TRAFFIC IMPACT STUDY

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1. Project Description

The Beaumont Unified School District (District) is proposing improvements to the Anna M. Hause Elementary School campus (Project Site). More specifically, the District is proposing the construction of the new Beaumont Early Childhood Education Center (referred to hereafter as the Proposed Project). This Proposed Project would include: (1) two new single-story buildings housing eight classrooms, work rooms, offices, a conference room, a staff lounge, a nurse's office, a laundry room, restrooms, and storage and custodial rooms; (2) play areas and a lunch shelter; (3) a bus drop-off/pick-up zone; and (4) parking infrastructure. The Beaumont Early Childhood Education Center would be located on the southern end of the Project Site (Figure 1). The Proposed Project is expected to serve up to 200 students. Vehicular access to the new Beaumont Early Childhood Education Center would be provided via the existing southernmost driveway off of Carnation Lane. This driveway would provide access to the new parking lots and bus pick-up/drop-off area.

The primary purpose of this study is to analyze the potential impacts of the Proposed Project on transportation conditions during the peak AM hour in the surrounding area of the Anna M. Hause Elementary School campus.



LEGEND

- Project Site Boundary
- Proposed Area of Improvement

Figure 1: Beaumont Early Childhood Education Center Proposed Project Area

2. Traffic Analysis: Approach and Methodology

This study analyzes traffic conditions for each of the following scenarios:

- Existing Conditions (2026) without Project
- Opening Year (2028) without Project
- Existing Conditions (2026) with Project
- Opening Year (2028) with Project

For the purpose of this analysis, the project opening year for traffic conditions is 2028. Opening day for the new Beaumont Early Childhood Education Center is targeted for January 2028. An ambient traffic growth rate of 1% per year was used to forecast the future traffic volumes.

2.1 Average Daily Traffic

Average daily traffic (ADT) data was collected on three roadway segments in or near the study area for a full 24-hour period on Thursday, January 29, 2026. The roadway segment locations are depicted in Figure 2 and listed below:

- A. Snapdragon Way east of Carnation Ln.
- B. Carnation Ln. south of Driveway 3
- C. Starlight Ave. north of Snapdragon Way



LEGEND

- A) Snapdragon Way east of Carnation Ln
- B) Carnation Ln south of Driveway 3
- C) Starlight Ave north of Snapdragon Way

- Project Site Boundary
- Proposed project area for improvement
- Roadway Segment Locations

Figure 2: Project Site and Roadway Segment Locations



2.1.1 Roadway descriptions

The study area roadways are described below with respect to existing geometry, pedestrian and bicycle facilities, speed limit, parking facilities, and adjacent land uses.

Snapdragon Way

Snapdragon Way runs west and east and is located north and east of the project site. The segment of road directly north of the project site is owned by the Beaumont/Cherry Valley water district and is closed to public traffic. The segment of Snapdragon Way located northeast of the project site is a two-lane roadway with one lane in each direction. The surrounding land use is made up of residential homes and institutional uses (i.e., the elementary school). The road's speed limit is 25 miles per hour. Snapdragon Way has sidewalks on both sides of the road. It does not have bike lanes or bus stops. On-street parking is permitted on both sides of the street.

Carnation Ln.

Carnation Ln. is a curved roadway. A segment of Carnation Ln. runs north and south and is located directly east of the project site, with driveway turnoffs providing access to the Anna M. Hause Elementary School parking lot and bus pick-up/drop-off zone. Just south of the elementary school, Carnation Ln. bends east and provides travel in the east and west directions. The road is primarily a two-lane roadway with one lane in each direction. Just north of the southernmost driveway access point to the elementary school parking lot, Carnation Ln. features two lanes in the southbound direction (one right turn lane, and one through lane). The posted speed limit is 25 miles per hour. Sidewalks are located on both sides of the road, and there is a bike lane on one side of the road. Parking is not permitted on the segment of road directly adjacent to the school, but it is permitted on the south side of the roadway segment that runs east and west. The surrounding land use is residential and institutional.

Starlight Ave

Starlight Ave. is a four-lane roadway with two lanes in each direction. A median separates the directional roadways. At intersections, the roadway typically splits into a five-lane roadway to provide a left turn lane for approaching vehicles. The roadway is curved, providing travel in varying directions. The surrounding land use is made up of residential homes. The road's speed limit is 35 miles per hour. Starlight Ave. has sidewalks, bikes lanes, and bus stops on both sides of the road. On-Street parking is not permitted.

Xenia Ave.

Between E. 8th Street and Starlight Ave., Xenia Ave. provides travel in the northbound and southbound directions. Xenia Ave. is a four-lane roadway with two lanes on each side of the road separated by a median. At the intersection with Carnation Ln., the roadway splits into a five-lane roadway to provide a left turn lane for approaching vehicles traveling northbound. The surrounding land use is made up of residential homes and institutional uses. The road's speed limit is 25 miles per hour. Xenia Ave. has sidewalks and bus stops on both sides of the road. Parking is permitted on the street in the northbound direction. Parking is not permitted in the southbound direction due to the bike lane.



Tiger Flower Dr.

Tiger Flower Dr. is a two-lane roadway with one lane on each side of the road, separated by a median. At intersections, the roadway typically splits into a three-lane roadway to provide a left turn lane for approaching vehicles. The surrounding land use is made up of residential homes. The road's speed limit is 25 miles per hour. Tiger Flower Dr. has sidewalks on both sides of the road, and there are no bike lanes or bus stops. On-street parking is permitted on both sides of the street.

E Oak Valley Pkwy.

E Oak Valley Pkwy. provides travel in the east and west directions. It's a four-lane roadway with two lanes on each side of the road separated by a physical barrier. At intersections, the roadway typically splits into a five-lane roadway to provide a left turn lane for approaching vehicles. The surrounding land use is made up of residential homes. The road's speed limit is 35 miles per hour. E Oak Valley Pkwy. has sidewalks, bike lanes, and bus stops on both sides of the road. On-street parking is not permitted.

2.2 Intersection and Driveway Levels of Service Analysis

The performance criteria used for evaluating traffic volumes and capacities within the study area are based on AM peak hour intersection turning movement volumes and intersection lane geometries. The AM peak hour is defined as the highest one hour of traffic occurring during the AM peak period (i.e., 7:00 a.m. – 9:00 a.m.). The traffic analysis examines the AM peak hour since this is the time period where the majority of new and reallocated vehicle trips are anticipated to occur due to the Proposed Project.

Turning movement data was collected on Thursday, January 29, 2026, during the AM peak period (7:00 a.m. – 9:00 a.m.) at eight intersections, three of which were school access driveways, and all of which are unsignalized intersections. The study intersections and driveways are depicted in Figure 3 and listed below.

Intersections:

1. Carnation Ln. and Snapdragon Way
2. Starlight Ave. and Snapdragon Way
3. Xenia Ave. and Carnation Ln.
4. Starlight Ave. and Tiger Flower Dr.
5. Starlight Ave. and E Oak Valley Pkwy.

Driveways:

- A. Carnation Ln. and Driveway 1
- B. Carnation Ln. and Driveway 2
- C. Carnation Ln. and Driveway 3



LEGEND

- 1) Carnation Ln and Snapdragon Way
- 2) Starlight Ave and Snapdragon Way
- 3) Xenia Ave and Carnation Way
- 4) Starlight Ave and Tiger Flower Dr
- 5) Starlight Ave and E Oak Valley Pkwy

- Project Site Boundary
- Proposed project area for improvement

- A) Carnation Ln and Driveway 1
- B) Carnation Ln and Driveway 2
- C) Carnation Ln and Driveway 3

- Intersection Locations
- Driveway Locations

Figure 3: Intersection and Driveway Locations

In this study, the Highway Capacity Manual (HCM) methodology for unsignalized intersections was applied to study the performance of the intersections. The HCM leverages an average vehicle delay metric (i.e., control delay, measured in seconds per vehicle) to assess intersection performance. This approach is well suited for unsignalized intersections and consistent with City of Beaumont guidelines. For intersections with four-way stop signs, the delay for the intersection is reported. For two-way stop-controlled intersections, the vehicle delay for the approach lane(s) with the stop sign(s) is reported. For intersections with no stop signs, the vehicle delay for the lane with the conflicting movement (e.g., a left turn) is reported.

Traffic level of service (LOS) is used to measure and contextualize intersection performance. LOS values are designated A through F, with LOS A representing free flow traffic conditions and LOS F representing severe traffic congestion. Each intersection's LOS was determined by the control delay during the AM peak hour. Any intersection with an LOS E or F is considered to have an unacceptable level traffic congestion. Project intersections with an LOS A through D are considered to have an acceptable amount of traffic for the given scenario. Table 1 summarizes the criteria for the intersection LOS calculations and the relationship between control delay and LOS.

Table 1 Level of Service Rating.

Level of Service (LOS)	HCM (Delay in seconds)
A	≤ 10
B	$> 10 \text{ to } \leq 15$
C	$> 15 \text{ to } \leq 25$
D	$> 25 \text{ to } \leq 35$
E	$> 35 \text{ to } \leq 50$
F	> 50

3. Traffic Analysis: Without Project

This section of the report summarizes the traffic analysis results for the no project scenarios:

- Existing Conditions (2026) without Project
- Opening Year (2028) without Project

3.1 Existing Conditions

This section presents the Existing Conditions (2026) in the project study area. This scenario will serve as the base against which all subsequent scenarios are assessed. Descriptions of the existing roadway network and intersection level of service analysis results for the Existing Year (2026) No Project scenario are included in this section.

3.1.1 Average Daily Traffic

The average daily traffic (ADT) volumes for the study area roadway segments under Existing Conditions are summarized in Table 2. Existing roadway segment volumes are summarized from 24-hour counts which can be found in Appendix A.

Table 2 Roadway Average Daily Traffic (ADT).

Roadway	Source	Date	Existing ADT
Snapdragon Way east of Carnation Ln.	AimTD LLC	1/29/26	903
Carnation Ln. south of Driveway 3	AimTD LLC	1/29/26	1,491
Starlight Ave. north of Snapdragon Way	AimTD LLC	1/29/26	3,488

3.1.2 Intersection Levels of Service

Existing study intersection geometries are shown in Figure 4. Table 3 summarizes the existing levels of service at the study intersections during the AM peak hour. The complete Synchro analysis output summaries for the AM peak hour are reported in Appendix C. All study intersections currently operate at an acceptable level of service during the AM peak hour. Additionally, Existing Year (2026) No Project AM peak hour turning movement volumes are shown in Figure 5.

Table 3 Existing Intersection Levels of Service for the AM peak hour

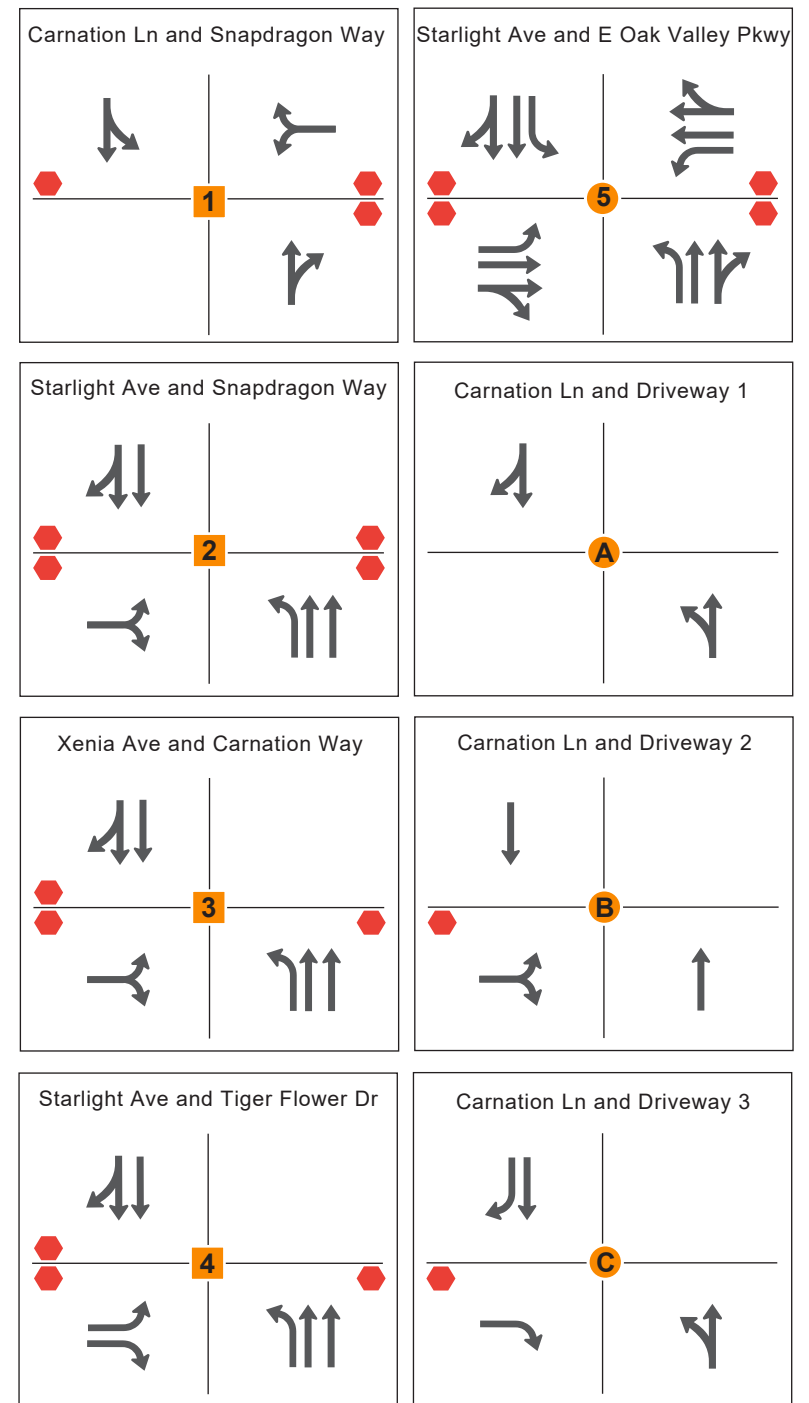
Intersection	Existing	
	HCM Delay	LOS
Carnation Ln. and Snapdragon Way	8.5	A
Starlight Ave. and Snapdragon Way	8.1	A
Xenia Ave. and Carnation Ln.	10.4	B
Starlight Ave. and Tiger Flower Dr.	9.7	A
Starlight Ave. and E Oak Valley Pkwy.	12.1	B
Carnation Ln. and Driveway 1	1.6	A
Carnation Ln. and Driveway 2	9.9	A
Carnation Ln. and Driveway 3	10.2	B



LEGEND

- Study Intersection
- Study Intersection (Driveway)
- Project Site
- Project Boundary
- ◆ Stop Sign

Figure 4: Existing Intersection Geometry

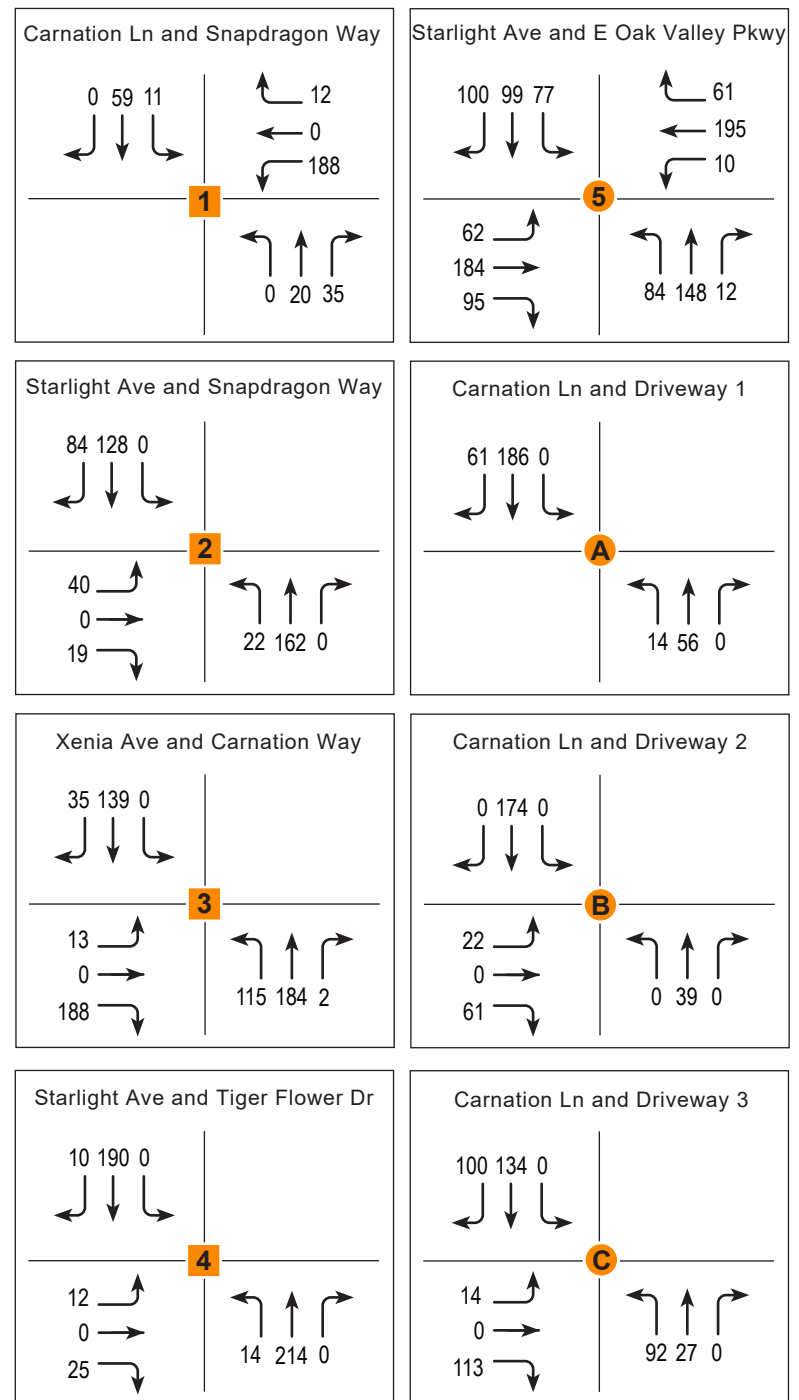




LEGEND

- Study Intersection
- Project Site
- Study Intersection (Driveway)
- Project Boundary

**Figure 5: Existing Year (2026)
Intersection No Project Volumes AM**



3.2 Opening Year (2028) No Project

Results for the average daily traffic and intersection level of service analyses for the Opening Year (2028) No Project scenario are presented in this section.

3.2.1 Average Daily Traffic

The average daily traffic for the study area roadway segment in the Opening Year (2028) No Project scenario is presented in Table 4. Year 2028 traffic volumes were developed by applying an assumed 1% annual growth rate to Existing Year (2026) counts.

Table 4 Estimated ADT Opening Year (2028) No Project.

Roadway	Existing ADT	2028 No Project
Snapdragon Way east of Carnation Ln.	903	921
Carnation Ln. south of Driveway 3	1,491	1,521
Starlight Ave. north of Snapdragon Way	3,488	3,558

3.2.2 Intersection Levels of Service

A summary of the AM peak hour intersection level of service analysis results for the Opening Year (2028) No Project scenario is presented in Table 5. All study intersections are forecasted to operate at acceptable levels of service during the Opening Year No Project conditions. The complete Synchro analysis output summaries for the AM peak hour are reported in Appendix D. Opening Year (2028) No Project AM peak hour turning movement volumes are shown in Figure 6.

Table 5 Opening Year (2028) No Project Intersection LOS – AM Peak Hour.

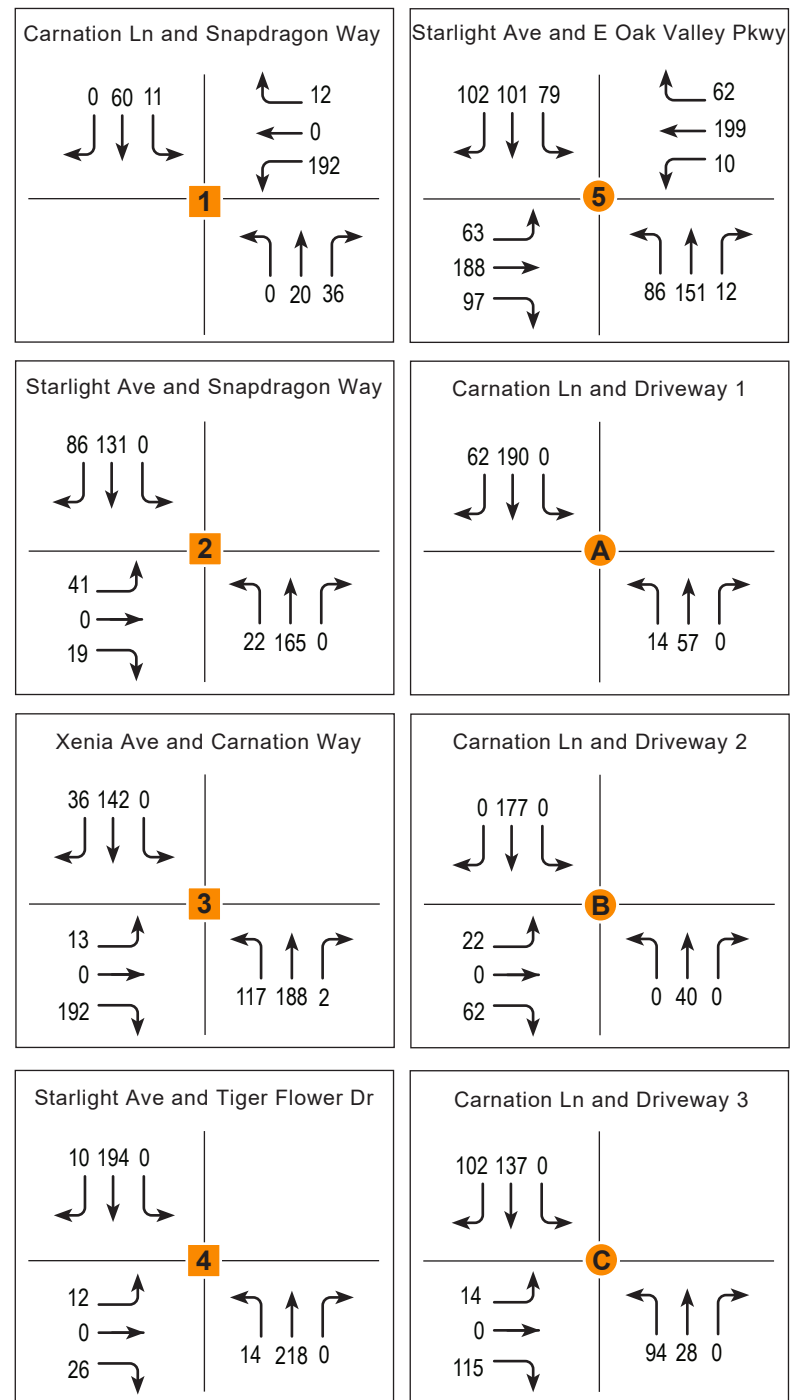
Intersection	Existing		2028 No Project		Δ HCM Delay
	HCM Delay	LOS	HCM Delay	LOS	
Carnation Ln. and Snapdragon Way	8.5	A	8.6	A	0.1
Starlight Ave. and Snapdragon Way	8.1	A	8.1	A	0.0
Xenia Ave. and Carnation Ln.	10.4	B	10.5	B	0.1
Starlight Ave. and Tiger Flower Dr.	9.7	A	9.7	A	0.0
Starlight Ave. and E Oak Valley Pkwy.	12.1	B	12.3	B	0.2
Carnation Ln. and Driveway 1	1.6	A	1.6	A	0.0
Carnation Ln. and Driveway 2	9.9	A	9.9	A	0.0
Carnation Ln. and Driveway 3	10.2	B	10.2	B	0.0



LEGEND

- Study Intersection
- Project Site
- Study Intersection (Driveway)
- Project Boundary

**Figure 6: Opening Year (2028)
Intersection No Project Volumes AM**



4. Traffic Analysis: With Project

4.1 Trip Generation and Distribution

The trip generation for the Proposed Project is estimated using rates published in the ITE Trip Generation Manual 12th Edition. The trips are based on rates for an elementary school (ITE Code 520). Trip generation forecasts are developed for the AM peak hour and daily time periods. Trip generation forecasts are based on the 200 student capacity identified for the Proposed Project.

Table 6 presents the trip generation and distribution forecast for the weekday AM peak hour and daily (weekday) time periods. The Proposed Project is expected to generate 146 trips during the peak AM hour, with 54% (79 vehicles) entering the site and 46% (67 vehicles) exiting the site. The trip generation and distribution forecast was used in this study to allocate project-generated traffic volumes for the AM peak hour to the adjacent intersections and street networks.

Table 6 Trip Generation

Land Use and Time Period	Students	Trip Generation Rate	Distribution		Trips		Total
			Inbound	Outbound	Inbound	Outbound	
Elementary School – AM Peak	200	.73 trips / student	54%	46%	79	67	146
Elementary School – Daily (Weekday)	200	2.27 trips / student	50%	50%	227	227	454

4.2 Existing Year (2026) With Project

Results for the ADT and intersection level of service analyses for the Existing Year (2026) With Project scenario are presented in this section.

4.2.1 Average Daily Traffic

According to ITE Trip Generation estimates for Land Use Code 520 (Elementary School), the Proposed Project is expected to generate 454 vehicle trips per weekday. Using this estimate, the projected ADT volumes for the study area roadway segments under Existing Year (2026) With Project conditions are summarized in Table 7.

Table 7 Estimated ADT Existing Year with Project

Roadway	EXISTING ADT	2026 (With Project)
Snapdragon Way east of Carnation Ln.	903	1,074
Carnation Ln. south of Driveway 3	1,491	1,774
Starlight Ave. north of Snapdragon Way	3,488	3,550

4.2.2 Intersection Levels of Service

A summary of the AM peak hour intersection LOS results for the Existing Year (2026) With Project scenario are presented in Table 8. All study intersections are forecasted to operate at acceptable levels of service during Existing Year (2026) With Project conditions. The complete Synchro analysis output summaries for the AM peak hour are reported in Appendix E.



Existing Year (2026) With Project AM peak hour turning movement volumes are shown in Figure 7. The project trip generation and distribution forecast presented in Section 4.1 was used to allocate project-generated traffic volumes to the adjacent intersections and street networks.

Table 8 Existing Year (2026) With Project Intersection LOS – AM Peak Hour

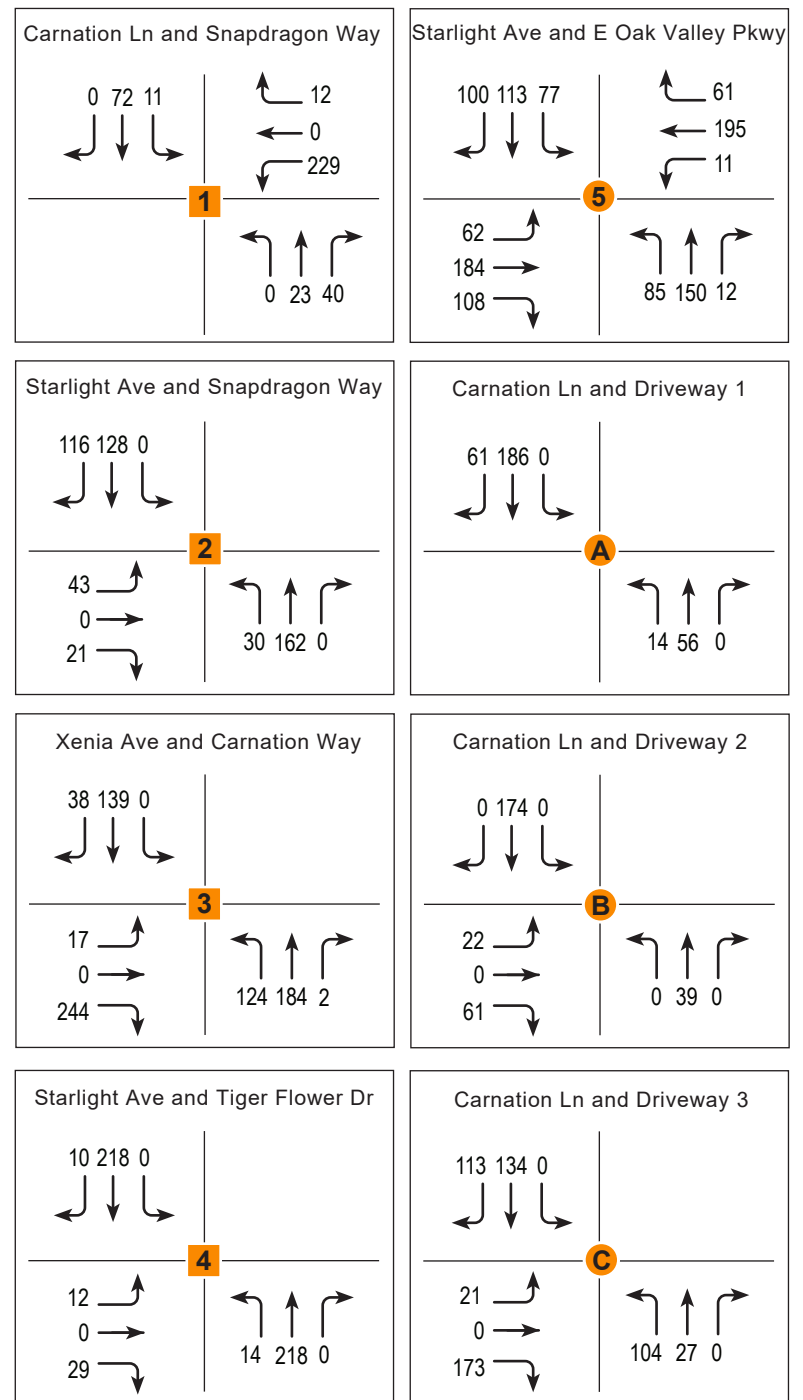
Intersection	Existing		2026 With Project		Δ HCM Delay
	HCM Delay	LOS	HCM Delay	LOS	
Carnation Ln. and Snapdragon Way	8.5	A	9.0	A	0.5
Starlight Ave. and Snapdragon Way	8.1	A	8.2	A	0.1
Xenia Ave. and Carnation Ln.	10.4	B	11.1	B	0.7
Starlight Ave. and Tiger Flower Dr.	9.7	A	9.8	A	0.1
Starlight Ave. and E Oak Valley Pkwy.	12.1	B	12.4	B	0.3
Carnation Ln. and Driveway 1	1.6	A	1.6	A	0.0
Carnation Ln. and Driveway 2	9.9	A	9.9	A	0.0
Carnation Ln. and Driveway 3	10.2	B	10.9	B	0.7



LEGEND

- Study Intersection
- Project Site
- Study Intersection (Driveway)
- Project Boundary

**Figure 7: Existing Year (2026)
Intersection With Project Volumes AM**



4.3 Opening Year (2028) With Project

Results for ADT and intersection level of service analyses for the Opening Year (2028) With Project scenario are presented in this section.

4.3.1 Average Daily Traffic

Table 9 below shows the estimated additional ADT volumes for each roadway segment, by scenario. The last column of Table 9 shows ADT estimates for the Opening Year (2028) With Project scenario. The Proposed Project is expected to generate 454 trips throughout the day (weekday). As previously mentioned, this was calculated using the ITE Trip Generation Manual values for Land Use Code 520 Elementary School. The ADT is assumed to grow at a 1 percent rate per year from 2026.

Table 9 Estimated Project ADT Impacts

Roadway	2026 Existing ADT	2026 With Project	2028 No project	2028 With Project
Snapdragon Way east of Carnation Ln.	903	1,074	921	1,092
Carnation Ln. south of Driveway 3	1,491	1,774	1,521	1,804
Starlight Ave. north of Snapdragon Way	3,488	3,550	3,558	3,620

4.3.2 Intersection Levels of Service

A summary of the AM peak hour intersection level of service analysis results for the Opening Year (2028) With Project scenario is presented in Table 10. All study intersections are forecasted to operate at acceptable levels of service during the Opening Year (2028) With Project conditions. The complete Synchro analysis output summaries for the AM peak hour are reported in Appendix F.

Opening Year (2028) With Project AM peak hour turning movement volumes are shown in Figure 8. The project trip generation and distribution forecast presented in Section 4.1 was used to allocate project-generated traffic volumes to the adjacent intersections and street networks. Additionally, the estimated AM peak hour intersection trip distributions assuming the additional traffic volumes projected due to the Proposed Project are shown in Figure 9 and Figure 10.



Table 10 Opening Year (2028) With Project Intersection LOS – AM Peak Hour

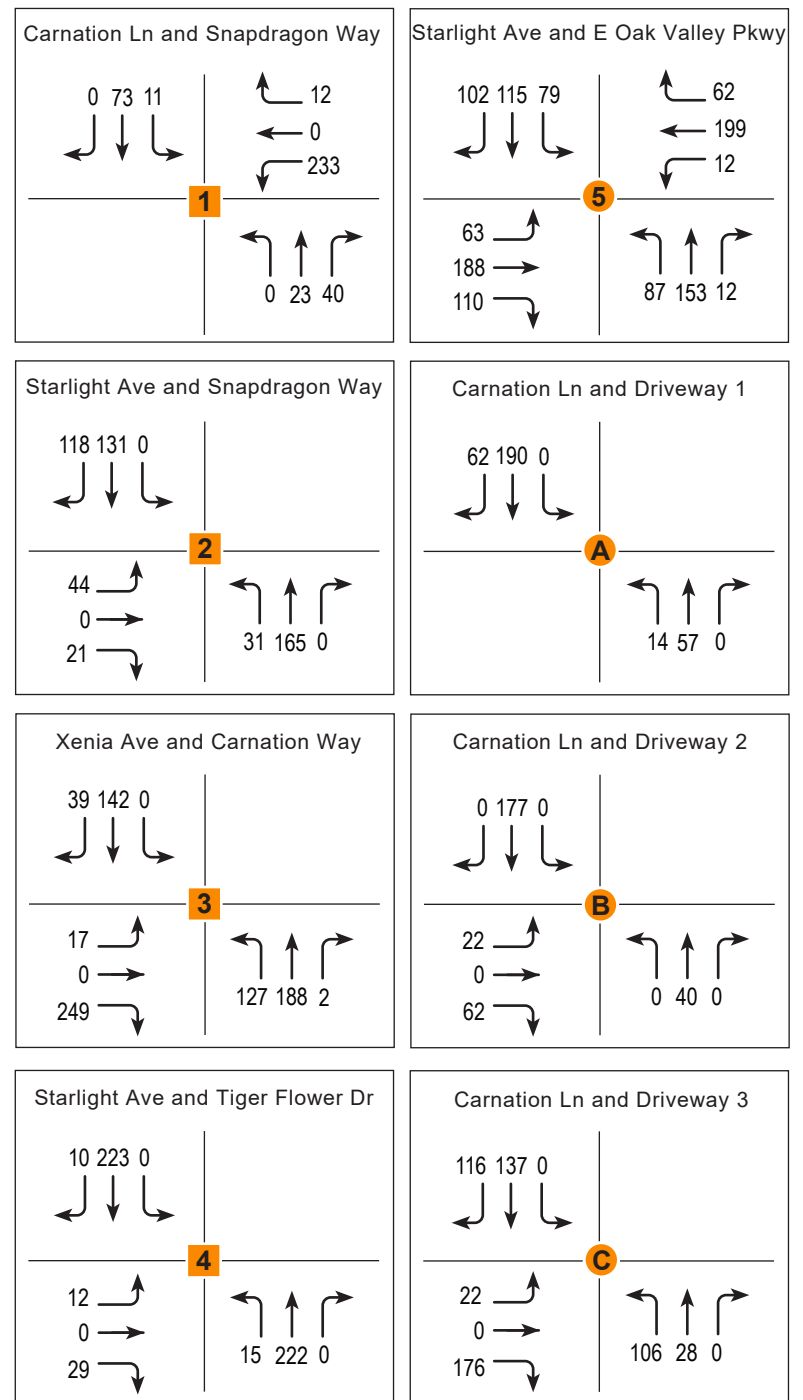
Intersection	Existing		2028 With Project		Δ HCM Delay
	HCM Delay	LOS	HCM Delay	LOS	
Carnation Ln. and Snapdragon Way	8.5	A	9.1	A	0.6
Starlight Ave. and Snapdragon Way	8.1	A	8.3	A	0.2
Xenia Ave. and Carnation Ln.	10.4	B	11.2	B	0.8
Starlight Ave. and Tiger Flower Dr.	9.7	A	9.8	A	0.1
Starlight Ave. and E Oak Valley Pkwy.	12.1	B	12.6	B	0.5
Carnation Ln. and Driveway 1	1.6	A	1.6	A	0.0
Carnation Ln. and Driveway 2	9.9	A	9.9	A	0.0
Carnation Ln. and Driveway 3	10.2	B	11	B	0.8

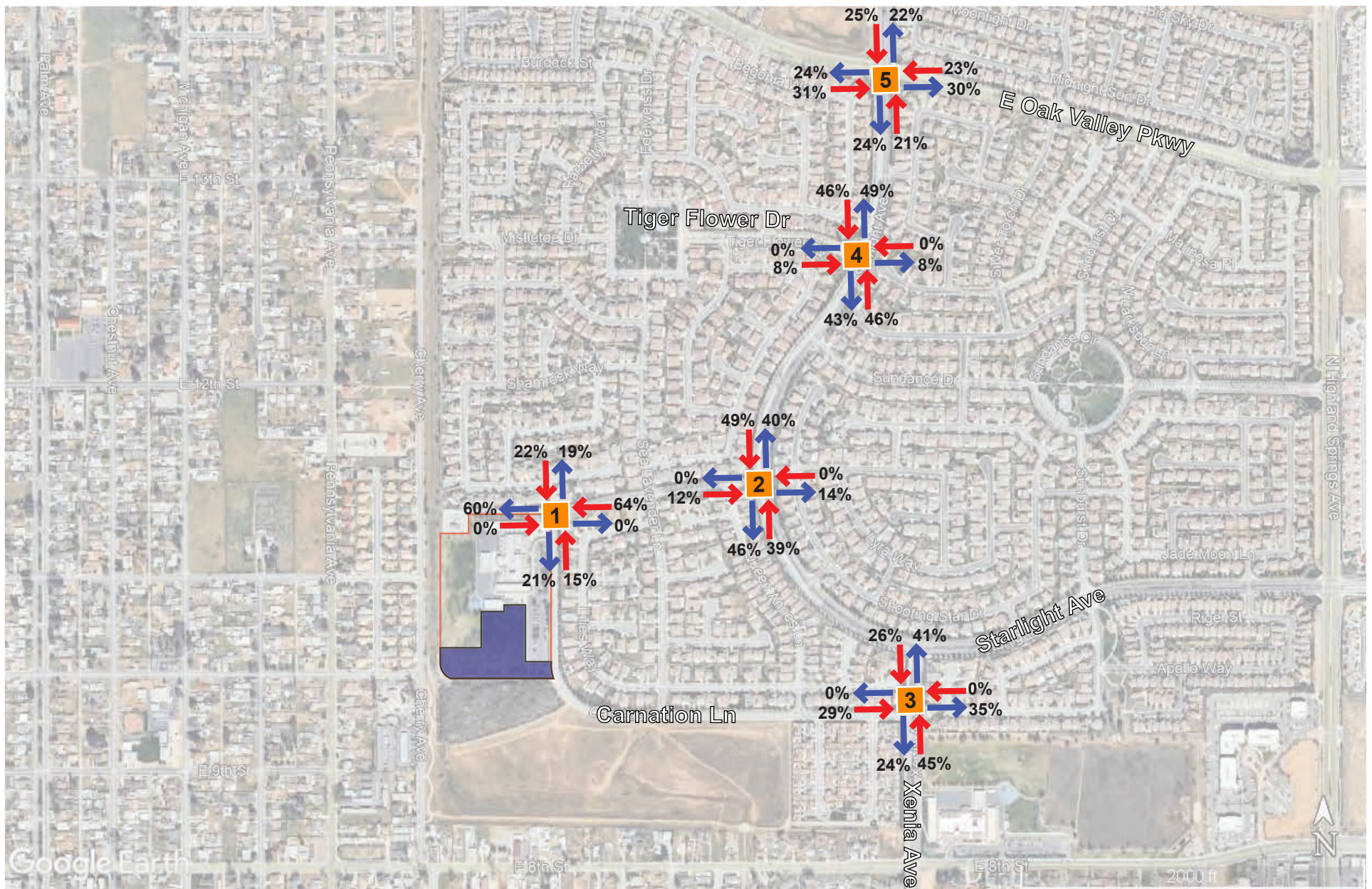


LEGEND

- Study Intersection
- Project Site
- Study Intersection (Driveway)
- Project Boundary

**Figure 8: Opening Year (2028)
Intersection With Project Volumes AM**



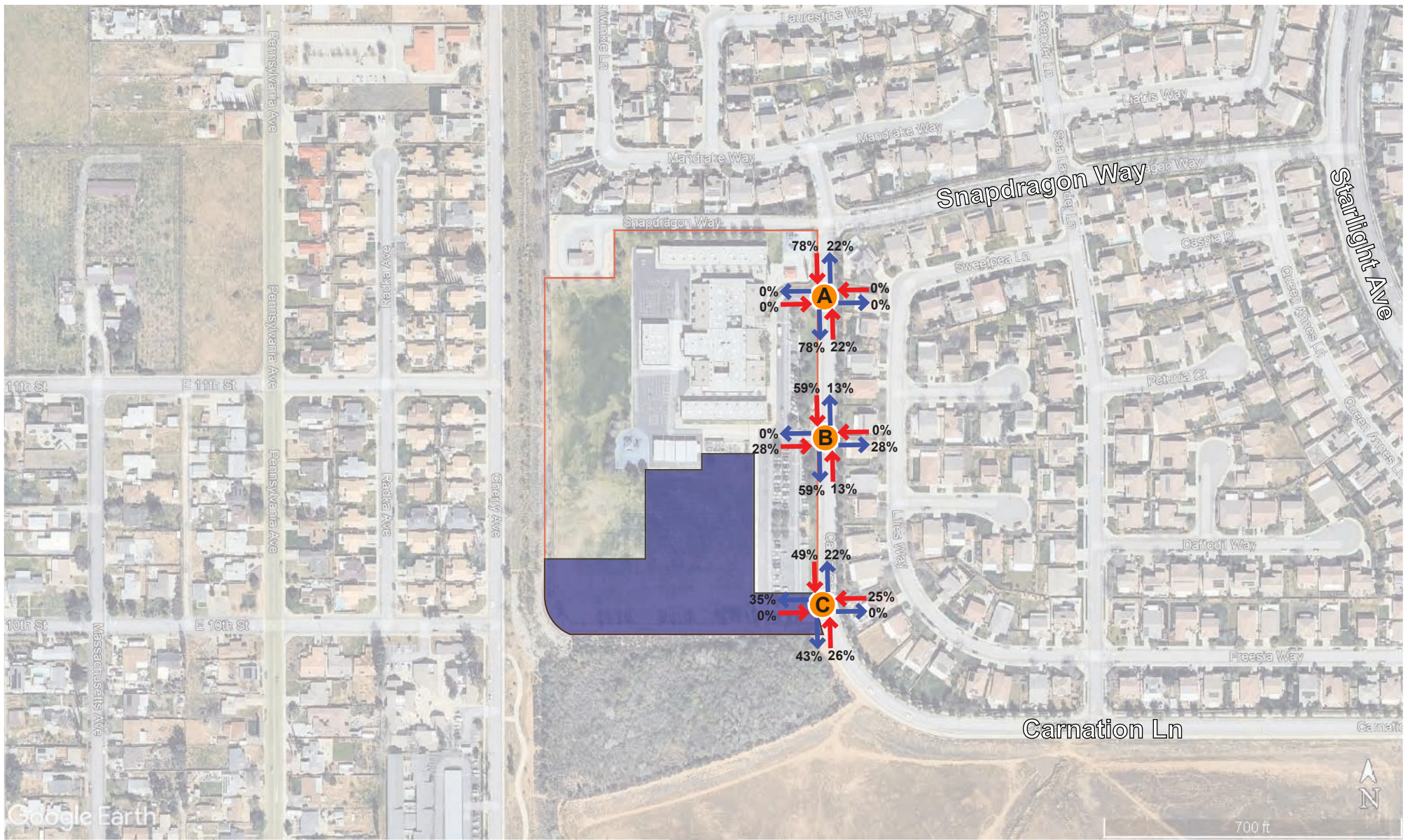


LEGEND

- 1 Carnation Ln and Snapdragon Way
- 2 Starlight Ave and Snapdragon Way
- 3 Xenia Ave and Carnation Ln
- 4 Starlight Ave and Tiger Flower Dr
- 5 Starlight Ave and E Oak Valley Pkwy

- █ Peak hour - Entering
- █ Peak hour - Exiting

Figure 9: Estimated Trip Distribution AM Peak Hour (Intersection)



LEGEND

- A Carnation Ln and Driveway 1 ● B Carnation Ln and Driveway 2
- C Carnation Ln and Driveway 3

- Peak hour - Entering
- Peak hour - Exiting

Figure 10: Estimated Trip Distribution AM Peak Hour (Driveway)

5. Additional Analyses

5.1 VMT Screening Analysis

The Beaumont Early Childhood Education Center project was evaluated for potential impacts related to Vehicle Miles Traveled (VMT) consistent with the requirements contained in the Traffic Impact Analysis Guidelines for the City of Beaumont. The guidelines establish that the Proposed Project is exempt from a full VMT Analysis under Step 3: Project Type Screening. Step 3 asserts that projects for certain land use types, including local-serving K-12 public schools, can be presumed to have a less than significant impacts related to vehicle miles traveled. No additional VMT analysis is required for the Proposed Project.

5.2 Pedestrian and Site Circulation

This section summarizes the results of several focused analyses related to pedestrian and site circulation for the Proposed Project. This review is completed at a high level based on the project description and site plan provided by the District.

5.2.1 *Intersection sight distance*

The existing Project Site driveways provide sufficient sight distance per the standards contained in the Caltrans Highway Design Manual. No significant horizontal curves are present or are proposed in relevant distance of the Proposed Project driveway location. Since the existing southernmost driveway will be used to provide access to the new parking lots and bus drop-off area for the Beaumont Early Childhood Education Center, no additional driveways or intersections are proposed as part of this project. No substantial impacts to intersection sight distance are anticipated.

5.2.2 *Driveway Length*

The new vehicle drop-off area for the Beaumont Early Childhood Education Center will be located adjacent to Lot 2, separate from the existing Anna M. Hause Elementary School student drop-off area. As such, additional vehicle drop-offs attributed to the Beaumont Early Childhood Education Center are not expected to build upon existing elementary school parking lot congestion to create significant queue backups at driveway entry and exit points.

Furthermore, an analysis was carried out to forecast the potential for parking lot queue backups onto the public street system during peak hours for parking and student pick-ups/drop-offs at the Beaumont Early Childhood Education Center. This analysis utilized a school trip calculator published by the North Carolina Department of Transportation (NCDOT), and leveraged inputs including the number of students, staff, and level of school busing provided. Per the project description, the analysis assumed that a maximum of 200 students and 55 staff members would access the Beaumont Early Childhood Education Center during peak hours, and that a subset of these students would be transported across three school buses, rather than by vehicle.

The NCDOT school trip calculator forecasted an average peak hour vehicle queue of approximately 330 feet in length, and a maximum peak hour queue of approximately 430 feet. When finalizing parking lot design plans and measurements, it is recommended that the Beaumont Early Childhood Education Center pick-up/drop-off area and the parking aisle in Lot 2 extending to the southernmost driveway along Carnation Ln. have a combined total of 430 feet in length to ensure that driveway queues do not spill onto the public street system.

5.2.3 Corner clearance

Since the existing southernmost driveway will be used to provide access to the new parking lots and bus drop-off area for the Beaumont Early Childhood Education Center, no additional driveways are proposed as part of this project. The existing driveways on Carnation Ln. providing right-turn egress movements do not interfere with queues at any intersections. No impact is anticipated.

5.2.4 Right-turn lanes at Driveways

All existing project driveways are expected to operate at an acceptable level of service with project conditions, and no new project driveways are proposed as part of this project. As such, no modifications to right turn lanes at the driveways are recommended. No impact is anticipated.

5.2.5 Pedestrian and bicycle facilities

No changes are proposed to the existing public sidewalk along Carnation Ln., to the existing pedestrian walkways that surround the eastern and southern boundaries of the elementary school building's footprint, nor to the existing bike lanes along Carnation Ln. and Starlight Ave. A new pedestrian sidewalk would be provided along the southeast end of the Proposed Project site adjacent to the southernmost driveway that would provide pedestrian access from the existing sidewalk on Carnation Ln. to the Early Childhood Education Center. However, at the western terminus of this sidewalk, pedestrians will have to cross the parking lot to access the Early Childhood Education Center. Since walkways are not to be included within the new parking lots for the Early Childhood Education Center, the District should consider how signage and/or crosswalk markings could improve pedestrian safety within the newly developed parking areas. A network of walkways will sufficiently provide safe pedestrian movements between the Early Childhood Education Center, the new play area and lunch shelter, and the bus drop-off and pick-up zone.

5.2.6 Accessibility to/from transit stops

Beaumont Transit stops are located in six locations along Starlight Ave. between E Oak Valley Parkway and Xenia Ave. Sidewalks can safely and efficiently connect transit users from all six transit stops to the Project Site, via Starlight Ave. to Snapdragon Way to Carnation Ln., or from Starlight Ave. to Xenia Ave. to Carnation Ln. Furthermore, bicycle lanes provide access from the transit stop to the Project site via Starlight Ave. to Xenia Ave. to Carnation Ln.

6. Conclusions

This traffic impact study has analyzed how transportation conditions are expected to change with the implementation of the Proposed Project for the Beaumont Early Childhood Education Center. A summary is provided below documenting the conclusions for each analysis component.

6.1 Traffic Analysis

Below are the summary tables for roadway intersection performance results, measured by way of the HCM control delay metric and corresponding LOS for the peak AM hour.

Table 11 Carnation Ln. and Snapdragon Way Peak AM Hour HCM Summary

Carnation Ln. and Snapdragon Way				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	8.5	8.6	9.0	9.1
LOS	A	A	A	A

Table 12 Starlight Ave. and Snapdragon Way Peak AM Hour HCM Summary

Starlight Ave. and Snapdragon Way				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	8.1	8.1	8.2	8.3
LOS	A	A	A	A

Table 13 Xenia Ave. and Carnation Ln. Peak AM Hour HCM Summary

Xenia Ave. and Carnation Ln.				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	10.4	10.5	11.1	11.2
LOS	B	B	B	B

Table 14 Starlight Ave. and Tiger Flower Dr. Peak AM Hour HCM Summary

Starlight Ave. and Tiger Flower Dr.				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	9.7	9.7	9.8	9.8
LOS	A	A	A	A

Table 15 Starlight Ave. and E Oak Valley Pkwy. Peak AM Hour HCM Summary

Starlight Ave. and E Oak Valley Pkwy.				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	12.1	12.3	12.4	12.6
LOS	B	B	B	B

Table 16 Carnation Ln. and Driveway 1 Peak AM Hour HCM Summary

Carnation Ln. and Driveway 1				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	1.6	1.6	1.6	1.6
LOS	A	A	A	A

Table 17 Carnation Ln. and Driveway 2 Peak AM Hour HCM Summary

Carnation Ln. and Driveway 2				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	9.9	9.9	9.9	9.9
LOS	A	A	A	A

Table 18 Carnation Ln. and Driveway 3 Peak AM Hour HCM Summary

Carnation Ln. and Driveway 3				
	Existing	2028 No Project	2026 With Project	2028 With Project
HCM Delay (sec)	10.2	10.2	10.9	11.0
LOS	B	B	B	B

Based on the results of the level of service analysis, the Proposed Project for the Beaumont Early Childhood Education Center can be implemented without significantly impacting any of the study intersections or roadway segments. All study intersections are forecasted to operate at an acceptable level of service under both Existing Year (2026) and Opening Year (2028) With Project scenarios.

6.2 VMT Screening Analysis

The Proposed Project is exempt from a full VMT Analysis under Step 3: Project Type Screening, which asserts that projects for local-serving K-12 public schools can be presumed to have a less than significant impacts related to vehicle miles traveled. No additional VMT analysis is required for the Proposed Project.

6.3 Pedestrian and Site Circulation

This study analyzed the existing site access driveways and multi-modal connections for the Project Site. The findings of this analysis are summarized in the bullets below:

- It is recommended that the Proposed Project pick-up/drop-off area and the parking aisle in Lot 2 extending to the southernmost driveway along Carnation Ln. have a combined total of 430 feet in length to ensure that driveway queues do not spill onto the public street system.
- Since no additional driveways are proposed as part of this project, no impacts to corner clearances or right turn lanes at driveways are anticipated, and there are no recommendations.
- New and existing sidewalk networks do provide safe and efficient access for pedestrians and cyclists accessing the Beaumont Early Childhood Education Center from the surrounding area. However, the District should consider including signage and/or ground markings in the



new Early Childhood Education Center parking lots to reduce the potential for shared use conflicts (e.g., pedestrians and cyclists, pedestrians and drivers, cyclists and drivers).

References

ITE (Institute of Transportation Engineers). *Trip Generation Manual*. 12th ed. 2025

City of Beaumont. (2024, July 18). *Traffic Impact Analysis Guidelines for the City of Beaumont*.
<https://www.beaumontca.gov/DocumentCenter/View/39117/Traffic-Impact-Analysis-Guidelines-?bidId=>



Appendix A— Turning Movement and Roadway Segment Counts

Thursday, January 29, 2026					CITY: Beaumont					PROJECT: SC5858				
ADT1 Snapdragon Way east of Carnation Ln.										Prepared by AimTD LLC tel. 714 253 7888				
AM Period		EB		WB		PM Period		EB		WB				
0:00		0		0		12:00		4		12				
0:15		0		0		12:15		7		5				
0:30		0		0		12:30		0		4				
0:45		0	0	0	0	12:45		3	14	1	22 36			
1:00		0		0		13:00		1		2				
1:15		0		0		13:15		1		1				
1:30		0		0		13:30		3		6				
1:45		0	0	1	1 1	13:45		4	9	2	11 20			
2:00		0		0		14:00		3		3				
2:15		0		0		14:15		4		8				
2:30		0		0		14:30		4		16				
2:45		0	0	0	0	14:45		4	15	18	45 60			
3:00		0		0		15:00		12		39				
3:15		1		0		15:15		31		45				
3:30		0		0		15:30		25		11				
3:45		0	1	0	0 1	15:45		4	72	14	109 181			
4:00		1		0		16:00		12		6				
4:15		0		1		16:15		5		5				
4:30		0		0		16:30		7		3				
4:45		1	2	0	1 3	16:45		2	26	7	21 47			
5:00		0		0		17:00		4		10				
5:15		0		0		17:15		7		7				
5:30		0		0		17:30		7		6				
5:45		1	1	0	0 1	17:45		2	20	3	26 46			
6:00		0		0		18:00		3		6				
6:15		0		0		18:15		1		3				
6:30		2		4		18:30		0		0				
6:45		3	5	2	6 11	18:45		2	6	0	9 15			
7:00		3		5		19:00		0		2				
7:15		2		8		19:15		0		0				
7:30		6		3		19:30		1		1				
7:45		12	23	20	36 59	19:45		0	1	0	3 4			
8:00		17		32		20:00		1		0				
8:15		9		47		20:15		0		2				
8:30		11		58		20:30		2		1				
8:45		9	46	63	200 246	20:45		0	3	0	3 6			
9:00		17		6		21:00		1		0				
9:15		1		1		21:15		1		1				
9:30		2		4		21:30		0		1				
9:45		2	22	1	12 34	21:45		0	2	2	4 6			
10:00		1		3		22:00		0		0				
10:15		1		1		22:15		0		0				
10:30		1		2		22:30		0		0				
10:45		1	4	0	6 10	22:45		0	0	0	0			
11:00		0		4		23:00		0		2				
11:15		6		19		23:15		0		0				
11:30		19		31		23:30		0		0				
11:45		19	44	16	70 114	23:45		0	0	0	2 2			
Total Vol.		148		332 480				168		255 423				
								Daily Totals						
								EB		WB Combined				
								316		587 903				
AM						PM								
Split %	30.8%		69.2%		53.2%	39.7%		60.3%		46.8%				
Peak Hour	7:45		8:00		8:00	14:45		14:30		14:45				
Volume	49		200		246	72		118		185				
P.H.F.	0.72		0.79		0.85	0.58		0.66		0.61				
cs@aimtd.com						Tell. 714 253 7888								

Thursday, January 29, 2026					CITY: Beaumont					PROJECT: SC5858				
ADT2 Carnation Ln south of Dwy 3.										Prepared by AimTD LLC tel. 714 253 7888				
AM Period		NB		SB		PM Period		NB		SB				
0:00	2		1			12:00	12		11					
0:15	1		0			12:15	10		17					
0:30	2		0			12:30	3		5					
0:45	0	5	0	1	6	12:45	5	30	3	36	66			
1:00	0		0			13:00	9		9					
1:15	2		0			13:15	5		4					
1:30	0		0			13:30	4		7					
1:45	0	2	0	0	2	13:45	7	25	5	25	50			
2:00	0		0			14:00	5		9					
2:15	1		0			14:15	9		3					
2:30	0		0			14:30	6		5					
2:45	0	1	0	0	1	14:45	21	41	11	28	69			
3:00	0		1			15:00	39		26					
3:15	0		0			15:15	24		138					
3:30	1		0			15:30	12		52					
3:45	0	1	0	1	2	15:45	6	81	15	231	312			
4:00	1		1			16:00	1		20					
4:15	0		1			16:15	11		6					
4:30	1		2			16:30	9		18					
4:45	0	2	1	5	7	16:45	12	33	4	48	81			
5:00	2		2			17:00	8		10					
5:15	0		2			17:15	8		9					
5:30	0		2			17:30	5		10					
5:45	1	3	2	8	11	17:45	11	32	6	35	67			
6:00	2		3			18:00	5		11					
6:15	1		2			18:15	5		10					
6:30	5		9			18:30	6		2					
6:45	1	9	8	22	31	18:45	8	24	3	26	50			
7:00	5		8			19:00	2		3					
7:15	8		8			19:15	3		3					
7:30	9		6			19:30	4		1					
7:45	16	38	9	31	69	19:45	5	14	1	8	22			
8:00	20		14			20:00	2		1					
8:15	29		39			20:15	3		1					
8:30	39		103			20:30	7		4					
8:45	31	119	91	247	366	20:45	2	14	3	9	23			
9:00	10		23			21:00	3		1					
9:15	3		4			21:15	3		1					
9:30	2		9			21:30	2		4					
9:45	2	17	7	43	60	21:45	2	10	1	7	17			
10:00	2		3			22:00	6		3					
10:15	3		6			22:15	2		0					
10:30	6		4			22:30	2		1					
10:45	3	14	6	19	33	22:45	0	10	4	8	18			
11:00	2		1			23:00	1		1					
11:15	8		2			23:15	0		4					
11:30	23		29			23:30	0		0					
11:45	12	45	43	75	120	23:45	2	3	0	5	8			
Total Vol.	256		452		708		317		466		783			
							Daily Totals							
							NB		SB		Combined			
							573		918		1491			
AM						PM								
Split %	36.2%		63.8%		47.5%		40.5%		59.5%		52.5%			
Peak Hour	8:00		8:15		8:00		14:45		15:00		14:45			
Volume	119		256		366		96		231		323			
P.H.F.	0.76		0.62		0.64		0.62		0.42		0.50			
cs@aimtd.com														

Thursday, January 29, 2026					CITY: Beaumont					PROJECT: SC5858				
ADT3 Starlight Ave north of Snapdragon Way.										Prepared by AimTD LLC tel. 714 253 7888				
AM Period	NB		SB			PM Period	NB		SB					
0:00	1		0			12:00	21		29					
0:15	1		1			12:15	28		17					
0:30	3		1			12:30	22		18					
0:45	2	7	2	4	11	12:45	23	94	18	82	176			
1:00	1		2			13:00	25		27					
1:15	1		1			13:15	35		20					
1:30	1		0			13:30	28		21					
1:45	0	3	0	3	6	13:45	24	112	28	96	208			
2:00	1		0			14:00	25		37					
2:15	0		0			14:15	32		26					
2:30	0		0			14:30	47		38					
2:45	1	2	1	1	3	14:45	51	155	56	157	312			
3:00	1		0			15:00	50		72					
3:15	2		2			15:15	77		74					
3:30	1		1			15:30	57		32					
3:45	1	5	4	7	12	15:45	34	218	61	239	457			
4:00	0		1			16:00	37		29					
4:15	0		2			16:15	33		40					
4:30	0		3			16:30	35		21					
4:45	1	1	1	7	8	16:45	34	139	33	123	262			
5:00	4		1			17:00	30		40					
5:15	2		0			17:15	45		12					
5:30	2		4			17:30	38		29					
5:45	3	11	5	10	21	17:45	39	152	33	114	266			
6:00	2		6			18:00	32		34					
6:15	3		11			18:15	33		12					
6:30	9		8			18:30	22		22					
6:45	18	32	13	38	70	18:45	20	107	14	82	189			
7:00	26		25			19:00	16		22					
7:15	24		34			19:15	16		16					
7:30	43		42			19:30	17		12					
7:45	59	152	53	154	306	19:45	15	64	13	63	127			
8:00	68		53			20:00	15		6					
8:15	42		55			20:15	14		10					
8:30	33		51			20:30	13		8					
8:45	36	179	45	204	383	20:45	13	55	9	33	88			
9:00	20		20			21:00	12		8					
9:15	16		13			21:15	8		5					
9:30	16		17			21:30	12		9					
9:45	12	64	14	64	128	21:45	8	40	6	28	68			
10:00	11		12			22:00	9		4					
10:15	17		12			22:15	6		2					
10:30	16		12			22:30	5		1					
10:45	19	63	12	48	111	22:45	0	20	6	13	33			
11:00	14		36			23:00	7		4					
11:15	19		31			23:15	5		2					
11:30	20		34			23:30	2		1					
11:45	36	89	28	129	218	23:45	3	17	1	8	25			
Total Vol.	608		669		1277		1173		1038		2211			
							Daily Totals							
							NB		SB		Combined			
							1781		1707		3488			
AM					PM									
Split %	47.6%		52.4%		36.6%		53.1%		46.9%		63.4%			
Peak Hour	7:30		7:45		7:30		14:45		14:30		14:45			
Volume	212		212		415		235		240		469			
P.H.F.	0.78		0.96		0.86		0.76		0.81		0.78			
cs@aimtd.com Tel. 714 253 7888														

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:

Thu, Jan 29, 26

LOCATION:

Beaumont

PROJECT #:

SC5858

NORTH & SOUTH:

Carnation Ln

EAST & WEST:

Snapdragon Way

LOCATION #:

1

CONTROL:

STOP ALL

NOTES:

AM

PM

MD

OTHER

OTHER

◀ W

▶ E

▲ N

▼ S

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carnation Ln			Carnation Ln			Snapdragon Way			Snapdragon Way				NB	SB	EB	WB	TTL
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	0	0	0	0	
	X	1	0	0	1	X	X	X	X	0	X	0		0	0	0	0	
	^>			^						<>								

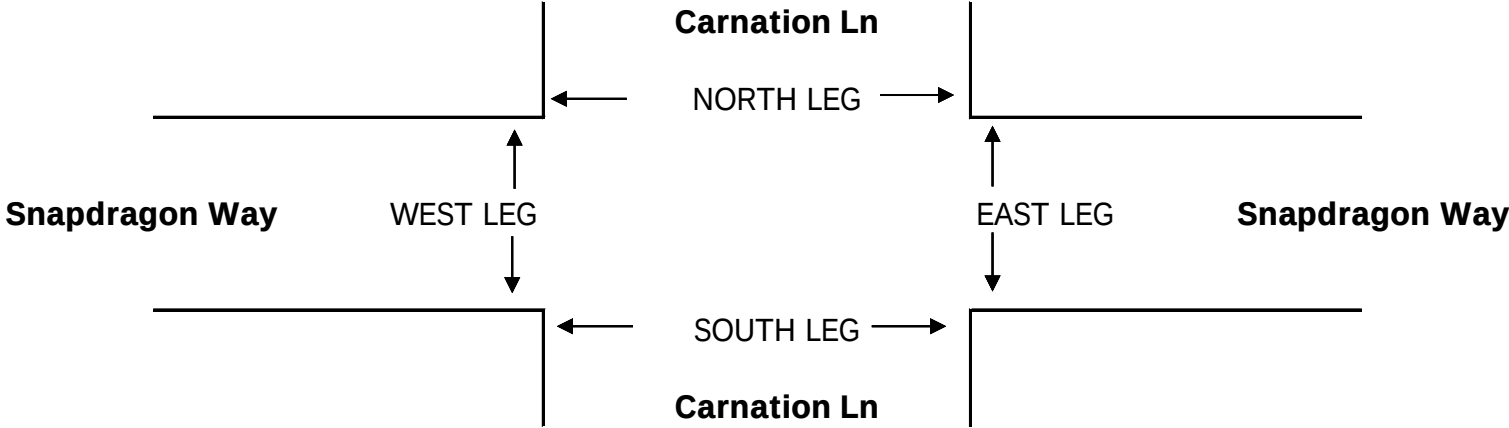
AM	7:00 AM	0	3	3	0	6	0	0	0	0	5	0	0	17	0	0	0	0	0
	7:15 AM	0	1	2	0	5	0	0	0	0	8	0	0	16	0	0	0	0	0
	7:30 AM	0	1	3	2	2	0	0	0	0	0	0	2	10	0	0	0	1	1
	7:45 AM	0	2	9	2	9	0	0	0	0	18	0	1	41	0	0	0	1	1
	8:00 AM	0	5	11	6	7	0	0	0	0	27	0	5	61	0	0	0	0	0
	8:15 AM	0	0	7	2	10	0	0	0	0	43	0	4	66	0	0	0	0	0
	8:30 AM	0	10	8	3	23	0	0	0	0	56	0	2	102	0	0	0	0	0
	8:45 AM	0	5	9	0	19	0	0	0	0	62	0	1	96	0	0	0	0	0
	VOLUMES	0	27	52	15	81	0	0	0	0	219	0	15	411	0	0	0	2	2
	APPROACH %	0%	34%	66%	16%	84%	0%	0%	0%	0%	93%	0%	6%						
	APP/DEPART	79	/	42	96	/	300	0	/	69	236	/	0	0					
	BEGIN PEAK HR	8:00 AM																	
	VOLUMES	0	20	35	11	59	0	0	0	0	188	0	12	325	0	0	0	0	0
	APPROACH %	0%	36%	64%	16%	84%	0%	0%	0%	0%	94%	0%	6%						
	PEAK HR FACTOR	0.764			0.673			0.000			0.794			0.797					
	APP/DEPART	55	/	32	70	/	247	0	/	46	200	/	0	0					

0

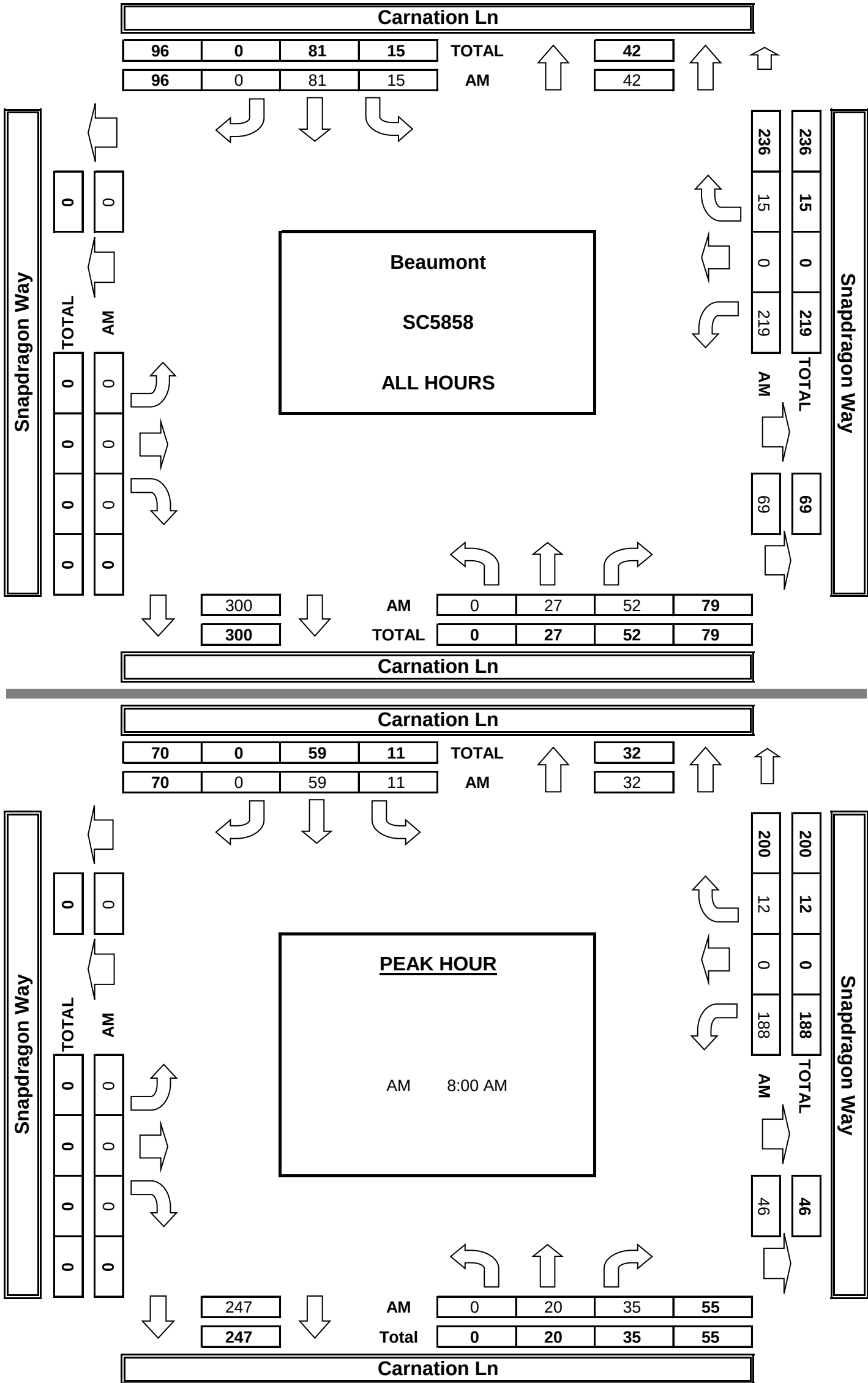
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AimTD LLC
TURNING MOVEMENT COUNTS



PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:
Thu, Jan 29, 26

LOCATION: Beaumont
NORTH & SOUTH: Starlight Ave
EAST & WEST: Snapdragon Way

PROJECT #: SC5858
LOCATION #: 2
CONTROL: STOP ALL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

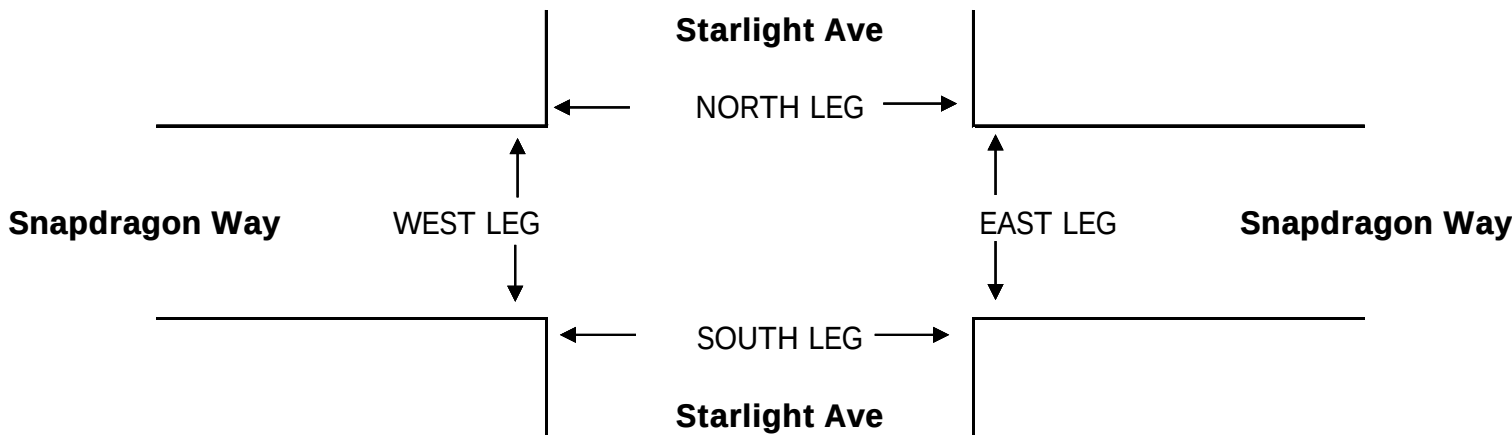
	NORTHBOUND Starlight Ave			SOUTHBOUND Starlight Ave			EASTBOUND Snapdragon Way			WESTBOUND Snapdragon Way				U-TURNS				
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL

$$\langle \quad \wedge \wedge \quad \quad \quad \wedge, \wedge \quad \quad \quad \langle \rangle$$

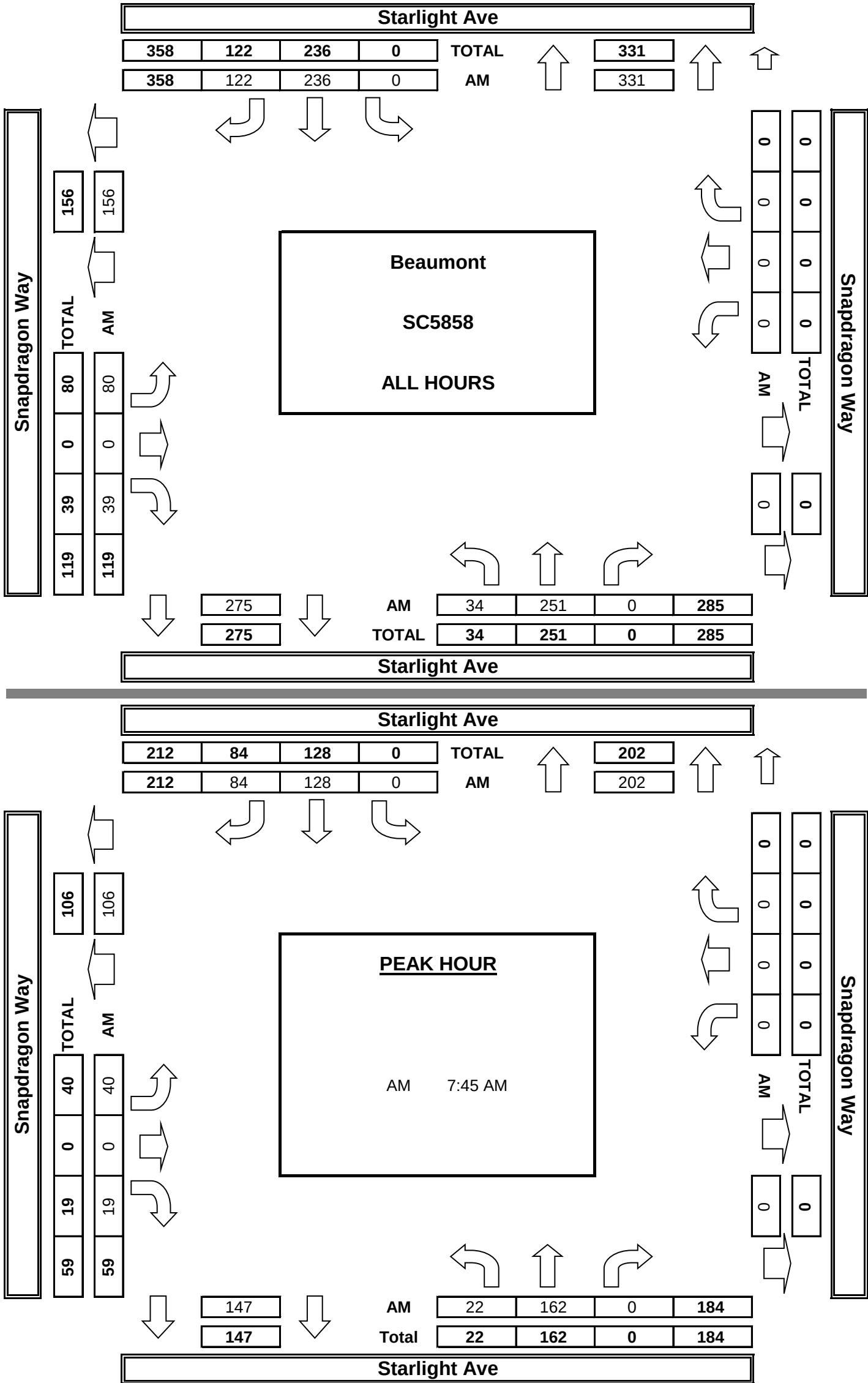
AM	7:00 AM	2	22	0	0	21	4	4	0	4	0	0	0	57
	7:15 AM	2	17	0	0	28	6	7	0	7	0	0	0	67
	7:30 AM	3	32	0	0	40	2	11	0	4	0	0	0	92
	7:45 AM	7	53	0	0	40	13	6	0	6	0	0	0	125
	8:00 AM	3	50	0	0	33	20	18	0	5	0	0	0	129
	8:15 AM	6	40	0	0	35	20	2	0	4	0	0	0	107
	8:30 AM	6	19	0	0	20	31	14	0	4	0	0	0	94
	8:45 AM	5	18	0	0	19	26	18	0	5	0	0	0	91
	VOLUMES	34	251	0	0	236	122	80	0	39	0	0	0	762
	APPROACH %	12%	88%	0%	0%	66%	34%	67%	0%	33%	0%	0%	0%	
	APP/DEPART	285	/	331	358	/	275	119	/	0	0	/	156	0
	BEGIN PEAK HR	7:45 AM												
VOLUMES	22	162	0	0	128	84	40	0	19	0	0	0	455	
APPROACH %	12%	88%	0%	0%	60%	40%	68%	0%	32%	0%	0%	0%		
PEAK HR FACTOR	0.767			0.964			0.641			0.000			0.882	
APP/DEPART	184	/	202	212	/	147	59	/	0	0	/	106	0	

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AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:

Thu, Jan 29, 26

LOCATION:

NORTH & SOUTH:

Beaumont

Xenia Ave

EAST & WEST:

Carnation Ln

PROJECT #:

SC5858

LOCATION #:

3

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Xenia Ave			Xenia Ave			Carnation Ln			Carnation Ln				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	0	0	0	0	

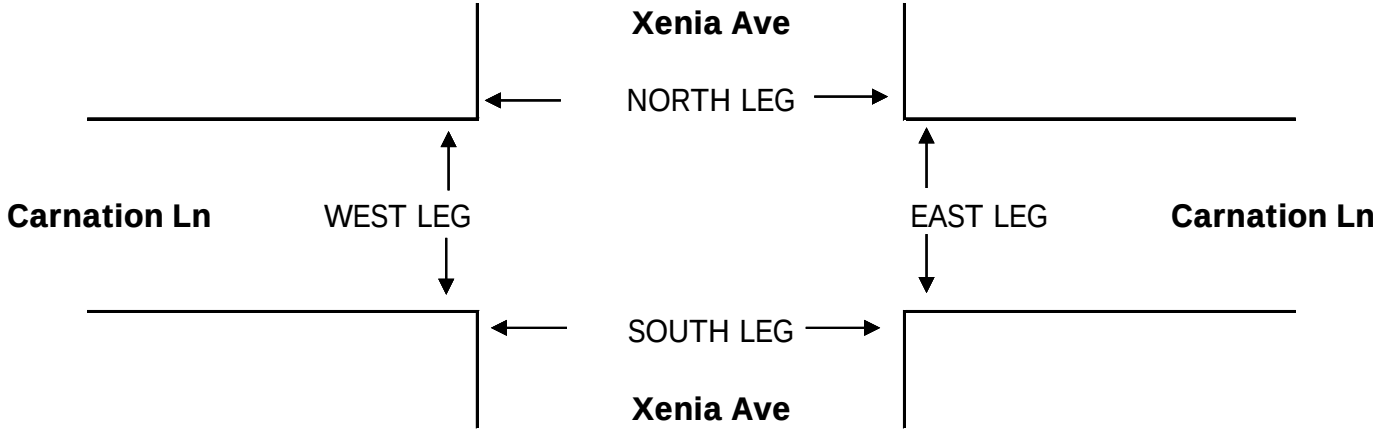
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AM	7:00 AM	14	18	0	0	41	2	4	0	33	0	0	0	112	0	0	0	0	0
	7:15 AM	14	14	0	0	42	4	0	0	32	0	0	0	106	0	0	0	0	0
	7:30 AM	17	34	0	0	54	1	2	0	26	0	0	0	134	2	0	0	0	2
	7:45 AM	24	57	2	0	49	8	0	0	29	0	0	0	169	2	0	0	0	2
	8:00 AM	22	59	0	0	44	7	1	0	42	0	0	0	175	0	1	0	0	1
	8:15 AM	34	40	0	0	23	12	5	0	42	0	0	0	156	3	0	0	0	3
	8:30 AM	35	28	0	0	23	8	7	0	75	0	0	0	176	0	0	0	0	0
	8:45 AM	36	18	0	0	30	2	9	0	69	0	0	0	164	0	0	0	0	0
	VOLUMES	196	268	2	0	306	44	28	0	348	0	0	0	1,200	7	1	0	0	8
	APPROACH %	41%	57%	0%	0%	87%	13%	7%	0%	93%	0%	0%	0%						
APP/DEPART	473	/	297	351	/	661	376	/	2	0	/	240	0						
BEGIN PEAK HR	7:45 AM																		
VOLUMES	115	184	2	0	139	35	13	0	188	0	0	0	682						
APPROACH %	38%	60%	1%	0%	79%	20%	6%	0%	94%	0%	0%	0%							
PEAK HR FACTOR	0.900			0.768			0.613			0.000			0.969						
APP/DEPART	306	/	198	175	/	332	201	/	2	0	/	150	0						

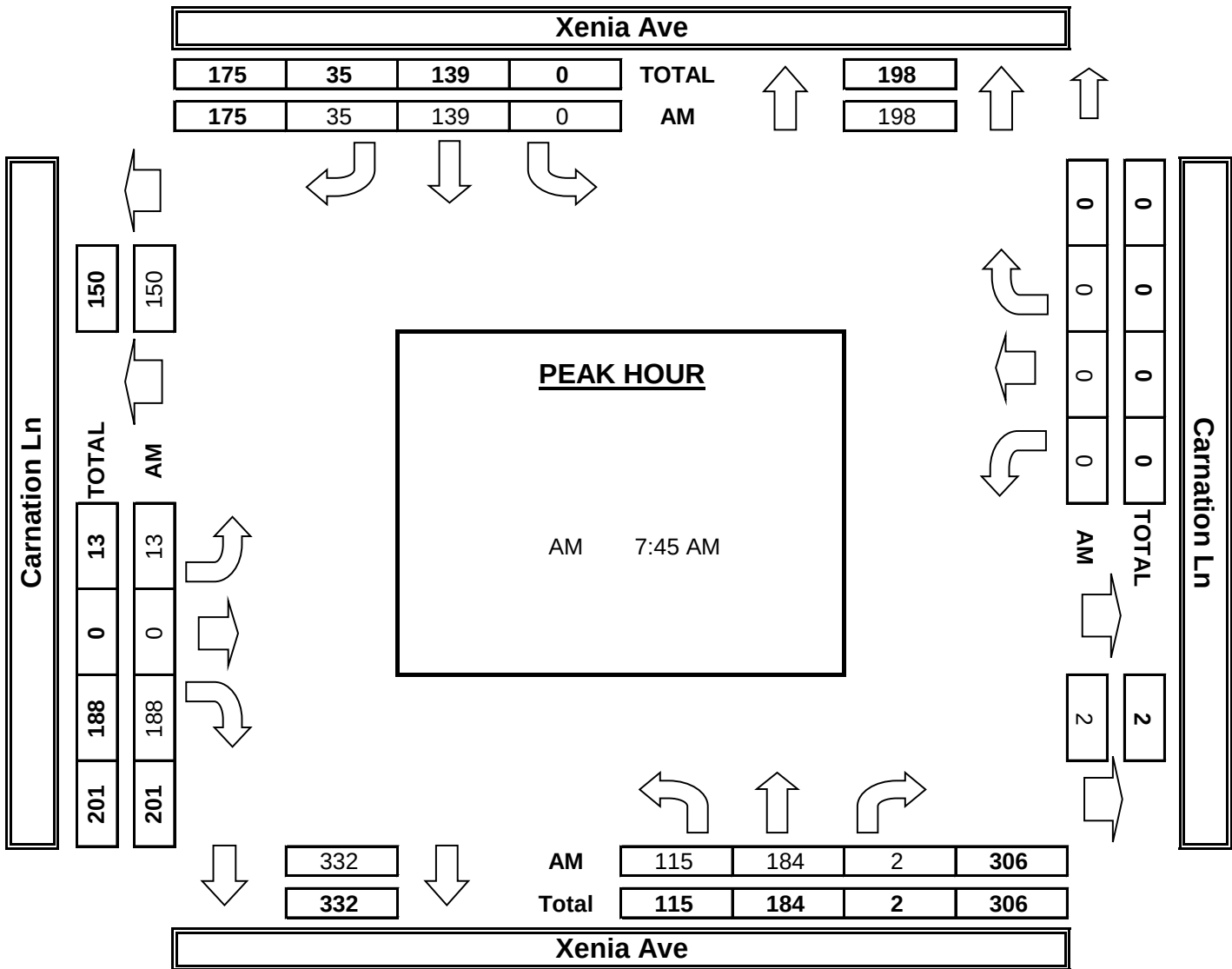
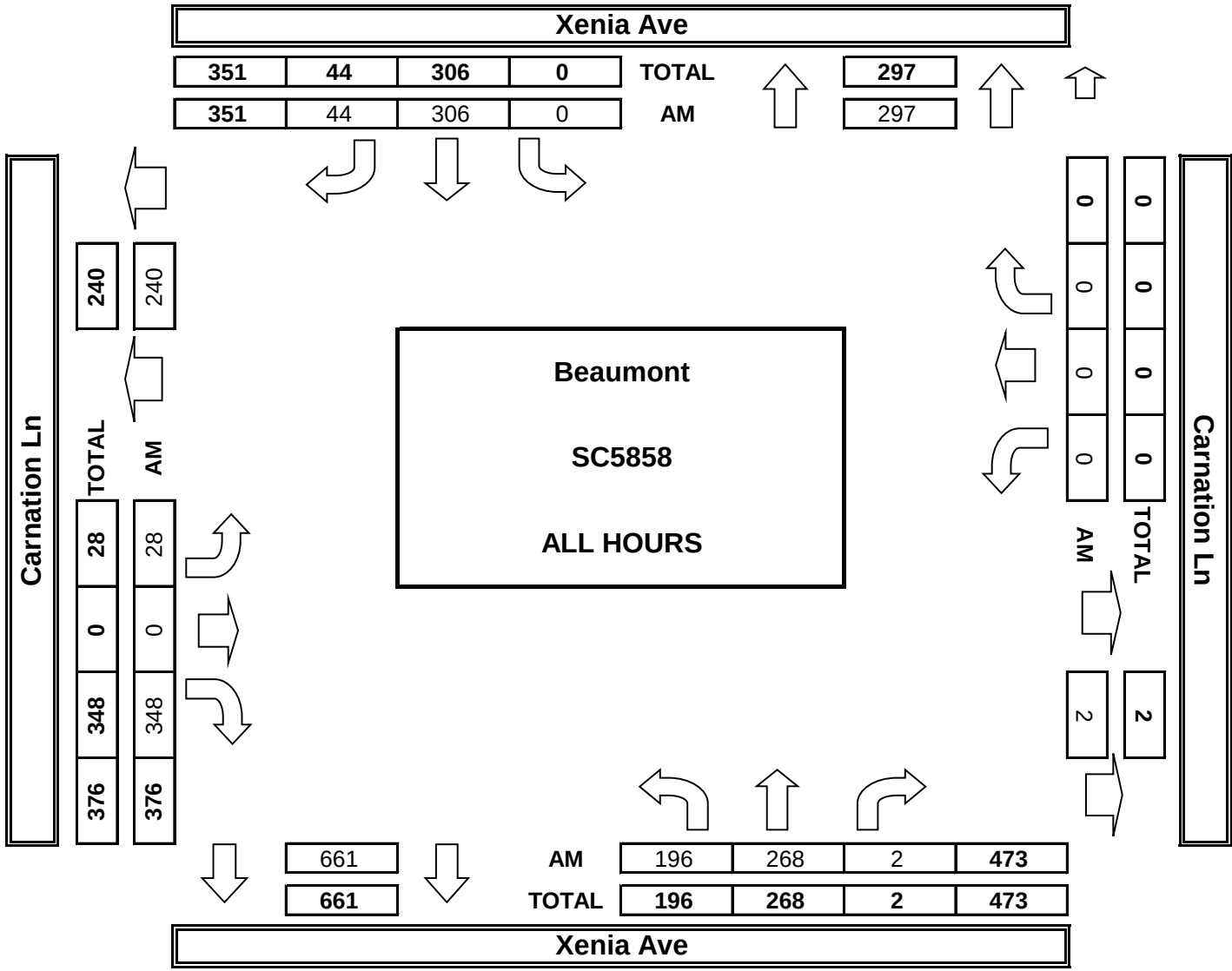
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0	0	0	0	0
2	0	0	0	2
2	0	0	0	2
0	1	0	0	1
3	0	0	0	3
0	0	0	0	0
0	0	0	0	0
7	1	0	0	8

5	1	0	0
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5	1	0	0
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AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:

Thu, Jan 29, 26

LOCATION:

NORTH & SOUTH:

Beaumont

Starlight Ave

EAST & WEST:

Tiger Flower Dr

PROJECT #:

SC5858

LOCATION #:

4

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Starlight Ave			Starlight Ave			Tiger Flower Dr			Tiger Flower Dr				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	0	0	0	0	

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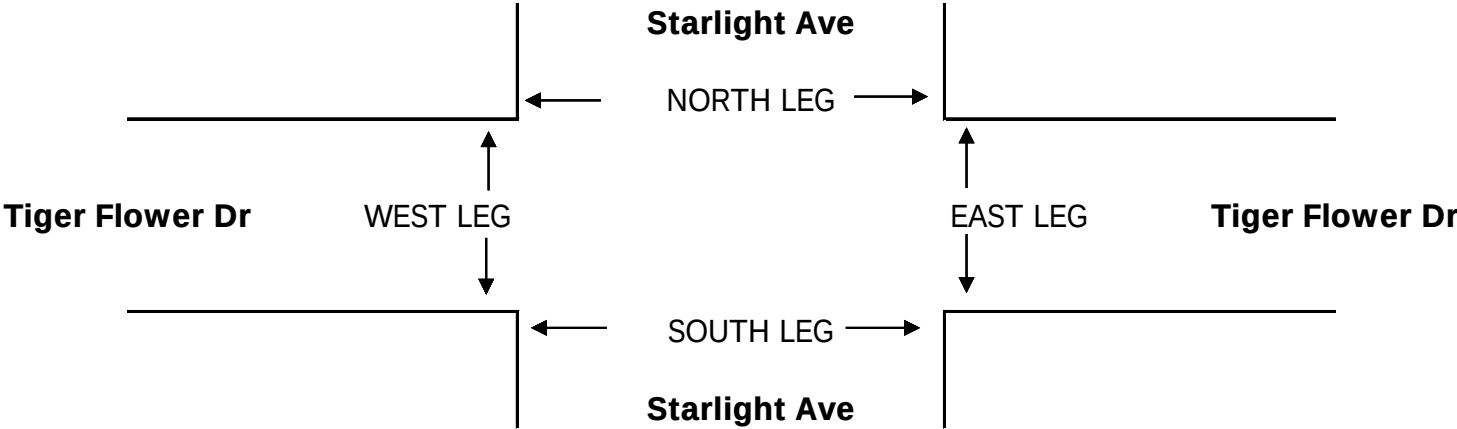
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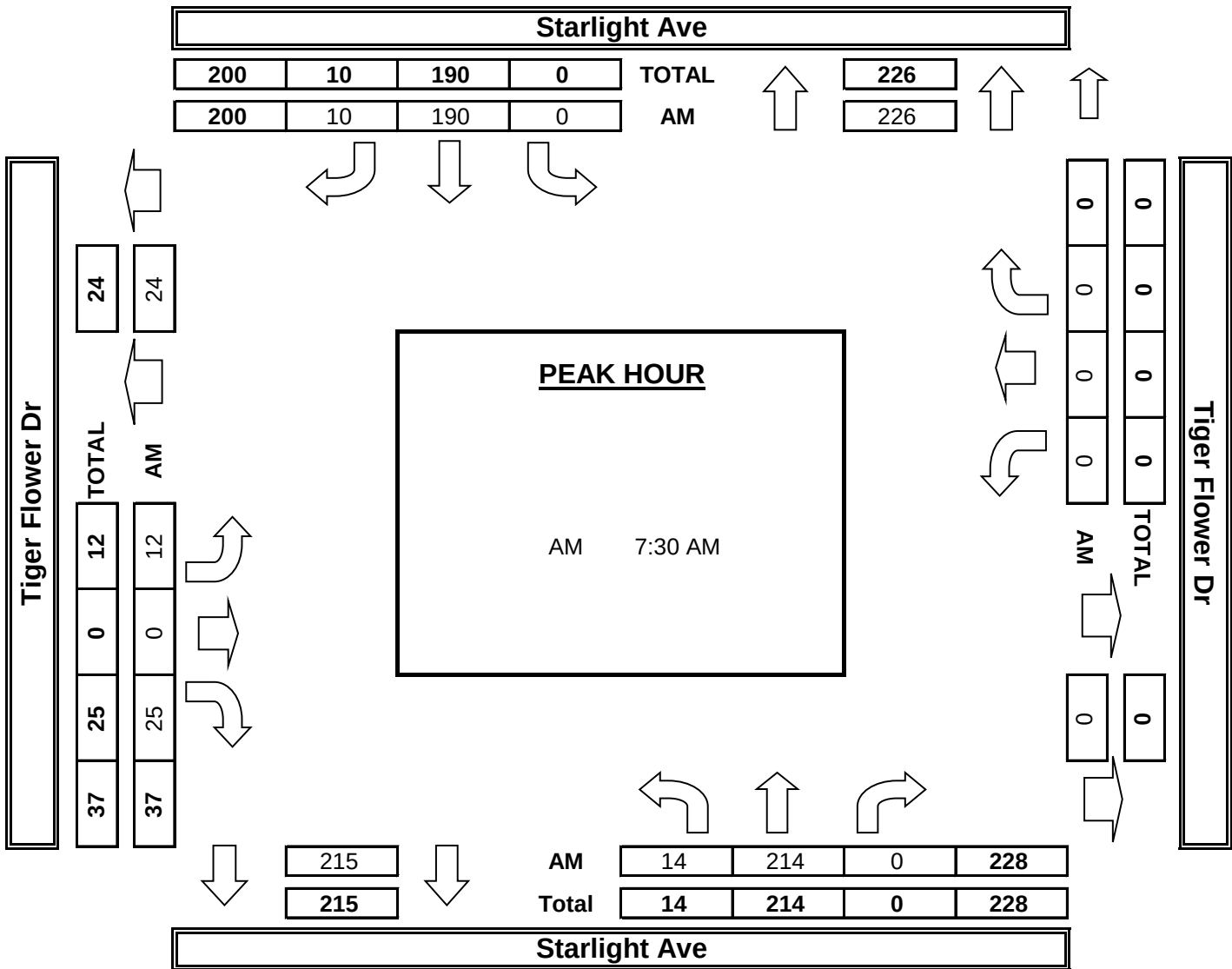
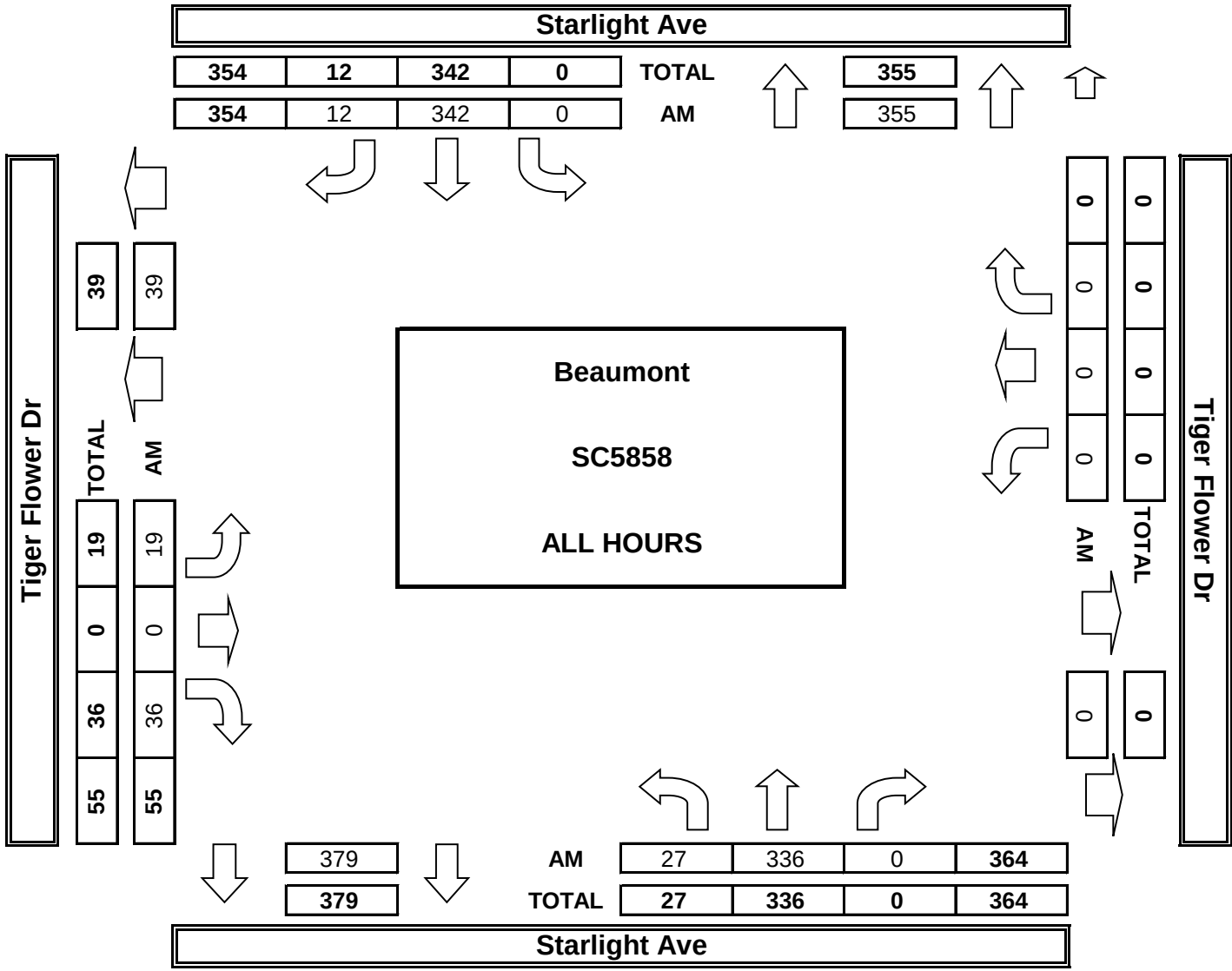
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	7:30 AM	1	46	0	0	39	0	1	0	7	0	0	0	94
	7:45 AM	5	59	0	0	37	1	7	0	12	0	0	0	121
	8:00 AM	4	69	0	0	60	5	4	0	4	0	0	0	146
	8:15 AM	4	40	0	0	54	4	0	0	2	0	0	0	104
	8:30 AM	6	25	0	0	51	0	1	0	4	0	0	0	87
	8:45 AM	2	38	0	0	46	0	3	0	1	0	0	0	90
	VOLUMES	27	336	0	0	342	12	19	0	36	0	0	0	773
	APPROACH %	7%	92%	0%	0%	97%	3%	35%	0%	65%	0%	0%	0%	
	APP/DEPART	364	/	355	354	/	379	55	/	0	0	/	39	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	14	214	0	0	190	10	12	0	25	0	0	0	465
	APPROACH %	6%	94%	0%	0%	95%	5%	32%	0%	68%	0%	0%	0%	
	PEAK HR FACTOR	0.781			0.769			0.487			0.000			0.796
	APP/DEPART	228	/	226	200	/	215	37	/	0	0	/	24	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1

0	0	0	0
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AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:

Thu, Jan 29, 26

LOCATION:

NORTH & SOUTH:

Beaumont

Starlight Ave

EAST & WEST:

Oak Valley Pkwy

PROJECT #:

SC5858

LOCATION #:

5

CONTROL:

STOP ALL

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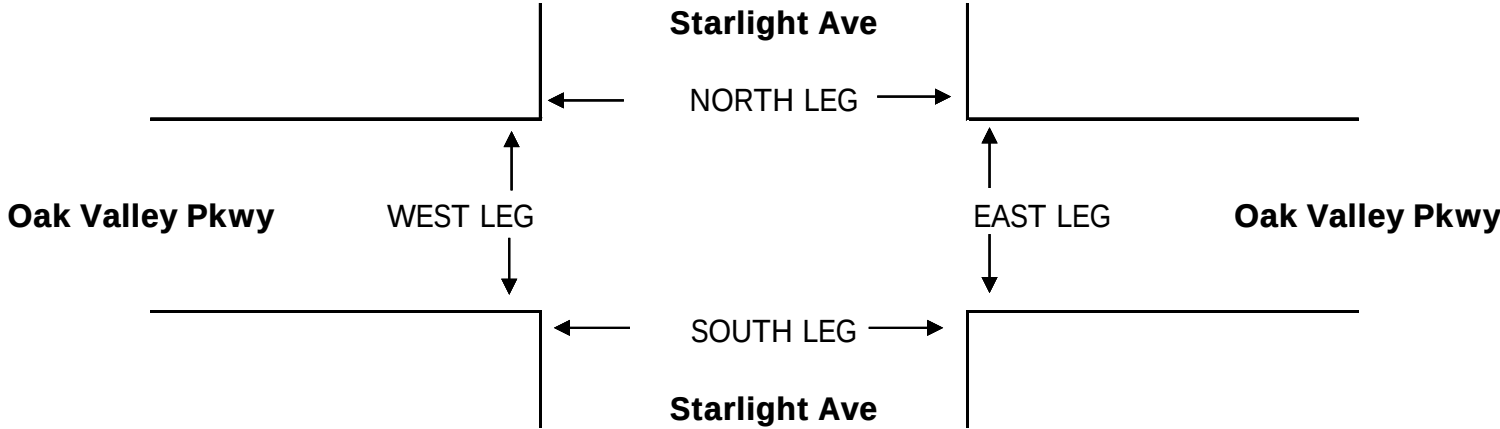
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Starlight Ave			Starlight Ave			Oak Valley Pkwy			Oak Valley Pkwy				NB	SB	EB	WB	TTL
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	0	0	0	0	

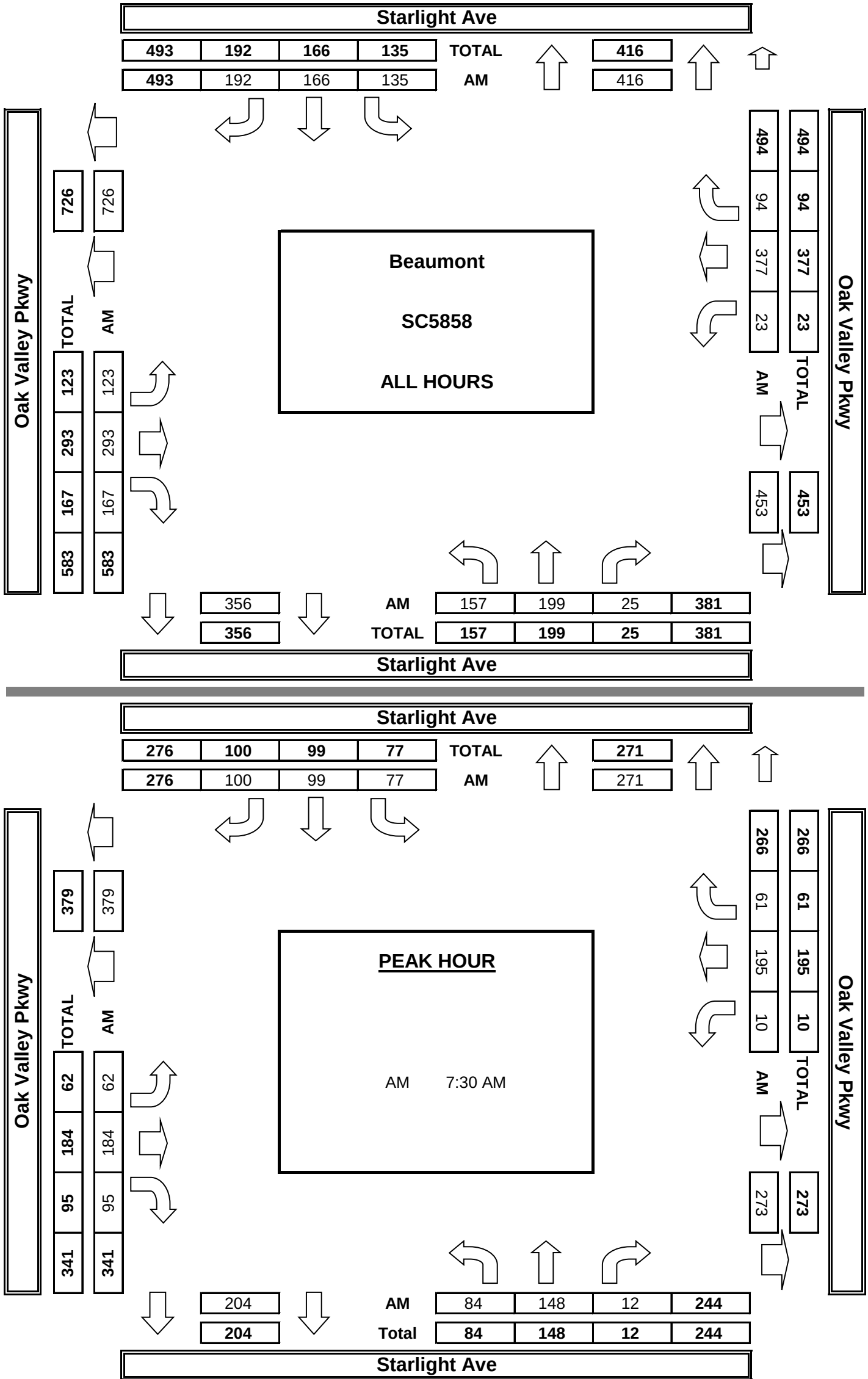
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AM	7:00 AM	24	18	2	16	14	30	26	28	13	0	57	12	240	0	0	0	0	0
	7:15 AM	15	14	1	22	15	27	18	23	16	0	44	11	206	0	0	0	0	0
	7:30 AM	21	32	2	25	19	30	13	29	17	1	58	13	260	0	0	0	0	0
	7:45 AM	20	40	2	17	16	27	12	41	19	2	42	13	251	0	0	0	0	0
	8:00 AM	22	52	7	18	38	16	19	63	27	3	53	18	336	0	0	0	0	0
	8:15 AM	21	24	1	17	26	27	18	51	32	4	42	17	280	0	0	0	0	0
	8:30 AM	15	6	3	14	21	16	6	35	24	4	38	6	188	0	0	0	0	0
	8:45 AM	19	13	7	6	17	19	11	23	19	9	43	4	190	0	0	0	0	0
	VOLUMES	157	199	25	135	166	192	123	293	167	23	377	94	1,951	0	0	0	0	0
	APPROACH %	41%	52%	7%	27%	34%	39%	21%	50%	29%	5%	76%	19%						
	APP/DEPART	381	/	416	493	/	356	583	/	453	494	/	726	0					
	BEGIN PEAK HR	7:30 AM																	
	VOLUMES	84	148	12	77	99	100	62	184	95	10	195	61	1,127	0	0	0	0	
	APPROACH %	34%	61%	5%	28%	36%	36%	18%	54%	28%	4%	73%	23%						
	PEAK HR FACTOR	0.753			0.932			0.782			0.899			0.839					
	APP/DEPART	244	/	271	276	/	204	341	/	273	266	/	379	0					

0	0	0	0
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AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:

Thu, Jan 29, 26

LOCATION:

NORTH & SOUTH: Beaumont

EAST & WEST: Carnation Ln

Dwy 1

PROJECT #:

SC5858

LOCATION #:

6

CONTROL:

NO CONTROL

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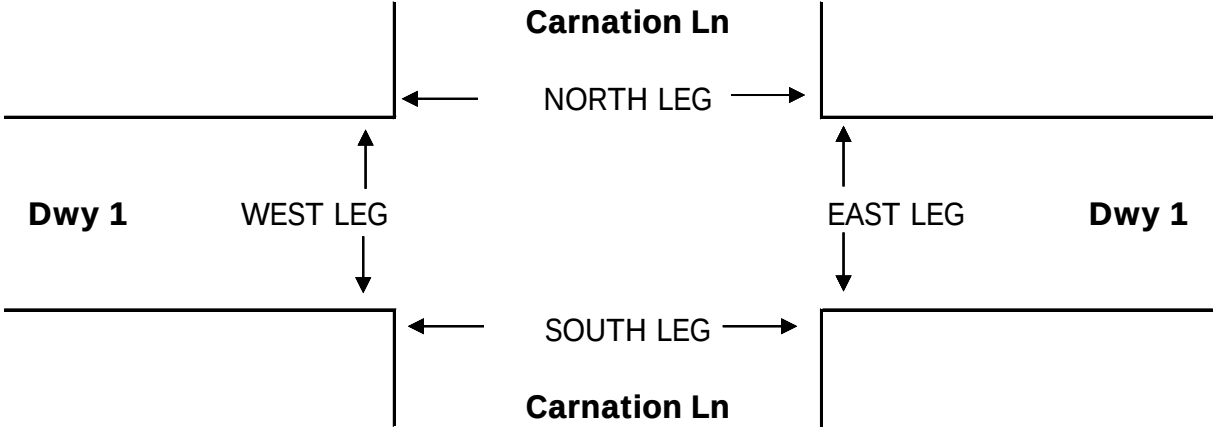
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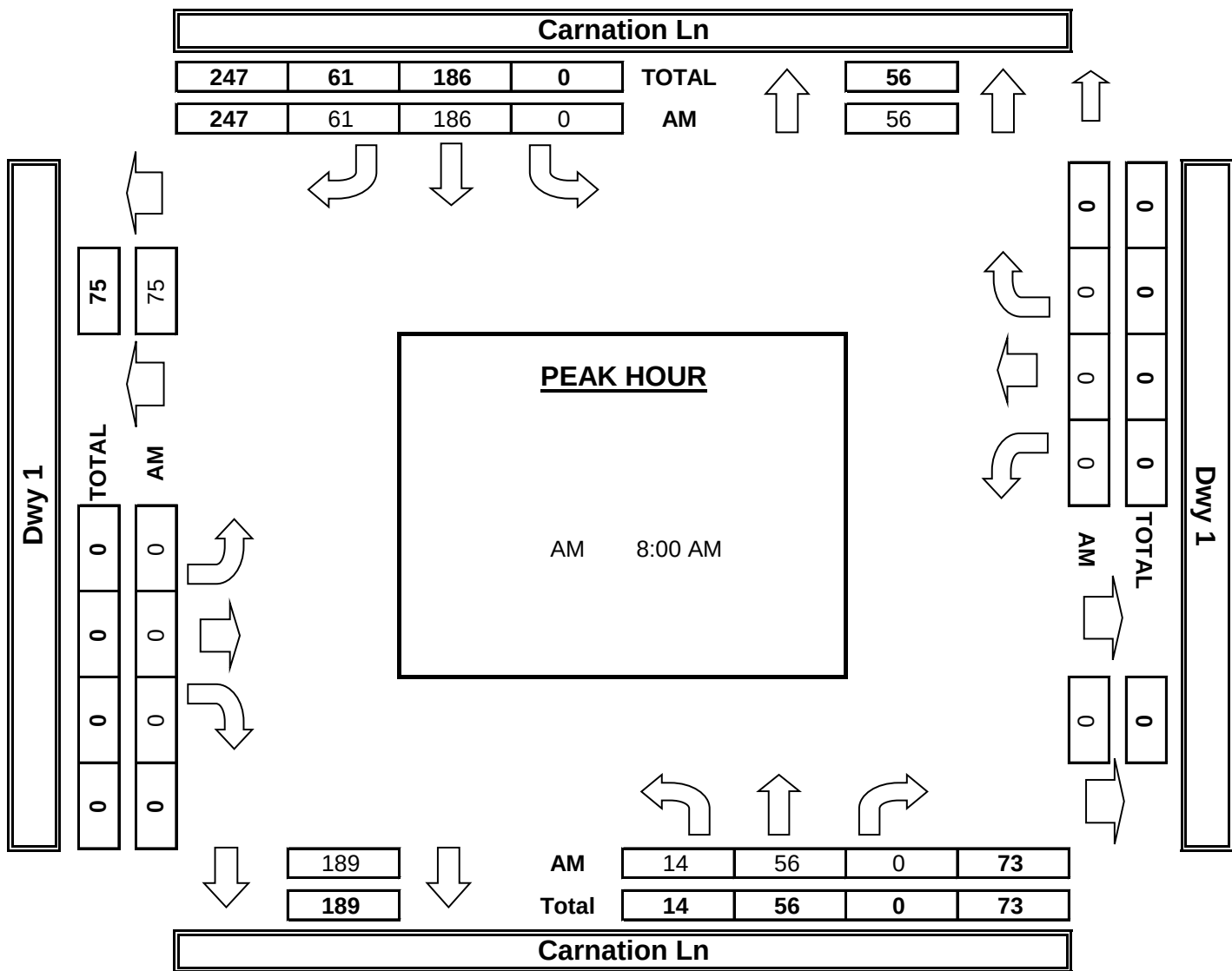
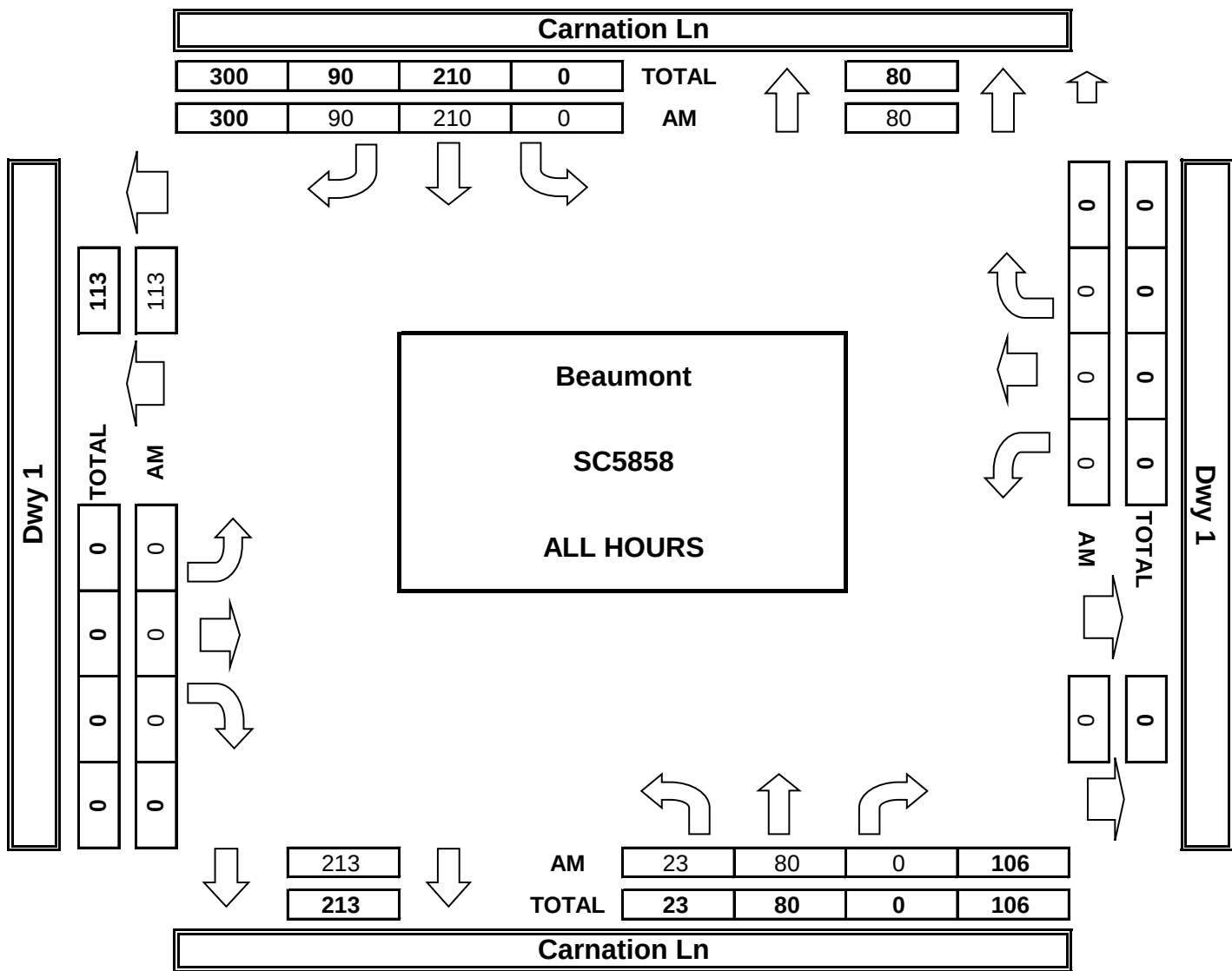
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carnation Ln			Carnation Ln			Dwy 1			Dwy 1				NB	SB	EB	WB	TTL
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	0	0	0	0	
	0	1	X	X	1	0	X	X	X	X	X	X		0	0	0	0	
	< ^	^			^	^ >	Enter only											

AM	7:00 AM	1	6	0	0	6	5	0	0	0	0	0	0	18	0	0	0	0	0
	7:15 AM	2	3	0	0	6	7	0	0	0	0	0	0	18	0	0	0	0	0
	7:30 AM	2	4	0	0	2	0	0	0	0	0	0	0	8	0	0	0	0	0
	7:45 AM	4	11	0	0	10	17	0	0	0	0	0	0	42	0	0	0	0	0
	8:00 AM	6	16	0	0	20	15	0	0	0	0	0	0	57	1	0	0	0	1
	8:15 AM	5	10	0	0	43	13	0	0	0	0	0	0	71	0	0	0	0	0
	8:30 AM	2	19	0	0	60	17	0	0	0	0	0	0	98	0	0	0	0	0
	8:45 AM	1	11	0	0	63	16	0	0	0	0	0	0	91	2	0	0	0	2
	VOLUMES	23	80	0	0	210	90	0	0	0	0	0	0	406	3	0	0	0	3
	APPROACH %	22%	75%	0%	0%	70%	30%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	106	/	80	300	/	213	0	/	0	0	/	113	0					
	BEGIN PEAK HR	8:00 AM													3 0 0 0				
	VOLUMES	14	56	0	0	186	61	0	0	0	0	0	0	320					
	APPROACH %	19%	77%	0%	0%	75%	25%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR	0.793			0.782			0.000			0.000			0.816					
	APP/DEPART	73	/	56	247	/	189	0	/	0	0	/	75	0					



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:

Thu, Jan 29, 26

LOCATION:

NORTH & SOUTH:

Beaumont

EAST & WEST:

Carnation Ln

Dwy 2

PROJECT #:

SC5858

LOCATION #:

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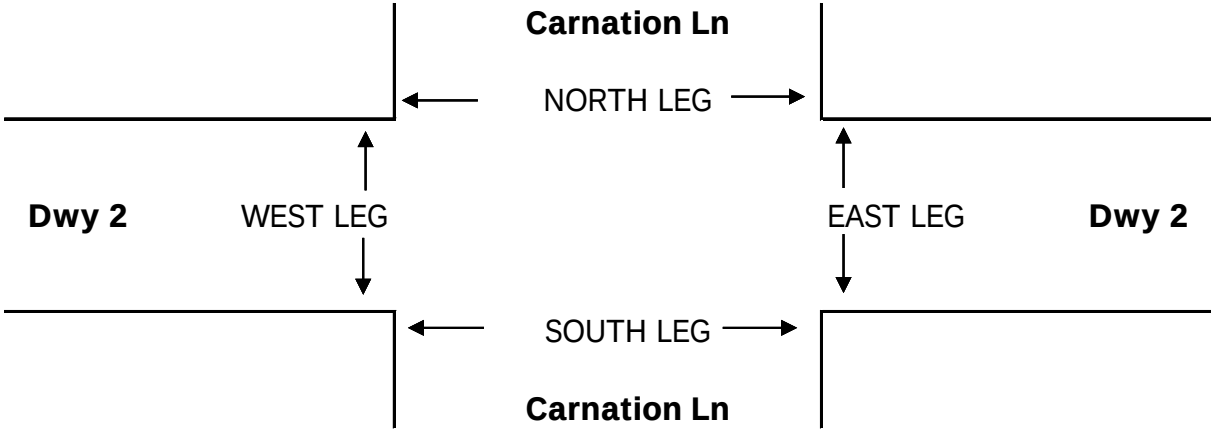
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carnation Ln			Carnation Ln			Dwy 2			Dwy 2				NB	SB	EB	WB	TTL
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	0	0	0	0	
	X	1	X	X	1	X	0	X	0	X	X	X						

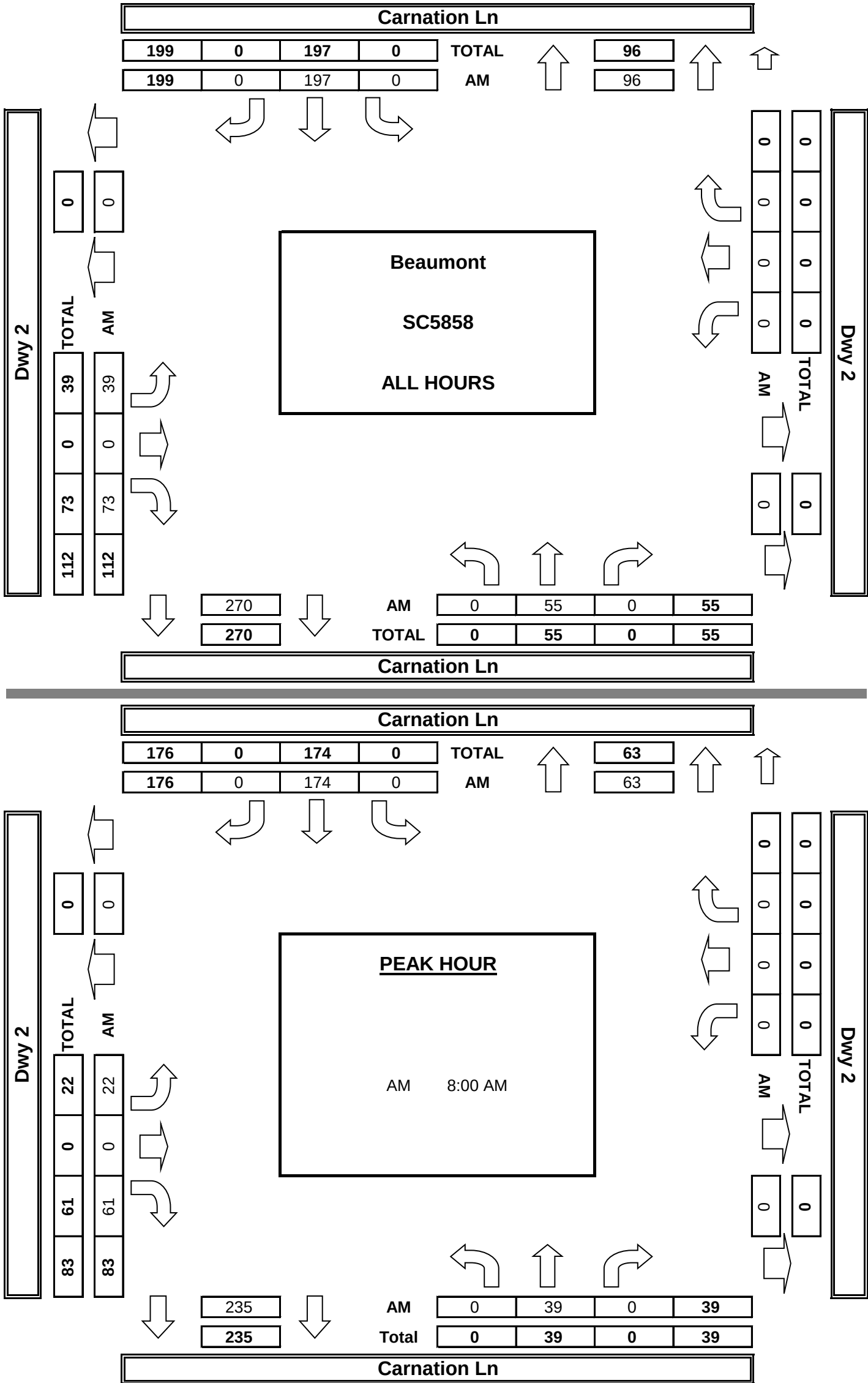
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AM	7:00 AM	0	3	0	0	6	0	5	0	2	0	0	0	16	0	0	0	0	0
	7:15 AM	0	4	0	0	6	0	1	0	3	0	0	0	14	0	0	0	0	0
	7:30 AM	0	4	0	0	2	0	3	0	4	0	0	0	13	0	0	0	0	0
	7:45 AM	0	5	0	0	9	0	8	0	3	0	0	0	25	0	0	0	0	0
	8:00 AM	0	12	0	0	18	0	10	0	5	0	0	0	45	0	0	0	0	0
	8:15 AM	0	6	0	0	37	0	3	0	15	0	0	0	61	0	0	0	0	0
	8:30 AM	0	12	0	0	62	0	6	0	24	0	0	0	104	0	1	0	0	1
	8:45 AM	0	9	0	0	57	0	3	0	17	0	0	0	86	0	1	0	0	1
	VOLUMES	0	55	0	0	197	0	39	0	73	0	0	0	366	0	2	0	0	2
	APPROACH %	0%	100%	0%	0%	99%	0%	35%	0%	65%	0%	0%	0%						
	APP/DEPART	55	/	96	199	/	270	112	/	0	0	/	0	0					
	BEGIN PEAK HR	8:00 AM																	
	VOLUMES	0	39	0	0	174	0	22	0	61	0	0	0	298	0	2	0	0	
	APPROACH %	0%	100%	0%	0%	99%	0%	27%	0%	73%	0%	0%	0%						
	PEAK HR FACTOR	0.813			0.698			0.692			0.000			0.710					
	APP/DEPART	39	/	63	176	/	235	83	/	0	0	/	0	0					

0	2	0	0
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AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T012524

DATE:
Thu, Jan 29, 26

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Beaumont
Carnation Ln
Dwy 3

PROJECT #:
LOCATION #:
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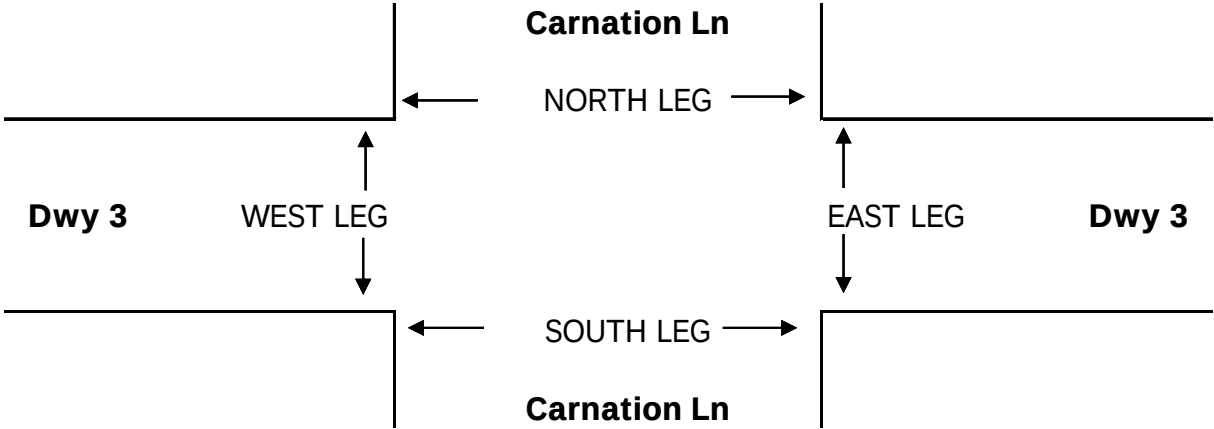
	NORTHBOUND Carnation Ln			SOUTHBOUND Carnation Ln			EASTBOUND Dwy 3			WESTBOUND Dwy 3			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	X	X	1	1	X	X	1	X	X	X	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

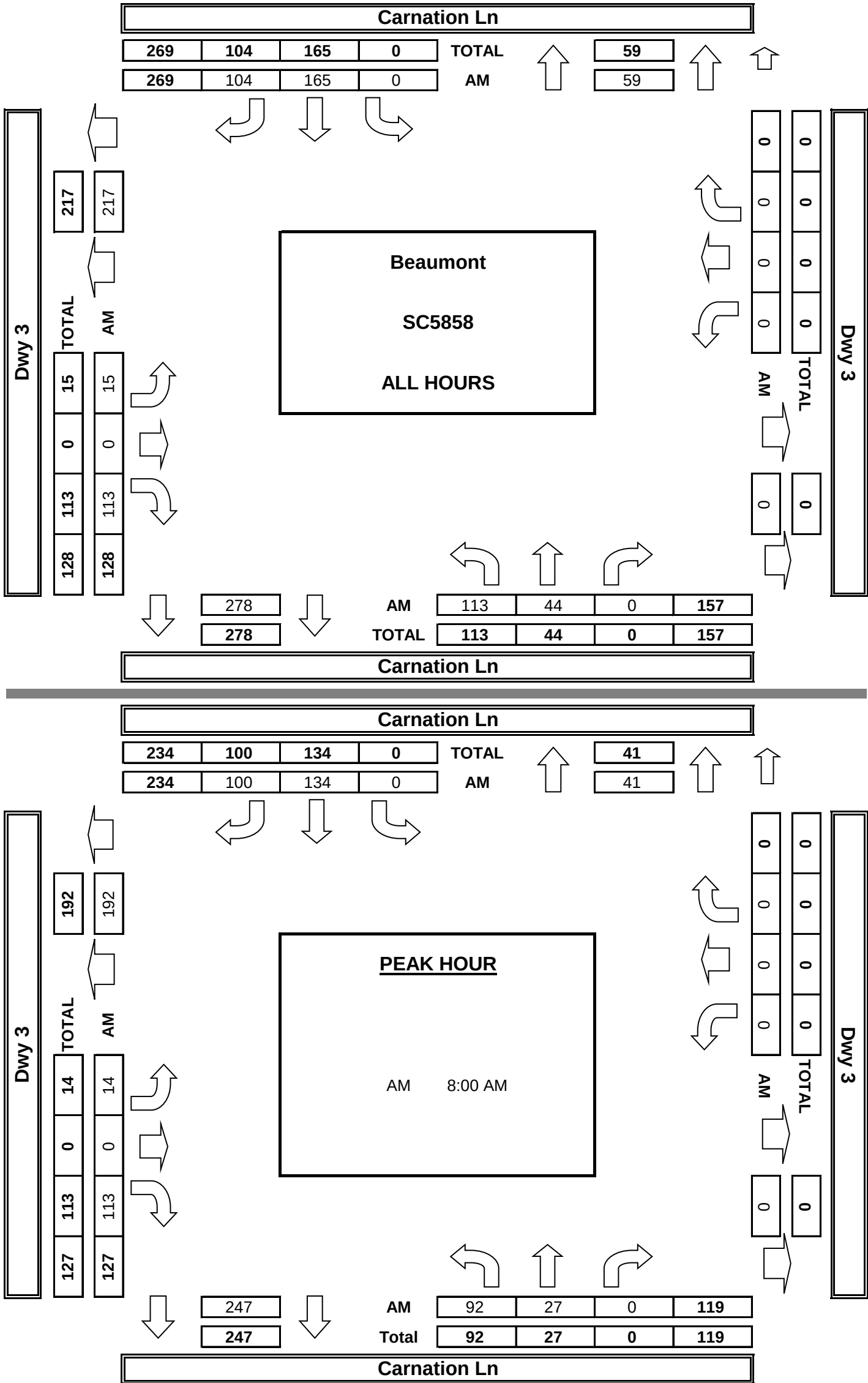
AM	7:00 AM	2	3	0	0	8	0	0	0	0	0	0	13
	7:15 AM	3	5	0	0	8	1	0	0	0	0	0	17
	7:30 AM	5	4	0	0	6	0	0	0	0	0	0	15
	7:45 AM	11	5	0	0	9	3	1	0	0	0	0	29
	8:00 AM	10	10	0	0	14	7	0	0	0	0	0	41
	8:15 AM	21	8	0	0	34	19	1	0	5	0	0	88
	8:30 AM	33	6	0	0	48	34	6	0	55	0	0	182
	8:45 AM	28	3	0	0	38	40	7	0	53	0	0	169
	VOLUMES	113	44	0	0	165	104	15	0	113	0	0	554
	APPROACH %	72%	28%	0%	0%	61%	39%	12%	0%	88%	0%	0%	
	APP/DEPART	157	/	59	269	/	278	128	/	0	0	/	217
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	92	27	0	0	134	100	14	0	113	0	0	480
	APPROACH %	77%	23%	0%	0%	57%	43%	11%	0%	89%	0%	0%	
	PEAK HR FACTOR	0.763			0.713			0.520			0.000		
	APP/DEPART	119	/	41	234	/	247	127	/	0	0	/	192

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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AimTD LLC
TURNING MOVEMENT COUNTS





Appendix B— ITE Trip Generation Output: AM Peak Hour

Elementary School (520)

Vehicle Trip Ends vs: Students

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: 45

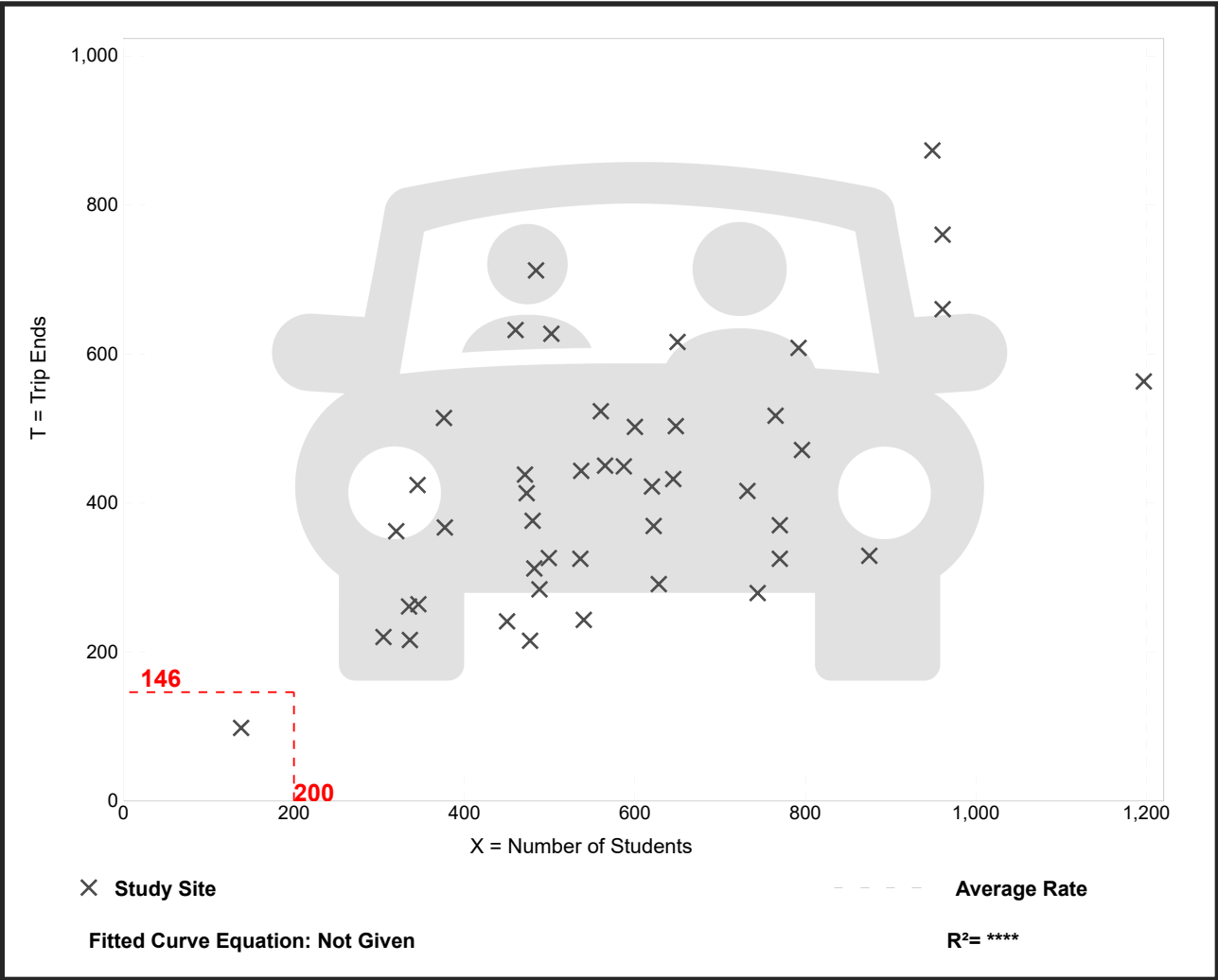
Avg. Num. of Students: 582

Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.73	0.38 - 1.47	0.26

Data Plot and Equation



Elementary School (520)

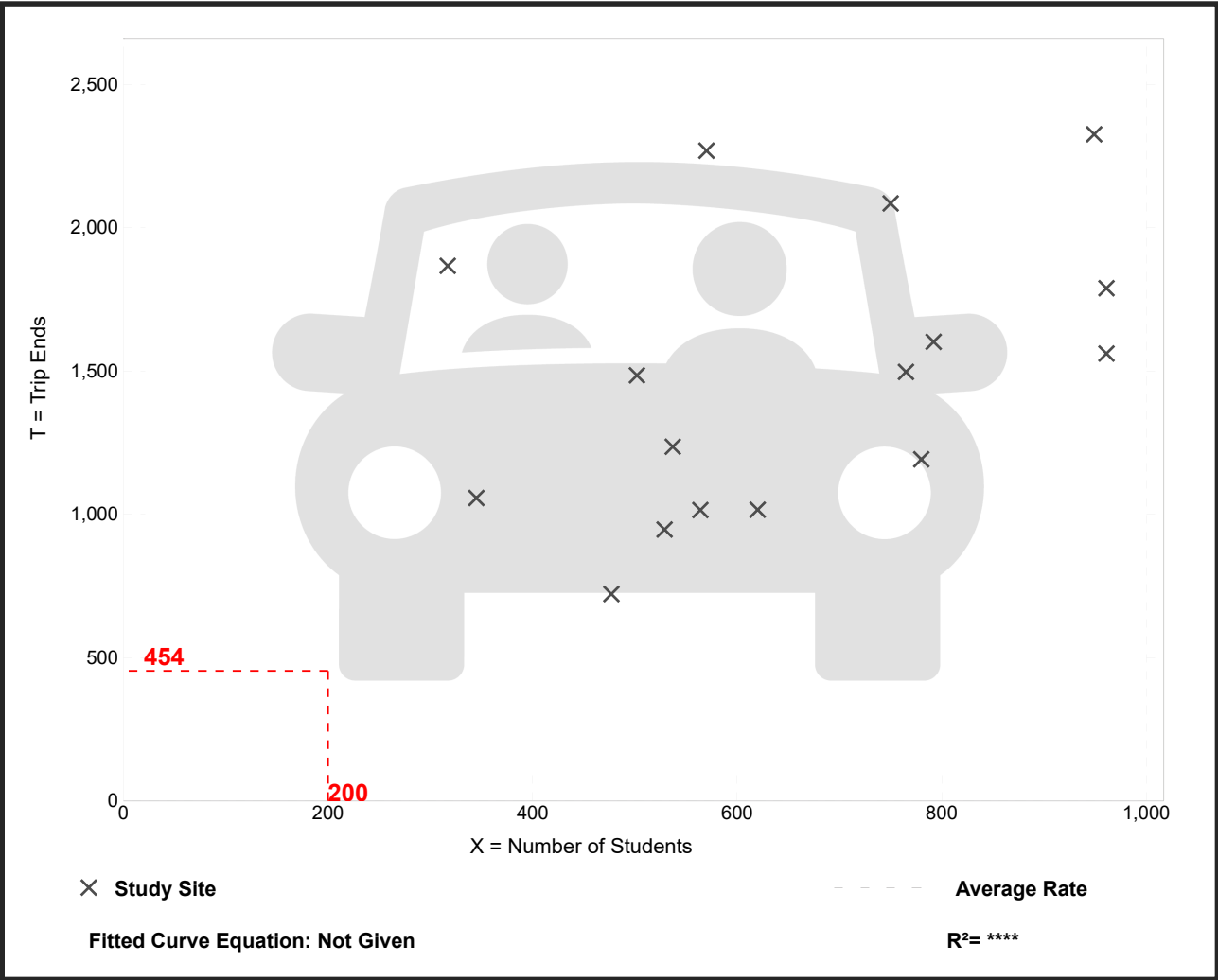
Vehicle Trip Ends vs: Students
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. Num. of Students: 651
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
2.27	1.51 - 5.89	0.93

Data Plot and Equation





Appendix C— Synchro Reports [2026 Existing – AM Peak Hour]

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	188	12	20	35	11	59
Future Vol, veh/h	188	12	20	35	11	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	204	13	22	38	12	64
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9	7.5	8
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	94%	16%
Vol Thru, %	36%	0%	84%
Vol Right, %	64%	6%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	55	200	70
LT Vol	0	188	11
Through Vol	20	0	59
RT Vol	35	12	0
Lane Flow Rate	60	217	76
Geometry Grp	1	1	1
Degree of Util (X)	0.069	0.261	0.096
Departure Headway (Hd)	4.153	4.32	4.543
Convergence, Y/N	Yes	Yes	Yes
Cap	867	822	793
Service Time	2.155	2.404	2.546
HCM Lane V/C Ratio	0.069	0.264	0.096
HCM Control Delay	7.5	9	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	1	0.3

Intersection

Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	19	22	162	128	84
Future Vol, veh/h	40	19	22	162	128	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	21	24	176	139	91
Number of Lanes	1	0	1	2	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	1
HCM Control Delay	8.9	7.4	8.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	68%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	34%
Vol Right, %	0%	0%	0%	32%	0%	66%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	81	81	59	85	127
LT Vol	22	0	0	40	0	0
Through Vol	0	81	81	0	85	43
RT Vol	0	0	0	19	0	84
Lane Flow Rate	24	88	88	64	93	138
Geometry Grp	5	5	5	5	6	6
Degree of Util (X)	0.036	0.12	0.078	0.099	0.131	0.176
Departure Headway (Hd)	5.413	4.911	3.171	5.541	5.073	4.608
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	663	732	1131	647	708	779
Service Time	3.129	2.627	0.886	3.27	2.794	2.328
HCM Lane V/C Ratio	0.036	0.12	0.078	0.099	0.131	0.177
HCM Control Delay	8.3	8.3	6.2	8.9	8.6	8.3
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3	0.3	0.4	0.6

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	188	115	184	139	35
Future Vol, veh/h	13	188	115	184	139	35
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	204	125	200	151	38
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	520	95	189	0	-	0
Stage 1	170	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	486	943	1382	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	442	943	1382	-	-	-
Mov Cap-2 Maneuver	442	-	-	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1382	-	879	-	-	
HCM Lane V/C Ratio	0.09	-	0.249	-	-	
HCM Control Delay (s)	7.9	-	10.4	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1	-	-	

HCM 6th TWSC
3: Starlight Ave & Tiger Flower Dr

02/10/2026

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	25	14	214	190	10
Future Vol, veh/h	12	25	14	214	190	10
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	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	27	15	233	207	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	360	109	218	0	-	0
Stage 1	213	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	612	924	1349	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	605	924	1349	-	-	-
Mov Cap-2 Maneuver	605	-	-	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.7	0.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1349	-	605	924	-	-
HCM Lane V/C Ratio	0.011	-	0.022	0.029	-	-
HCM Control Delay (s)	7.7	-	11.1	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

HCM 6th AWSC
3: Starlight Ave & Oak Valley Pkwy

02/10/2026

Intersection												
Intersection Delay, s/veh	12.1											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↑↑↔			↔↑↑↔			↔↑↑↔			↔↑↑↔		
Traffic Vol, veh/h	62	184	95	10	195	61	84	148	12	77	99	100
Future Vol, veh/h	62	184	95	10	195	61	84	148	12	77	99	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	200	103	11	212	66	91	161	13	84	108	109
Number of Lanes	0	3	0	0	3	0	0	3	0	0	3	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	12.2	11.8	12.5	12.1
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	69%	0%	0%	57%	0%	0%	17%	0%	0%	76%	0%
Vol Thru, %	31%	100%	76%	43%	100%	33%	83%	100%	44%	24%	100%
Vol Right, %	0%	0%	24%	0%	0%	67%	0%	0%	56%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	74	49	108	92	141	59	98	110	102	50
LT Vol	84	0	0	62	0	0	10	0	0	77	0
Through Vol	37	74	37	46	92	46	49	98	49	25	50
RT Vol	0	0	12	0	0	95	0	0	61	0	0
Lane Flow Rate	132	80	53	117	100	153	64	106	119	111	54
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.284	0.166	0.107	0.244	0.2	0.287	0.132	0.217	0.232	0.238	0.11
Departure Headway (Hd)	7.776	7.429	7.258	7.492	7.205	6.734	7.466	7.381	6.992	7.752	7.374
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	463	483	494	480	499	533	481	486	514	463	486
Service Time	5.516	5.168	4.997	5.229	4.942	4.47	5.205	5.119	4.73	5.489	5.111
HCM Lane V/C Ratio	0.285	0.166	0.107	0.244	0.2	0.287	0.133	0.218	0.232	0.24	0.111
HCM Control Delay	13.6	11.6	10.9	12.6	11.7	12.2	11.3	12.2	11.8	12.9	11
HCM Lane LOS	B	B	B	B	B	B	B	B	B	B	B
HCM 95th-tile Q	1.2	0.6	0.4	0.9	0.7	1.2	0.5	0.8	0.9	0.9	0.4

HCM Unsignalized Intersection Capacity Analysis

3: Carnation Ln & Driveway 1

02/10/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	56	186	61
Future Volume (Veh/h)	0	0	14	56	186	61
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	15	61	202	66
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	326	235	268			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	235	268			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	660	804	1296			
Direction, Lane #	NB 1	SB 1				
Volume Total	76	268				
Volume Left	15	0				
Volume Right	0	66				
cSH	1296	1700				
Volume to Capacity	0.01	0.16				
Queue Length 95th (ft)	1	0				
Control Delay (s)	1.6	0.0				
Lane LOS	A					
Approach Delay (s)	1.6	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			18.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM 6th TWSC
3: Carnation Ln & Driveway 2

02/10/2026

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	61	0	39	174	0
Future Vol, veh/h	22	61	0	39	174	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	66	0	42	189	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	231	189	-	0	-	0
Stage 1	189	-	-	-	-	-
Stage 2	42	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	757	853	0	-	-	0
Stage 1	843	-	0	-	-	0
Stage 2	980	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	757	853	-	-	-	-
Mov Cap-2 Maneuver	757	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 825		-			
HCM Lane V/C Ratio	- 0.109		-			
HCM Control Delay (s)	- 9.9		-			
HCM Lane LOS	- A		-			
HCM 95th %tile Q(veh)	- 0.4		-			

HCM 6th TWSC
4: Carnation Ln & Driveway 3

02/10/2026

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	113	92	27	134	100
Future Vol, veh/h	14	113	92	27	134	100
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	123	100	29	146	109
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	430	128	255	0	-	0
Stage 1	201	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	568	899	1309	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	524	899	1309	-	-	-
Mov Cap-2 Maneuver	524	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.2	6.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1309	-	833	-	-	
HCM Lane V/C Ratio	0.076	-	0.166	-	-	
HCM Control Delay (s)	8	0	10.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-	



Appendix D— Synchro Reports [2028 No Project – AM Peak Hour]

Intersection

Intersection Delay, s/veh 8.6

Intersection LOS A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	192	12	20	36	11	60
Future Vol, veh/h	192	12	20	36	11	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	209	13	22	39	12	65
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9	7.5	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	94%	15%
Vol Thru, %	36%	0%	85%
Vol Right, %	64%	6%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	56	204	71
LT Vol	0	192	11
Through Vol	20	0	60
RT Vol	36	12	0
Lane Flow Rate	61	222	77
Geometry Grp	1	1	1
Degree of Util (X)	0.07	0.266	0.098
Departure Headway (Hd)	4.16	4.325	4.554
Convergence, Y/N	Yes	Yes	Yes
Cap	866	820	791
Service Time	2.163	2.411	2.556
HCM Lane V/C Ratio	0.07	0.271	0.097
HCM Control Delay	7.5	9	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	1.1	0.3

HCM 6th AWSC
4: Starlight & Snapdragon

02/26/2026

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	19	22	165	131	86
Future Vol, veh/h	41	19	22	165	131	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	21	24	179	142	93
Number of Lanes	1	0	1	2	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	1
HCM Control Delay	8.9	7.4	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	68%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	34%
Vol Right, %	0%	0%	0%	32%	0%	66%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	83	83	60	87	130
LT Vol	22	0	0	41	0	0
Through Vol	0	83	83	0	87	44
RT Vol	0	0	0	19	0	86
Lane Flow Rate	24	90	90	65	95	141
Geometry Grp	5	5	5	5	6	6
Degree of Util (X)	0.036	0.123	0.079	0.101	0.134	0.181
Departure Headway (Hd)	5.423	4.921	3.18	5.567	5.083	4.618
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	662	731	1128	644	707	778
Service Time	3.139	2.637	0.895	3.295	2.804	2.338
HCM Lane V/C Ratio	0.036	0.123	0.08	0.101	0.134	0.181
HCM Control Delay	8.3	8.3	6.2	8.9	8.6	8.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3	0.3	0.5	0.7

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	192	117	188	142	36
Future Vol, veh/h	13	192	117	188	142	36
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	209	127	204	154	39
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	530	97	193	0	-	0
Stage 1	174	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	479	940	1378	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	435	940	1378	-	-	-
Mov Cap-2 Maneuver	435	-	-	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.5	3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1378	-	876	-	-	
HCM Lane V/C Ratio	0.092	-	0.254	-	-	
HCM Control Delay (s)	7.9	-	10.5	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1	-	-	

HCM 6th TWSC
3: Starlight Ave & Tiger Flower Dr

02/26/2026

Intersection							
Int Delay, s/veh	1						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Vol, veh/h	12	26	14	218	194	10	
Future Vol, veh/h	12	26	14	218	194	10	
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	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	13	28	15	237	211	11	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	366	111	222	0	-	0	
Stage 1	217	-	-	-	-	-	
Stage 2	149	-	-	-	-	-	
Critical Hdwy	6.84	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	5.84	-	-	-	-	-	
Follow-up Hdwy	3.52	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	607	921	1344	-	-	-	
Stage 1	798	-	-	-	-	-	
Stage 2	863	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	600	921	1344	-	-	-	
Mov Cap-2 Maneuver	600	-	-	-	-	-	
Stage 1	789	-	-	-	-	-	
Stage 2	863	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	9.7		0.5		0		
HCM LOS	A						
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1344		-	600	921	-	-
HCM Lane V/C Ratio	0.011		-	0.022	0.031	-	-
HCM Control Delay (s)	7.7		-	11.1	9	-	-
HCM Lane LOS	A		-	B	A	-	-
HCM 95th %tile Q(veh)	0		-	0.1	0.1	-	-

HCM 6th AWSC
3: Starlight Ave & Oak Valley Pkwy

02/26/2026

Intersection												
Intersection Delay, s/veh	12.3											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↑↑↔			↔↑↑↔			↔↑↑↔			↔↑↑↔		
Traffic Vol, veh/h	63	188	97	10	199	62	86	151	12	79	101	102
Future Vol, veh/h	63	188	97	10	199	62	86	151	12	79	101	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	204	105	11	216	67	93	164	13	86	110	111
Number of Lanes	0	3	0	0	3	0	0	3	0	0	3	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	12.4	12	12.6	12.3
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	69%	0%	0%	57%	0%	0%	17%	0%	0%	76%	0%
Vol Thru, %	31%	100%	76%	43%	100%	33%	83%	100%	45%	24%	100%
Vol Right, %	0%	0%	24%	0%	0%	67%	0%	0%	55%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	76	50	110	94	144	60	100	112	104	51
LT Vol	86	0	0	63	0	0	10	0	0	79	0
Through Vol	38	76	38	47	94	47	50	100	50	25	51
RT Vol	0	0	12	0	0	97	0	0	62	0	0
Lane Flow Rate	135	82	54	120	102	157	65	108	121	113	55
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.293	0.171	0.11	0.251	0.206	0.296	0.136	0.224	0.238	0.246	0.114
Departure Headway (Hd)	7.85	7.502	7.333	7.56	7.274	6.803	7.539	7.455	7.067	7.823	7.444
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	459	478	489	476	494	529	476	482	508	460	482
Service Time	5.592	5.244	5.075	5.299	5.013	4.541	5.28	5.196	4.808	5.563	5.184
HCM Lane V/C Ratio	0.294	0.172	0.11	0.252	0.206	0.297	0.137	0.224	0.238	0.246	0.114
HCM Control Delay	13.8	11.8	11	12.8	11.9	12.4	11.5	12.3	12	13.1	11.1
HCM Lane LOS	B	B	B	B	B	B	B	B	B	B	B
HCM 95th-tile Q	1.2	0.6	0.4	1	0.8	1.2	0.5	0.9	0.9	1	0.4

HCM Unsignalized Intersection Capacity Analysis

3: Carnation Ln & Driveway 1

02/26/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	57	190	62
Future Volume (Veh/h)	0	0	14	57	190	62
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	15	62	207	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	332	240	274			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	332	240	274			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	655	798	1289			
Direction, Lane #	NB 1	SB 1				
Volume Total	77	274				
Volume Left	15	0				
Volume Right	0	67				
cSH	1289	1700				
Volume to Capacity	0.01	0.16				
Queue Length 95th (ft)	1	0				
Control Delay (s)	1.6	0.0				
Lane LOS	A					
Approach Delay (s)	1.6	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			18.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM 6th TWSC
3: Carnation Ln & Driveway 2

02/26/2026

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	62	0	40	177	0
Future Vol, veh/h	22	62	0	40	177	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	67	0	43	192	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	235	192	-	0	-	0
Stage 1	192	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	753	850	0	-	-	0
Stage 1	841	-	0	-	-	0
Stage 2	979	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	753	850	-	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 822		-			
HCM Lane V/C Ratio	- 0.111		-			
HCM Control Delay (s)	- 9.9		-			
HCM Lane LOS	- A		-			
HCM 95th %tile Q(veh)	- 0.4		-			

HCM 6th TWSC
4: Carnation Ln & Driveway 3

02/26/2026

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	115	94	28	137	102
Future Vol, veh/h	14	115	94	28	137	102
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	125	102	30	149	111
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	439	130	260	0	-	0
Stage 1	205	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	561	896	1303	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	516	896	1303	-	-	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.2	6.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1303	-	830	-	-	
HCM Lane V/C Ratio	0.078	-	0.169	-	-	
HCM Control Delay (s)	8	0	10.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	0.6	-	-	



Appendix E— Synchro Reports [2026 With Project – AM Peak Hour]

Intersection

Intersection Delay, s/veh

9

Intersection LOS

A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	229	12	23	40	11	72
Future Vol, veh/h	229	12	23	40	11	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	249	13	25	43	12	78
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.6	7.7	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	95%	13%
Vol Thru, %	37%	0%	87%
Vol Right, %	63%	5%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	63	241	83
LT Vol	0	229	11
Through Vol	23	0	72
RT Vol	40	12	0
Lane Flow Rate	68	262	90
Geometry Grp	1	1	1
Degree of Util (X)	0.082	0.326	0.117
Departure Headway (Hd)	4.286	4.477	4.664
Convergence, Y/N	Yes	Yes	Yes
Cap	837	807	770
Service Time	2.307	2.477	2.684
HCM Lane V/C Ratio	0.081	0.325	0.117
HCM Control Delay	7.7	9.6	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	1.4	0.4

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	21	30	162	128	116
Future Vol, veh/h	43	21	30	162	128	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	23	33	176	139	126
Number of Lanes	1	0	1	2	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	1
HCM Control Delay	9	7.5	8.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	67%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	27%
Vol Right, %	0%	0%	0%	33%	0%	73%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	81	81	64	85	159
LT Vol	30	0	0	43	0	0
Through Vol	0	81	81	0	85	43
RT Vol	0	0	0	21	0	116
Lane Flow Rate	33	88	88	70	93	172
Geometry Grp	5	5	5	5	6	6
Degree of Util (X)	0.049	0.121	0.079	0.109	0.132	0.22
Departure Headway (Hd)	5.461	4.959	3.217	5.622	5.113	4.599
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	657	725	1114	637	702	781
Service Time	3.181	2.679	0.937	3.356	2.837	2.323
HCM Lane V/C Ratio	0.05	0.121	0.079	0.11	0.132	0.22
HCM Control Delay	8.5	8.4	6.2	9	8.6	8.6
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.3	0.4	0.5	0.8

HCM 6th TWSC
2: Xenia Ave & Carnation Ln

02/26/2026

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	244	124	184	139	38
Future Vol, veh/h	17	244	124	184	139	38
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	265	135	200	151	41
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	542	96	192	0	-	0
Stage 1	172	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	470	942	1379	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	424	942	1379	-	-	-
Mov Cap-2 Maneuver	424	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.1	3.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1379	-	873	-	-	
HCM Lane V/C Ratio	0.098	-	0.325	-	-	
HCM Control Delay (s)	7.9	-	11.1	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1.4	-	-	

HCM 6th TWSC
3: Starlight Ave & Tiger Flower Dr

02/26/2026

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	29	14	218	218	10
Future Vol, veh/h	12	29	14	218	218	10
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	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	32	15	237	237	11

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	392	124	248
Stage 1	243	-	-
Stage 2	149	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	585	904	1315
Stage 1	775	-	-
Stage 2	863	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	579	904	1315
Mov Cap-2 Maneuver	579	-	-
Stage 1	766	-	-
Stage 2	863	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1315	-	579	904	-	-
HCM Lane V/C Ratio	0.012	-	0.023	0.035	-	-
HCM Control Delay (s)	7.8	-	11.4	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

HCM 6th AWSC
3: Starlight Ave & Oak Valley Pkwy

02/26/2026

Intersection												
Intersection Delay, s/veh	12.4											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↑↑↔			↔↑↑↔			↔↑↑↔			↔↑↑↔		
Traffic Vol, veh/h	62	184	108	11	195	61	85	150	12	77	113	100
Future Vol, veh/h	62	184	108	11	195	61	85	150	12	77	113	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	200	117	12	212	66	92	163	13	84	123	109
Number of Lanes	0	3	0	0	3	0	0	3	0	0	3	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	12.5	12	12.6	12.4
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	69%	0%	0%	57%	0%	0%	18%	0%	0%	73%	0%
Vol Thru, %	31%	100%	76%	43%	100%	30%	82%	100%	44%	27%	100%
Vol Right, %	0%	0%	24%	0%	0%	70%	0%	0%	56%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	75	50	108	92	154	60	98	110	105	57
LT Vol	85	0	0	62	0	0	11	0	0	77	0
Through Vol	38	75	38	46	92	46	49	98	49	28	57
RT Vol	0	0	12	0	0	108	0	0	61	0	0
Lane Flow Rate	133	82	54	117	100	167	65	106	119	114	61
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.291	0.171	0.11	0.247	0.202	0.316	0.137	0.221	0.235	0.248	0.127
Departure Headway (Hd)	7.88	7.533	7.364	7.576	7.289	6.798	7.583	7.491	7.102	7.817	7.451
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	476	487	474	493	529	473	479	506	460	481
Service Time	5.622	5.275	5.105	5.315	5.028	4.537	5.324	5.232	4.843	5.557	5.191
HCM Lane V/C Ratio	0.291	0.172	0.111	0.247	0.203	0.316	0.137	0.221	0.235	0.248	0.127
HCM Control Delay	13.8	11.8	11	12.8	11.9	12.7	11.5	12.4	12	13.1	11.3
HCM Lane LOS	B	B	B	B	B	B	B	B	B	B	B
HCM 95th-tile Q	1.2	0.6	0.4	1	0.7	1.3	0.5	0.8	0.9	1	0.4

HCM Unsignalized Intersection Capacity Analysis

3: Carnation Ln & Driveway 1

02/26/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	56	186	61
Future Volume (Veh/h)	0	0	14	56	186	61
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	15	61	202	66
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	326	235	268			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	235	268			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	660	804	1296			
Direction, Lane #	NB 1	SB 1				
Volume Total	76	268				
Volume Left	15	0				
Volume Right	0	66				
cSH	1296	1700				
Volume to Capacity	0.01	0.16				
Queue Length 95th (ft)	1	0				
Control Delay (s)	1.6	0.0				
Lane LOS	A					
Approach Delay (s)	1.6	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			18.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM 6th TWSC
3: Carnation Ln & Driveway 2

02/26/2026

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	61	0	39	174	0
Future Vol, veh/h	22	61	0	39	174	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	66	0	42	189	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	231	189	-	0	-	0
Stage 1	189	-	-	-	-	-
Stage 2	42	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	757	853	0	-	-	0
Stage 1	843	-	0	-	-	0
Stage 2	980	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	757	853	-	-	-	-
Mov Cap-2 Maneuver	757	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 825		-			
HCM Lane V/C Ratio	- 0.109		-			
HCM Control Delay (s)	- 9.9		-			
HCM Lane LOS	- A		-			
HCM 95th %tile Q(veh)	- 0.4		-			

HCM 6th TWSC
4: Carnation Ln & Driveway 3

02/26/2026

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	173	104	27	134	113
Future Vol, veh/h	21	173	104	27	134	113
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	188	113	29	146	123
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	463	135	269	0	-	0
Stage 1	208	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	542	890	1293	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	494	890	1293	-	-	-
Mov Cap-2 Maneuver	494	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.9	6.4		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1293	-	819	-	-	
HCM Lane V/C Ratio	0.087	-	0.257	-	-	
HCM Control Delay (s)	8.1	0	10.9	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1	-	-	



Appendix F— Synchro Reports [2028 With Project – AM Peak Hour]

Intersection

Intersection Delay, s/veh 9.1

Intersection LOS A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	233	12	23	40	11	73
Future Vol, veh/h	233	12	23	40	11	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	253	13	25	43	12	79
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.7	7.7	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	95%	13%
Vol Thru, %	37%	0%	87%
Vol Right, %	63%	5%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	63	245	84
LT Vol	0	233	11
Through Vol	23	0	73
RT Vol	40	12	0
Lane Flow Rate	68	266	91
Geometry Grp	1	1	1
Degree of Util (X)	0.082	0.331	0.119
Departure Headway (Hd)	4.298	4.481	4.673
Convergence, Y/N	Yes	Yes	Yes
Cap	835	807	769
Service Time	2.319	2.481	2.693
HCM Lane V/C Ratio	0.081	0.33	0.118
HCM Control Delay	7.7	9.7	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	1.5	0.4

HCM 6th AWSC
4: Starlight & Snapdragon

02/26/2026

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	21	31	165	131	118
Future Vol, veh/h	44	21	31	165	131	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	23	34	179	142	128
Number of Lanes	1	0	1	2	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	1
HCM Control Delay	9.1	7.5	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	68%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	27%
Vol Right, %	0%	0%	0%	32%	0%	73%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	83	83	65	87	162
LT Vol	31	0	0	44	0	0
Through Vol	0	83	83	0	87	44
RT Vol	0	0	0	21	0	118
Lane Flow Rate	34	90	90	71	95	176
Geometry Grp	5	5	5	5	6	6
Degree of Util (X)	0.051	0.124	0.08	0.111	0.135	0.225
Departure Headway (Hd)	5.472	4.97	3.228	5.652	5.126	4.613
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	656	723	1110	634	701	778
Service Time	3.191	2.689	0.947	3.384	2.849	2.337
HCM Lane V/C Ratio	0.052	0.124	0.081	0.112	0.136	0.226
HCM Control Delay	8.5	8.4	6.2	9.1	8.7	8.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.3	0.4	0.5	0.9

HCM 6th TWSC
2: Xenia Ave & Carnation Ln

02/26/2026

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	249	127	188	142	39
Future Vol, veh/h	17	249	127	188	142	39
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	271	138	204	154	42
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	553	98	196	0	-	0
Stage 1	175	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	463	939	1374	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	417	939	1374	-	-	-
Mov Cap-2 Maneuver	417	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	3.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1374	-	869	-	-	
HCM Lane V/C Ratio	0.1	-	0.333	-	-	
HCM Control Delay (s)	7.9	-	11.2	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1.5	-	-	

HCM 6th TWSC
3: Starlight Ave & Tiger Flower Dr

02/26/2026

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	29	15	222	223	10
Future Vol, veh/h	12	29	15	222	223	10
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	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	32	16	241	242	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	401	127	253	0	-	0
Stage 1	248	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	577	900	1309	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	570	900	1309	-	-	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.8	0.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1309	-	570	900	-	-
HCM Lane V/C Ratio	0.012	-	0.023	0.035	-	-
HCM Control Delay (s)	7.8	-	11.5	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

HCM 6th AWSC
3: Starlight Ave & Oak Valley Pkwy

02/26/2026

Intersection												
Intersection Delay, s/veh	12.6											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↑↑↔			↔↑↑↔			↔↑↑↔			↔↑↑↔		
Traffic Vol, veh/h	63	188	110	12	199	62	87	153	12	79	115	102
Future Vol, veh/h	63	188	110	12	199	62	87	153	12	79	115	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	204	120	13	216	67	95	166	13	86	125	111
Number of Lanes	0	3	0	0	3	0	0	3	0	0	3	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	12.7	12.2	12.9	12.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	69%	0%	0%	57%	0%	0%	19%	0%	0%	73%	0%
Vol Thru, %	31%	100%	76%	43%	100%	30%	81%	100%	45%	27%	100%
Vol Right, %	0%	0%	24%	0%	0%	70%	0%	0%	55%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	77	50	110	94	157	62	100	112	108	58
LT Vol	87	0	0	63	0	0	12	0	0	79	0
Through Vol	38	77	38	47	94	47	50	100	50	29	58
RT Vol	0	0	12	0	0	110	0	0	62	0	0
Lane Flow Rate	136	83	55	120	102	171	67	108	121	117	62
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.301	0.176	0.113	0.254	0.209	0.326	0.143	0.227	0.242	0.257	0.131
Departure Headway (Hd)	7.956	7.609	7.442	7.646	7.36	6.869	7.663	7.566	7.177	7.892	7.525
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	452	471	481	470	487	524	468	475	500	456	476
Service Time	5.706	5.359	5.192	5.392	5.106	4.616	5.413	5.315	4.927	5.637	5.271
HCM Lane V/C Ratio	0.301	0.176	0.114	0.255	0.209	0.326	0.143	0.227	0.242	0.257	0.13
HCM Control Delay	14.1	12	11.1	13	12.1	12.9	11.7	12.5	12.2	13.4	11.4
HCM Lane LOS	B	B	B	B	B	B	B	B	B	B	B
HCM 95th-tile Q	1.3	0.6	0.4	1	0.8	1.4	0.5	0.9	0.9	1	0.4

HCM Unsignalized Intersection Capacity Analysis

3: Carnation Ln & Driveway 1

02/26/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	57	190	62
Future Volume (Veh/h)	0	0	14	57	190	62
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	15	62	207	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	332	240	274			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	332	240	274			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	655	798	1289			
Direction, Lane #	NB 1	SB 1				
Volume Total	77	274				
Volume Left	15	0				
Volume Right	0	67				
cSH	1289	1700				
Volume to Capacity	0.01	0.16				
Queue Length 95th (ft)	1	0				
Control Delay (s)	1.6	0.0				
Lane LOS	A					
Approach Delay (s)	1.6	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			18.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM 6th TWSC
3: Carnation Ln & Driveway 2

02/26/2026

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	62	0	40	177	0
Future Vol, veh/h	22	62	0	40	177	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	67	0	43	192	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	235	192	-	0	-	0
Stage 1	192	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	753	850	0	-	-	0
Stage 1	841	-	0	-	-	0
Stage 2	979	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	753	850	-	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 822		-			
HCM Lane V/C Ratio	- 0.111		-			
HCM Control Delay (s)	- 9.9		-			
HCM Lane LOS	- A		-			
HCM 95th %tile Q(veh)	- 0.4		-			

HCM 6th TWSC
4: Carnation Ln & Driveway 3

02/26/2026

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	176	106	28	137	116
Future Vol, veh/h	22	176	106	28	137	116
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	191	115	30	149	126
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	472	138	275	0	-	0
Stage 1	212	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	535	886	1287	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	486	886	1287	-	-	-
Mov Cap-2 Maneuver	486	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11	6.4		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1287	-	812	-	-	
HCM Lane V/C Ratio	0.09	-	0.265	-	-	
HCM Control Delay (s)	8.1	0	11	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-	