REVISED TRAFFIC STUDY

Proposed Tract 6493

Northeast of the Intersection of Indianola and North Avenues

Sanger, California

Prepared For:

Lennar Homes of California, LLC
8080 North Palm Avenue, Suite 110
Fresno, California 93711

Date:

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Job No.:

24-005.01

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Mr. Ara Chekerdemian
Lennar Homes of California, LLC
8080 North Palm Avenue, Suite 110
Fresno, California 93711

May 2, 2025

Subject: Revised Traffic Study
Proposed Tract 6493
Northeast of the Intersection of Indianola and North Avenues
Sanger, California

Dear Mr. Chekerdemian:

1.0 INTRODUCTION

This report presents the results of a traffic study for the proposed Tract 6493 (hereinafter referred to as the "Project") in Sanger, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the Project, including an analysis of vehicle miles traveled (VMT) for purposes of a CEQA transportation impact analysis.

2.0 PROJECT DESCRIPTION

The proposed Project site covers approximately 78.72 acres located on the east side of the Indianola Avenue alignment between Annadale and North Avenues in Sanger, California. Phase 1 of the development includes approximately 38.9 gross acres located immediately northeast of the intersection of North Avenue and the Indianola Avenue alignment with 269 single-family dwelling units and a 3.23-acre park. Site access for Phase 1 is proposed via one local street connecting to Indianola Avenue, one local street connecting to North Avenue, two local streets connecting to Edgar Avenue, and one local street connecting to Moir Avenue.

Phase 2 of the Project will include 261 single-family dwelling units on approximately 39.8 gross acres southeast of the intersection of Annadale and Indianola Avenues. Site access for Phase 2 is proposed via one local street connecting to Indianola Avenue, one local street connecting to Annadale Avenue, one local street connecting to Edgar Avenue, and one local street connecting to Almond Avenue.

A vicinity map is presented in the attached Figure 1, Vicinity Map, and a site plan is presented in Figure 2, Site Plan.

3.0 ANALYSIS SCENARIOS AND STUDY AREA

The study scenarios and locations were determined in coordination with City of Sanger staff based on the anticipated Project traffic distribution, the size of the Project, and the existing conditions in the vicinity of Project site.

This report includes intersection operational analyses for the following time periods:

- Weekday a.m. peak hour between 7:00 and 9:00 a.m.
- Weekday p.m. peak hour between 4:00 and 6:00 p.m.

The intersection operational analyses were performed for the following scenarios:

A. Existing Conditions
B. Existing-Plus-Project Conditions
C. Near-Term With-Project Conditions (includes known pending and approved projects)
D. Cumulative (Year 2045) With-Project Conditions.

This report includes peak-hour operational analysis of the following intersections:

1. Jensen Avenue and McCall Avenue
2. Jensen Avenue and Bethel Avenue
3. 9th Street and Bethel Avenue
4. Annadale Avenue and McCall Avenue
5. Annadale Avenue and Del Rey Avenue
6. Annadale Avenue and Indianola Avenue
7. Annadale Avenue and Bethel Avenue
8. North Avenue and McCall Avenue
9. North Avenue and Del Rey Avenue
10. North Avenue and Indianola Avenue
11. North Avenue and Bethel Avenue
12. North Avenue and Greenwood Avenue
13. Central Avenue and McCall Avenue
14. Central Avenue and Bethel Avenue
15. Central Avenue and Academy Avenue

In addition to peak-hour operational analyses, this report includes analysis of traffic signal warrants at the intersection of North and Greenwood Avenues.

4.0 SIGNIFICANCE CRITERIA

4.1 Vehicle Miles Traveled (VMT)

Senate Bill (SB) 743, signed in 2013 and codified in the California Environmental Quality Act (CEQA) Guidelines in January 2019, changes the way transportation impacts are analyzed in the CEQA process. Vehicle miles traveled (VMT) replaces automobile delay and level of service (LOS) as the metric for determination of a transportation impact. The Fresno Council of Governments (COG) prepared a document entitled *Fresno County SB 743 Implementation Regional Guidelines* dated January 2021 (hereinafter referred to as the COG Guidelines) to assist local agencies with VMT analyses. For residential projects, the COG Guidelines provides substantial evidence for the following statement: "*Therefore, Fresno County member jurisdictions may establish a threshold for land use developments,*

specifically residential and office, of exceeding 13 percent below the existing regional VMT per capita as indicative of a significant environmental impact."

4.2 Level of Service

The State of California does not recognize traffic congestion and delay as an environmental impact per CEQA. However, the City of Sanger 2035 General Plan states: "*The City of Sanger General Plan Circulation Element has designated LOS "C" as the minimum acceptable LOS standard on city facilities. In this report, a peak-hour of LOS "C" is taken as the threshold for acceptable traffic operations at all study intersections.*" Goal/Objective/Action Plan II.2 of the General Plan states: "*The City has established a target LOS "C" along all major streets and highways except that LOS "D" may be allowed at intersections of any major street, highway or along street and highway segments where additional improvements are not feasible (to be determined by City engineer).* "

For purposes of this traffic study, a traffic issue may be identified if the addition of the traffic generated by the Project results in any one of the following:

- Triggers an intersection operating at acceptable LOS (A, B, or C) to operate at unacceptable levels of service (D, E, or F), unless the intersection has already been signalized and built out, in which case LOS D is considered acceptable;
- Increases the average delay for a study intersection that is already operating at unacceptable LOS (D, E, or F) by 5.0 seconds or more.

The Transportation Research Board *Highway Capacity Manual*, 7th *Edition*, (HCM) defines level of service (LOS) as, "a quantitative stratification of a performance measure or measures representing quality of service. The measures used to determine LOS for transportation system elements are called *service measures*. The HCM defines six levels of service, ranging from A to F, for each service measure or combination of service measures. LOS A represents the best operating conditions from the traveler's perspective and LOS F the worst." Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 1 and 2.

Table 1
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Table 2
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is no greater than 1.0. Progression is exceptionally favorable or the cycle length is very short.	<10
B	Volume-to-capacity ratio is no greater than 1.0. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference for Tables 1 and 2: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2022

4.3 Queuing

A traffic issue would be identified if the Project causes a calculated 95th-percentile queue to exceed the available storage capacity, or if the Project substantially increases the queue at a location where the calculated queue exceeds the storage capacity in the existing condition. A substantial increase in this case would be more than 25 feet, which is the approximate storage length required for one automobile.

5.0 EXISTING TRAFFIC VOLUMES

Existing peak-hour traffic volumes at the study intersections were determined by performing manual turning-movement counts between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on a day when schools were in session. The traffic count data sheets are presented in Appendix A and include the date the counts were performed. The existing peak-hour turning movement volumes are presented in Figure 3, Existing Peak-Hour Traffic Volumes.

6.0 PROJECT TRIPS

6.1 Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition,* are typically used to estimate the number of trips anticipated to be generated by proposed projects. Table 3 presents the vehicle trip generation estimates for the Project.

Table 3
Project Trip Generation Estimate

Land Use	Units	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Single Family Detached Housing (210)	269	9.43	2,537	0.70	26:74	49	140	189	0.94	63:37	159	94	253
Single Family Detached Housing (210)	261	9.43	2,462	0.70	26:74	48	135	183	0.94	63:37	155	91	246
TOTALS:			**4,999**			**97**	**275**	**372**			**314**	**185**	**499**

Reference: *Trip Generation Manual, 11th Edition,* Institute of Transportation Engineers 2021
Rates are reported in trips per dwelling unit.

6.2 Project Trip Distribution and Assignment

The Project trips were distributed to the adjacent road network using engineering judgment considering the distribution of existing traffic volumes, complementary land uses, available routes, and previous studies in the Project vicinity. The estimated percentage distribution of Project traffic volumes is presented in Figure 4, Project Trip Distribution Percentages. The peak-hour Project traffic volumes presented in Table 3 were assigned to the adjacent road network in accordance with the trip distribution percentages in Figure 4. The estimated peak-hour Project traffic volumes on roadways in the vicinity of the Project site are presented in Figure 5, Phase 1 Project Peak-Hour Traffic Volumes, and Figure 6, Phase 2 Project Peak-Hour Traffic Volumes. The distributions include an assumption that Indianola Avenue is constructed between Annadale Avenue and North Avenue.

6.3 Vehicle Miles Traveled (VMT)

The COG travel model is the primary tool in Fresno County available to estimate VMT. COG created an online VMT screening application that identifies VMT per capita for specific locations. The screening application is available at: https://gis1.lsa.net/FCOGVMT. A print generated using the screening application is included in Appendix B and indicates the Project site is in an area that generates low VMT per capita (less than the threshold of 13 percent below the Countywide VMT per capita average of 16.10). Therefore, the Project may be "screened out" and it may be presumed that the Project's transportation impact will be less than significant.

7.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL

The existing lane configurations and intersection control at the study intersections are presented in Figure 7, Existing Lane Configurations and Intersection Control.

8.0 EXISTING-PLUS-PROJECT TRAFFIC VOLUMES

The existing-plus-Project peak-hour turning movement volumes are presented in Figure 8, Existing-Plus-Project Peak-Hour Traffic Volumes.

9.0 PENDING AND APPROVED PROJECTS

The traffic analyses for the near-term and long-term conditions consider the effects of traffic expected to be generated by pending and approved projects in the study area. The following projects were considered in the analyses:

- Somerset: 503 single-family residences generally located south of North Avenue, east of Bethel Avenue, west of Greenwood Avenue, and north of the Muscat Avenue alignment
- Greenwood Estates: 143 single-family residences located southwest of the intersection of North Avenue and Greenwood Avenue
- Cherry Crossing: 136 multifamily units in two-story and three-story buildings northeast of the intersection of Cherry Avenue and Sanger Avenue
- Newmark Villages I & II: 114 multifamily units in three-story buildings northwest of the intersection of Tucker Avenue and Edgar Avenue

Trip generation characteristics for the pending projects are presented in Table 4. Single-family residential trip generation estimates are based on ITE Land Use 210 (Single-Family Detached Housing) and multifamily residential trip generation estimates are based on ITE Land Use 220 (Multifamily Housing (Low-Rise) Not Close to Rail Transit).

Table 4
Pending Projects Trip Generation Estimates

Project	Units	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Somerset	503	9.43	4,744	0.70	26:74	92	261	353	0.94	63:37	298	175	473
Greenwood Estates	143	9.43	1,348	0.70	26:74	26	74	100	0.94	63:37	84	50	134
Cherry Multifamily	136	6.74	918	0.40	24:76	13	41	54	0.51	63:37	43	26	69
Newmark Villages I & II	114	6.74	768	0.40	24:76	11	35	46	0.51	63:37	36	22	58

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers 2021*
Rates are in trips per dwelling unit.

10.0 NEAR-TERM TRAFFIC VOLUMES

The phrase "near-term" is not associated with a year; rather, it represents a condition in which the pending projects and the proposed Project have been constructed. The near-term traffic volumes are presented in Figure 9, Near-Term With-Project Peak-Hour Traffic Volumes.

11.0 CUMULATIVE YEAR 2045 TRAFFIC VOLUMES

Cumulative traffic volumes for the year 2045 were estimated based on output from the Fresno County travel model. The base year and horizon year model output utilized in the analyses are presented in Appendix B. Future turning movements were estimated based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled *"Highway Traffic Data for Urbanized Area Project Planning and Design."* The estimated cumulative year 2045 traffic

volumes are presented in Figure 10, Cumulative (Year 2045) With-Project Peak-Hour Traffic Volumes.

12.0 INTERSECTION ANALYSES

12.1 – Traffic Signal Warrants – Existing Conditions

The California State Transportation Agency and California Department of Transportation *California Manual on Uniform Traffic Control Devices, 2014 Edition (Revision 8 dated January 11, 2024)* (CMUTCD) presents various criteria (warrants) for determining the need for traffic signals. The CMUTCD states that an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.

If one or more of the signal warrants is met, signalization of the intersection may be appropriate. However, a signal should not be installed if none or few of the warrants are met since the installation of signals may increase delays on the previously-uncontrolled major street and may contribute to an increase in collisions.

The installation of a traffic signal can serve as a feasible improvement at an unsignalized intersection if traffic signal warrants are satisfied. If warrants are not satisfied, traffic signals may not be considered as an acceptable improvement.

Collision records were obtained from the Statewide Integrated Traffic Records System (SWITRS) for the years 2019 through 2023. Table 5 summarizes general collision information at the intersection of North and Greenwood Avenues. The SWITRS collision records are presented in Appendix C.

Table 5
Five-Year Collision Records Summary – 2019 Through 2023
Intersection of North and Greenwood Avenues

Date of Collision	Day of the Week	Time of Collision	Type of Collision	Details	Correctable With All-Way Stop?
October 19, 2023	Saturday	7:00 a.m.	Improper Turn	Right of way	Possible
February 6, 2023	Friday	3:40 p.m.	Broadside	Right of way	Yes
November 22, 2022	Thursday	5:34 p.m.	Auto/Pedestrian	Not in crosswalk	No
June 16, 2022	Thursday	2:43 p.m.	Broadside	Right of way	Yes
October 25, 2021	Monday	6:17 a.m.	Broadside	Eastbound vs. Southbound	Yes
June 22, 2021	Tuesday	7:27 p.m.	Broadside	Stop Sign	Yes
April 30, 2021	Friday	3:16 p.m.	Hit Object	Ran off road	No
December 27, 2020	Sunday	2:49 p.m.	Hit Object	Other equipment	No
December 25, 2020	Friday	7:24 p.m.	Broadside	Right of way	Yes
February 9, 2020	Sunday	1:52 p.m.	Broadside	Right of way	Yes

Table 6 summarizes the traffic signal warrants study for the existing conditions. "Yes" indicates the warrant is satisfied. "No" indicates the warrant is not satisfied. The warrant worksheets are presented in Appendix D.

Table 6
Traffic Signal Warrants Summary – Existing Conditions

Intersection	Warrant								
	1	2	3	4	5	6	7	8	9
North / Greenwood	No	No	No	No	No	No	No	No	No

The results of the warrants analyses indicate that traffic signals are not likely warranted based on existing traffic volumes at the intersection of North and Greenwood Avenues.

12.2 Operational Analyses (Level of Service)

The peak hour levels of service at the study intersections were determined using the computer program Synchro 12, which incorporates HCM procedures for calculating levels of service. The intersection analysis sheets are included in Appendix E. Tables 7 through 10 present the results of the intersection analyses. Levels of service and the associated delays below the target LOS are presented in bold type and are underlined.

Table 7
LOS Summary – Existing Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Jensen / McCall	Signals	22.6	C	19.7	B
Jensen / Bethel	Signals	28.5	C	25.8	C
9th / Bethel	Signals	35.1	D	16.8	B
Annadale / McCall	One-way stop	11.8	B	11.3	B
Annadale / Del Rey	All-way stop	10.7	B	7.6	A
Annadale / Indianola	One-way stop	14.0	B	9.8	A
Annadale / Bethel	Signals	34.3	C	13.4	B
North / McCall	All-way stop	14.3	B	15.3	C
North / Del Rey	All-way stop	9.2	A	8.9	A
North / Indianola	One-way stop	9.4	A	10.1	B
North / Bethel	All-way stop	20.4	C	15.9	C
North / Greenwood	Two-way stop	20.2	C	15.6	C
Central / McCall	All-way stop	12.3	B	11.5	B
Central / Bethel	All-way stop	10.5	B	10.5	B
Central / Academy	All-way stop	14.2	B	13.7	B

Table 8
LOS Summary – Existing-Plus-Project Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Jensen / McCall	Signals	27.9	C	22.2	C
Jensen / Bethel	Signals	28.9	C	26.0	C
9th / Bethel	Signals	36.6	D	16.9	B
Annadale / McCall	One-way stop	13.7	B	12.4	B
Annadale / Del Rey	All-way stop	12.6	B	8.2	A
Annadale / Indianola	Two-way stop	20.1	C	11.3	B
Annadale / Bethel	Signals	35.4	D	13.6	B
North / McCall	All-way stop	20.5	C	**26.9**	**D**
North / Del Rey	All-way stop	11.1	B	10.9	B
North / Indianola	Two-way stop	13.3	B	16.1	C
North / Bethel	All-way stop	23.8	C	17.9	C
North / Greenwood	Two-way stop	21.1	C	16.1	C
Central / McCall	All-way stop	12.8	B	12.0	B
Central / Bethel	All-way stop	10.9	B	10.9	B
Central / Academy	All-way stop	14.7	B	14.1	B

Table 9
LOS Summary – Near-Term With-Project Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Jensen / McCall	Signals	34.8	C	24.8	C
Jensen / Bethel	Signals	29.3	C	26.1	C
9th / Bethel	Signals	37.6	D	17.0	B
Annadale / McCall	One-way stop	16.0	C	13.4	B
Annadale / Del Rey	All-way stop	12.6	B	8.2	A
Annadale / Indianola	Two-way stop	18.8	C	10.9	B
Annadale / Bethel	Signals	37.2	D	13.7	B
North / McCall	All-way stop	**54.4**	**F**	**102.8**	**F**
North / Del Rey	All-way stop	17.4	C	17.6	C
North / Indianola	Two-way stop	16.6	C	18.7	C
North / Bethel	All-way stop	**81.5**	**F**	**70.4**	**F**
North / Greenwood	Two-way stop	**27.0**	**D**	19.6	C
Central / McCall	All-way stop	13.3	B	12.4	B
Central / Bethel	All-way stop	11.6	B	11.8	B
Central / Academy	All-way stop	15.4	C	14.7	B

Table 10
LOS Summary – Cumulative 2045 With-Project Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Jensen / McCall	Signals	**66.8**	**E**	50.6	D
Jensen / Bethel	Signals	39.0	D	32.6	C
9th / Bethel	Signals	48.7	D	19.2	B
Annadale / McCall	One-way stop	**32.6**	**D**	24.6	C
Annadale / Del Rey	All-way stop	12.5	B	8.9	A
Annadale / Indianola	Two-way stop	**26.1**	**D**	15.5	C
Annadale / Bethel	Signals	**56.2**	**E**	14.7	B
North / McCall	All-way stop	**115.4**	**F**	**202.4**	**F**
North / Del Rey	All-way stop	21.4	C	23.0	C
North / Indianola	Two-way stop	**28.8**	**D**	**46.9**	**E**
North / Bethel	All-way stop	**162.1**	**F**	**125.5**	**F**
North / Greenwood	Two-way stop	**41.3**	**E**	**25.7**	**D**
Central / McCall	All-way stop	**42.9**	**E**	**54.5**	**F**
Central / Bethel	All-way stop	**74.5**	**F**	**94.1**	**F**
Central / Academy	All-way stop	**50.4**	**F**	**43.8**	**E**

12.3 Operational Analyses (Queuing)

The results of the intersection operational analyses include an estimate of the 95th-percentile queue lengths at the study intersections. The calculated 95th-percentile queue lengths are presented in Tables 11 through 14. Calculated 95th-percentile queues that exceed the storage capacity, or exceed 1,000 feet, are indicated bold type and are underlined.

Definitions for Tables 11 through 14:

EBL: eastbound left	EBT: eastbound through	EBR: eastbound right
WBL: westbound left	WBT: westbound through	WBR: westbound right
NBL: northbound left	NBT: northbound through	NBR: northbound right
SBL: southbound left	SBT: southbound through	SBR: southbound right
S - Shared lane	DNS - Does not stop	TBD: to be determined

1&S: Indicates two left-turn lanes, one of which is shared with the through lane.

* Nearest major intersection is greater than 1,000 feet away.

\+ Connects to a two-way left-turn lane or trapped lane that provides additional storage.

Table 11
Intersection Queuing Summary – Existing Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Jensen / McCall	Lanes	1	2	S	1	2	S	1	1	S	1	1	S
	Storage	150	*		135	*		140	*		85	*	
	A.M.	39	165		47	288		**168**	205		**139**	284	
	P.M.	63	213		38	153		81	244		**157**	188	
Jensen / Bethel	Lanes	1	2	1	1	2	S	1	2	S	1	2	1
	Storage	195	*	120	120	*		205	*		100+	505	100
	A.M.	80	160	14	**218**	164		**222**	124		105	217	0
	P.M.	**205**	146	43	105	138		179	100		137	114	7
9th / Bethel	Lanes	S	1	S	1	1	S	1	2	S	1	2	S
	Storage		*		105	*		95	*		120	*	
	A.M.		98		**215**	66		35	285		**179**	262	
	P.M.		60		57	57		19	155		97	137	
Annadale / McCall	Lanes	0	0	0	1	0	S	0	1	S	S	1	0
	Storage				*				*			*	
	A.M.				15				DNS			3	
	P.M.				5				DNS			3	
Annadale / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		13			43			10			48	
	P.M.		5			5			5			8	
Annadale / Indianola	Lanes	S	1	0	0	1	1	0	0	0	1	0	1
	Storage		*			*	65				215		*
	A.M.		3			DNS	DNS				5		5
	P.M.		3			DNS	DNS				0		0
Annadale / Bethel	Lanes	1&S	1	1	1	1	S	1	2	S	1	2	S
	Storage	100	*	100	40	930		195	580		215	*	
	A.M.	82	83	27	23	99		180	155		129	211	
	P.M.	34	34	0	10	10		42	97		47	103	
North / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		18			55			55			98	
	P.M.		35			35			100			88	
North / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		15			38			8			10	
	P.M.		33			18			8			5	
North / Indianola	Lanes	0	1	S	S	1	0	0	0	0	1	0	S
	Storage		*			*					*		
	A.M.		DNS			0					0		
	P.M.		DNS			0					0		
North / Bethel	Lanes	S	1	S	1	1	S	1	1	S	1	1	1
	Storage		*		155+	*		100	*		150	700	150
	A.M.		43		8	163		3	85		33	38	5
	P.M.		58		5	78		3	65		23	40	3
North / Greenwood	Lanes	1	1	S	1	1	S	S	1	1	S	1	S
	Storage	155+	*		155+	*			*			750	
	A.M.	3	DNS		0	DNS			25	3		23	
	P.M.	3	DNS		0	DNS			13	3		13	

Table 11 (Continued)
Intersection Queuing Summary – Existing Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Central / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		10			30			40			80	
	P.M.		15			25			48			58	
Central / Bethel	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		20			38			25			35	
	P.M.		28			35			25			33	
Central / Academy	Lanes	1	0	S	S	1	S	1	1	S1	1	1	S1
	Storage	*				*		195	*	*	205+	*	*
	A.M.	78				40		23	43	25	5	43	23
	P.M.	60				30		20	55	23	8	50	28

Table 12
Intersection Queuing Summary – Existing-Plus-Project Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Jensen / McCall	Lanes	1	2	S	1	2	S	1	1	S	1	1	S
	Storage	150	*		135	*		140	*		85	*	
	A.M.	39	177		47	300		**268**	218		**142**	354	
	P.M.	63	263		40	155		**191**	255		**163**	204	
Jensen / Bethel	Lanes	1	2	1	1	2	S	1	2	S	1	2	1
	Storage	195	*	120	120	*		205	*		100+	505	100
	A.M.	80	160	14	**227**	163		**222**	134		105	220	0
	P.M.	**207**	149	43	109	140		180	105		138	119	7
9th / Bethel	Lanes	S	1	S	1	1	S	1	2	S	1	2	S
	Storage		*		105	*		95	*		120	*	
	A.M.		98		**234**	66		35	300		**179**	267	
	P.M.		60		62	57		19	165		97	144	
Annadale / McCall	Lanes	0	0	0	1	0	S	0	1	S	S	1	0
	Storage				*				*			*	
	A.M.				33				DNS			5	
	P.M.				13				DNS			8	
Annadale / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		18			80			13			58	
	P.M.		15			13			8			10	
Annadale / Indianola	Lanes	S	1	S	S	1	1	S	1	S	1	1	S
	Storage		*			*	65		*		215	*	
	A.M.		3			0	DNS		30		8	8	
	P.M.		3			0	DNS		10		0	3	
Annadale / Bethel	Lanes	1&S	1	1	1	1	S	1	2	S	1	2	S
	Storage	100	*	100	40	930		195	580		215	*	
	A.M.	86	87	28	23	100		186	160		129	219	
	P.M.	42	42	0	10	10		43	102		48	111	

Table 12 (Continued)
Intersection Queuing Summary – Existing-Plus-Project Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
North / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		23			135			73			148	
	P.M.		60			80			165			205	
North / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		23			75			8			10	
	P.M.		73			35			8			5	
North / Indianola	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		3			0			3			33	
	P.M.		10			0			5			25	
North / Bethel	Lanes	S	1	S	1	1	S	1	1	S	1	1	1
	Storage		*		155+	*		100	*		150	700	150
	A.M.		68		8	195		3	95		35	43	8
	P.M.		80		5	98		10	70		25	43	5
North / Greenwood	Lanes	1	1	S	1	1	S	S	1	1	S	1	S
	Storage	155+	*		155+	*			*	*		750	
	A.M.	3	DNS		0	DNS			25	3		23	
	P.M.	3	DNS		0	DNS			13	3		15	
Central / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		13			30			43			93	
	P.M.		15			25			55			65	
Central / Bethel	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		23			40			25			40	
	P.M.		28			40			28			38	
Central / Academy	Lanes	1	0	S	S	1	S	1	1	S1	1	1	S1
	Storage	*				*		195	*	*	205+	*	*
	A.M.	88				43		25	45	28	5	43	23
	P.M.	68				33		23	58	25	8	50	28

Table 13
Intersection Queuing Summary – Near-Term With-Project Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Jensen / McCall	Lanes	1	2	S	1	2	S	1	1	S	1	1	S
	Storage	150	*		135	*		140	*		85	*	
	A.M.	39	195		47	333		**372**	221		**142**	357	
	P.M.	63	268		41	148		**203**	270		**168**	259	
Jensen / Bethel	Lanes	1	2	1	1	2	S	1	2	S	1	2	1
	Storage	195	*	120	120	*		205	*		100+	505	100
	A.M.	80	160	14	**233**	163		**222**	142		105	228	0
	P.M.	**208**	150	44	112	140		181	109		139	123	7
9th / Bethel	Lanes	S	1	S	1	1	S	1	2	S	1	2	S
	Storage		*		105	*		95	*		120	*	
	A.M.		98		**243**	66		35	305		**186**	271	
	P.M.		60		64	57		19	168		99	148	
Annadale / McCall	Lanes	0	0	0	1	0	S	0	1	S	S	1	0
	Storage				*				*			*	
	A.M.				40				DNS			8	
	P.M.				15				DNS			8	
Annadale / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		18			80			13			58	
	P.M.		15			13			8			10	
Annadale / Indianola	Lanes	S	1	S	S	1	1	S	1	S	1	1	S
	Storage		*			*	65		*		215	*	
	A.M.		3			0	DNS		25		8	5	
	P.M.		3			0	DNS		8		0	3	
Annadale / Bethel	Lanes	1&S	1	1	1	1	S	1	2	S	1	2	S
	Storage	100	*	100	40	930		195	580		215	*	
	A.M.	86	87	28	23	100		192	176		129	229	
	P.M.	42	42	0	10	10		46	107		49	121	
North / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		30			430			95			240	
	P.M.		115			223			275			645	
North / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		38			185			8			13	
	P.M.		188			70			8			5	
North / Indianola	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		3			0			3			43	
	P.M.		10			0			3			33	
North / Bethel	Lanes	S	1	S	1	1	S	1	1	S	1	1	1
	Storage		*		155+	*		100	*		150	700	150
	A.M.		120		10	648		13	123		48	50	8
	P.M.		418		8	330		20	120		55	70	5
North / Greenwood	Lanes	1	1	S	1	1	S	S	1	1	S	1	S
	Storage	155+	*		155+	*			*	*		750	
	A.M.	5	DNS		0	DNS			40	3		28	
	P.M.	3	DNS		0	DNS			18	3		23	

Table 13 (Continued)
Intersection Queuing Summary – Near-Term With-Project Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Central / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		13			30			43			100	
	P.M.		18			28			60			70	
Central / Bethel	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		23			43			28			53	
	P.M.		33			48			35			45	
Central / Academy	Lanes	1	0	S	S	1	S	1	1	S1	1	1	S1
	Storage	*				*		195	*	*	205+	*	*
	A.M.	100				43		25	48	28	5	48	23
	P.M.	73				35		28	63	25	8	53	28

Table 14
Intersection Queuing Summary – Cumulative Year 2045 With-Project

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Jensen / McCall	Lanes	1	2	S	1	2	S	1	1	S	1	1	S
	Storage	150	*		135	*		140	*		85	*	
	A.M.	96	331		76	586		**586**	364		**233**	692	
	P.M.	98	418		47	206		**314**	378		**269**	449	
Jensen / Bethel	Lanes	1	2	1	1	2	S	1	2	S	1	2	1
	Storage	195	*	120	120	*		205	*		100+	505	100
	A.M.	102	204	8	**309**	216		**302**	168		151	301	0
	P.M.	**277**	180	48	**162**	176		**231**	133		170	147	21
9th / Bethel	Lanes	S	1	S	1	1	S	1	2	S	1	2	S
	Storage		*		105	*		95	*		120	*	
	A.M.		133		**346**	87		46	427		**251**	366	
	P.M.		72		72	65		22	221		**126**	197	
Annadale / McCall	Lanes	0	0	0	1	0	S	0	1	S	S	1	0
	Storage				*				*			*	
	A.M.				120				DNS			10	
	P.M.				50				DNS			13	
Annadale / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		18			83			10			53	
	P.M.		25			20			10			13	
Annadale / Indianola	Lanes	S	1	S	S	1	1	S	1	S	1	1	S
	Storage		*			*	65		*		215	*	
	A.M.		3			3	DNS		55		15	23	
	P.M.		5			3	DNS		28		5	10	
Annadale / Bethel	Lanes	1&S	1	1	1	1	S	1	2	S	1	2	S
	Storage	100	*	100	40	930		195	580		215	*	
	A.M.	**130**	130	27	32	154		**269**	242		188	346	
	P.M.	54	54	7	14	12		70	136		64	157	

Table 14 (Continued)
Intersection Queuing Summary – Cumulative Year 2045 With-Project

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
North / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		45			635			158			473	
	P.M.		185			305			500			888	
North / Del Rey	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		45			243			10			15	
	P.M.		263			88			10			8	
North / Indianola	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		3			0			10			98	
	P.M.		10			0			40			105	
North / Bethel	Lanes	S	1	S	1	1	S	1	1	S	1	1	1
	Storage		*		155+	*		100	*		150	700	150
	A.M.		188		15	**1,033**		15	223		78	88	10
	P.M.		563		8	515		23	208		75	110	8
North / Greenwood	Lanes	1	1	S	1	1	S	S	1	1	S	1	S
	Storage	155+	*		155+	*			*	*		750	
	A.M.	5	DNS		0	DNS			68	3		48	
	P.M.	3	DNS		0	DNS			30	3		35	
Central / McCall	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		30			105			120			393	
	P.M.		60			125			290			375	
Central / Bethel	Lanes	S	1	S	S	1	S	S	1	S	S	1	S
	Storage		*			*			*			*	
	A.M.		125			350			163			413	
	P.M.		228			443			233			358	
Central / Academy	Lanes	1	0	S	S	1	S	1	1	S1	1	1	S1
	Storage	*				*		195	*	*	205+	*	*
	A.M.	425				128		63	145	65	10	143	58
	P.M.	300				105		65	243	68	15	193	80

13.0 DISCUSSION OF ANALYSES

13.1 Existing Conditions

The results of the intersection analyses indicate that all of the study intersections are currently operating at acceptable LOS during the peak hours. Although the intersection of 9th Street and Bethel Avenue is operating at LOS D during the a.m. peak hour, the intersection is signalized and built out, so additional improvements are not feasible.

The calculated 95th-percentile queues are generally contained within the available storage capacity, with the following exceptions:

- Jensen Avenue / McCall Avenue: left turn on the northbound approach during the a.m. peak hour and left turn on the southbound approach during the a.m. and p.m. peak hours.

- Jensen Avenue / Bethel Avenue: left turn on the eastbound approach during the p.m. peak hour, left turn on the westbound approach during the a.m. peak hour, and left turn on the northbound approach during the a.m. peak hour.
- 9th Street / Bethel Avenue: left turns on the westbound and southbound approaches during the a.m. peak hour.

Traffic signal warrants are not satisfied at the intersection of Greenwood and North Avenues.

13.2 Existing-Plus-Project Conditions

With construction of Phases 1 and 2 of the Project, the study intersections are expected to continue to operate at acceptable LOS, with the exception that the intersection of North and McCall Avenues is expected to operate at LOS D with a side street delay of 26.9 seconds per vehicle during the p.m. peak hour.

The calculated 95th-percentile queues will remain similar to the existing conditions, with the exception that the Project is expected to increase the 95th-percentile queues in the left-turn lane on the northbound approach to the intersection of Jensen and McCall Avenues by approximately 100 feet (four car lengths) during both the a.m. and p.m. peak hours. The existing left-turn lane is approximately 140 feet long, and the calculated 95th-percentile queue is 268 feet.

13.2.A Potential Improvements and Recommendations

North Avenue / McCall Avenue: Construction of a dedicated left-turn lane on the southbound approach while maintaining the existing all-way stop control would result in LOS C during the a.m. and p.m. peak hours.

Jensen Avenue / McCall Avenue: To accommodate the additional queue in the left-turn lane on the northbound approach, McCall Avenue would require widening to allow extending the length of the left-turn lane to approximately 275 feet.

Tables 15 and 16 present the results of intersection analyses for the improved conditions. The analysis sheets for the improved conditions are presented in Appendix F. It is recommended that turn lanes be designed long enough to accommodate the queues presented in Table 16, with consideration also given to the configurations and queue lengths calculated for the year 2045 conditions.

Table 15
LOS Summary – Improved Existing-Plus-Project Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
North / McCall	All-Way Stop	18.6	C	19.7	C

Table 16
Queuing Summary – Improved Existing-Plus-Project Conditions

Intersection Approach	Storage Capacity (feet)	95th-Percentile Queue Length (feet)	
		A.M.	P.M.
North / McCall			
Eastbound LTR	*	23	55
Westbound LTR	*	133	75
Northbound LTR	*	73	155
Southbound L	To be determined	15	35
Southbound TR	*	105	80

LTR: shared left-turn/through/right-turn lane L: left-turn lane
TR: shared through/right-turn lane
* Nearest major intersection is greater than 1,000 feet away.

13.3 Near-Term With-Project Conditions

With construction of Phases 1 and 2 of the Project, the study intersections are expected to continue to operate at acceptable LOS, with the following exceptions:

- North Avenue / McCall Avenue: The cumulative near-term projects will cause LOS F during the a.m. and p.m. peak hours. A review of the traffic volumes suggests that peak-hour traffic signal warrants are satisfied during both the a.m. and p.m. peak hours.
- North Avenue / Bethel Avenue: The cumulative near-term projects will cause LOS F during the a.m. and p.m. peak hours. A review of the traffic volumes suggests that peak-hour traffic signal warrants are satisfied during both the a.m. and p.m. peak hours.
- North Avenue / Greenwood Avenue: The cumulative near-term projects will cause LOS D during the a.m. peak hour. A review of the traffic volumes suggests that peak-hour traffic signal warrants will not be satisfied in the near-term scenario.

The calculated 95th-percentile queues will remain similar to the existing conditions, with the exception that the cumulative projects (including the Project) are expected to increase the 95th-percentile queues by a substantial amount (at least 25 feet) at the following locations:

- The left-turn lane on the northbound approach to the intersection of Jensen and McCall Avenues during both the a.m. and p.m. peak hours. The existing left-turn lane is approximately 140 feet long, and the calculated 95th-percentile queue is 372 feet.

- The left-turn lane on the westbound approach to the intersection of 9th Street and Bethel Avenue during the a.m. peak hour. The existing left-turn lane is approximately 105 feet long, and the calculated 95th-percentile queue is 243 feet.

13.3.A Potential Improvements and Recommendations

North Avenue / McCall Avenue: With the addition of cumulative near-term trips, peak-hour traffic signal warrants are expected to be satisfied and the intersection would require signalization to operate at acceptable LOS. In the near-term-with-Project conditions, eight-phase signal operation with protected left-turn phasing is recommended with the following minimum lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn

Westbound: one left-turn lane, one through lane, and one right-turn lane

Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: one left-turn lane and one through lane with a shared right turn

North Avenue / Bethel Avenue: With the addition of cumulative near-term trips, peak-hour traffic signal warrants are expected to be satisfied and the intersection will require signalization to operate at acceptable LOS. In the near-term-with-Project conditions, eight-phase signal operation with protected left-turn phasing is recommended with the following minimum lane configurations:

Eastbound: one left-turn lane, one through lane, and one right-turn lane

Westbound: one left-turn lane, one through lane, and one right-turn lane

Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: one left-turn lane, one through lane, and one right-turn lane

North Avenue / Greenwood Avenue: Peak-hour warrants for signalization are not expected to be satisfied in the near-term condition. Installation of all-way stop control is expected to result in an acceptable peak-hour LOS.

Jensen Avenue / McCall Avenue: To accommodate the additional queue in the left-turn lane on the northbound approach, McCall Avenue would require widening to allow extending the length of the left-turn lane to approximately 375 feet.

9th Street / Bethel Avenue: The left-turn lane on the westbound approach would require lengthening to accommodate the calculated 95th-percentile queues. It is likely that the westbound approach could be restriped to accommodate a longer left-turn lane.

Tables 17 and 18 present the results of intersection analyses for the improved conditions. The analysis sheets for the improved conditions are presented in Appendix F. It is recommended that turn lanes be designed long enough to accommodate the queues presented in Table 18, with consideration also given to the configurations and queue lengths calculated for the year 2045 conditions.

Table 17
LOS Summary – Improved Near-Term With-Project Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
North / McCall	Signals	16.2	B	20.1	C
North / Bethel	Signals	17.8	B	17.3	B
North / Greenwood	All-way stop	15.0	B	12.5	B

Table 18
Queuing Summary – Improved Near-Term With-Project Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
North / McCall	Lanes	1	1	S	1	1	1	1	1	1	1	1	S
	Storage	TBD	*		TBD	*	TBD	TBD	*	TBD	TBD	*	
	A.M.	20	75		56	146	53	29	152	0	94	192	
	P.M.	23	185		44	114	51	35	260	0	240	153	
North / Bethel	Lanes	1	1	1	1	1	1	1	1	1	1	1	1
	Storage	TBD	*	TBD	155+	*	TBD	100	*	TBD	150	700	150
	A.M.	44	117	0	50	240	48	55	147	0	139	98	0
	P.M.	54	197	2	35	160	39	67	131	0	139	115	0
North / Greenwood	Lanes	1	1	S	1	1	S	1	1	S	S	1	S
	Storage	155+	*		160+	*		TBD	*			750	
	A.M.	10	65		0	125		18	3			18	
	P.M.	5	60		3	75		10	3			15	

See Section 12.3 for definitions.

13.4 Cumulative 2045 With-Project Conditions

The year 2045 With-Project conditions analyses are based on the assumption that that the Project site has been developed and regional growth has occurred over a 20-year period. The analyses indicate that following intersections are expected to continue to operate at acceptable levels of service.

- Jensen Avenue / Bethel Avenue
- 9th Street / Bethel Avenue
- Annadale Avenue / Del Rey Avenue
- North Avenue / Del Rey Avenue

The following study intersections are expected to operate below (worse than) the target LOS:

- Jensen Avenue / McCall Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour. The calculated 95th-percentile queues exceed the storage capacity by a substantial amount in the left-turn lanes on the northbound and southbound approaches.
- Annadale Avenue / McCall Avenue: The westbound approach to the intersection is expected to operate at LOS D during the a.m. peak hour.

- Annadale Avenue / Indianola Avenue: The northbound approach to the intersection is expected to operate at LOS D during the a.m. peak hour.
- Annadale Avenue / Bethel Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour. The calculated 95th-percentile queues exceed the storage capacity by a substantial amount in the left-turn lanes on the eastbound and northbound approaches during the a.m. peak hour. School traffic is considered to be the primary reason for the excessive delays and queues.
- North Avenue / McCall Avenue: The intersection is expected to operate at LOS F during the a.m. and p.m. peak hours.
- North Avenue / Indianola Avenue: The southbound approach to the intersection is expected to operate at LOS D during the a.m. peak hour and LOS E during the p.m. peak hour. In addition, the northbound approach to the intersection is expected to operate at LOS D during the p.m. peak hour.
- North Avenue / Bethel Avenue: The intersection is expected to operate at LOS F during the a.m. and p.m. peak hours, with the calculated 95th-percentile queue exceeding 1,000 feet in the westbound direction during the a.m. peak hour.
- North Avenue / Greenwood Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour and LOS D during the p.m. peak hour.
- Central Avenue / McCall Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.
- Central Avenue / Bethel Avenue: The intersection is expected to operate at LOS F during the a.m. and p.m. peak hours.
- Central Avenue / Academy Avenue: The intersection is expected to operate at LOS F during the a.m. peak hour and LOS E during the p.m. peak hour.

In addition to the queueing issues described in the section above, the calculated 95th-percentile queues are expected to exceed the storage capacity at the following locations:

- The left-turn lanes on the westbound and northbound approaches to the intersection of Jensen and Bethel Avenues during both the a.m. and p.m. peak hours. The calculated 95th-percentile queues exceed 300 feet.
- The left-turn lane on the westbound approach to the intersection of 9th Street and Bethel Avenue during the a.m. peak hour. The existing left-turn lane is approximately 105 feet long, and the calculated 95th-percentile queue is 346 feet.

13.4.A Potential Improvements and Recommendations

Jensen Avenue / McCall Avenue: The intersection is expected to require widening (while maintaining eight-phase traffic signal phasing) to the following lane configurations:

Eastbound: one left-turn lane, two through lanes, and one right-turn lane
Westbound: one left-turn lane, two through lanes, and one right-turn lane
Northbound: two left-turn lanes, one through lane, and one right-turn lane
Southbound: two left-turn lanes, one through lane, and one right-turn lane

Jensen Avenue / Bethel Avenue: The left-turn lanes on the westbound and northbound approaches would require lengthening to accommodate the calculated 95th-percentile queues. It is likely that the westbound approach could be restriped to accommodate a longer left-turn lane. To lengthen the left-turn lane on the northbound approach, the median on Bethel Avenue would require modification and a left-turn lane approximately 300 feet south of the intersection (from southbound Bethel Avenue) would be relocated farther south.

9th Street / Bethel Avenue: The left-turn lanes on the westbound and southbound approaches would require lengthening to accommodate the calculated 95th-percentile queues. It is likely that the westbound approach could be restriped to accommodate a longer left-turn lane. To lengthen the left-turn lane on the southbound approach, the median on Bethel Avenue would require modification.

Annadale Avenue / McCall Avenue: Construction of a dedicated right-turn lane would reduce the total delay on the westbound approach to the intersection.

Annadale Avenue / Indianola Avenue: Installation of all-way stop control with the existing lane configurations is expected to result in acceptable levels of service.

Annadale Avenue / Bethel Avenue: Considering that delays during the a.m. peak hour are associated with school traffic, the LOS at the intersection during the p.m. peak hour is B, and the intersection is generally constrained by existing development with no feasible widening, it is suggested that no improvements should be anticipated.

North Avenue / McCall Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane, one through lane, and one right-turn lane
Southbound: one left-turn lane and one through lane with a shared right turn

North Avenue / Indianola Avenue: In order to operate at acceptable LOS, all-way stop control should be installed and the intersection should be widened to provide a dedicated left-turn lane on the eastbound approach and a dedicated right-turn lane on the southbound approach.

North Avenue / Bethel Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane, one through lane, and one right-turn lane
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane, one through lane, and one right-turn lane
Southbound: one left-turn lane, one through lane, and one right-turn lane

North Avenue / Greenwood Avenue: The intersection is expected to require signalization. The existing lane configurations may be maintained with permissive left turns on the northbound and southbound approaches.

Central Avenue / McCall Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane and one through lane with a shared right turn
Southbound: one left-turn lane and one through lane with a shared right turn

Central Avenue / Bethel Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane and one through lane with a shared right turn
Southbound: one left-turn lane and one through lane with a shared right turn

Central Avenue / Academy Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane, one through lane, and one right-turn lane
Westbound: one left-turn lane and one through lane with a shared right turn
Northbound: one left-turn lane and two through lanes with a shared right turn
Southbound: one left-turn lane and two through lanes with a shared right turn

Tables 19 and 20 present the results of intersection analyses for the improved conditions. The analysis sheets for the improved conditions are presented in Appendix F. It is recommended that turn lanes be designed long enough to accommodate the queues presented in Table 20 to the extent possible.

Table 19
LOS Summary – Improved Cumulative 2045 With-Project Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Jensen / McCall	Signals	27.8	C	22.0	C
Annadale / McCall	Two-way stop	12.0*	C*	19.7*	C*
Annadale / Indianola	All-way stop	15.6	C	10.9	B
North / McCall	Signals	18.0	B	24.1	C
North / Indianola	All-way stop	23.2	C	19.9	C
North / Bethel	Signals	21.4	C	19.4	B
North / Greenwood	Signals	11.2	B	10.6	B
Central / McCall	Signals	15.7	B	17.9	B
Central / Bethel	Signals	17.8	B	19.0	B
Central / Academy	Signals	17.6	B	17.8	B

* LOS is for the westbound approach combined, not individual lanes.

Table 20
Queuing Summary – Improved Cumulative Year 2045 With-Project Conditions

Intersection		Storage (feet), Number of Lanes, and Queue Length (feet)											
		EBL	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Jensen / McCall	Lanes	1	2	1	1	2	1	2	1	1	2	1	1
	Storage	TBD	*	TBD	TBD	*	TBD	TBD	*	TBD	TBD	*	TBD
	A.M.	61	185	34	54	325	33	192	240	0	88	367	6
	P.M.	98	244	65	47	167	42	124	254	0	104	282	0
Annadale / McCall	Lanes	0	0	0	1	0	1	0	1	S	S	1	0
	Storage				*		TBD		*			*	
	A.M.				18		63		DNS			10	
	P.M.				15		23		DNS			13	
Annadale / Indianola	Lanes	S	1	S	S	1	1	S	1	S	1	1	S
	Storage		*			*	65		*		215	*	
	A.M.		123			58	3		25		8	25	
	P.M.		58			13	3		20		5	10	
North / McCall	Lanes	1	1	S	1	1	1	1	1	1	1	1	S
	Storage	TBD	*		TBD	*	TBD	TBD	*	TBD	TBD	*	
	A.M.	28	86		58	168	55	32	184	0	124	286	
	P.M.	48	276		50	148	57	44	328	0	285	198	
North / Indianola	Lanes	1	1	S	S	1	S	S	1	S	S	1	1
	Storage	TBD	*			*			*			*	TBD
	A.M.	8	45			243			8			18	23
	P.M.	28	190			113			15			13	15
North / Bethel	Lanes	1	1	1	1	1	1	1	1	1	1	1	1
	Storage	TBD	*	TBD	155+	*	TBD	100	*	TBD	TBD	700	150
	A.M.	51	133	0	57	289	52	56	181	0	188	126	0
	P.M.	62	248	3	40	185	44	71	168	0	170	140	0
North / Greenwood	Lanes	1	1	S	1	1	S	S	1	1	S	1	S
	Storage	155+	*		155+	*			*	*		750	
	A.M.	56	132		14	206			62	0		50	
	P.M.	41	132		20	152			47	0		49	
Central / McCall	Lanes	1	1	S	1	1	1	1	1	S	1	1	S
	Storage	TBD	*		TBD	*	TBD	TBD	*		TBD	*	
	A.M.	19	83		29	114	25	14	200		102	319	
	P.M.	43	100		25	77	45	15	305		145	193	
Central / Bethel	Lanes	1	1	S	1	1	1	1	1	S	1	1	S
	Storage	TBD	*		TBD	*	TBD	TBD	*		TBD	*	
	A.M.	28	174		21	189	33	40	191		145	182	
	P.M.	42	222		21	190	37	30	224		152	145	
Central / Academy	Lanes	1	1	1	1	1	S	1	2	S	1	2	S
	Storage	TBD	*	TBD	TBD	*		TBD	*		205+	*	
	A.M.	50	142	44	48	136		171	128		50	133	
	P.M.	84	112	31	31	126		175	150		60	153	

See Section 12.3 for definitions.

14.0 EQUITABLE SHARE CALCULATIONS

Where required future improvements are not included in adopted development fees and are not the sole responsibility of a particular project, but rather a cumulative result of regional growth, the responsibility for the improvement may be determined based on equitable share calculations as presented in the Caltrans *Guide for the Preparation of Traffic Impact Studies* dated December 2002. The following equation was used to determine the project's equitable share of the cost of improvements:

$$P = \frac{T}{T_B - T_E}$$

where:

P = The equitable share of the project's traffic responsibility;
T = The project trips generated during the peak hour of the adjacent State Highway facility;
T_B = The forecasted (future with project) traffic volume on the affected State highway facility;
T_E = The existing traffic on the State Highway facility.

Table 21 presents equitable share responsibility calculations. The values in Table 21 may be applicable if the Project does not pay into a fee program.

Table 21
Equitable Share Responsibility Calculations

Location	Governing Peak Hour	Project Trips	Existing Traffic	Future Traffic	Equitable Share
Jensen / McCall	A.M.	184	2,132	3,093	19.1%
Jensen / Bethel	A.M.	30	2,526	3,233	4.2%
9th / Bethel	A.M.	41	2,098	2,632	7.7%
Annadale / McCall	A.M.	173	817	1,379	30.8%
Annadale / Indianola	A.M.	120	478	884	29.6%
North / McCall	P.M.	215	988	1,749	28.3%
North / Indianola	P.M.	302	367	1,143	38.9%
North / Bethel	A.M.	61	1,083	1,710	9.7%
North / Greenwood	A.M.	23	786	1,083	7.7%
Central / McCall	P.M.	35	768	1,331	6.2%
Central / Bethel	P.M.	45	743	1,519	5.8%
Central / Academy	A.M.	31	1,219	1,930	4.4%

15.0 CONCLUSIONS

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future.

It can be concluded that, based upon COG VMT screening application, the Project's transportation impact under CEQA will be less than significant.

The results of the traffic analyses are summarized below for each study scenario.

Existing Conditions

The study intersections are currently operating at acceptable LOS during the peak hours. Although the intersection of 9th Street and Bethel Avenue is operating at LOS D during the a.m. peak hour, the intersection is signalized and built out, so additional improvements are not feasible.

The calculated 95th-percentile queues are generally contained within the available storage capacity, with the following exceptions:

- Jensen Avenue / McCall Avenue: left turn on the northbound approach during the a.m. peak hour and left turn on the southbound approach during the a.m. and p.m. peak hours.
- Jensen Avenue / Bethel Avenue: left turn on the eastbound approach during the p.m. peak hour, left turn on the westbound approach during the a.m. peak hour, and left turn on the northbound approach during the a.m. peak hour.
- 9th Street / Bethel Avenue: left turns on the westbound and southbound approaches during the a.m. peak hour.

Traffic signal warrants are not satisfied at the intersection of Greenwood and North Avenues.

Existing-Plus-Project Conditions

With construction of Phases 1 and 2 of the Project, the study intersections are expected to continue to operate at acceptable LOS, with the exception that the intersection of North and McCall Avenues is expected to operate at LOS D.

The calculated 95th-percentile queues will remain similar to the existing conditions, with the exception that the Project is expected to increase the 95th-percentile queues in the left-turn lane on the northbound approach to the intersection of Jensen and McCall Avenues during both the a.m. and p.m. peak hours.

Recommendations – Existing-Plus-Project Scenario

North Avenue / McCall Avenue: Construction of a dedicated left-turn lane on the southbound approach while maintaining the existing all-way stop control would result in LOS C during the a.m. and p.m. peak hours.

Jensen Avenue / McCall Avenue: To accommodate the additional queue in the left-turn lane on the northbound approach, McCall Avenue would require widening to allow extending the length of the left-turn lane to approximately 275 feet.

Near-Term With-Project Conditions

With construction of Phases 1 and 2 of the Project, the study intersections are expected to continue to operate at acceptable LOS, with the following exceptions:

- North Avenue / McCall Avenue: The cumulative near-term projects will cause LOS F during the a.m. and p.m. peak hours. A review of the traffic volumes suggests

that peak-hour traffic signal warrants are satisfied during both the a.m. and p.m. peak hours.

- North Avenue / Bethel Avenue: The cumulative near-term projects will cause LOS F during the a.m. and p.m. peak hours. A review of the traffic volumes suggests that peak-hour traffic signal warrants are satisfied during both the a.m. and p.m. peak hours.
- North Avenue / Greenwood Avenue: The cumulative near-term projects will cause LOS D during the a.m. peak hour. A review of the traffic volumes suggests that peak-hour traffic signal warrants will not be satisfied in the near-term scenario.

The calculated 95th-percentile queues will remain similar to the existing conditions, with the exception that the cumulative projects (including the Project) are expected to increase the 95th-percentile queues by a substantial amount (at least 25 feet) at the following locations:

- The left-turn lane on the northbound approach to the intersection of Jensen and McCall Avenues during both the a.m. and p.m. peak hours. The existing left-turn lane is approximately 140 feet long, and the calculated 95th-percentile queue is 372 feet.
- The left-turn lane on the westbound approach to the intersection of 9th Street and Bethel Avenue during the a.m. peak hour. The existing left-turn lane is approximately 105 feet long, and the calculated 95th-percentile queue is 243 feet.

Recommendations – Near-Term With-Project Scenario

North Avenue / McCall Avenue: With the addition of cumulative near-term trips, peak-hour traffic signal warrants are expected to be satisfied and the intersection would require signalization to operate at acceptable LOS. Eight-phase signal operation with protected left-turn phasing is recommended with the following minimum lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn

Westbound: one left-turn lane, one through lane, and one right-turn lane

Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: one left-turn lane and one through lane with a shared right turn

North Avenue / Bethel Avenue: With the addition of cumulative near-term trips, peak-hour traffic signal warrants are expected to be satisfied and the intersection will require signalization to operate at acceptable LOS. Eight-phase signal operation with protected left-turn phasing is recommended with the following minimum lane configurations:

Eastbound: one left-turn lane, one through lane, and one right-turn lane

Westbound: one left-turn lane, one through lane, and one right-turn lane

Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: one left-turn lane, one through lane, and one right-turn lane

North Avenue / Greenwood Avenue: Peak-hour warrants for signalization are not expected to be satisfied in the near-term condition. Installation of all-way stop control is expected to result in an acceptable peak-hour LOS.

Jensen Avenue / McCall Avenue: To accommodate the additional queue in the left-turn lane on the northbound approach, McCall Avenue would require widening to allow extending the length of the left-turn lane to approximately 375 feet.

9th Street / Bethel Avenue: The left-turn lane on the westbound approach would require lengthening to accommodate the calculated 95th-percentile queues. It is likely that the westbound approach could be restriped to accommodate a longer left-turn lane.

Cumulative 2045 With-Project Conditions

The following intersections are expected to continue to operate at acceptable levels of service.

- Jensen Avenue / Bethel Avenue
- 9th Street / Bethel Avenue
- Annadale Avenue / Del Rey Avenue
- North Avenue / Del Rey Avenue

The following intersections are expected to operate below (worse than) the target LOS:

- Jensen Avenue / McCall Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour. The calculated 95th-percentile queues exceed the storage capacity by a substantial amount in the left-turn lanes on the northbound and southbound approaches.
- Annadale Avenue / McCall Avenue: The westbound approach to the intersection is expected to operate at LOS D during the a.m. peak hour.
- Annadale Avenue / Indianola Avenue: The northbound approach to the intersection is expected to operate at LOS D during the a.m. peak hour.
- Annadale Avenue / Bethel Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour. The calculated 95th-percentile queues exceed the storage capacity by a substantial amount in the left-turn lanes on the eastbound and northbound approaches during the a.m. peak hour. School traffic is considered to be the primary reason for the excessive delays and queues.
- North Avenue / McCall Avenue: The intersection is expected to operate at LOS F during the a.m. and p.m. peak hours.
- North Avenue / Indianola Avenue: The southbound approach to the intersection is expected to operate at LOS D during the a.m. peak hour and LOS E during the p.m. peak hour. In addition, the northbound approach to the intersection is expected to operate at LOS D during the p.m. peak hour.

- North Avenue / Bethel Avenue: The intersection is expected to operate at LOS F during the a.m. and p.m. peak hours, with the calculated 95th-percentile queue exceeding 1,000 feet in the westbound direction during the a.m. peak hour.
- North Avenue / Greenwood Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour and LOS D during the p.m. peak hour.
- Central Avenue / McCall Avenue: The intersection is expected to operate at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.
- Central Avenue / Bethel Avenue: The intersection is expected to operate at LOS F during the a.m. and p.m. peak hours.
- Central Avenue / Academy Avenue: The intersection is expected to operate at LOS F during the a.m. peak hour and LOS E during the p.m. peak hour.

In addition to the queueing issues described in the section above, the calculated 95th-percentile queues are expected to exceed the storage capacity at the following locations:

- The left-turn lanes on the westbound and northbound approaches to the intersection of Jensen and Bethel Avenues during both the a.m. and p.m. peak hours. The calculated 95th-percentile queues exceed 300 feet.

- The left-turn lane on the westbound approach to the intersection of 9th Street and Bethel Avenue during the a.m. peak hour. The existing left-turn lane is approximately 105 feet long, and the calculated 95th-percentile queue is 346 feet.

Recommendations – Year 2045 Scenario

The Project may be required to contribute an equitable share for improvements described below that are not included in an adopted development fee.

Jensen Avenue / McCall Avenue: The intersection is expected to require widening (while maintaining eight-phase traffic signal phasing) to the following lane configurations:

Eastbound: one left-turn lane, two through lanes, and one right-turn lane
Westbound: one left-turn lane, two through lanes, and one right-turn lane
Northbound: two left-turn lanes, one through lane, and one right-turn lane
Southbound: two left-turn lanes, one through lane, and one right-turn lane

Jensen Avenue / Bethel Avenue: The left-turn lanes on the westbound and northbound approaches would require lengthening to accommodate the calculated 95th-percentile queues. It is likely that the westbound approach could be restriped to accommodate a longer left-turn lane. To lengthen the left-turn lane on the northbound approach, the median on Bethel Avenue would require modification and a left-turn lane approximately 300 feet south of the intersection (from southbound Bethel Avenue) would be relocated farther south.

9th Street / Bethel Avenue: The left-turn lanes on the westbound and southbound approaches would require lengthening to accommodate the calculated 95th-percentile queues. It is likely that the westbound approach could be restriped to accommodate a longer left-turn lane. To

lengthen the left-turn lane on the southbound approach, the median on Bethel Avenue would require modification.

Annadale Avenue / McCall Avenue: Construction of a dedicated right-turn lane would reduce the total delay on the westbound approach to the intersection.

Annadale Avenue / Indianola Avenue: Installation of all-way stop control with the existing lane configurations is expected to result in acceptable levels of service.

Annadale Avenue / Bethel Avenue: Considering that delays during the a.m. peak hour are associated with school traffic, the LOS at the intersection during the p.m. peak hour is B, and the intersection is generally constrained by existing development with no feasible widening, it is suggested that no improvements should be anticipated.

North Avenue / McCall Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane, one through lane, and one right-turn lane
Southbound: one left-turn lane and one through lane with a shared right turn

North Avenue / Indianola Avenue: In order to operate at acceptable LOS, all-way stop control should be installed and the intersection should be widened to provide a dedicated left-turn lane on the eastbound approach and a dedicated right-turn lane on the southbound approach.

North Avenue / Bethel Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane, one through lane, and one right-turn lane
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane, one through lane, and one right-turn lane
Southbound: one left-turn lane, one through lane, and one right-turn lane

North Avenue / Greenwood Avenue: The intersection is expected to require signalization. The existing lane configurations may be maintained with permissive left turns on the northbound and southbound approaches.

Central Avenue / McCall Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound: one left-turn lane and one through lane with a shared right turn
Westbound: one left-turn lane, one through lane, and one right-turn lane
Northbound: one left-turn lane and one through lane with a shared right turn
Southbound: one left-turn lane and one through lane with a shared right turn

Central Avenue / Bethel Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound:	one left-turn lane and one through lane with a shared right turn
Westbound:	one left-turn lane, one through lane, and one right-turn lane
Northbound:	one left-turn lane and one through lane with a shared right turn
Southbound:	one left-turn lane and one through lane with a shared right turn

Central Avenue / Academy Avenue: The intersection is expected to require signalization and widening to the following lane configurations:

Eastbound:	one left-turn lane, one through lane, and one right-turn lane
Westbound:	one left-turn lane and one through lane with a shared right turn
Northbound:	one left-turn lane and two through lanes with a shared right turn
Southbound:	one left-turn lane and two through lanes with a shared right turn

Thank you for the opportunity to perform this traffic study. Please feel free to contact our office if you have any questions.

PETERS ENGINEERING GROUP

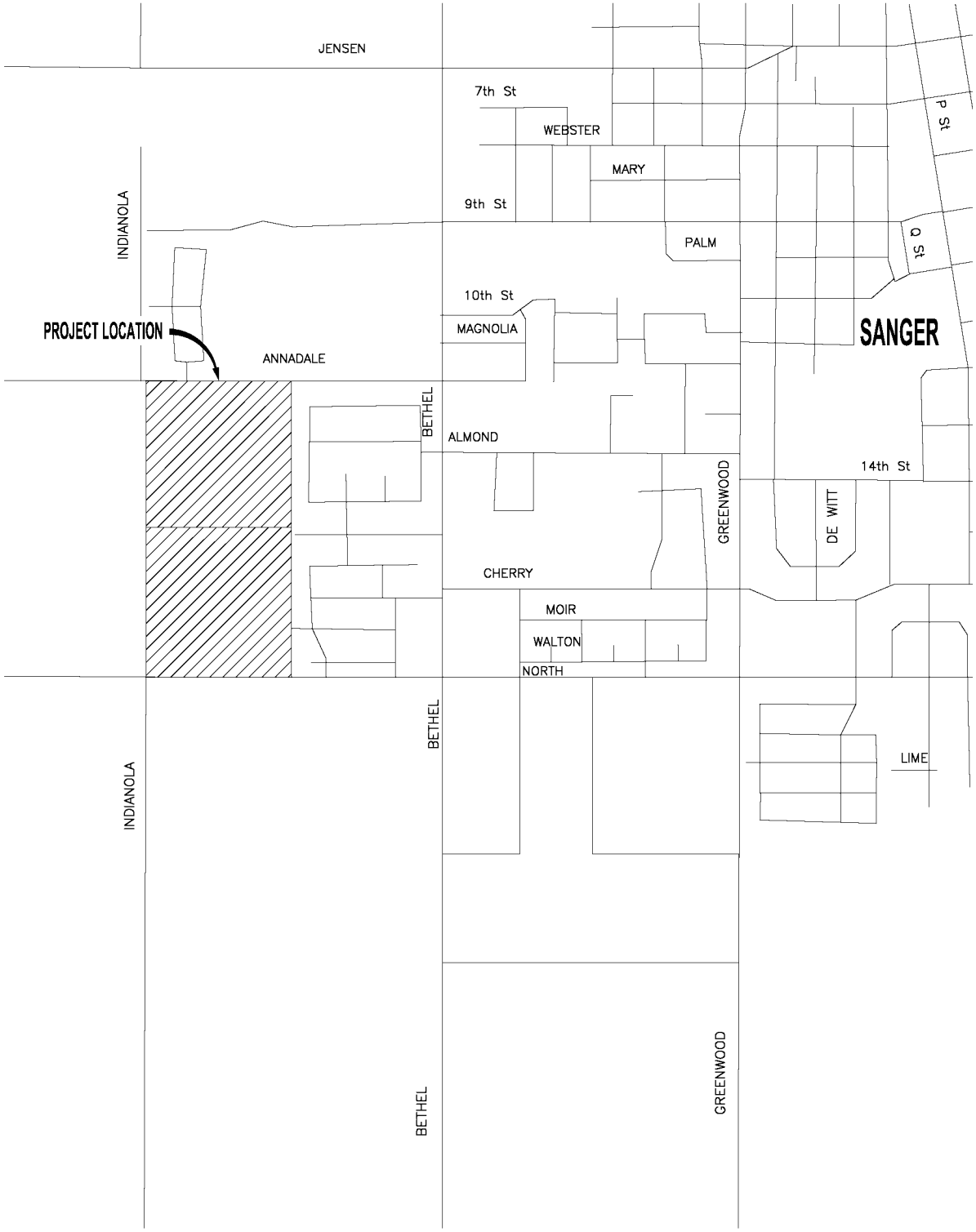
John Rowland, PE, TE



Attachments: Figures
Appendix A – Traffic Count Data Sheets
Appendix B – VMT Screening and Fresno County Travel Model
Appendix C – SWITRS Collision Records
Appendix D – Traffic Signal Warrants
Appendix E – Intersection Analysis Sheets
Appendix F – Intersection Analysis Sheets – Improved Conditions

FIGURES

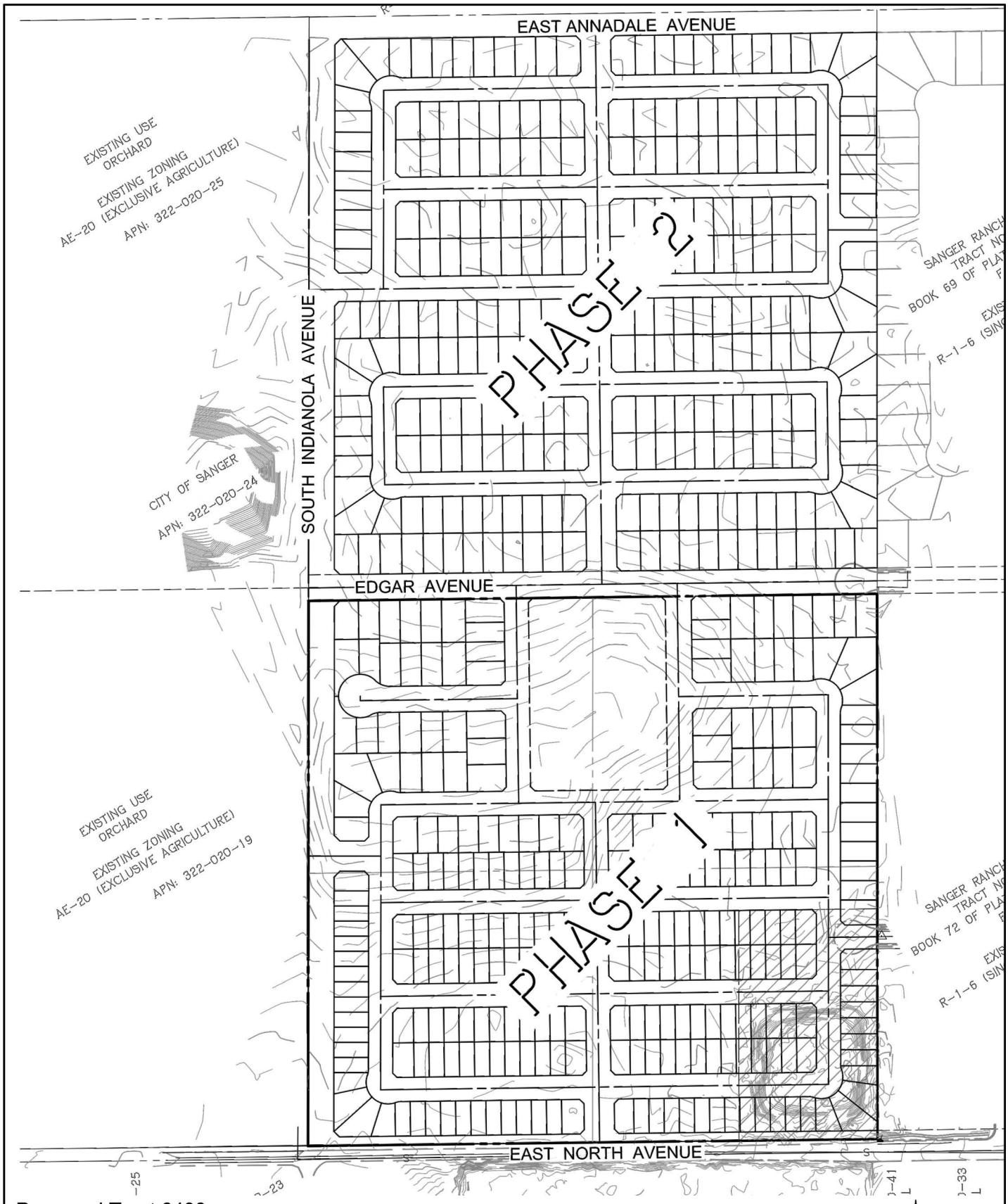
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A CALIFORNIA CORPORATION



Proposed Tract 6493
Sanger, California

VICINITY MAP

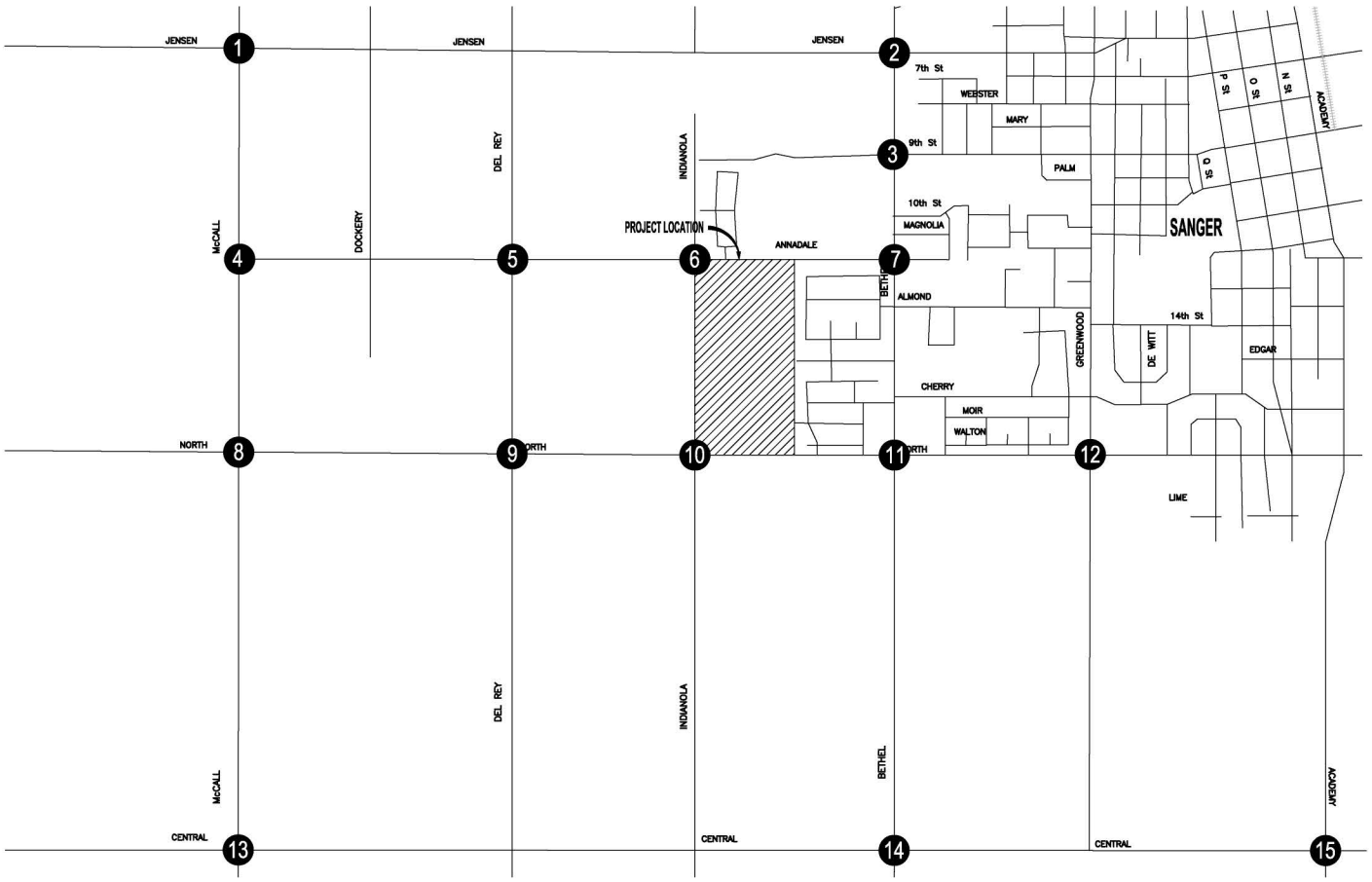
Not to Scale



Proposed Tract 6493
Sanger, California

SITE PLAN

Not to Scale



1 Jensen / McCall	2 Jensen / Bethel	3 9th / Bethel	4 Annadale / McCall	5 Annadale / Del Rey	6 Annadale / Indianola
51(9) ↓ 324(263) ↓ 143(164) ↓ → 96(113) ← 597(312) ← 30(22)	101(82) ↓ 528(305) ↓ 97(121) ↓ → 43(51) ← 406(343) ← 203(110)	36(35) ↓ 692(477) ↓ 141(107) ↓ → 153(102) ← 30(23) ← 228(54)	336(319) ↓ 51(27) ↓ → 96(39) ← 5(2)	1(1) ↓ 42(25) ↓ 156(50) ↓ → 61(21) ← 109(33) ← 25(9)	34(13) ↓ 20(8) ↓ → 15(6) ← 166(48)
24(46) → 391(476) → 53(73) → ↑ 156(66) ↑ 238(254) ↑ 29(55)	67(200) → 389(414) → 128(142) → ↑ 201(157) ↑ 259(233) ↑ 143(70)	52(34) → 29(19) → 22(7) → ↑ 20(9) ↑ 514(439) ↑ 181(57)	↑ 328(375) ↑ 1(4)	3(1) → 60(51) → 3(1) → ↑ 4(3) ↑ 31(39) ↑ 27(18)	16(25) → 227(93) →
7 Annadale / Bethel	8 North / McCall	9 North / Del Rey	10 North / Indianola	11 North / Bethel	12 North / Greenwood
222(7) ↓ 404(389) ↓ 133(54) ↓ → 8(2) ← 101(3) ← 15(5)	13(11) ↓ 284(240) ↓ 50(63) ↓ → 90(69) ← 139(92) ← 16(8)	21(6) ↓ 36(26) ↓ 13(2) ↓ → 8(8) ← 222(130) ← 6(8)	→ 237(136) ← 4(4)	31(19) ↓ 146(157) ↓ 123(98) ↓ → 168(112) ← 183(134) ← 38(21)	39(26) ↓ 35(28) ↓ 10(12) ↓ → 68(28) ← 285(234) ← 5(9)
124(57) → 31(7) → 146(46) → ↑ 171(46) ↑ 408(366) ↑ 9(7)	11(12) → 66(122) → 20(30) → ↑ 19(22) ↑ 220(299) ↑ 7(20)	10(15) → 100(209) → 8(2) → ↑ 3(4) ↑ 37(36) ↑ 13(13)	124(216) → 4(3) → ↑ 1(3) ↑ 4(5)	33(45) → 107(137) → 8(14) → ↑ 9(16) ↑ 203(179) ↑ 34(36)	45(30) → 208(217) → 10(12) → ↑ 15(7) ↑ 54(41) ↑ 12(13)
13 Central / McCall	14 Central / Bethel	15 Central / Academy			
5(5) ↓ 245(187) ↓ 63(87) ↓ → 60(90) ← 85(54) ← 11(9)	9(7) ↓ 127(108) ↓ 62(75) ↓ → 82(70) ← 138(142) ← 6(6)	22(35) ↓ 261(313) ↓ 30(40) ↓ → 25(26) ← 107(98) ← 28(16)			
4(13) → 57(71) → 4(3) → ↑ 3(4) ↑ 186(234) ↑ 10(11)	9(15) → 123(145) → 5(16) → ↑ 16(11) ↑ 129(137) ↑ 7(11)	29(50) → 125(106) → 99(75) → ↑ 106(102) ↑ 271(345) ↑ 38(13)			

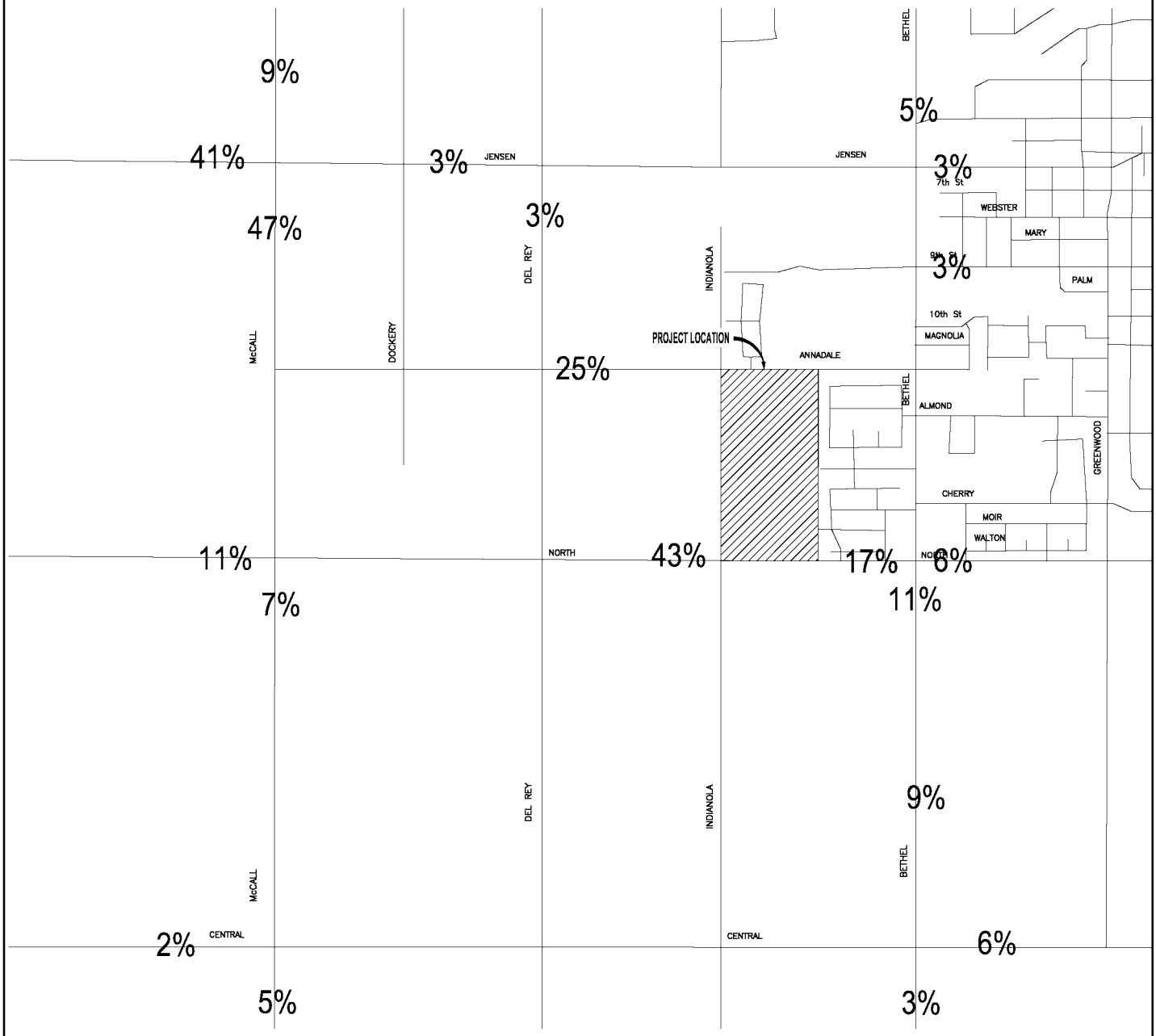
LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Tract 6493
Sanger, California

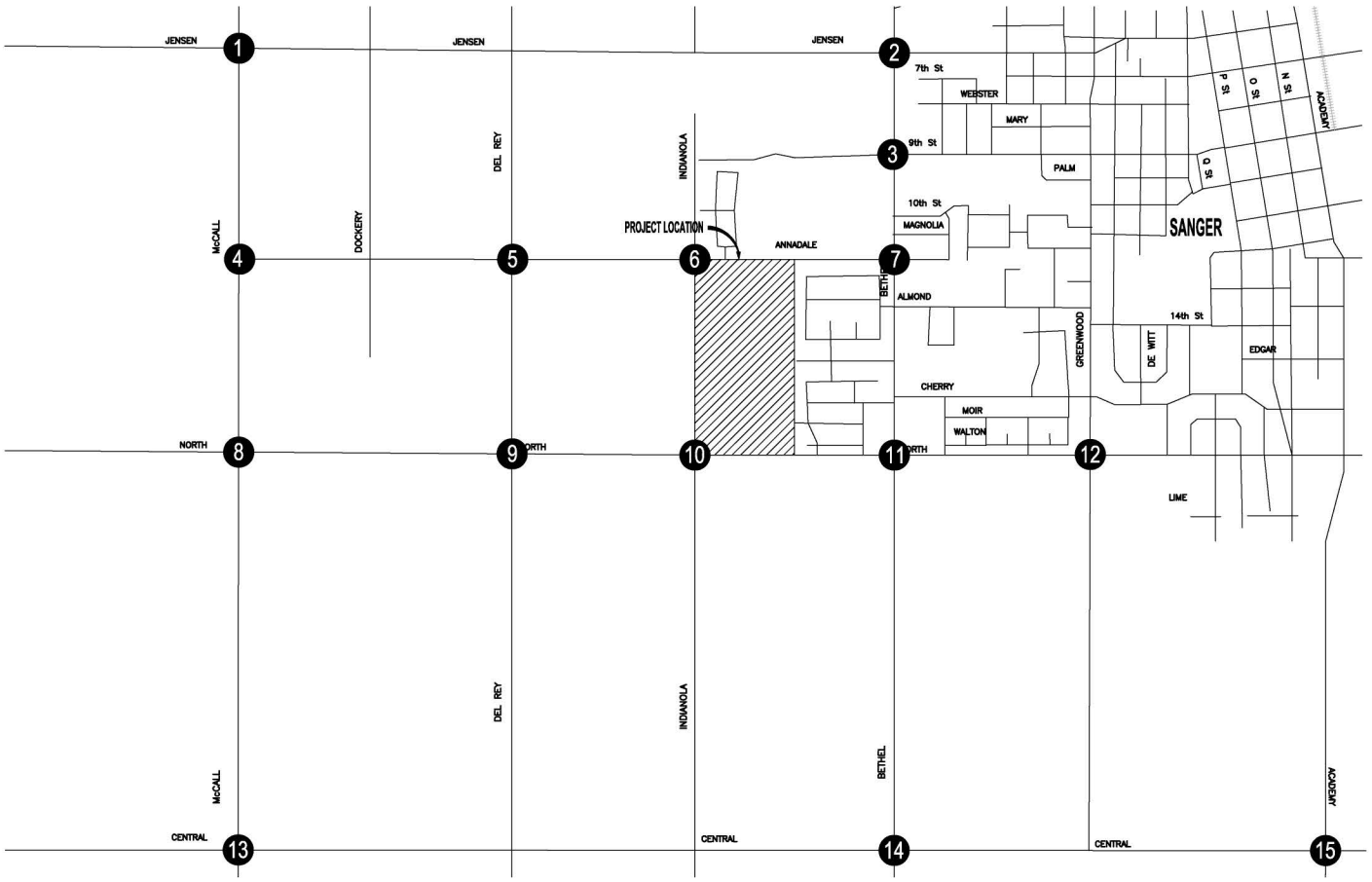
EXISTING PEAK-HOUR TRAFFIC VOLUMES

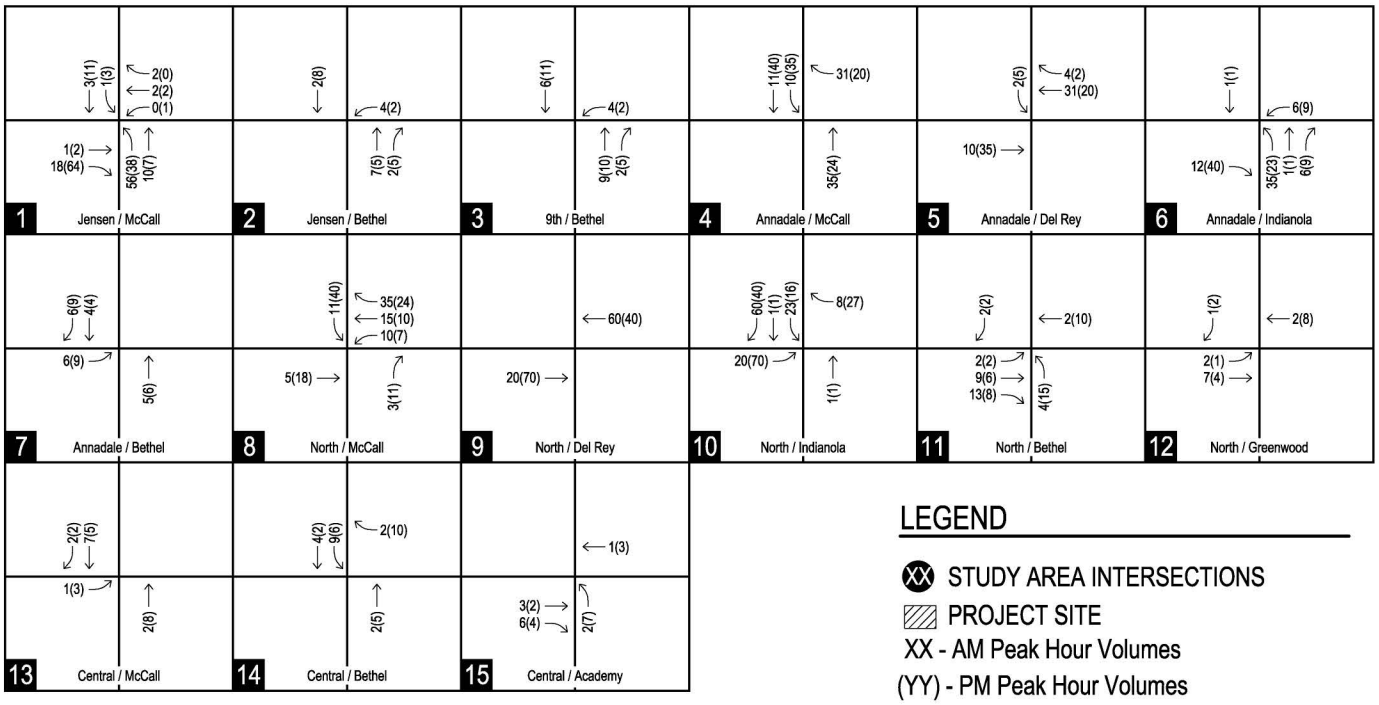
Not to Scale



Proposed Tract 6493
Sanger, California

PROJECT TRIP DISTRIBUTION PERCENTAGES





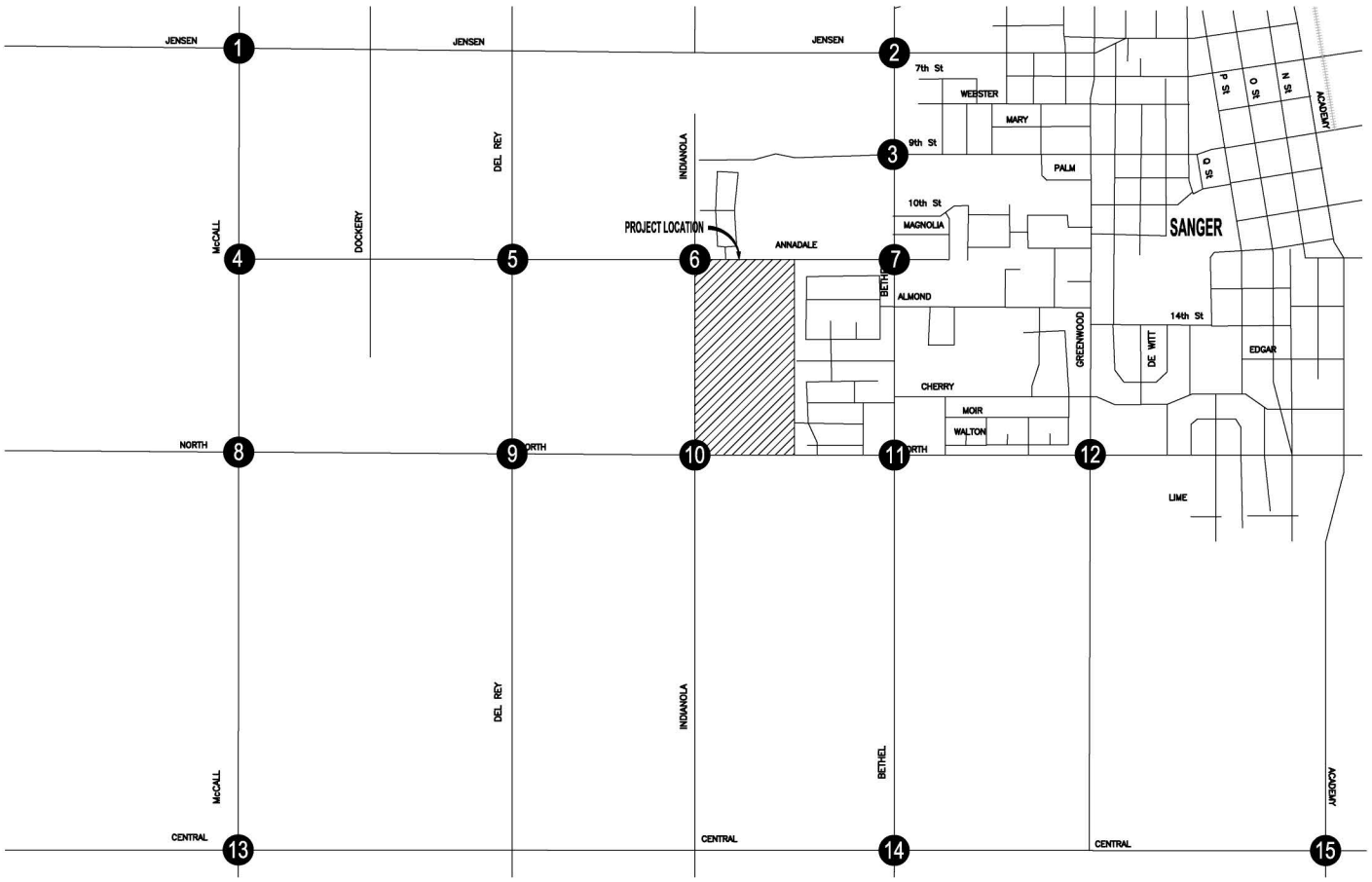
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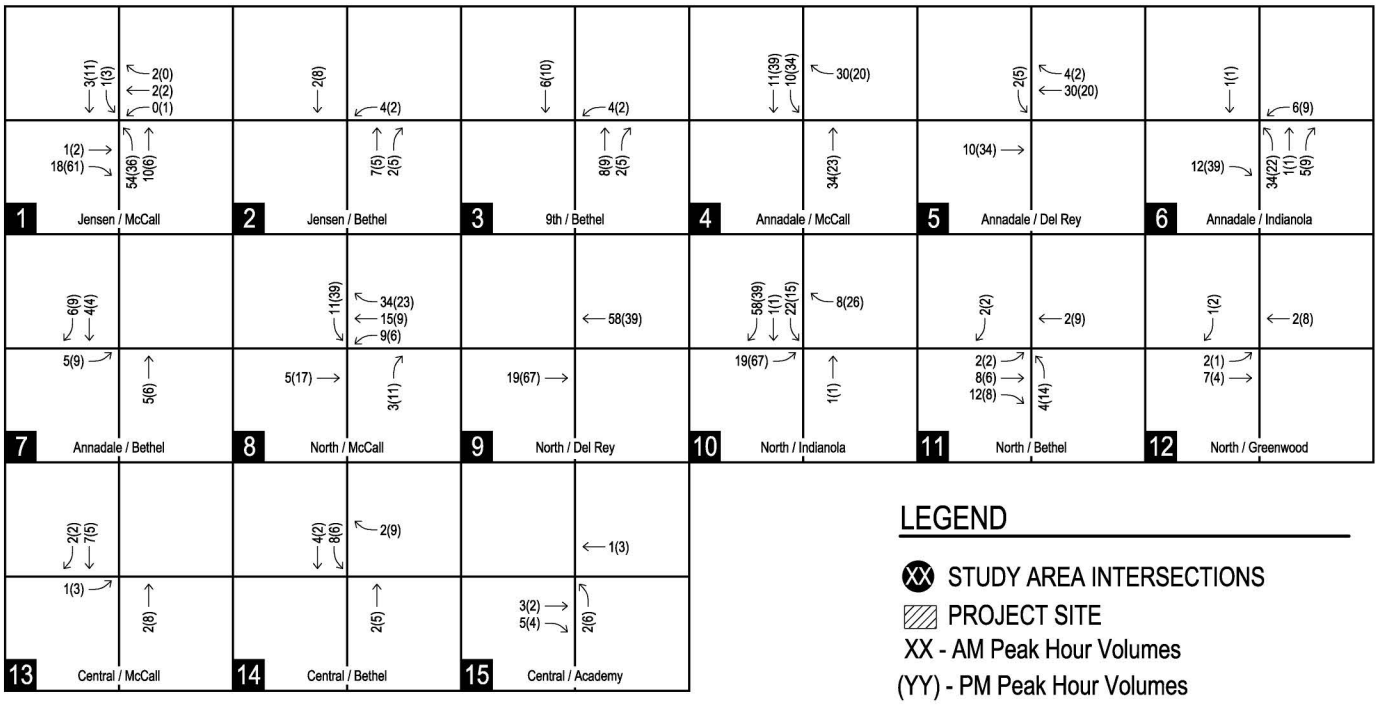
- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Tract 6493
Sanger, California

PHASE 1 PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale





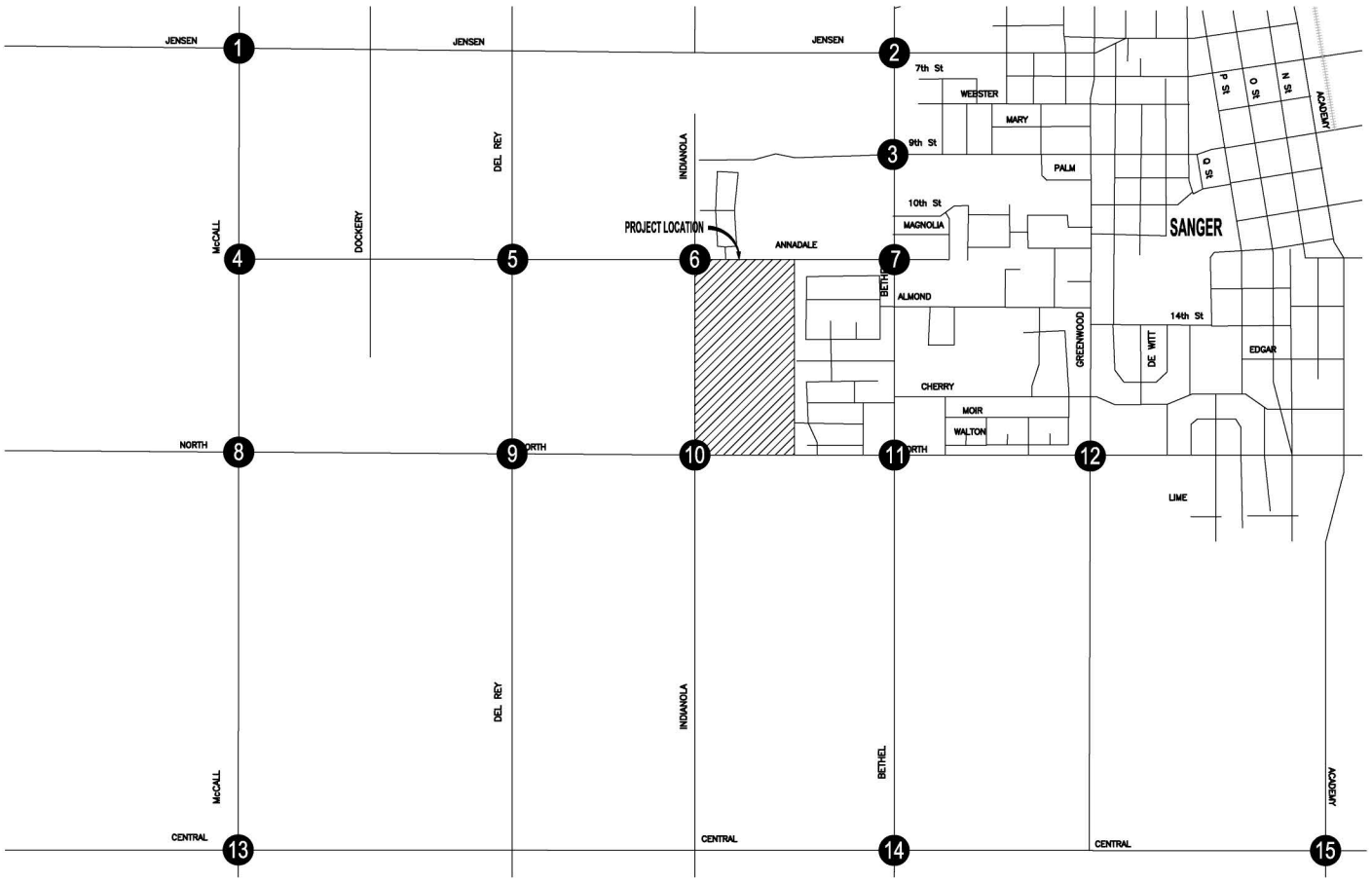
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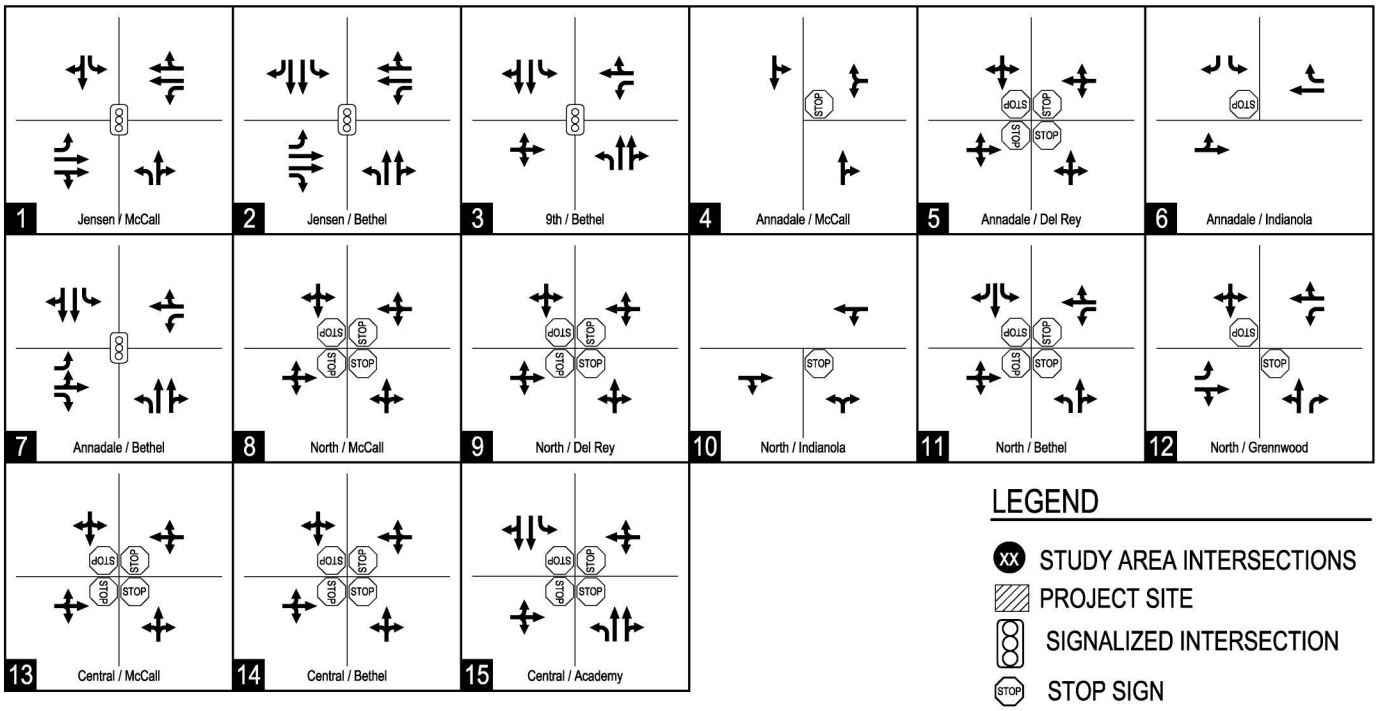
- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Tract 6493
Sanger, California

PHASE 2 PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale



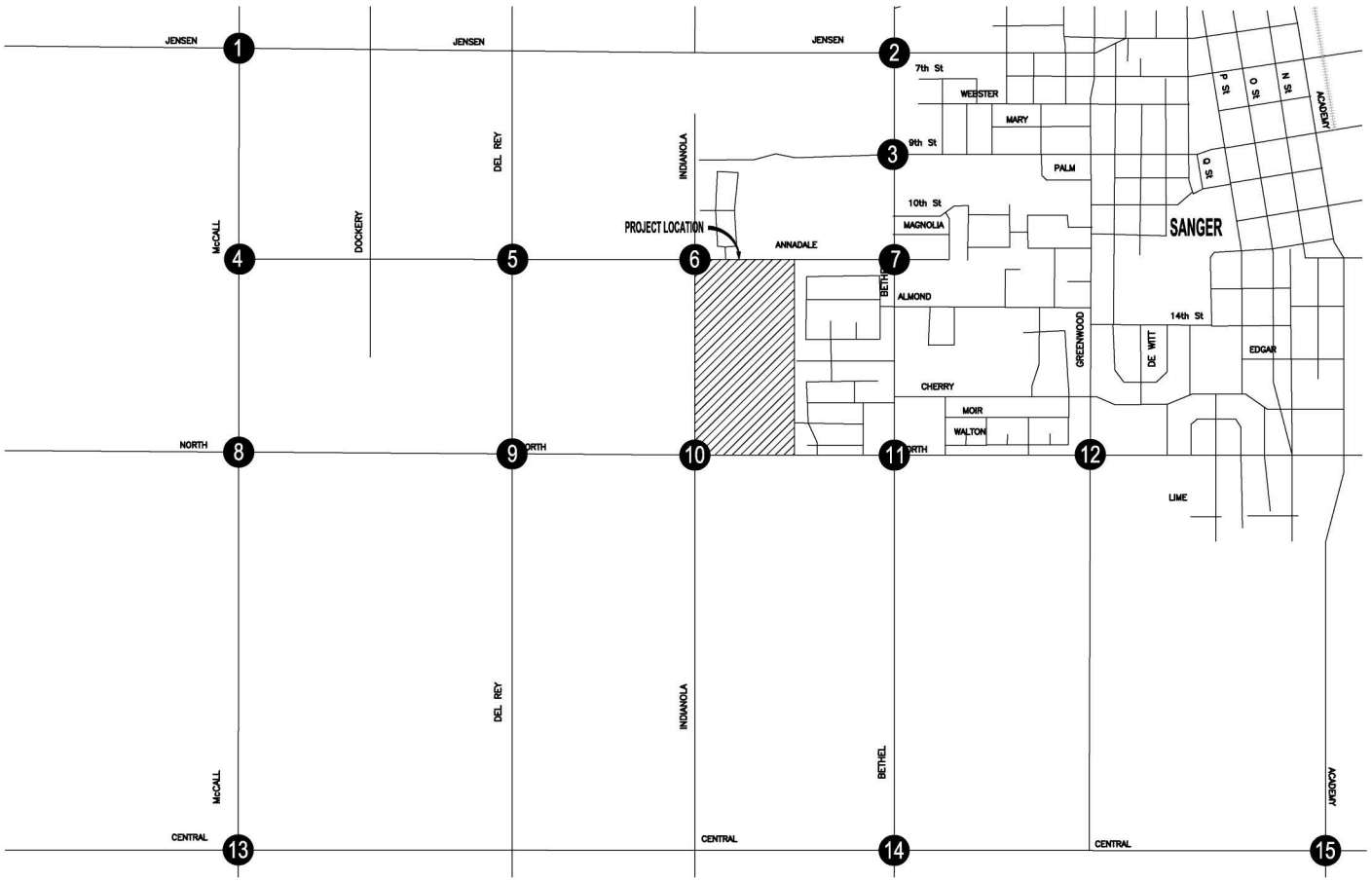


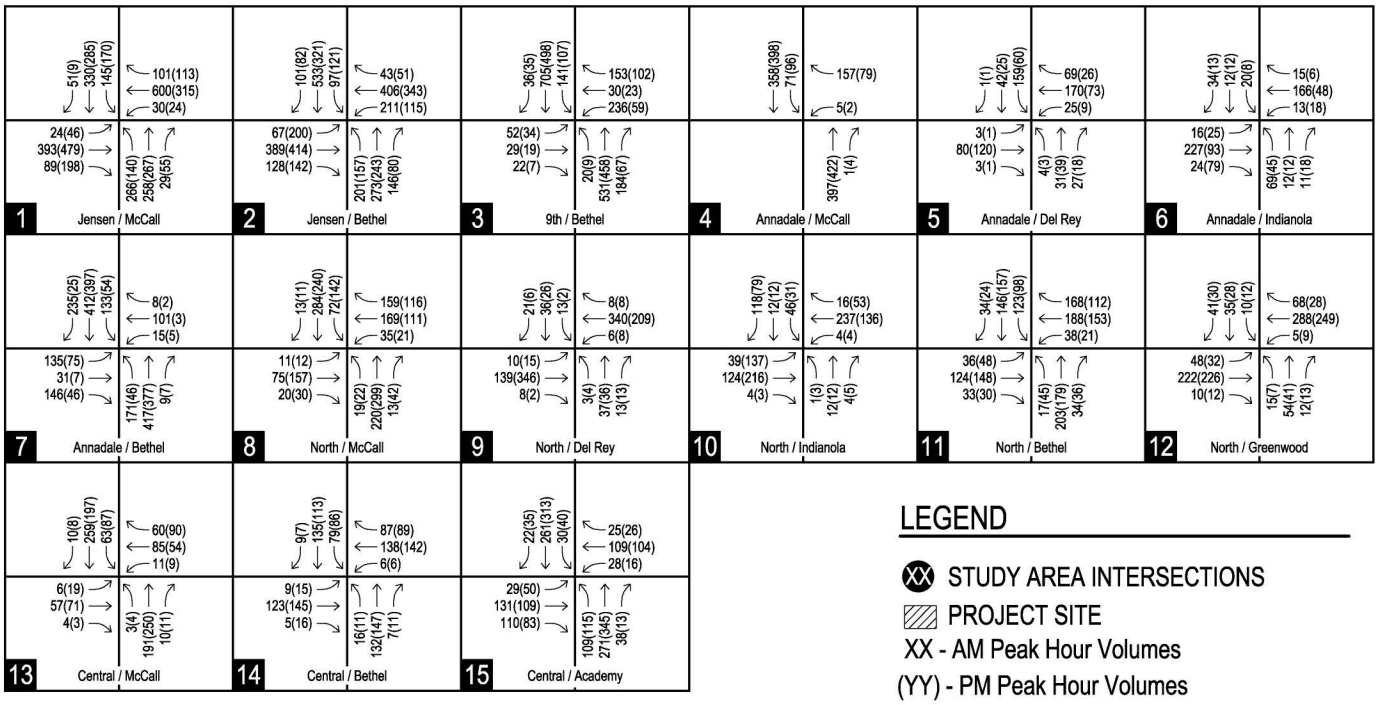
LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- SIGNALIZED INTERSECTION
- STOP STOP SIGN
- DIRECTION OF TRAVEL

Proposed Tract 6493
Sanger, California

EXISTING LANE CONFIGURATIONS AND INTERSECTION CONTROL





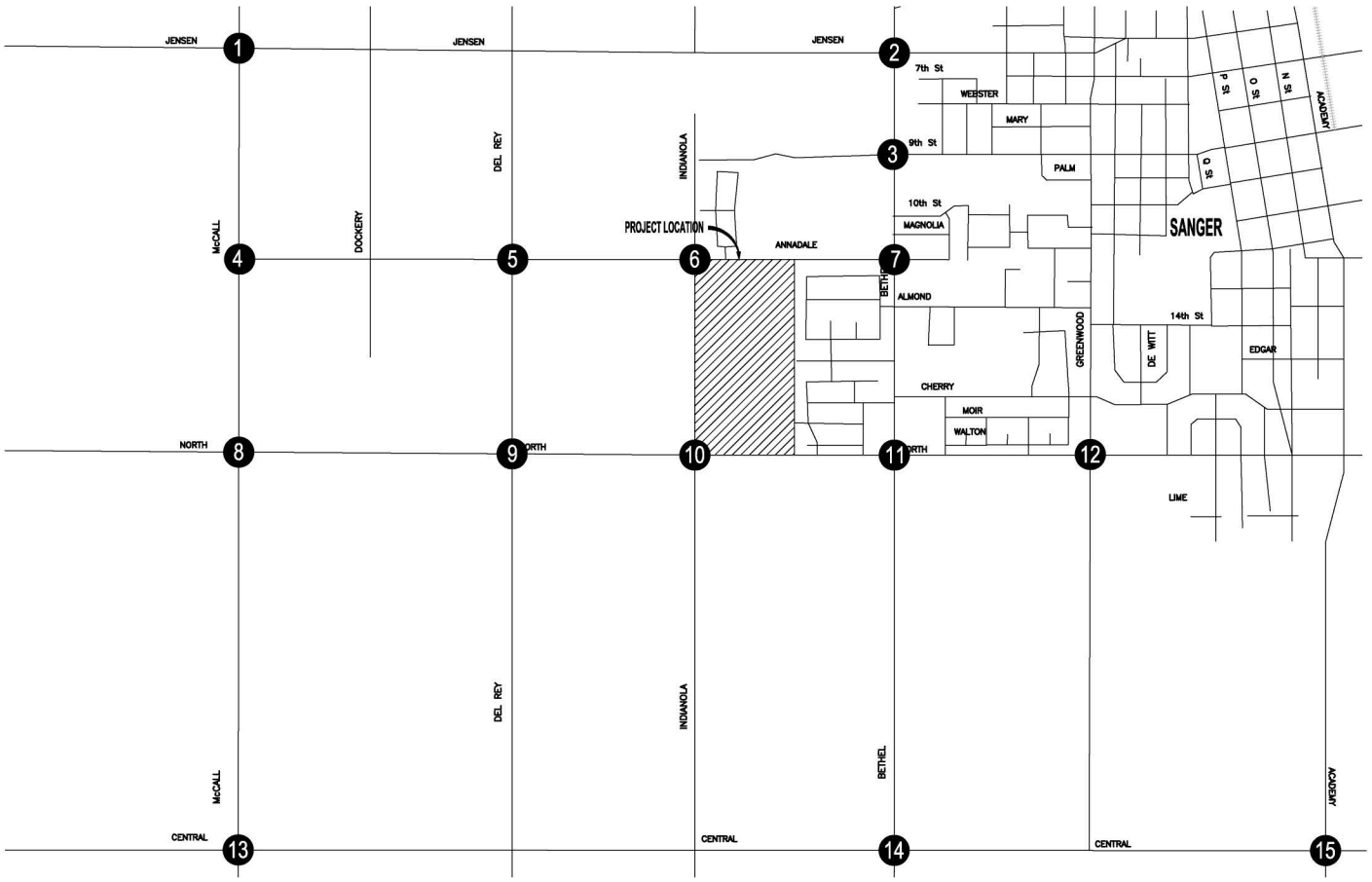
LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Tract 6493
Sanger, California

EXISTING-PLUS-PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale



1 Jensen / McCall 51(9) 335(303) 145(170) 104(113) 600(318) 30(25) 24(46) 394(482) 118(295) 353(197) 275(277) 29(55)	2 Jensen / Bethel 101(82) 536(333) 97(121) 43(51) 406(343) 217(119) 67(200) 389(414) 128(142) 201(157) 284(250) 149(87)	3 9th / Bethel 36(35) 715(514) 141(107) 153(102) 30(23) 242(63) 52(34) 29(19) 22(7) 20(9) 545(473) 187(74)	4 Annadale / McCall 390(514) 71(96) 157(79) 5(2) 500(489) 1(4)	5 Annadale / Del Rey 1(1) 42(25) 159(60) 69(26) 170(73) 25(9) 3(1) 80(120) 3(1) 4(3) 31(39) 27(18)	6 Annadale / Indianola 34(13) 2(2) 20(8) 15(6) 166(48) 13(18) 16(25) 227(93) 24(79) 69(45) 2(2) 11(18)
7 Annadale / Bethel 235(25) 428(448) 133(54) 8(2) 101(3) 15(5) 135(75) 31(7) 148(51) 176(49) 461(409) 9(7)	8 North / McCall 13(11) 284(240) 104(258) 262(183) 207(135) 50(31) 11(12) 88(200) 20(30) 19(22) 220(299) 18(60)	9 North / Del Rey 21(6) 36(26) 13(2) 8(8) 498(312) 6(8) 10(15) 190(520) 8(2) 3(4) 37(36) 13(13)	10 North / Indianola 118(79) 2(2) 46(31) 16(53) 395(240) 4(4) 39(137) 175(390) 4(3) 1(3) 3(2) 4(5)	11 North / Bethel 34(24) 151(173) 138(141) 205(139) 312(235) 43(26) 36(48) 167(286) 44(68) 50(67) 217(189) 36(42)	12 North / Greenwood 46(46) 36(32) 10(12) 68(28) 308(287) 8(15) 61(41) 250(257) 13(23) 24(13) 58(44) 18(17)
13 Central / McCall 13(11) 270(204) 63(87) 60(90) 85(54) 11(9) 7(24) 57(71) 4(3) 3(4) 194(282) 10(11)	14 Central / Bethel 13(9) 157(128) 93(95) 92(106) 138(142) 6(6) 10(19) 123(145) 5(16) 16(11) 141(173) 7(11)	15 Central / Academy 22(35) 269(318) 30(40) 25(26) 110(109) 28(16) 29(50) 136(112) 119(89) 112(125) 276(359) 38(13)			

LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

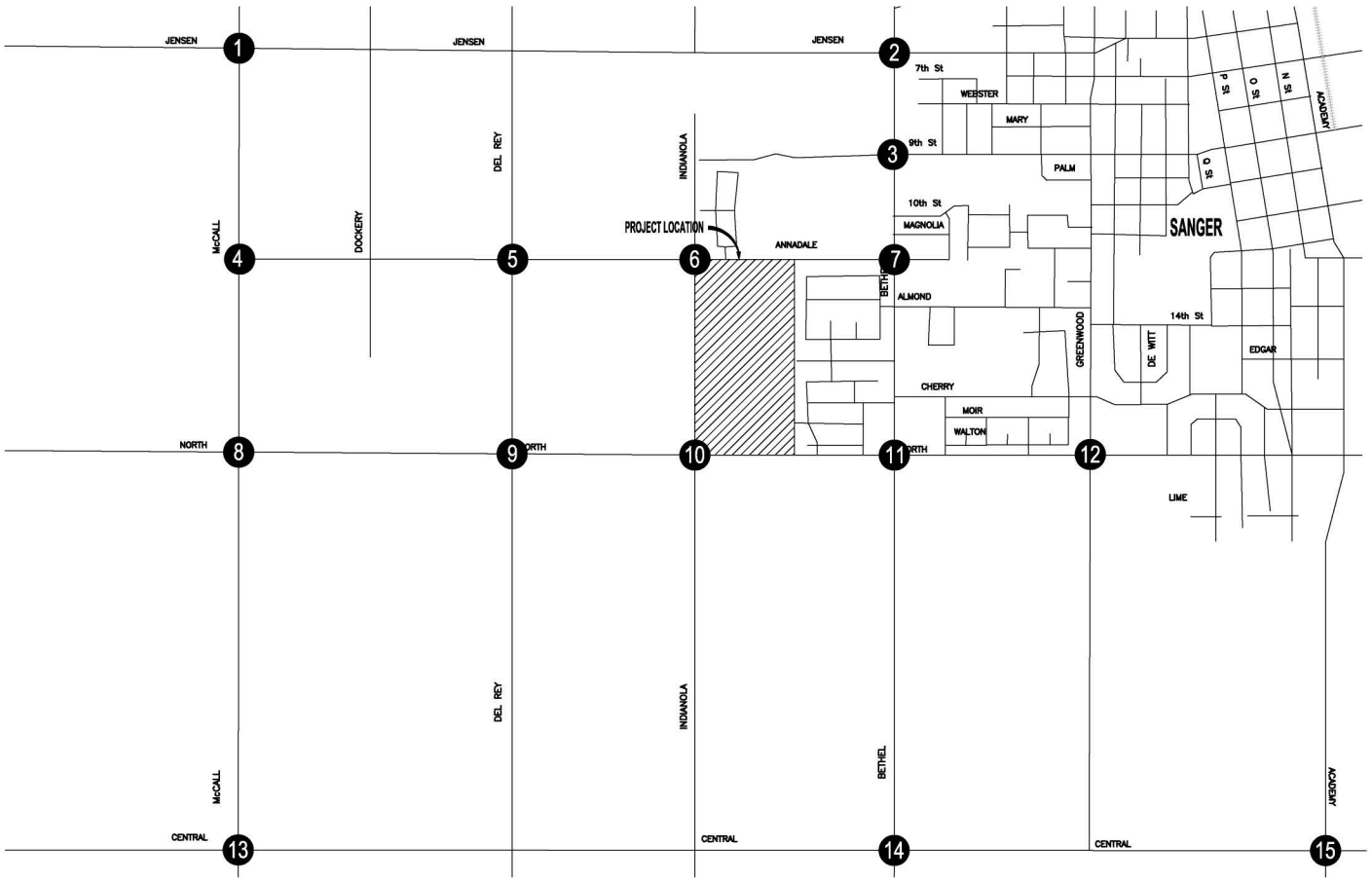
XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

Proposed Tract 6493
Sanger, California

NEAR-TERM WITH-PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale



1 Jensen / McCall	2 Jensen / Bethel	3 9th / Bethel	4 Annadale / McCall	5 Annadale / Del Rey	6 Annadale / Indianola
95(67) 411(364) 182(222) → 138(145) ← 770(410) ← 37(30)	126(108) 659(404) 120(149) → 53(63) ← 504(425) ← 264(144)	44(43) 881(634) 175(136) → 193(128) ← 37(28) ← 271(71)	469(588) 92(132) → 207(106) ← 27(16)	1(1) 52(31) 195(71) → 83(31) ← 244(113) ← 31(11)	90(48) 33(27) 45(26) → 26(31) ← 205(59) ← 23(30)
45(86) → 495(626) → 139(342) → 416(272) ↑ 330(336) ↑ 36(68) ↑	89(250) → 480(514) → 159(179) → 252(195) ↑ 345(304) ↑ 182(103) ↑	64(42) → 36(23) → 27(9) → 25(11) ↑ 672(584) ↑ 208(84) ↑	576(576) ↑ 8(30) ↑	4(1) → 110(187) → 4(1) → 5(4) ↑ 38(48) ↑ 33(22) ↑	36(86) → 280(115) → 29(84) → 70(46) ↑ 26(38) ↑ 21(33) ↑
7 Annadale / Bethel	8 North / McCall	9 North / Del Rey	10 North / Indianola	11 North / Bethel	12 North / Greenwood
292(34) 526(542) 164(67) → 10(2) ← 124(4) ← 18(6)	29(22) 358(302) 116(272) → 283(199) ← 240(157) ← 53(33)	26(7) 44(32) 16(2) → 10(10) ← 550(342) ← 7(10)	123(84) 34(23) 51(36) → 21(58) ← 450(272) ← 14(14)	41(28) 196(216) 175(169) → 246(173) ← 354(266) ← 52(31)	55(52) 44(38) 12(15) → 84(35) ← 374(341) ← 9(17)
169(96) → 38(9) → 197(70) → 218(76) ↑ 560(499) ↑ 11(9) ↑	18(30) → 103(228) → 25(37) → 23(27) ↑ 274(378) ↑ 20(65) ↑	12(18) → 213(568) → 10(2) → 4(5) ↑ 46(44) ↑ 16(16) ↑	44(142) → 204(440) → 6(4) → 2(6) ↑ 25(37) ↑ 10(30) ↑	44(59) → 191(317) → 46(71) → 52(71) ↑ 268(244) ↑ 44(50) ↑	72(48) → 299(308) → 15(26) → 27(15) ↑ 70(53) ↑ 21(20) ↑
13 Central / McCall	14 Central / Bethel	15 Central / Academy			
20(16) 403(305) 95(132) → 112(167) ← 158(100) ← 20(17)	21(15) 270(223) 154(165) → 164(174) ← 257(264) ← 11(11)	33(53) 404(480) 45(61) → 38(39) ← 166(163) ← 42(24)			
11(38) → 106(132) → 7(6) → 6(7) ↑ 292(390) ↑ 19(20) ↑	18(32) → 229(270) → 9(30) → 30(20) ↑ 253(295) ↑ 13(20) ↑	44(76) → 204(168) → 175(131) → 168(183) ↑ 416(336) ↑ 47(16) ↑			

LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Tract 6493
Sanger, California

CUMULATIVE (YEAR 2045) WITH-PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale

APPENDIX A

TRAFFIC COUNT DATA SHEETS

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Jensen Avenue and McCall Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

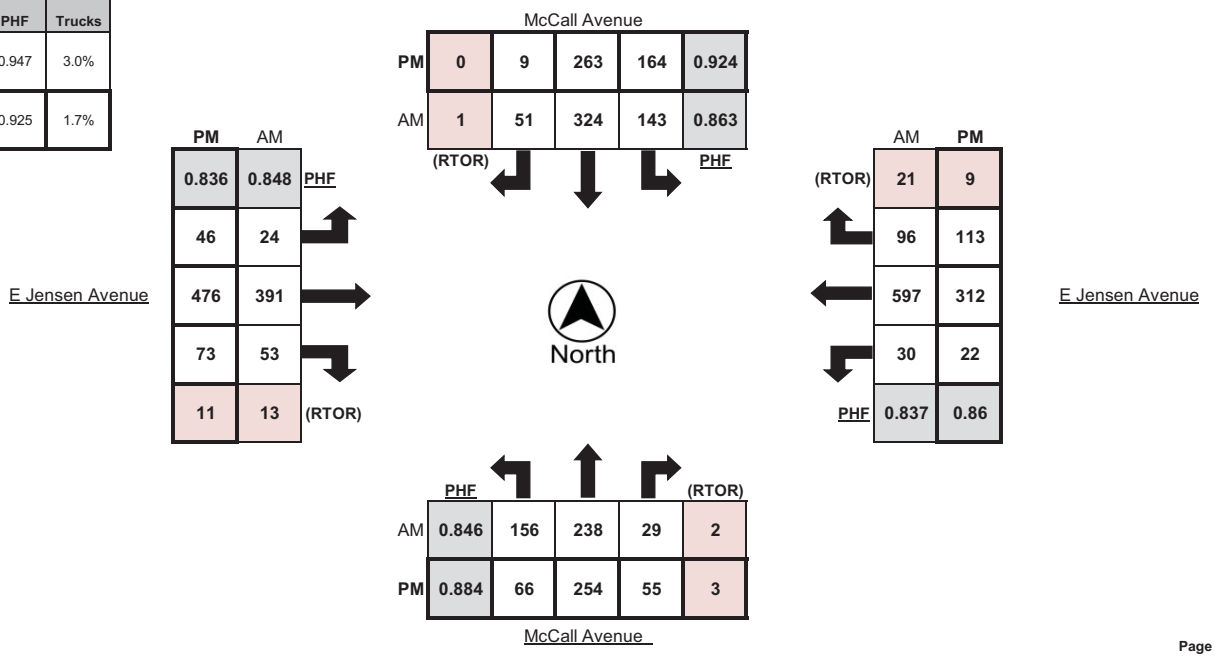
LATITUDE 36.7065
LONGITUDE -119.6103
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	24	61	2	0	5	18	56	5	2	3	6	55	16	0	6	6	111	33	7	2
7:15 AM - 7:30 AM	38	51	7	0	4	33	88	9	0	2	3	70	16	1	4	11	165	20	10	1
7:30 AM - 7:45 AM	53	65	7	0	2	39	71	7	0	4	5	86	14	4	5	7	189	20	4	1
7:45 AM - 8:00 AM	42	62	7	0	8	42	93	15	0	2	8	119	9	2	6	6	120	29	4	4
8:00 AM - 8:15 AM	23	60	8	2	3	29	72	20	1	7	8	116	14	6	10	6	123	27	3	2
8:15 AM - 8:30 AM	37	52	7	2	1	29	61	8	1	4	3	121	13	3	3	2	124	28	3	3
8:30 AM - 8:45 AM	18	54	7	0	4	35	43	6	0	3	11	72	18	5	6	10	100	24	5	2
8:45 AM - 9:00 AM	15	44	7	2	5	26	51	2	0	8	3	68	18	4	3	3	68	20	2	0
TOTAL	**250**	**449**	**52**	**6**	**32**	**251**	**535**	**72**	**4**	**33**	**47**	**707**	**118**	**25**	**43**	**51**	**1000**	**201**	**38**	**15**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	25	74	8	1	0	39	68	1	0	5	5	113	18	1	5	10	87	36	7	1
4:15 PM - 4:30 PM	19	99	11	0	5	44	66	3	0	8	8	108	9	3	0	6	71	18	5	0
4:30 PM - 4:45 PM	13	67	7	0	0	44	69	5	0	1	6	116	16	0	7	4	71	23	4	2
4:45 PM - 5:00 PM	20	57	18	0	2	46	57	5	0	4	11	96	17	0	1	6	60	25	0	1
5:00 PM - 5:15 PM	21	73	12	2	2	25	73	1	0	3	14	112	20	5	3	5	71	35	3	1
5:15 PM - 5:30 PM	17	60	13	0	4	44	73	1	0	2	16	146	16	2	1	6	81	28	6	1
5:30 PM - 5:45 PM	8	64	12	1	1	49	60	2	0	2	5	122	20	4	1	5	100	25	0	2
5:45 PM - 6:00 PM	15	43	16	1	0	50	64	5	0	1	1	115	20	3	1	0	64	14	2	1
TOTAL	**138**	**537**	**97**	**5**	**14**	**341**	**530**	**23**	**0**	**26**	**66**	**928**	**136**	**18**	**19**	**42**	**605**	**204**	**27**	**9**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:15 AM - 8:15 AM	156	238	29	2	17	143	324	51	1	15	24	391	53	13	25	30	597	96	21	8
4:45 PM - 5:45 PM	66	254	55	3	9	164	263	9	0	11	46	476	73	11	6	22	312	113	9	5

	PHF	Trucks
AM	0.947	3.0%
PM	0.925	1.7%



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Hanford, CA 93230

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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

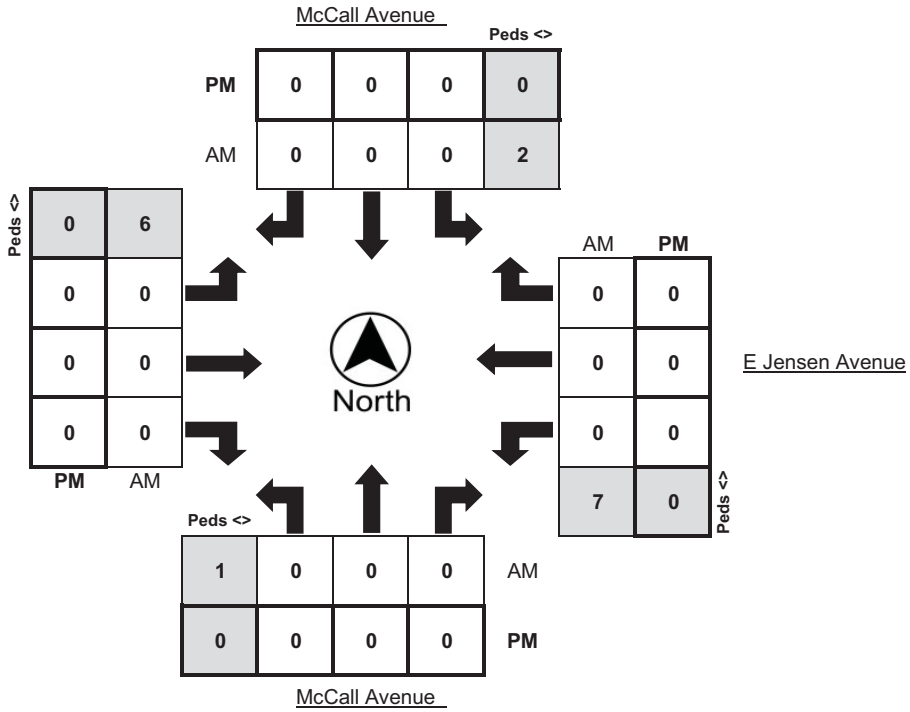
LOCATION Jensen Avenue and McCall Avenue
LATITUDE 36.7065
COUNTY Fresno
LONGITUDE -119.6103
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	2	0	0	0	1	0	0	0	7	0	0	0	6
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	2
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1
TOTAL	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**11**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	2	0	0	0	1	0	0	0	7	0	0	0	6
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	16
PM Peak Total	0	0



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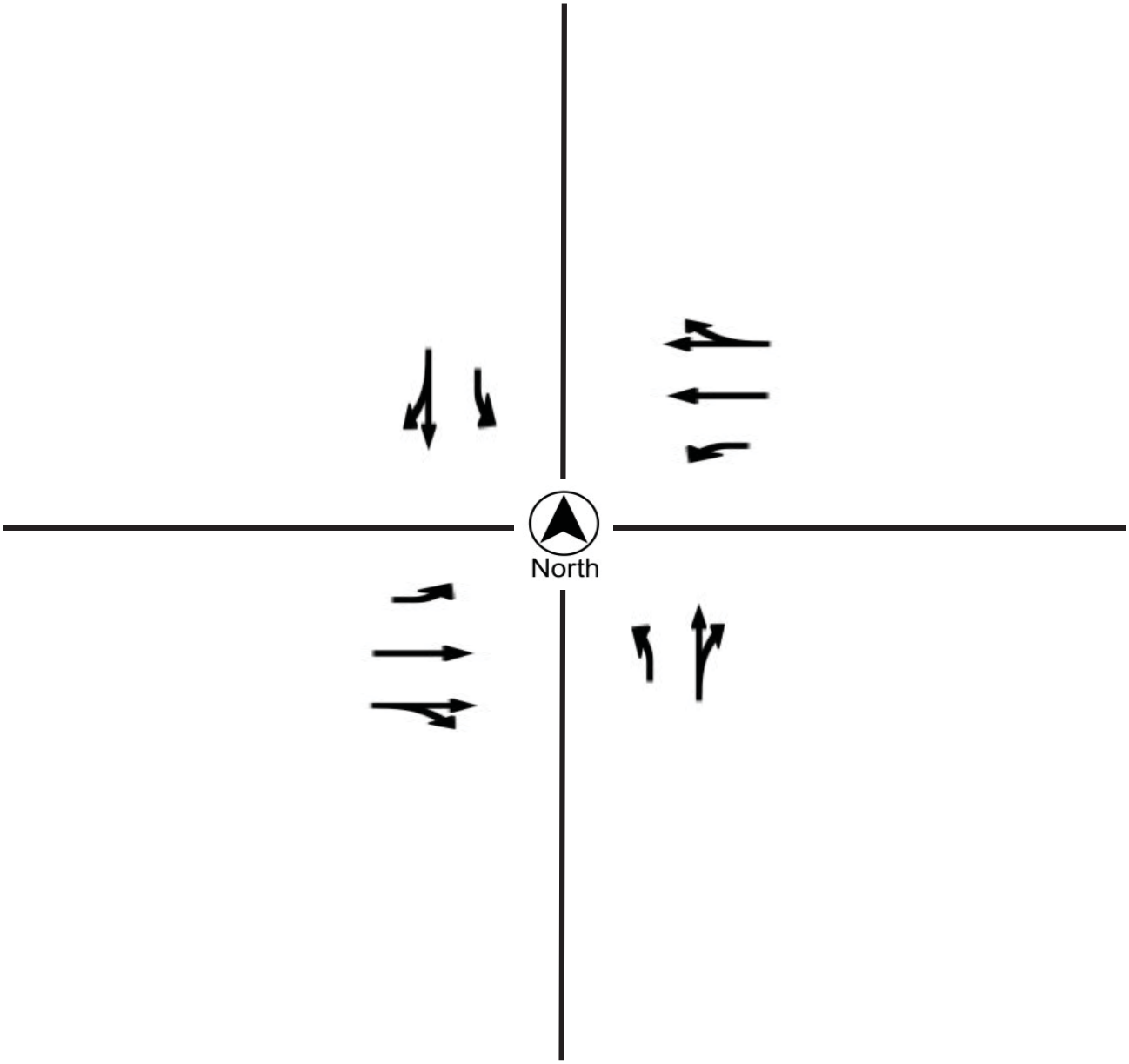
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Jensen Avenue and McCall Avenue	**N/S STREET**	McCall Avenue / McCall Avenue
COUNTY	Fresno	**E/W STREET**	E Jensen Avenue / E Jensen Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	90 Seconds	**CONTROL TYPE**	Signal

COMMENTS All approaches have protected left turns.



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Hanford, CA 93230

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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Jensen Avenue and Bethel Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

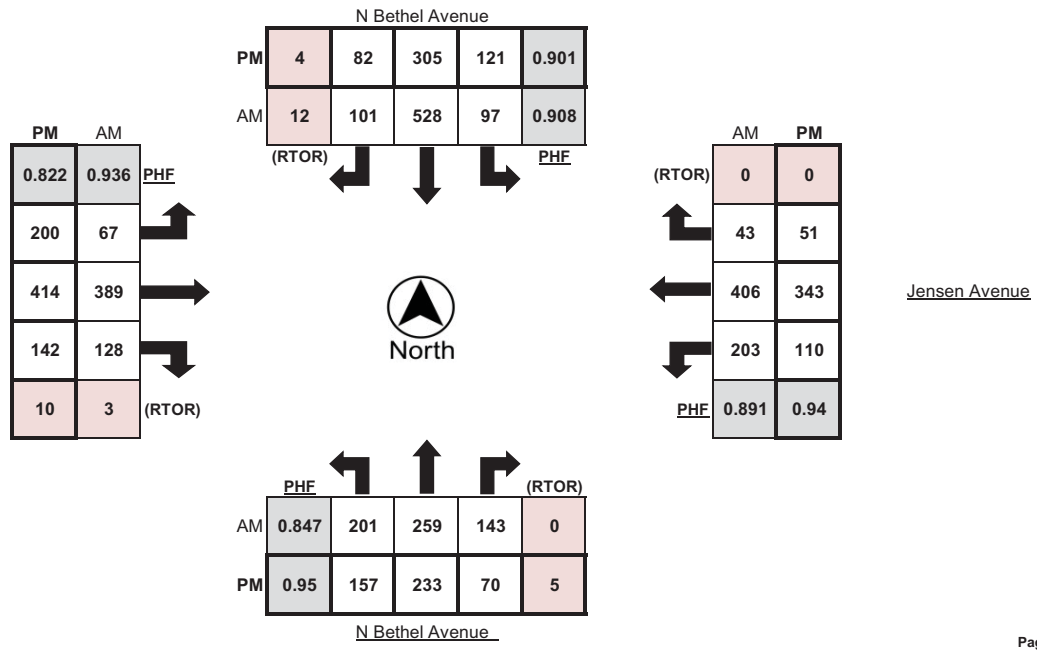
LATITUDE 36.7068
LONGITUDE -119.5743
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	38	30	14	0	3	10	46	17	0	1	13	47	17	0	4	9	89	5	0	1
7:15 AM - 7:30 AM	60	26	13	0	0	19	60	33	0	1	14	58	41	0	4	17	94	9	0	3
7:30 AM - 7:45 AM	46	35	17	0	5	24	86	43	0	2	12	71	40	0	2	21	114	4	0	1
7:45 AM - 8:00 AM	62	59	29	0	1	27	131	19	0	3	20	97	39	0	5	45	95	10	0	2
8:00 AM - 8:15 AM	46	74	57	0	2	26	155	19	6	4	16	110	23	2	8	66	102	15	0	5
8:15 AM - 8:30 AM	47	91	40	0	2	20	156	20	6	1	19	111	26	1	6	71	95	14	0	2
8:30 AM - 8:45 AM	52	67	31	0	1	13	56	15	4	2	22	94	21	0	1	24	81	13	0	1
8:45 AM - 9:00 AM	17	19	13	4	5	12	44	5	2	0	18	72	26	1	3	41	59	8	0	3
TOTAL	**368**	**401**	**214**	**4**	**19**	**151**	**734**	**171**	**18**	**14**	**134**	**660**	**233**	**4**	**33**	**294**	**729**	**78**	**0**	**18**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	44	51	19	1	1	20	71	30	0	4	56	128	35	5	1	79	75	24	0	0
4:15 PM - 4:30 PM	45	57	12	0	1	38	58	25	0	1	48	96	27	2	3	29	65	18	0	1
4:30 PM - 4:45 PM	32	52	13	0	0	23	67	19	0	1	49	84	37	2	3	42	73	13	0	1
4:45 PM - 5:00 PM	44	52	25	1	0	16	61	19	0	0	48	100	43	1	2	31	56	12	0	2
5:00 PM - 5:15 PM	35	66	17	1	0	28	66	26	0	0	44	82	30	4	3	27	96	10	0	1
5:15 PM - 5:30 PM	37	56	19	0	0	30	68	18	2	0	64	128	38	2	3	30	96	8	0	1
5:30 PM - 5:45 PM	43	49	17	1	0	24	98	19	2	0	65	99	38	0	3	24	92	12	0	0
5:45 PM - 6:00 PM	42	62	17	3	0	39	73	19	0	0	27	105	36	4	3	29	59	21	0	1
TOTAL	**322**	**445**	**139**	**7**	**2**	**218**	**562**	**175**	**4**	**6**	**401**	**822**	**284**	**20**	**21**	**291**	**612**	**118**	**0**	**7**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:30 AM - 8:30 AM	201	259	143	0	10	97	528	101	12	10	67	389	128	3	21	203	406	43	0	10
5:00 PM - 6:00 PM	157	233	70	5	0	121	305	82	4	0	200	414	142	10	12	110	343	51	0	3

	PHF	Trucks
AM	0.903	2.0%
PM	0.941	0.7%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

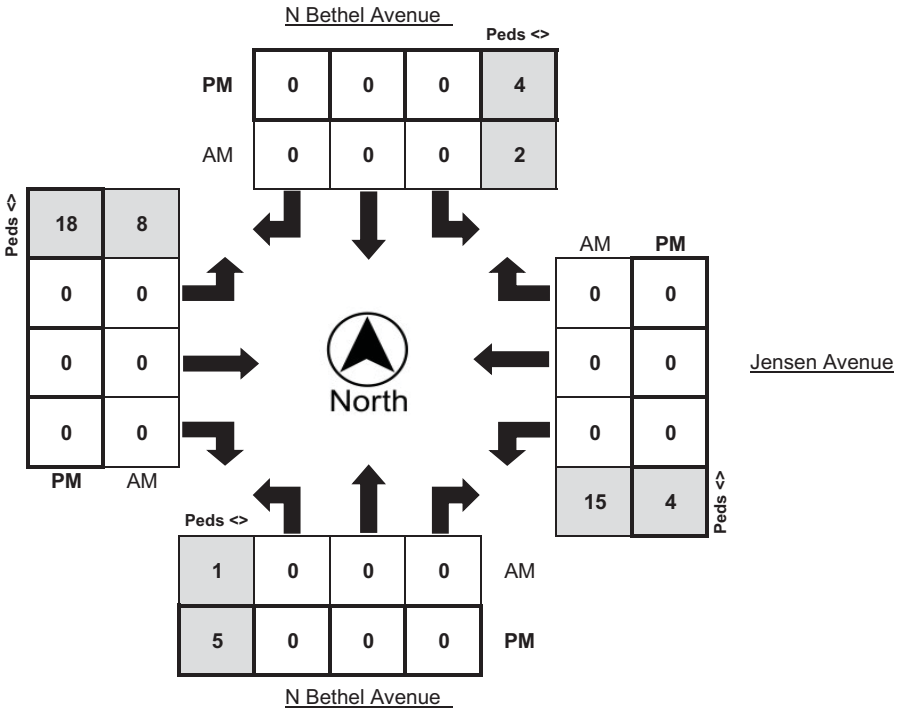
LOCATION Jensen Avenue and Bethel Avenue
LATITUDE 36.7068
COUNTY Fresno
LONGITUDE -119.5743
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	2	0	0	0	1	0	0	0	7	0	0	0	6
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	2
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1
TOTAL	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**11**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM - 5:30 PM	0	0	0	2	0	0	0	2	0	0	0	3	0	0	0	6
5:30 PM - 5:45 PM	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0	5
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
TOTAL	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**31**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	2	0	0	0	1	0	0	0	15	0	0	0	8
5:00 PM - 6:00 PM	0	0	0	4	0	0	0	5	0	0	0	4	0	0	0	18

	Bikes	Peds
AM Peak Total	0	26
PM Peak Total	0	31



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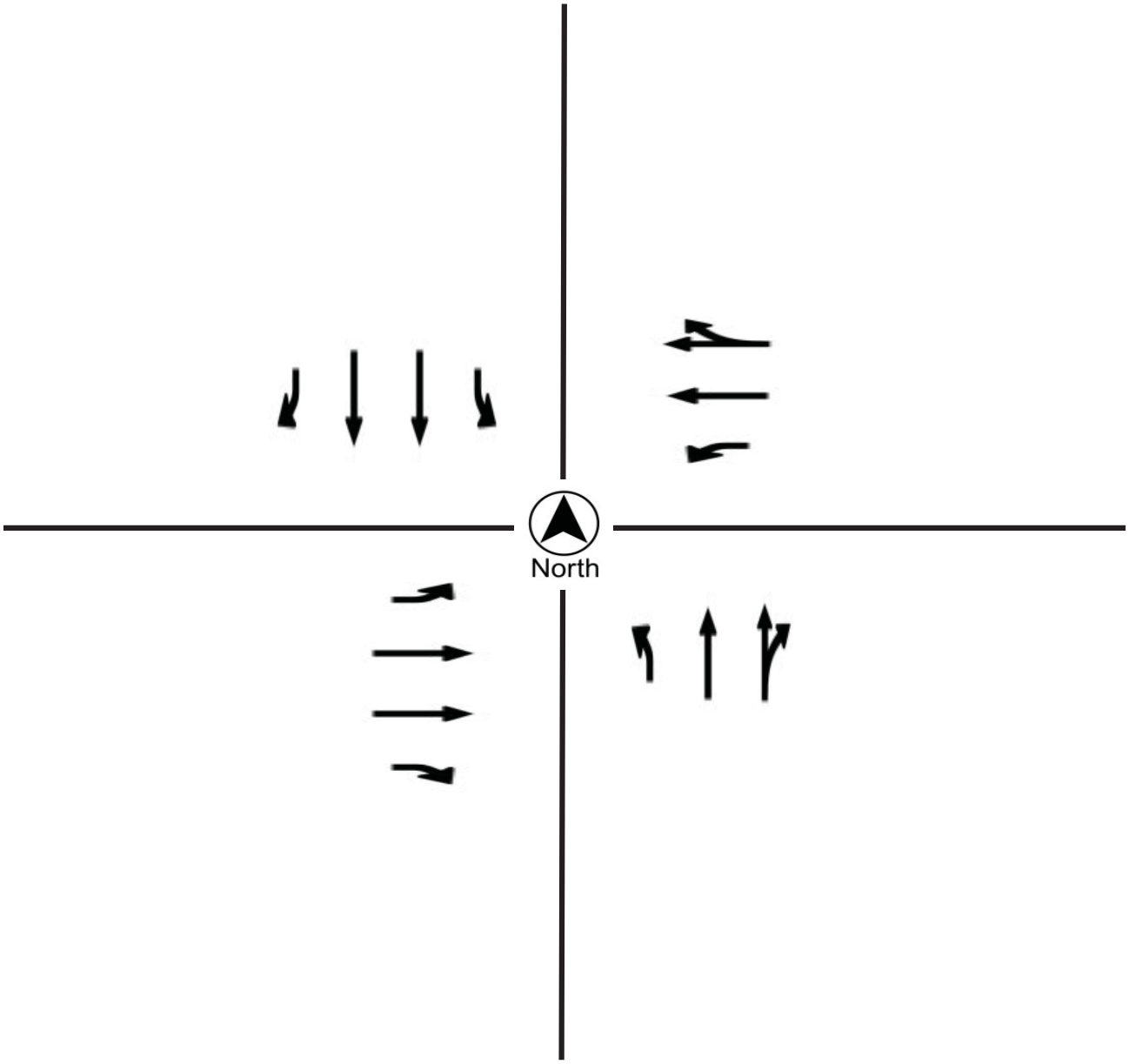
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Jensen Avenue and Bethel Avenue	**N/S STREET**	N Bethel Avenue / N Bethel Avenue
COUNTY	Fresno	**E/W STREET**	Jensen Avenue / Jensen Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	86 Seconds	**CONTROL TYPE**	Signal

COMMENTS All approaches have protected left turns.



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION 9th Street and Bethel Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

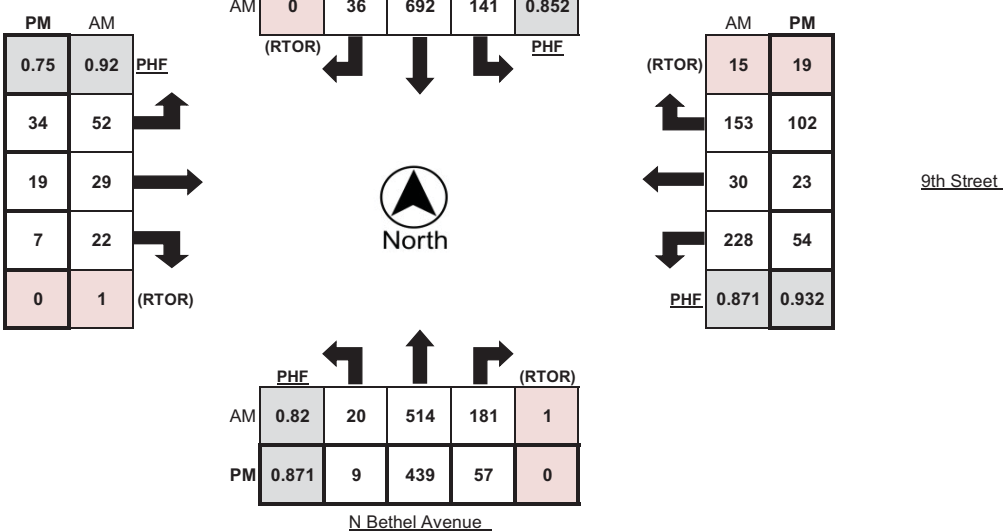
LATITUDE 36.7031
LONGITUDE -119.5743
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	1	65	8	0	4	15	59	6	0	2	5	2	2	0	1	8	1	24	3	1
7:15 AM - 7:30 AM	2	61	9	0	0	25	87	7	0	3	10	6	9	0	0	8	3	26	5	1
7:30 AM - 7:45 AM	3	67	35	1	5	49	99	6	0	1	13	7	8	0	1	29	2	35	7	0
7:45 AM - 8:00 AM	5	118	58	0	0	41	155	11	0	4	13	9	3	0	1	55	9	46	5	1
8:00 AM - 8:15 AM	7	172	39	0	1	31	211	11	0	4	8	7	7	1	0	68	13	37	2	2
8:15 AM - 8:30 AM	5	157	49	0	0	20	227	8	0	2	18	6	4	0	1	76	6	35	1	3
8:30 AM - 8:45 AM	0	112	20	0	2	21	82	8	0	4	10	4	2	0	0	29	3	25	1	1
8:45 AM - 9:00 AM	3	56	13	0	7	18	70	7	0	1	7	4	5	0	0	14	6	9	0	1
TOTAL	**26**	**808**	**231**	**1**	**19**	**220**	**990**	**64**	**0**	**21**	**84**	**45**	**40**	**1**	**4**	**287**	**43**	**237**	**24**	**10**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	4	111	14	0	1	31	106	5	0	4	7	3	1	0	0	11	5	26	3	0
4:15 PM - 4:30 PM	5	101	13	0	3	26	87	9	0	1	6	1	3	0	0	8	2	18	0	0
4:30 PM - 4:45 PM	2	90	25	0	0	28	121	4	0	3	3	7	2	0	1	8	5	33	3	0
4:45 PM - 5:00 PM	3	95	15	0	0	31	103	4	0	0	4	4	2	0	1	12	4	25	5	1
5:00 PM - 5:15 PM	0	116	11	0	0	19	110	15	0	1	11	5	1	0	1	14	7	27	5	0
5:15 PM - 5:30 PM	1	98	18	0	0	26	117	10	0	1	6	6	2	0	0	15	5	22	5	0
5:30 PM - 5:45 PM	3	125	17	0	0	27	141	7	0	0	4	4	1	0	0	13	5	24	5	0
5:45 PM - 6:00 PM	5	100	11	0	0	35	109	3	0	1	13	4	3	0	0	12	6	29	4	0
TOTAL	**23**	**836**	**124**	**0**	**4**	**223**	**894**	**57**	**0**	**11**	**54**	**34**	**15**	**0**	**3**	**93**	**39**	**204**	**30**	**1**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:30 AM - 8:30 AM	20	514	181	1	6	141	692	36	0	11	52	29	22	1	3	228	30	153	15	6
5:00 PM - 6:00 PM	9	439	57	0	0	107	477	35	0	3	34	19	7	0	1	54	23	102	19	0

	PHF	Trucks
AM	0.858	1.2%
PM	0.918	0.3%



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Annadale Avenue and McCall Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

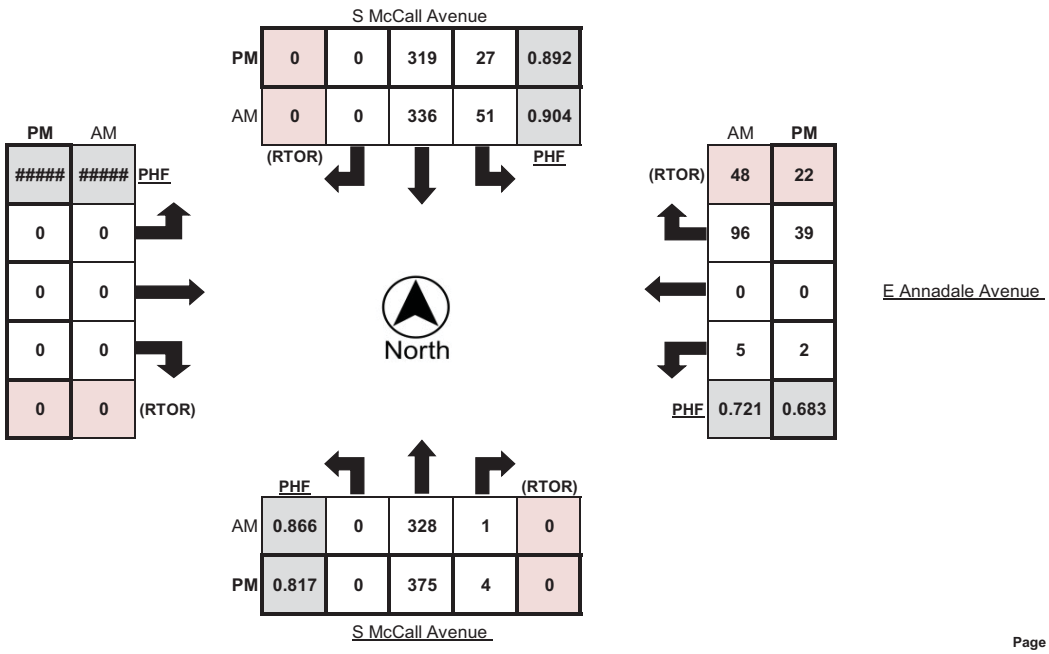
LATITUDE 36.6994
LONGITUDE -119.6103
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	0	73	0	0	6	4	75	0	0	3	0	0	0	0	0	2	0	17	8	0
7:15 AM - 7:30 AM	0	82	1	0	3	11	90	0	0	6	0	0	0	0	0	1	0	20	9	1
7:30 AM - 7:45 AM	0	83	0	0	2	7	87	0	0	3	0	0	0	0	0	2	0	33	14	0
7:45 AM - 8:00 AM	0	95	0	0	7	18	89	0	0	2	0	0	0	0	0	1	0	22	12	0
8:00 AM - 8:15 AM	0	68	0	0	2	15	70	0	0	3	0	0	0	0	0	1	0	21	13	1
8:15 AM - 8:30 AM	0	72	2	0	2	20	69	0	0	4	0	0	0	0	0	3	0	30	14	0
8:30 AM - 8:45 AM	0	58	0	0	3	8	58	0	0	2	0	0	0	0	0	3	0	17	7	0
8:45 AM - 9:00 AM	0	56	1	0	5	4	59	0	0	7	0	0	0	0	0	0	0	6	5	0
TOTAL	**0**	**587**	**4**	**0**	**30**	**87**	**597**	**0**	**0**	**30**	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**166**	**82**	**2**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	0	92	0	0	0	8	89	0	0	5	0	0	0	0	0	0	0	15	9	0
4:15 PM - 4:30 PM	0	114	2	0	6	6	74	0	0	5	0	0	0	0	0	0	0	10	6	0
4:30 PM - 4:45 PM	0	78	2	0	1	8	75	0	0	2	0	0	0	0	0	1	0	5	2	0
4:45 PM - 5:00 PM	0	91	0	0	2	5	81	0	0	3	0	0	0	0	0	1	0	9	5	0
5:00 PM - 5:15 PM	0	89	1	0	4	9	78	0	0	4	0	0	0	0	0	0	0	13	6	1
5:15 PM - 5:30 PM	0	87	1	0	5	17	75	0	0	2	0	0	0	0	0	0	0	5	1	0
5:30 PM - 5:45 PM	0	79	1	0	1	11	75	0	0	2	0	0	0	0	0	0	0	8	7	0
5:45 PM - 6:00 PM	0	55	2	0	1	11	70	0	0	0	0	0	0	0	0	0	0	12	3	0
TOTAL	**0**	**685**	**9**	**0**	**20**	**75**	**617**	**0**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**77**	**39**	**1**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:15 AM - 8:15 AM	0	328	1	0	14	51	336	0	0	14	0	0	0	0	0	5	0	96	48	2
4:00 PM - 5:00 PM	0	375	4	0	9	27	319	0	0	15	0	0	0	0	0	2	0	39	22	0

	PHF	Trucks
AM	0.908	3.7%
PM	0.930	3.1%



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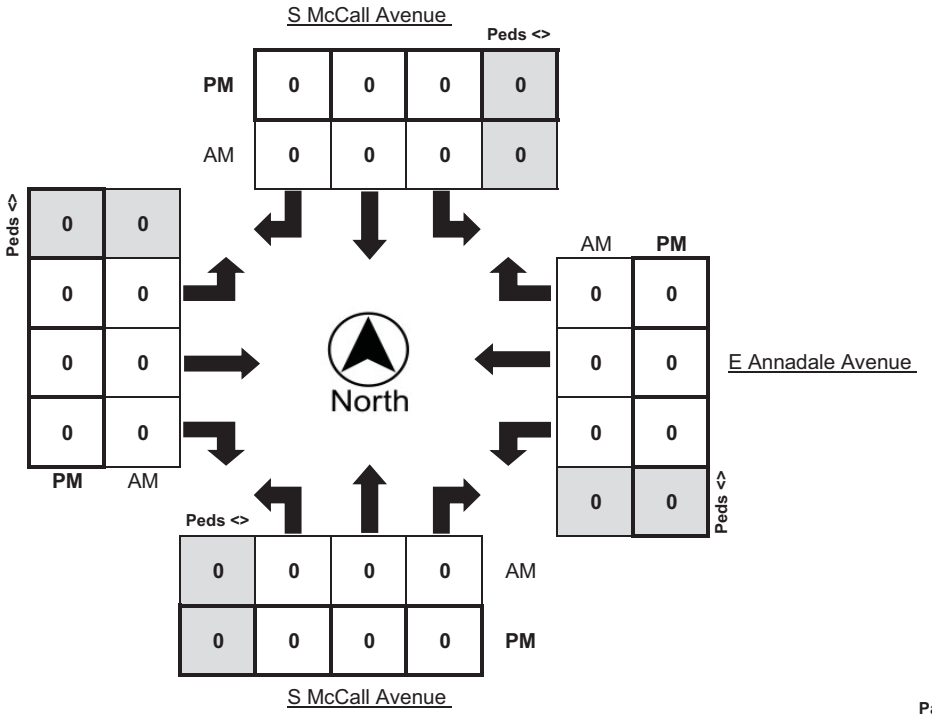
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LATITUDE 36.6994
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LONGITUDE -119.6103
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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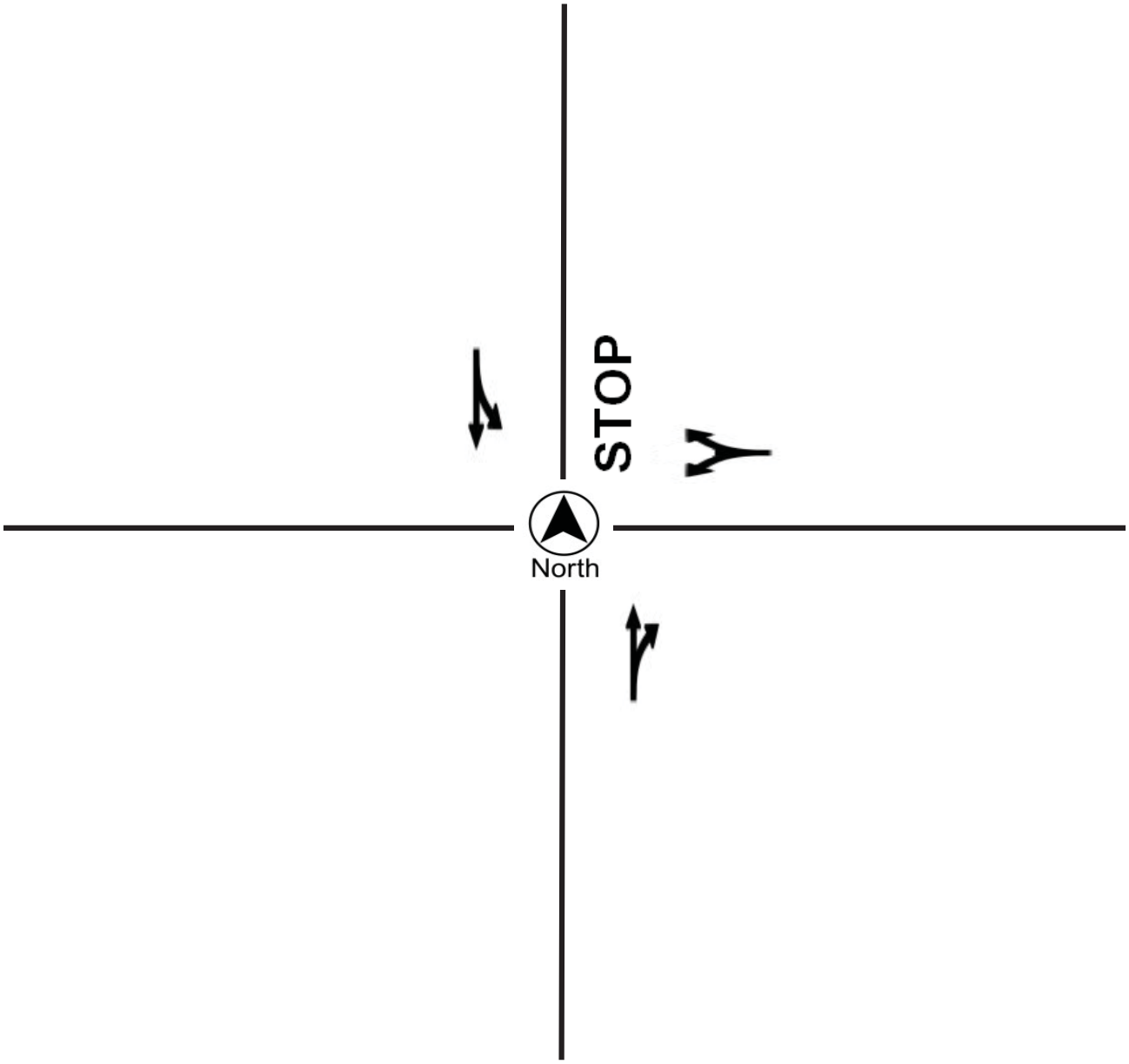
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Annadale Avenue and McCall Avenue	**N/S STREET**	S McCall Avenue / S McCall Avenue
COUNTY	Fresno	**E/W STREET**	E Annadale Avenue /
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	One-way Stop

COMMENTS



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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

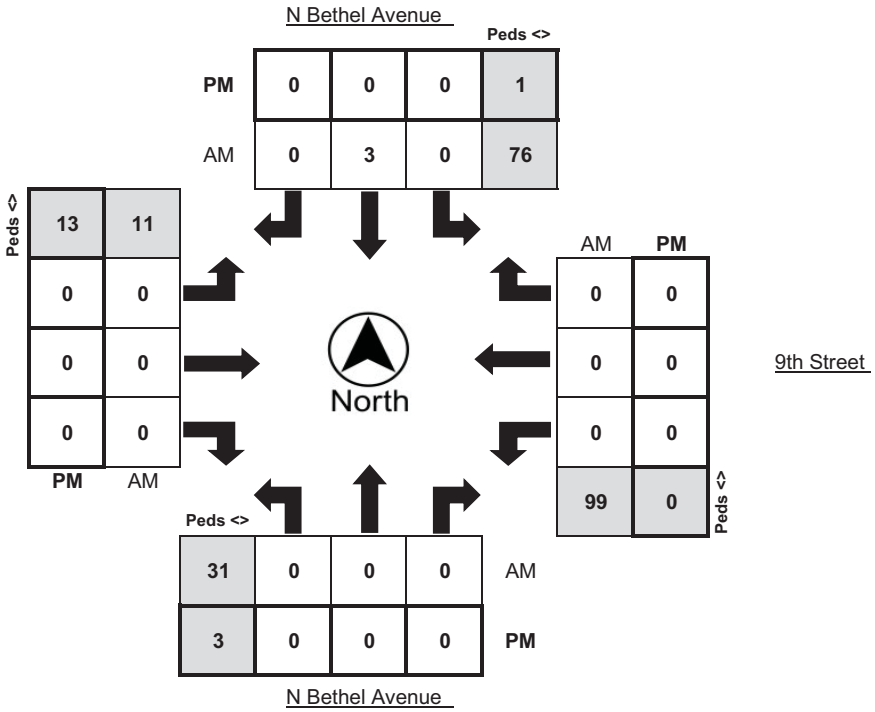
LOCATION 9th Street and Bethel Avenue
LATITUDE 36.7031
COUNTY Fresno
LONGITUDE -119.5743
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	2	0	0	0	4	0	0	0	2
7:30 AM - 7:45 AM	0	0	0	7	0	0	0	4	0	0	0	9	0	0	0	2
7:45 AM - 8:00 AM	0	0	0	18	0	2	0	7	0	0	0	17	0	0	0	5
8:00 AM - 8:15 AM	0	0	0	19	0	1	0	7	0	0	0	35	0	0	0	1
8:15 AM - 8:30 AM	0	0	0	32	0	0	0	13	0	0	0	38	0	0	0	3
8:30 AM - 8:45 AM	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	2
TOTAL	**0**	**0**	**0**	**79**	**0**	**3**	**0**	**37**	**0**	**0**	**0**	**108**	**0**	**0**	**0**	**16**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	5	0	0	0	2	0	0	0	2
4:15 PM - 4:30 PM	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	3
4:30 PM - 4:45 PM	0	0	0	2	0	0	0	4	0	0	0	4	0	0	0	5
4:45 PM - 5:00 PM	0	0	0	1	0	0	0	7	0	0	0	2	0	0	0	4
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
5:30 PM - 5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**27**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	76	0	3	0	31	0	0	0	99	0	0	0	11
5:00 PM - 6:00 PM	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	13

	Bikes	Peds
AM Peak Total	3	217
PM Peak Total	0	17



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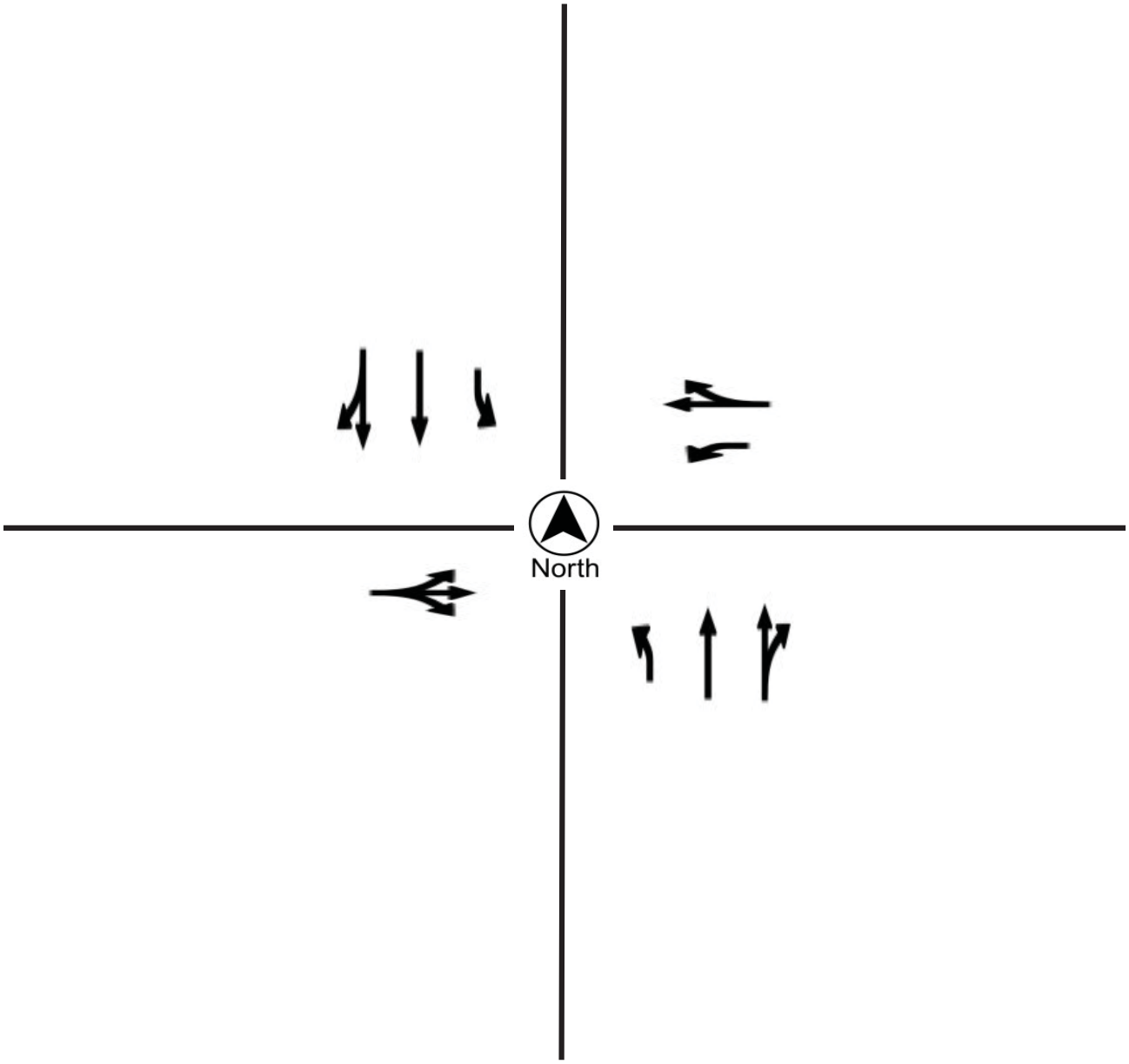
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	9th Street and Bethel Avenue	**N/S STREET**	N Bethel Avenue / N Bethel Avenue
COUNTY	Fresno	**E/W STREET**	9th Street / 9th Street
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	88 Seconds	**CONTROL TYPE**	Signal

COMMENTS Northbound/southbound left turns are protected.
Eastbound/westbound approaches are split.



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Annadale Avenue and Del Rey Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

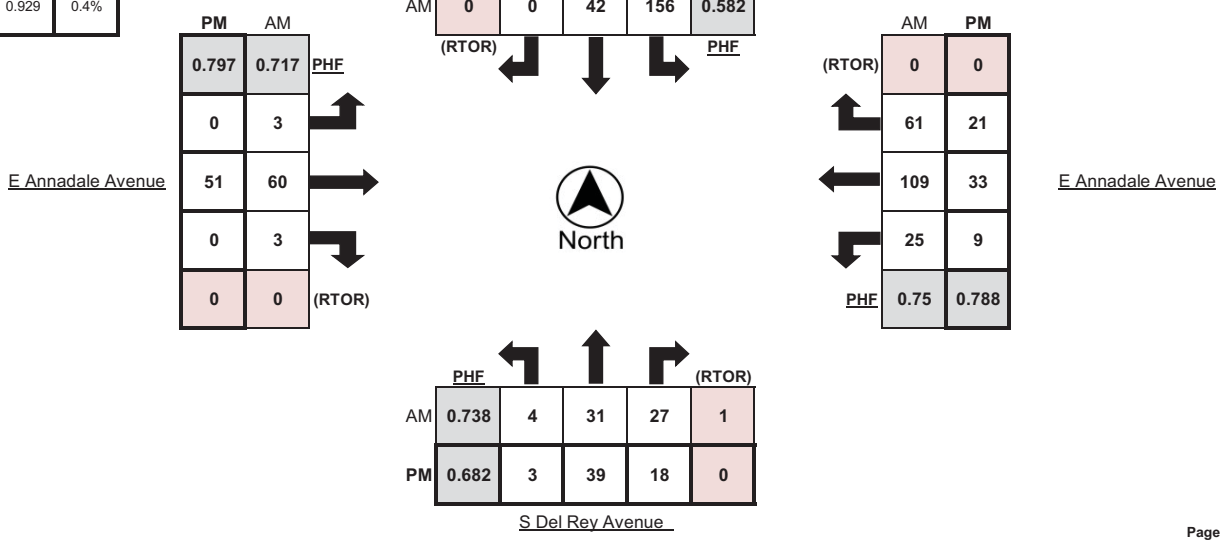
LATITUDE 36.6994
LONGITUDE -119.5922
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	1	5	1	0	1	4	4	1	0	0	1	4	1	0	0	1	18	3	0	1
7:15 AM - 7:30 AM	0	2	3	0	0	12	9	1	0	2	0	9	1	0	0	3	26	4	0	0
7:30 AM - 7:45 AM	1	13	3	0	1	11	10	0	0	0	1	8	2	0	0	8	27	7	0	0
7:45 AM - 8:00 AM	1	10	10	1	1	32	10	0	0	1	0	16	1	0	0	6	22	12	0	0
8:00 AM - 8:15 AM	2	2	8	0	0	40	10	0	0	0	1	14	0	0	0	6	29	13	0	1
8:15 AM - 8:30 AM	0	6	6	0	0	73	12	0	0	1	1	22	0	0	0	5	31	29	0	0
8:30 AM - 8:45 AM	0	9	3	0	0	6	9	0	0	0	1	9	0	0	1	2	16	10	0	0
8:45 AM - 9:00 AM	0	4	2	0	1	1	3	0	0	1	0	4	1	0	0	1	7	3	0	0
TOTAL	**5**	**51**	**36**	**1**	**4**	**179**	**67**	**2**	**0**	**5**	**5**	**86**	**6**	**0**	**1**	**32**	**176**	**81**	**0**	**2**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	1	6	4	0	0	8	8	0	0	1	0	7	0	0	1	4	14	14	0	2
4:15 PM - 4:30 PM	0	5	1	0	0	10	7	0	0	0	0	8	0	0	0	2	9	0	0	0
4:30 PM - 4:45 PM	2	12	1	0	1	9	11	0	0	0	0	9	0	0	0	2	3	1	0	0
4:45 PM - 5:00 PM	1	6	1	0	0	7	6	0	0	0	0	5	2	0	0	2	9	1	0	0
5:00 PM - 5:15 PM	2	16	4	0	0	9	3	0	0	0	0	10	0	0	0	1	8	5	0	0
5:15 PM - 5:30 PM	1	11	2	0	0	15	6	0	0	0	0	16	0	0	0	3	5	8	0	1
5:30 PM - 5:45 PM	0	5	9	0	0	12	8	0	0	0	0	10	0	0	0	1	8	4	0	0
5:45 PM - 6:00 PM	0	7	3	0	0	14	8	0	0	0	0	15	0	0	0	4	12	4	0	0
TOTAL	**7**	**68**	**25**	**0**	**1**	**84**	**57**	**0**	**0**	**1**	**0**	**80**	**2**	**0**	**1**	**19**	**68**	**37**	**0**	**3**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:30 AM - 8:30 AM	4	31	27	1	2	156	42	0	0	2	3	60	3	0	0	25	109	61	0	1
5:00 PM - 6:00 PM	3	39	18	0	0	50	25	0	0	0	0	51	0	0	0	9	33	21	0	1

	PHF	Trucks
AM	0.704	1.0%
PM	0.929	0.4%



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Hanford, CA 93230

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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Annadale Avenue and Indianola Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

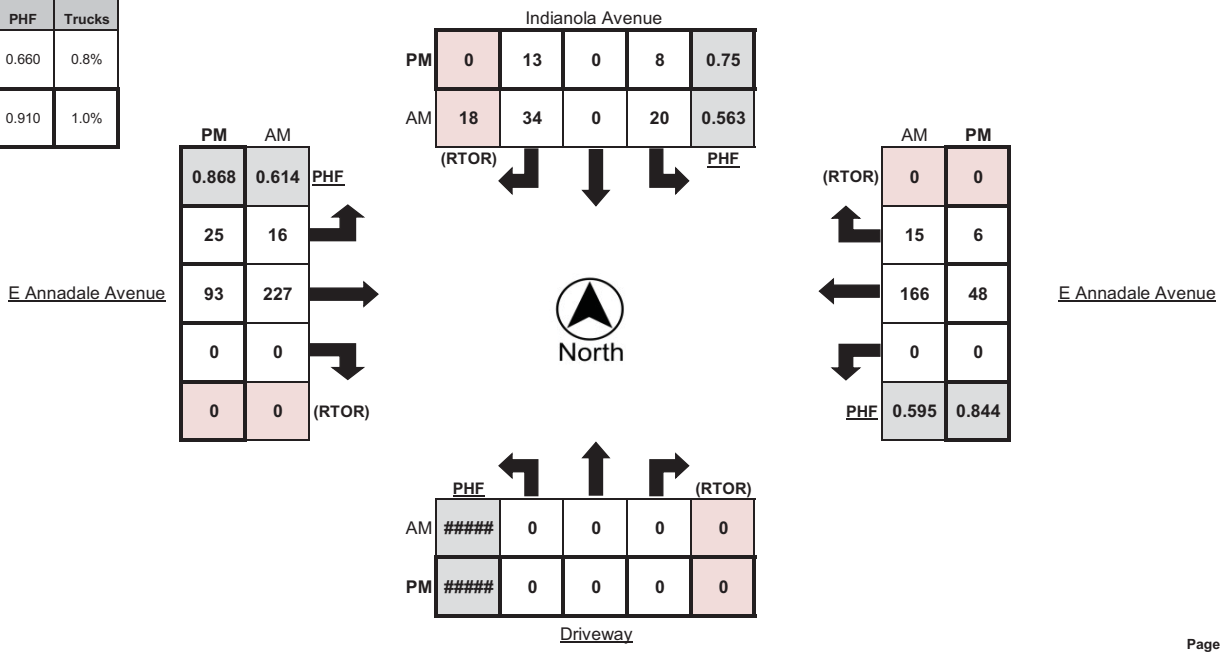
LATITUDE 36.6995
LONGITUDE -119.5832
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	5	3	0	1	7	0	0	0	0	20	1	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	1	0	14	6	0	4	19	0	0	0	0	18	1	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	3	0	21	7	0	2	21	0	0	0	0	23	3	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	9	0	7	6	0	6	52	0	0	1	0	28	2	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	3	0	5	4	1	4	59	0	0	0	0	47	2	0	1
8:15 AM - 8:30 AM	0	0	0	0	0	5	0	1	1	0	4	95	0	0	0	0	68	8	0	1
8:30 AM - 8:45 AM	0	0	0	0	0	1	0	0	0	0	2	14	0	0	1	0	18	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	2	0	0	0	8	0	0	1	0	5	1	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**55**	**27**	**1**	**23**	**275**	**0**	**0**	**3**	**0**	**227**	**18**	**0**	**2**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	5	0	0	4	18	0	0	2	0	22	5	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	2	0	0	6	14	0	0	0	0	7	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	3	0	0	5	13	0	0	0	0	4	1	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	4	0	0	4	10	0	0	0	0	9	1	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	4	0	3	0	1	9	13	0	0	0	0	13	2	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	6	0	0	5	29	0	0	0	0	11	2	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	1	0	2	0	0	4	26	0	0	0	0	8	2	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	3	0	2	0	0	7	25	0	0	0	0	16	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**27**	**0**	**1**	**44**	**148**	**0**	**0**	**2**	**0**	**90**	**13**	**0**	**1**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:30 AM - 8:30 AM	0	0	0	0	0	20	0	34	18	1	16	227	0	0	1	0	166	15	0	2
5:00 PM - 6:00 PM	0	0	0	0	0	8	0	13	0	1	25	93	0	0	0	0	48	6	0	1

	PHF	Trucks
AM	0.660	0.8%
PM	0.910	1.0%



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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

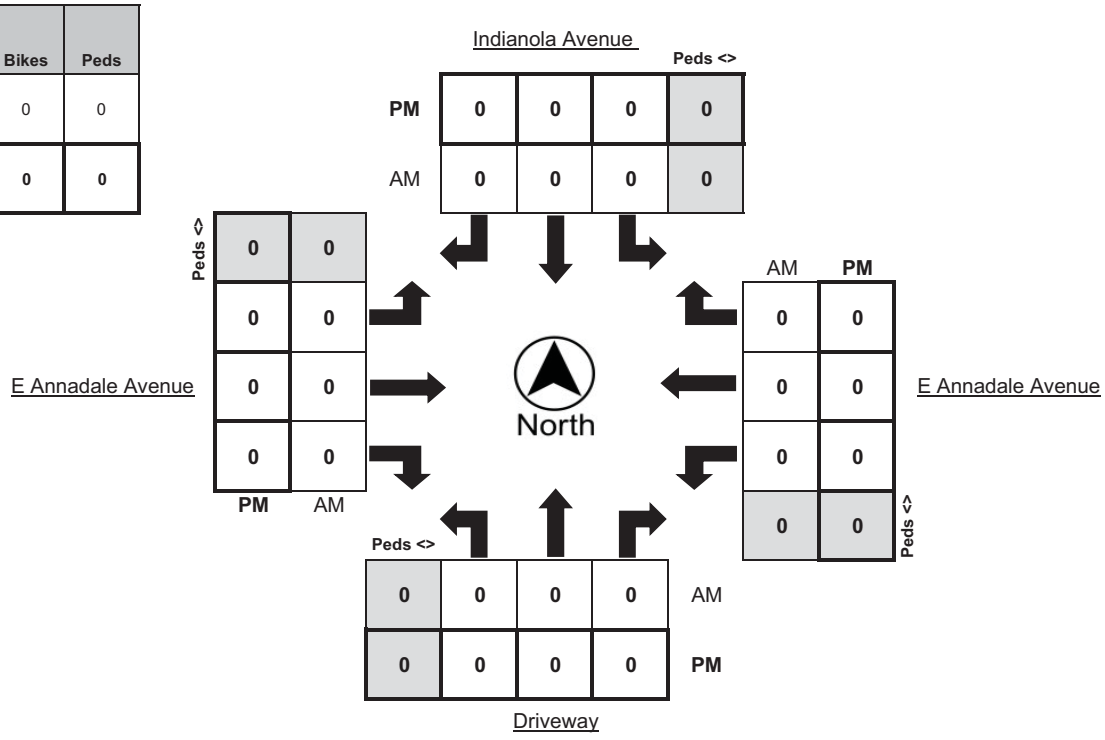
LOCATION Annadale Avenue and Indianola Avenue
LATITUDE 36.6995
COUNTY Fresno
LONGITUDE -119.5832
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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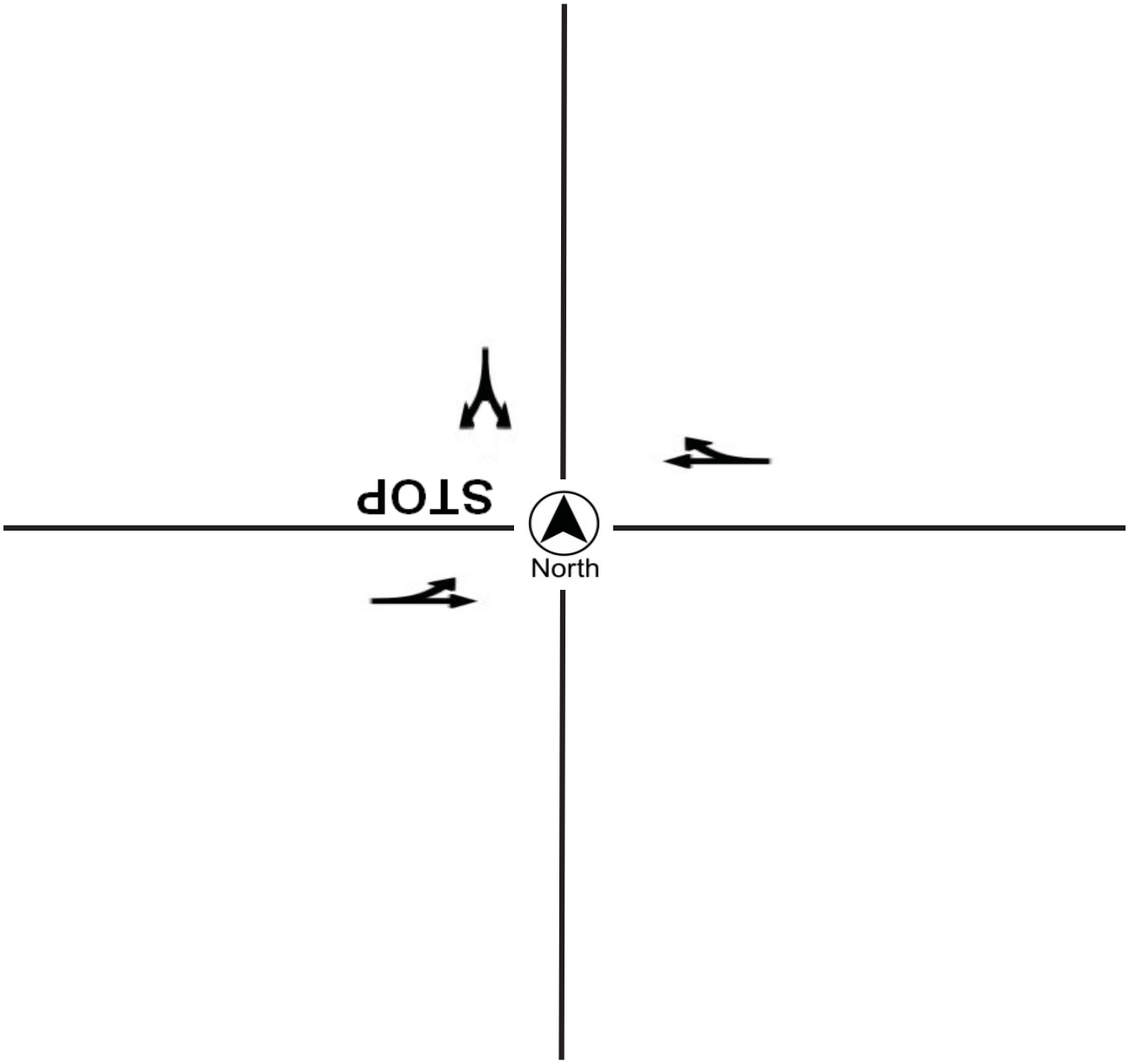
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Annadale Avenue and Indianola Avenue	**N/S STREET**	Indianola Avenue / Driveway
COUNTY	Fresno	**E/W STREET**	E Annadale Avenue / E Annadale Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	One-way Stop

COMMENTS



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Turning Movement Report

Prepared For:

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Clovis, CA 93612

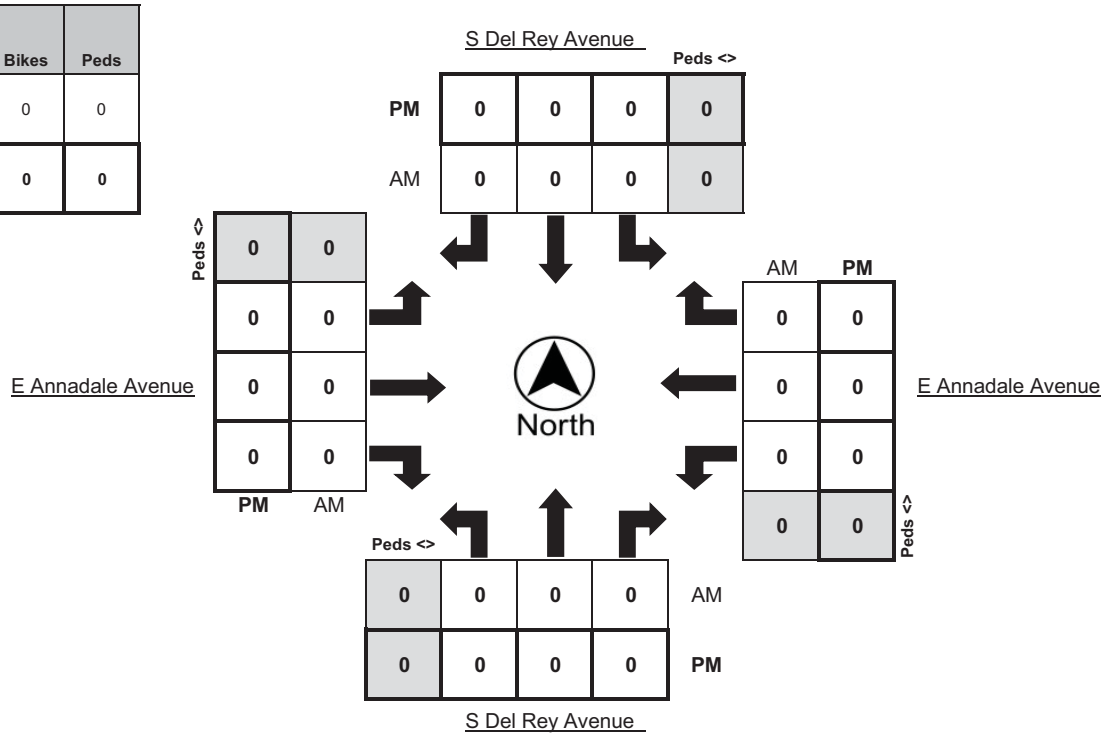
LOCATION Annadale Avenue and Del Rey Avenue
LATITUDE 36.6994
COUNTY Fresno
LONGITUDE -119.5922
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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Hanford, CA 93230

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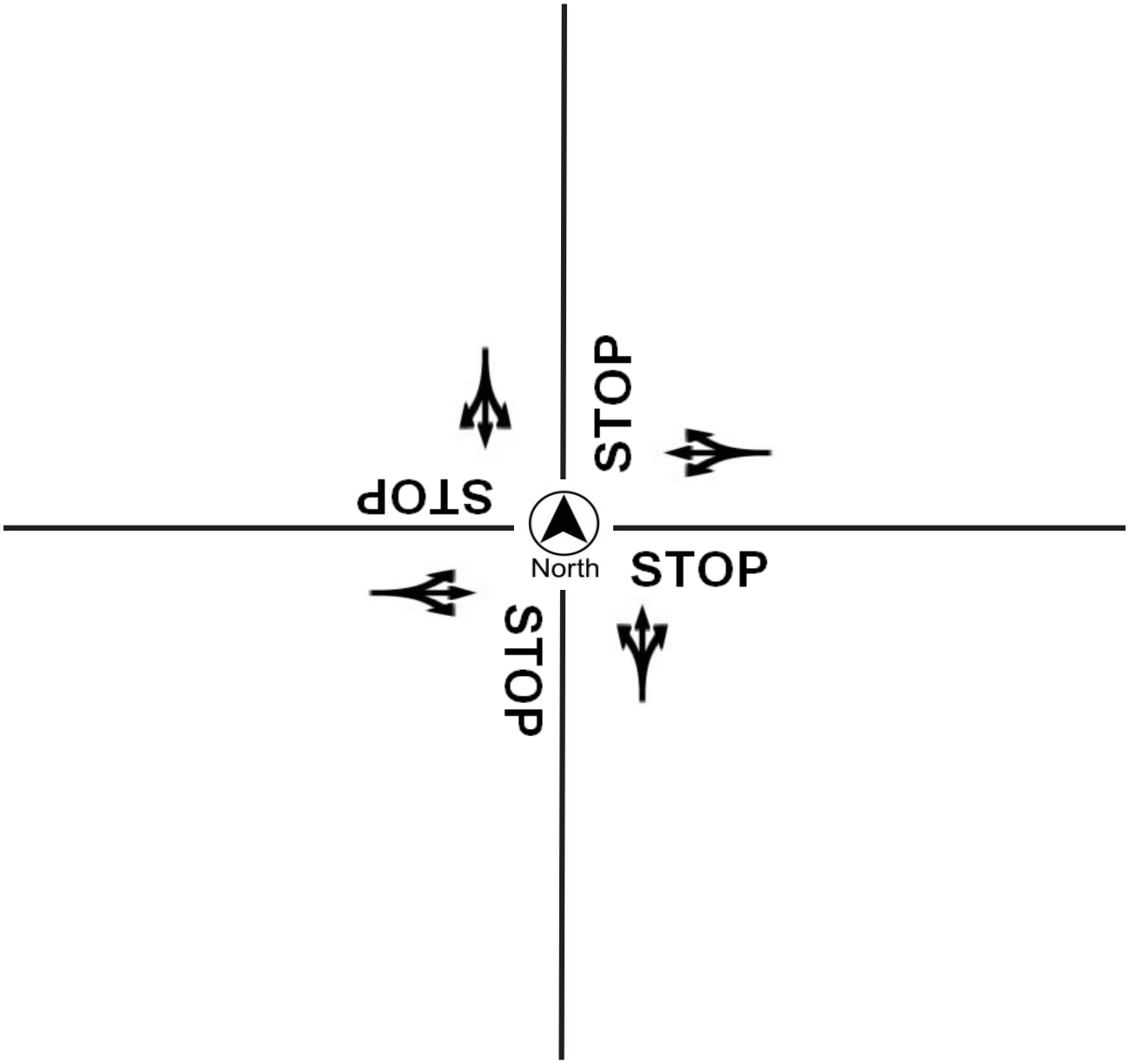
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Annadale Avenue and Del Rey Avenue	**N/S STREET**	S Del Rey Avenue / S Del Rey Avenue
COUNTY	Fresno	**E/W STREET**	E Annadale Avenue / E Annadale Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Annadale Avenue and Bethel Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

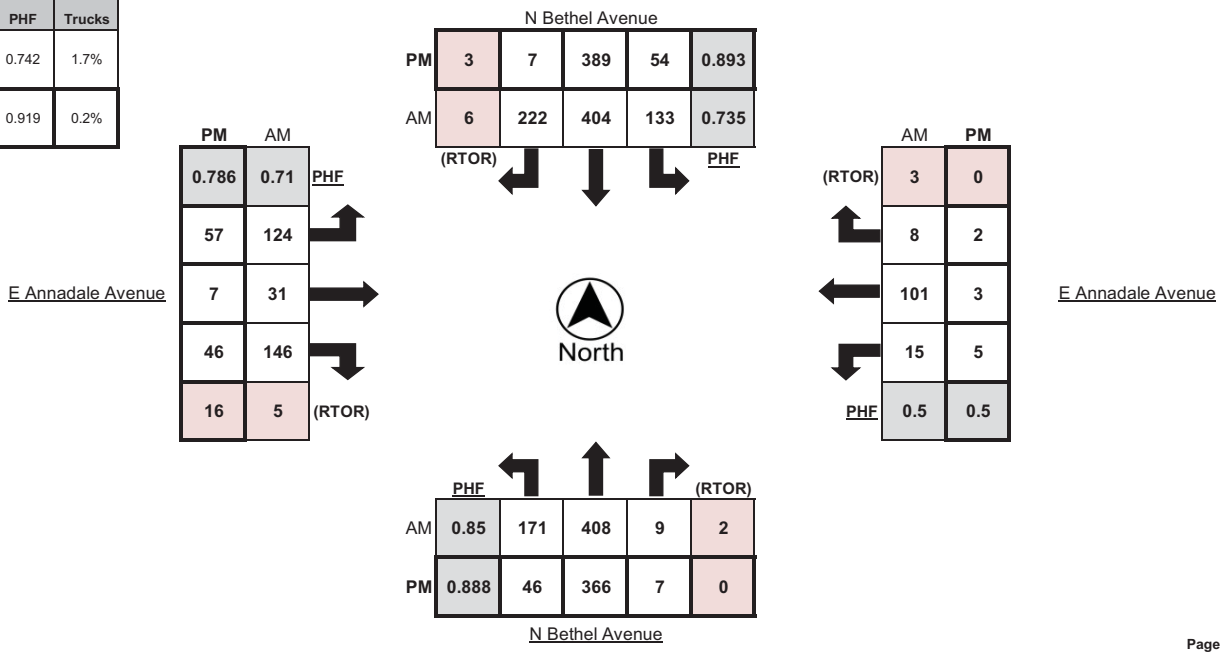
LATITUDE 36.6995
LONGITUDE -119.5744
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	2	56	0	0	4	0	47	6	0	1	10	0	8	1	1	5	4	0	0	0
7:15 AM - 7:30 AM	11	52	0	0	0	7	66	13	1	2	7	0	10	6	0	1	2	2	2	0
7:30 AM - 7:45 AM	12	74	0	0	5	12	93	16	0	2	15	1	13	4	0	4	1	2	1	0
7:45 AM - 8:00 AM	44	126	3	0	0	33	84	44	3	4	36	5	41	0	1	7	10	3	2	0
8:00 AM - 8:15 AM	56	100	2	0	2	37	113	69	0	9	32	11	41	0	1	3	30	2	0	0
8:15 AM - 8:30 AM	59	108	4	2	2	51	114	93	3	4	41	14	51	1	0	1	60	1	0	0
8:30 AM - 8:45 AM	15	45	0	0	2	27	64	29	0	6	19	4	24	1	4	1	5	0	0	0
8:45 AM - 9:00 AM	13	54	0	0	4	9	33	31	0	1	9	0	7	0	6	2	3	1	0	0
TOTAL	**212**	**615**	**9**	**2**	**19**	**176**	**614**	**301**	**7**	**29**	**169**	**35**	**195**	**13**	**13**	**24**	**115**	**11**	**5**	**0**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	10	97	2	0	2	14	107	6	2	0	16	6	20	1	5	2	2	2	0	0
4:15 PM - 4:30 PM	7	86	3	0	1	5	76	0	2	0	10	3	5	1	0	3	1	1	0	0
4:30 PM - 4:45 PM	17	100	1	0	1	7	115	4	1	0	13	2	9	4	0	0	1	0	0	0
4:45 PM - 5:00 PM	8	91	3	0	0	13	86	1	1	0	13	0	11	6	0	1	1	0	0	0
5:00 PM - 5:15 PM	4	87	2	0	0	19	98	1	0	0	15	1	11	3	1	2	0	0	0	0
5:15 PM - 5:30 PM	17	88	1	0	0	15	90	1	1	0	16	4	15	3	0	2	1	2	0	0
5:30 PM - 5:45 PM	6	99	3	0	0	10	101	0	0	0	18	2	13	3	0	1	0	0	0	0
5:45 PM - 6:00 PM	9	92	3	0	2	5	85	2	0	0	19	0	14	3	0	1	1	2	2	0
TOTAL	**78**	**740**	**18**	**0**	**6**	**88**	**758**	**15**	**7**	**0**	**120**	**18**	**98**	**24**	**6**	**12**	**7**	**7**	**2**	**0**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:30 AM - 8:30 AM	171	408	9	2	9	133	404	222	6	19	124	31	146	5	2	15	101	8	3	0
4:30 PM - 5:30 PM	46	366	7	0	1	54	389	7	3	0	57	7	46	16	1	5	3	2	0	0

	PHF	Trucks
AM	0.742	1.7%
PM	0.919	0.2%



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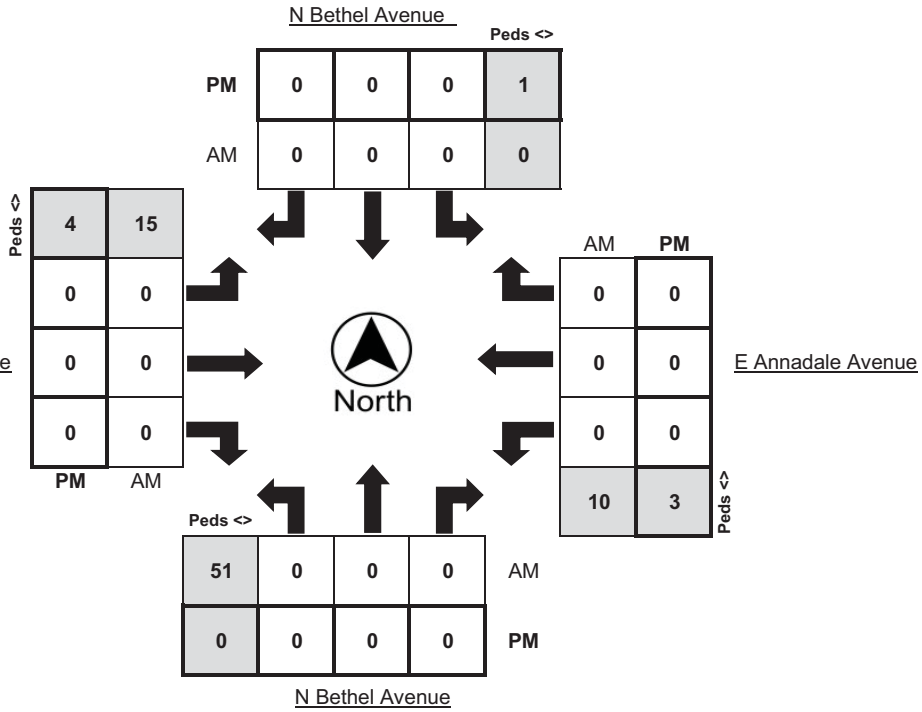
LOCATION Annadale Avenue and Bethel Avenue
LATITUDE 36.6995
COUNTY Fresno
LONGITUDE -119.5744
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	2
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	7	0	0	0	2	0	0	0	4
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	9	0	0	0	5	0	0	0	2
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	7
8:30 AM - 8:45 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
TOTAL	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**54**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**19**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM - 4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
TOTAL	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**10**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	51	0	0	0	10	0	0	0	15
4:30 PM - 5:30 PM	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	4

	Bikes	Peds
AM Peak Total	0	76
PM Peak Total	0	8



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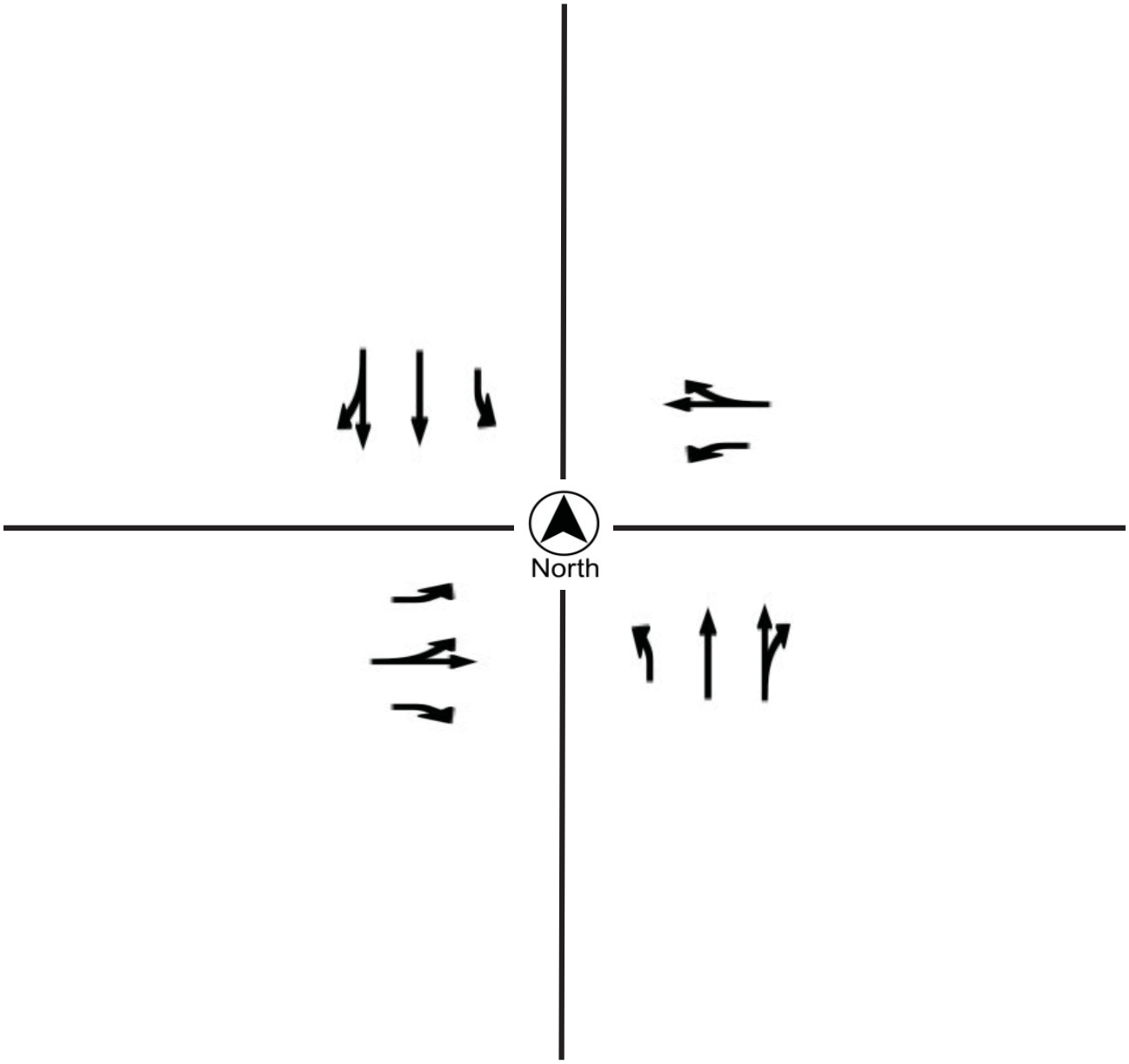
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Annadale Avenue and Bethel Avenue	**N/S STREET**	N Bethel Avenue / N Bethel Avenue
COUNTY	Fresno	**E/W STREET**	E Annadale Avenue / E Annadale Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	88 Seconds	**CONTROL TYPE**	Signal

COMMENTS Northbound/southbound left turns are protected.
Eastbound/westbound approaches are split.



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION North Avenue and McCall Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

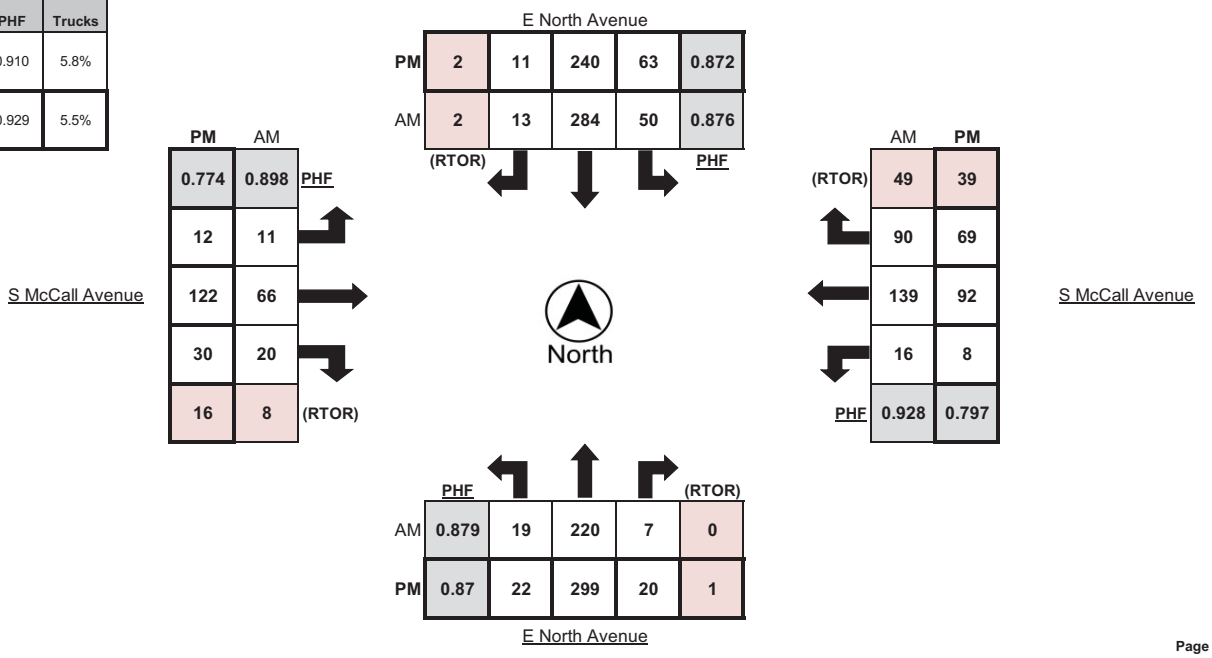
LATITUDE 36.6921
LONGITUDE -119.6104
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	5	55	1	1	4	10	65	2	0	3	0	11	1	1	4	4	23	20	13	0
7:15 AM - 7:30 AM	3	56	1	0	2	13	68	5	1	5	3	17	4	2	3	5	40	20	11	3
7:30 AM - 7:45 AM	3	54	3	0	2	11	75	5	1	2	1	17	5	4	7	4	30	32	17	2
7:45 AM - 8:00 AM	5	63	2	0	4	17	80	2	0	4	2	17	4	1	3	5	37	23	14	3
8:00 AM - 8:15 AM	8	47	1	0	3	9	61	1	0	3	5	15	7	1	6	2	32	15	7	2
8:15 AM - 8:30 AM	5	62	1	0	3	9	56	5	0	5	0	16	4	1	4	5	33	14	11	4
8:30 AM - 8:45 AM	4	36	2	0	3	12	44	3	0	2	5	18	5	1	3	6	29	20	8	3
8:45 AM - 9:00 AM	1	37	0	0	2	27	39	0	0	7	2	19	6	3	3	4	22	12	2	6
TOTAL	**34**	**410**	**11**	**1**	**23**	**108**	**488**	**23**	**2**	**31**	**18**	**130**	**36**	**14**	**33**	**35**	**246**	**156**	**83**	**23**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	6	77	6	0	1	16	70	4	2	4	2	33	9	4	9	1	28	14	7	0
4:15 PM - 4:30 PM	5	91	2	0	4	15	54	2	0	5	5	39	9	7	8	3	8	18	16	3
4:30 PM - 4:45 PM	8	63	4	0	4	17	61	2	0	3	0	25	8	4	2	3	22	19	6	3
4:45 PM - 5:00 PM	3	68	8	1	1	15	55	3	0	3	5	25	4	1	1	1	34	18	10	3
5:00 PM - 5:15 PM	9	71	5	0	1	18	60	1	0	3	3	27	4	2	0	2	15	13	3	3
5:15 PM - 5:30 PM	5	65	2	0	6	28	57	1	0	3	8	29	3	0	1	1	16	12	7	0
5:30 PM - 5:45 PM	1	63	9	0	0	28	46	1	0	2	0	32	5	1	2	2	19	20	9	0
5:45 PM - 6:00 PM	0	42	2	0	1	19	50	0	0	1	4	25	6	1	1	3	9	11	2	0
TOTAL	**37**	**540**	**38**	**1**	**18**	**156**	**453**	**14**	**2**	**24**	**27**	**235**	**48**	**20**	**24**	**16**	**151**	**125**	**60**	**12**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:15 AM - 8:15 AM	19	220	7	0	11	50	284	13	2	14	11	66	20	8	19	16	139	90	49	10
4:00 PM - 5:00 PM	22	299	20	1	10	63	240	11	2	15	12	122	30	16	20	8	92	69	39	9

	PHF	Trucks
AM	0.910	5.8%
PM	0.929	5.5%



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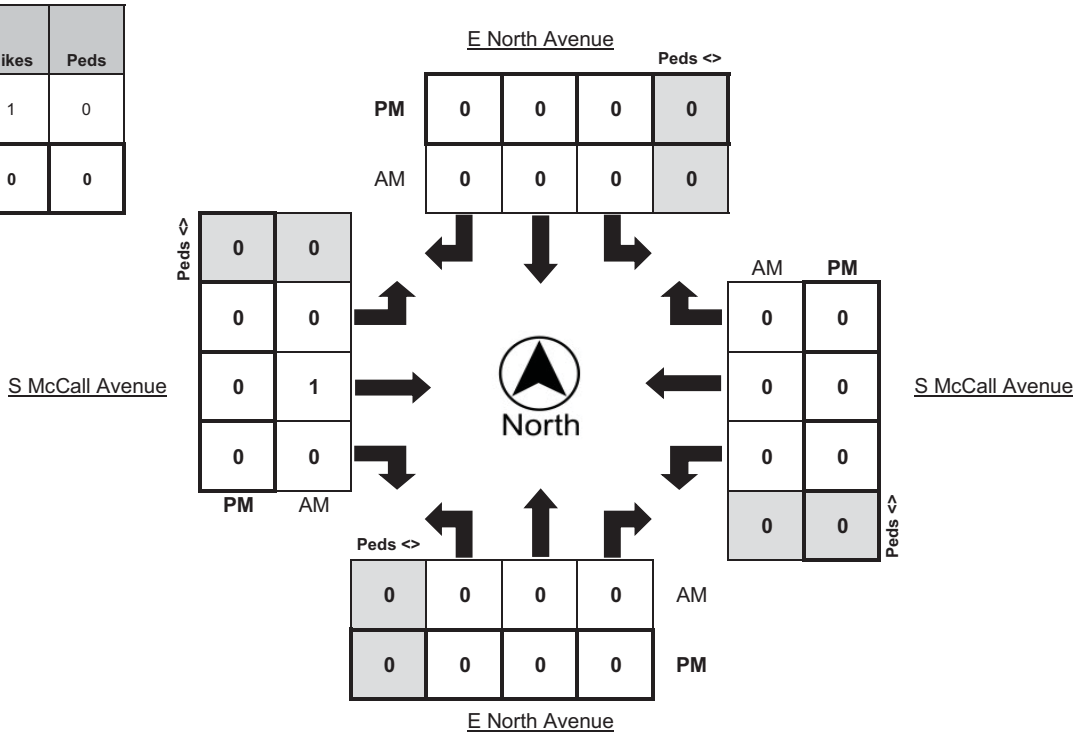
LOCATION North Avenue and McCall Avenue
LATITUDE 36.6921
COUNTY Fresno
LONGITUDE -119.6104
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	1	0
PM Peak Total	0	0



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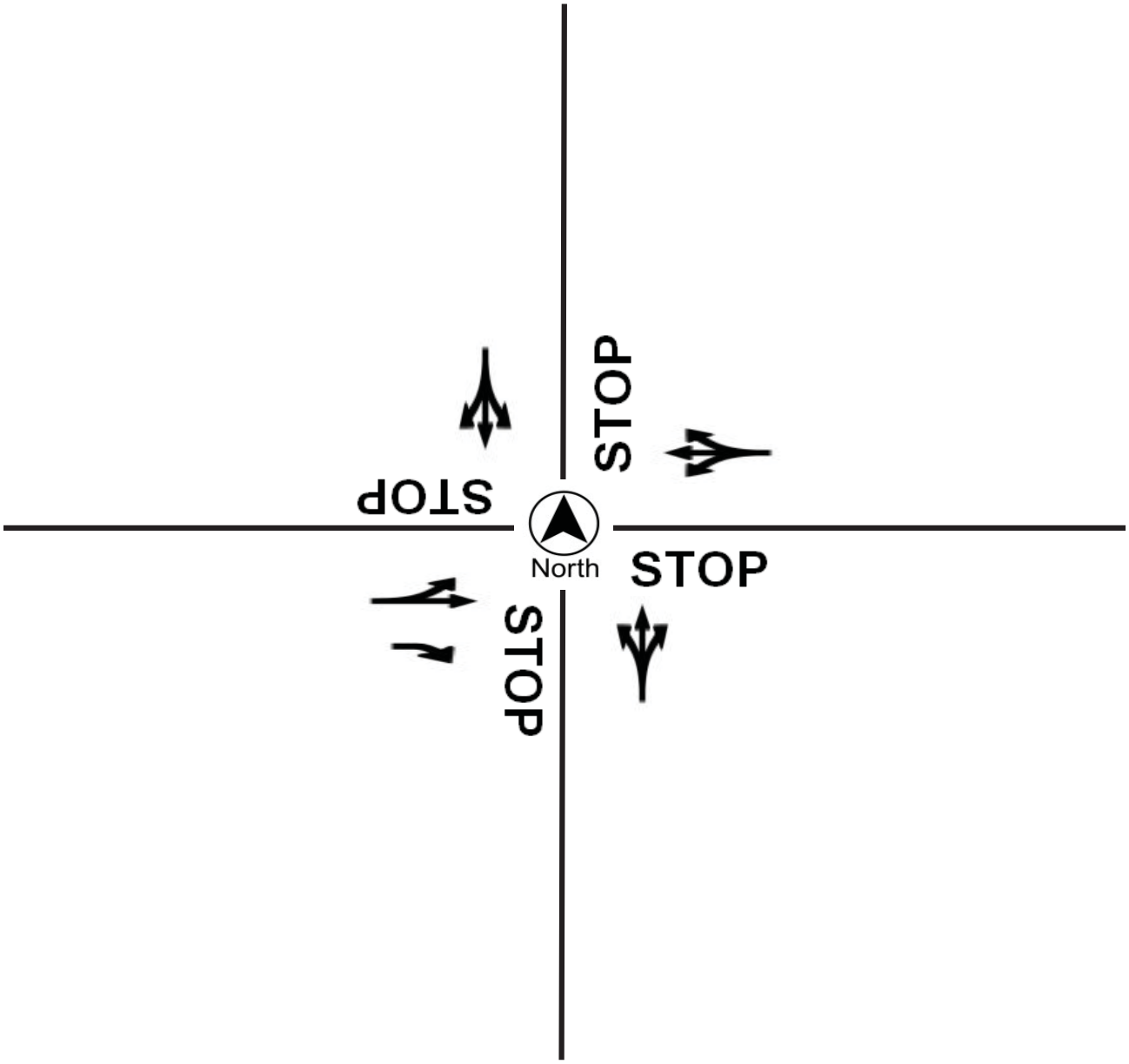
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	North Avenue and McCall Avenue	**N/S STREET**	E North Avenue / E North Avenue
COUNTY	Fresno	**E/W STREET**	S McCall Avenue / S McCall Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION North Avenue and Del Rey Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

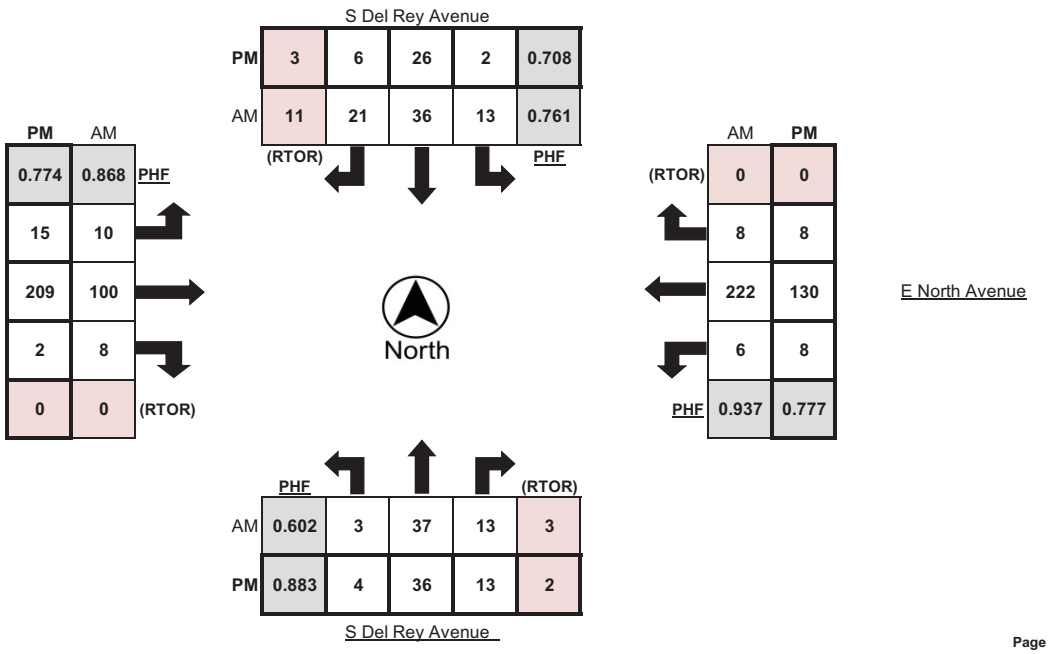
LATITUDE 36.6921
LONGITUDE -119.5923
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	0	5	1	0	1	4	3	0	0	1	0	25	2	0	4	2	51	1	0	1
7:15 AM - 7:30 AM	1	5	0	0	0	1	8	4	2	2	1	24	3	0	4	0	60	0	0	4
7:30 AM - 7:45 AM	1	10	2	0	2	5	9	9	6	2	3	28	2	0	5	1	56	4	0	6
7:45 AM - 8:00 AM	0	14	8	3	1	5	8	5	1	0	5	28	1	0	1	2	59	2	0	3
8:00 AM - 8:15 AM	1	8	3	0	1	2	11	3	2	0	1	20	2	0	1	3	47	2	0	2
8:15 AM - 8:30 AM	2	4	0	0	0	2	13	1	1	0	4	23	3	0	3	2	47	3	0	5
8:30 AM - 8:45 AM	0	7	2	0	0	4	8	0	0	1	3	24	1	0	1	1	54	1	0	4
8:45 AM - 9:00 AM	2	3	4	2	0	2	4	1	0	2	4	46	5	0	6	2	32	0	0	6
TOTAL	**7**	**56**	**20**	**5**	**5**	**25**	**64**	**23**	**12**	**8**	**21**	**218**	**19**	**0**	**25**	**13**	**406**	**13**	**0**	**31**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	6	7	3	0	0	2	11	1	1	0	4	53	4	0	4	0	30	0	0	0
4:15 PM - 4:30 PM	6	5	2	0	0	0	7	1	0	0	2	49	5	0	7	2	25	1	0	4
4:30 PM - 4:45 PM	6	9	3	0	2	2	8	2	1	0	3	42	2	0	2	1	34	1	0	2
4:45 PM - 5:00 PM	4	7	3	0	2	0	9	3	1	0	0	43	0	0	2	3	44	0	0	1
5:00 PM - 5:15 PM	0	13	1	0	0	1	3	0	0	0	5	43	2	0	2	1	30	5	0	2
5:15 PM - 5:30 PM	0	8	2	2	0	0	6	3	2	0	3	57	0	0	2	3	27	2	0	0
5:30 PM - 5:45 PM	0	8	7	0	0	1	8	0	0	0	7	66	0	0	2	1	29	1	0	0
5:45 PM - 6:00 PM	2	6	2	2	0	3	8	1	0	0	3	42	1	0	1	2	23	0	0	1
TOTAL	**24**	**63**	**23**	**4**	**4**	**9**	**60**	**11**	**5**	**0**	**27**	**395**	**14**	**0**	**22**	**13**	**242**	**10**	**0**	**10**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:15 AM - 8:15 AM	3	37	13	3	4	13	36	21	11	4	10	100	8	0	11	6	222	8	0	15
4:45 PM - 5:45 PM	4	36	13	2	2	2	26	6	3	0	15	209	2	0	8	8	130	8	0	3

	PHF	Trucks
AM	0.870	7.1%
PM	0.896	2.8%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

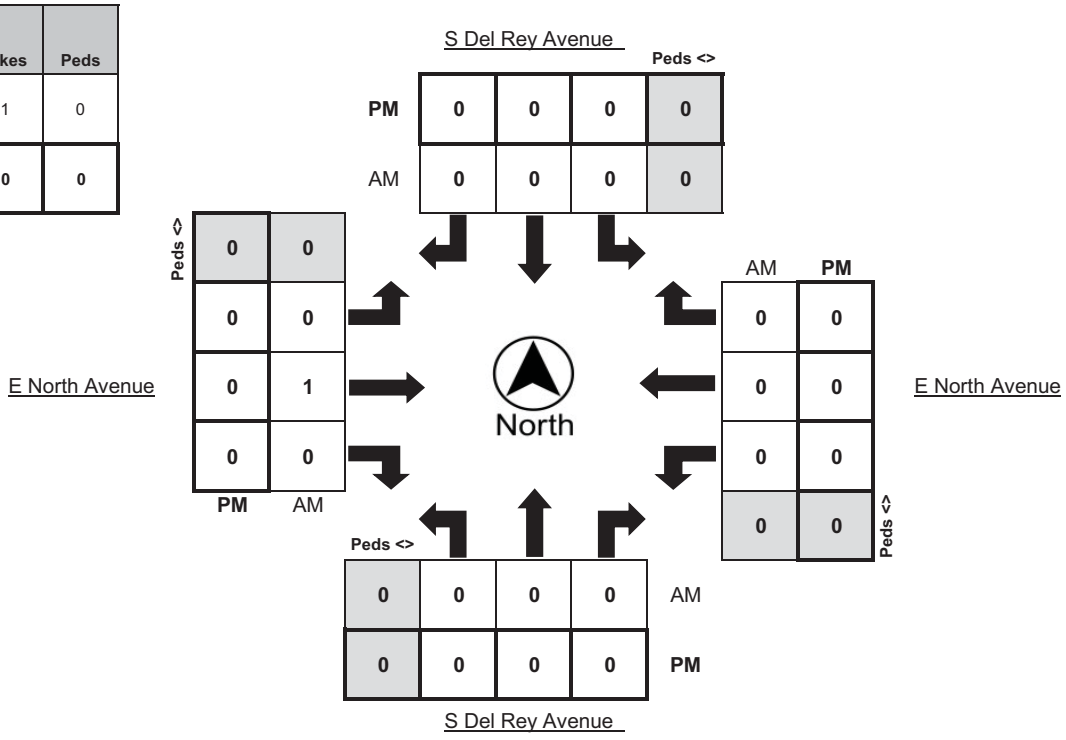
LOCATION North Avenue and Del Rey Avenue
LATITUDE 36.6921
COUNTY Fresno
LONGITUDE -119.5923
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	1	0
PM Peak Total	0	0



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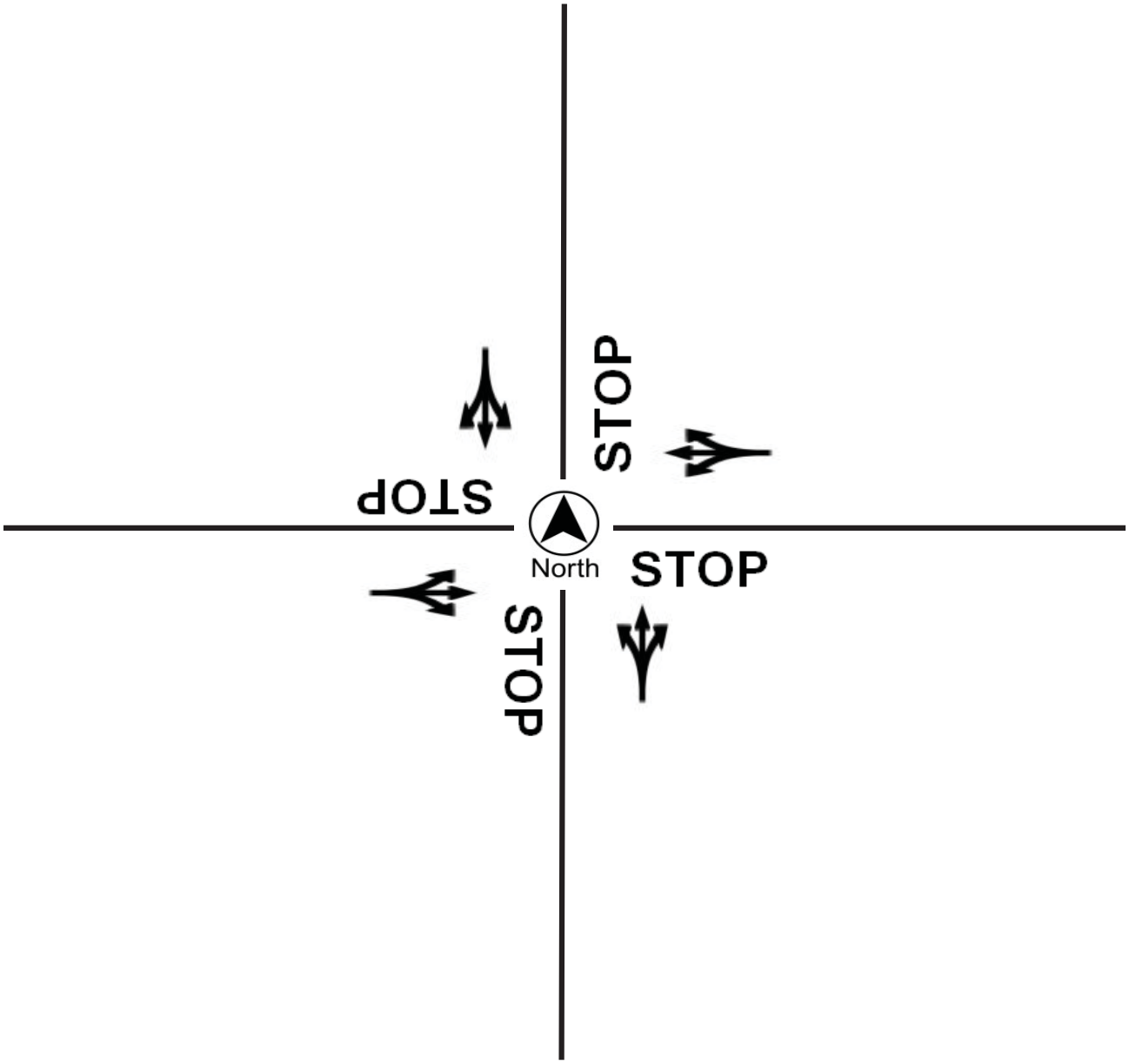
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	North Avenue and Del Rey Avenue	**N/S STREET**	S Del Rey Avenue / S Del Rey Avenue
COUNTY	Fresno	**E/W STREET**	E North Avenue / E North Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



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Turning Movement Report

Prepared For:
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862 Pollasky Ave
Clovis, CA 93612

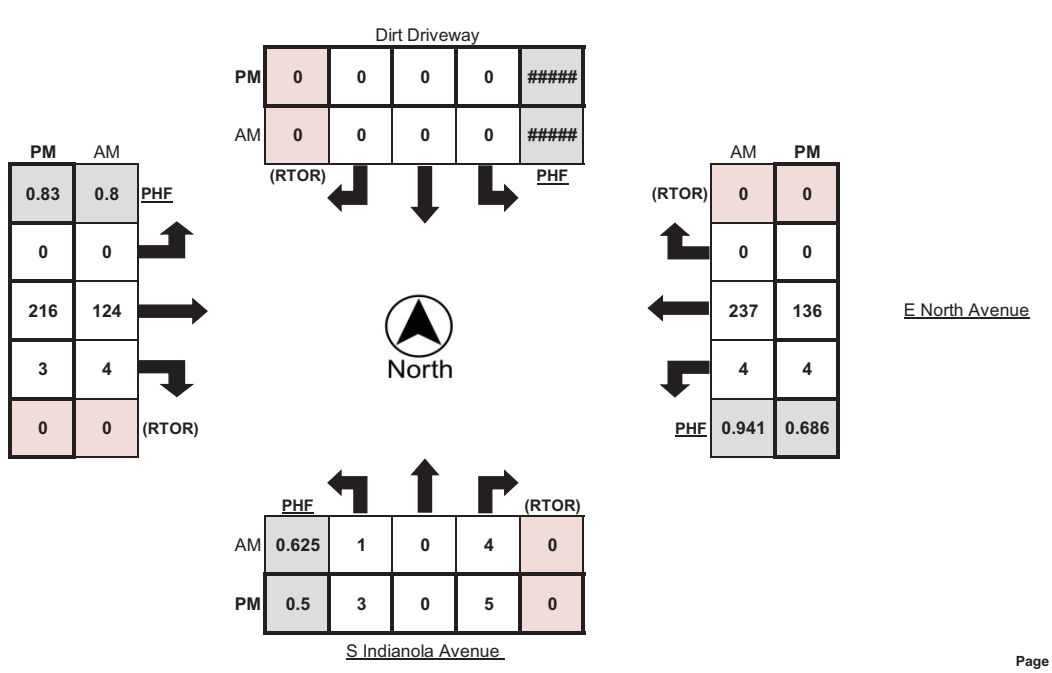
LOCATION North Avenue and Indianola Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024
LATITUDE 36.6922
LONGITUDE -119.5833
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	1	0	0	0	0	0	0	0	0	0	0	29	0	0	5	0	54	0	0	0
7:15 AM - 7:30 AM	0	0	1	0	0	0	0	0	0	0	0	26	1	0	5	1	63	0	0	3
7:30 AM - 7:45 AM	0	0	1	0	0	0	0	0	0	0	0	31	1	0	4	2	61	0	0	1
7:45 AM - 8:00 AM	0	0	2	0	0	0	0	0	0	0	0	38	2	0	2	1	59	0	0	3
8:00 AM - 8:15 AM	1	0	2	1	0	0	0	0	0	0	0	25	0	0	2	1	50	0	0	2
8:15 AM - 8:30 AM	1	0	2	1	1	0	0	0	0	0	0	21	0	0	1	2	54	0	0	5
8:30 AM - 8:45 AM	0	0	1	0	0	0	0	0	0	0	0	31	0	0	4	0	53	0	0	2
8:45 AM - 9:00 AM	2	0	1	0	1	0	0	0	0	0	0	50	2	0	2	2	34	0	0	6
TOTAL	**5**	**0**	**10**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**251**	**6**	**0**	**25**	**9**	**428**	**0**	**0**	**22**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	0	0	1	0	0	0	0	0	0	0	0	59	0	0	3	1	32	0	0	1
4:15 PM - 4:30 PM	2	0	1	0	0	0	0	0	0	0	0	51	0	0	4	3	27	0	0	5
4:30 PM - 4:45 PM	0	0	3	1	0	0	0	0	0	0	0	47	1	0	1	0	38	0	0	1
4:45 PM - 5:00 PM	0	0	2	0	0	0	0	0	0	0	0	46	1	0	0	3	48	0	0	1
5:00 PM - 5:15 PM	0	0	1	0	0	0	0	0	0	0	0	45	1	0	1	0	30	0	0	2
5:15 PM - 5:30 PM	0	0	1	0	0	0	0	0	0	0	0	59	1	0	1	1	33	0	0	0
5:30 PM - 5:45 PM	3	0	1	0	0	0	0	0	0	0	0	66	0	0	2	0	25	0	0	0
5:45 PM - 6:00 PM	0	0	3	0	0	0	0	0	0	0	0	47	0	0	1	3	28	0	0	1
TOTAL	**5**	**0**	**13**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**420**	**4**	**0**	**13**	**11**	**261**	**0**	**0**	**11**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 8:00 AM	1	0	4	0	0	0	0	0	0	0	0	124	4	0	16	4	237	0	0	7
4:45 PM - 5:45 PM	3	0	5	0	0	0	0	0	0	0	0	216	3	0	4	4	136	0	0	3

	PHF	Trucks
AM	0.917	6.1%
PM	0.918	1.9%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

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Turning Movement Report

Prepared For:

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862 Pollasky Ave
Clovis, CA 93612

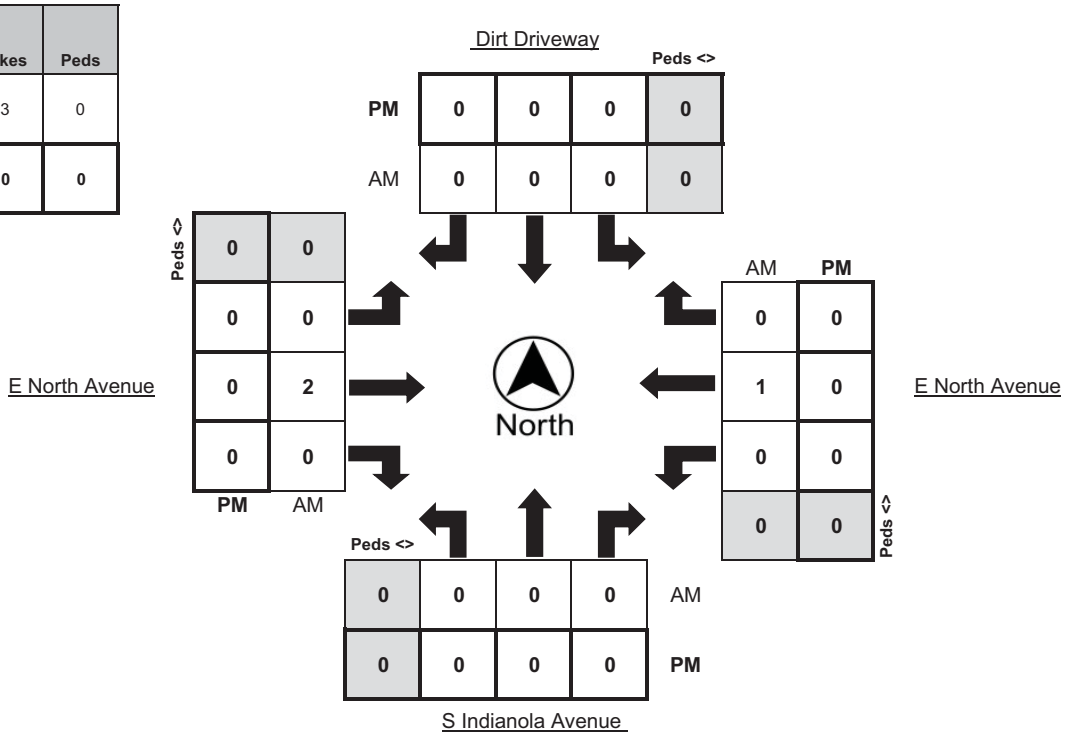
LOCATION North Avenue and Indianola Avenue
LATITUDE 36.6922
COUNTY Fresno
LONGITUDE -119.5833
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	3	0
PM Peak Total	0	0



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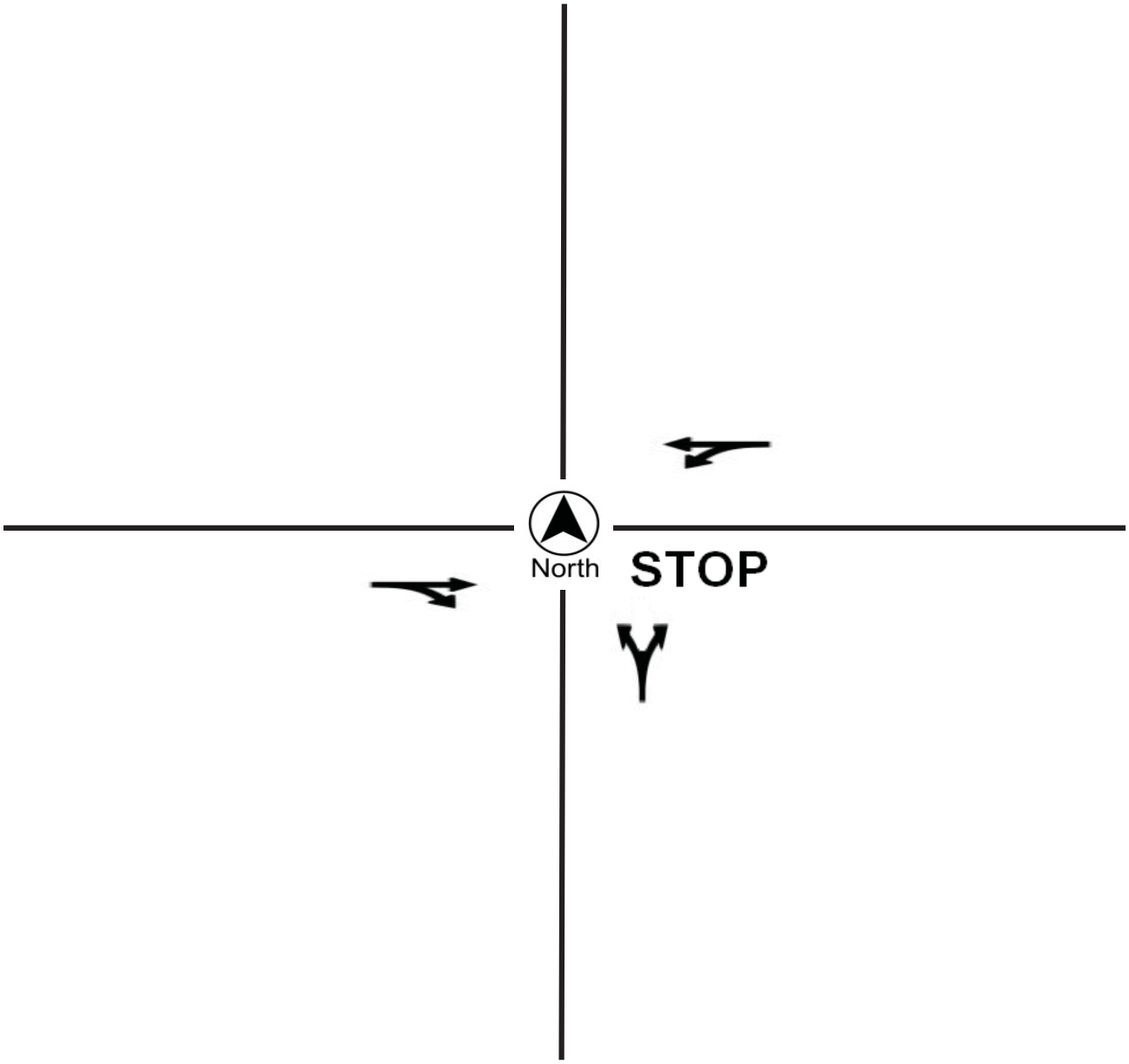
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	North Avenue and Indianola Avenue	**N/S STREET**	Dirt Driveway / S Indianola Avenue
COUNTY	Fresno	**E/W STREET**	E North Avenue / E North Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	One-way Stop

COMMENTS



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Hanford, CA 93230

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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION North Avenue and Bethel Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

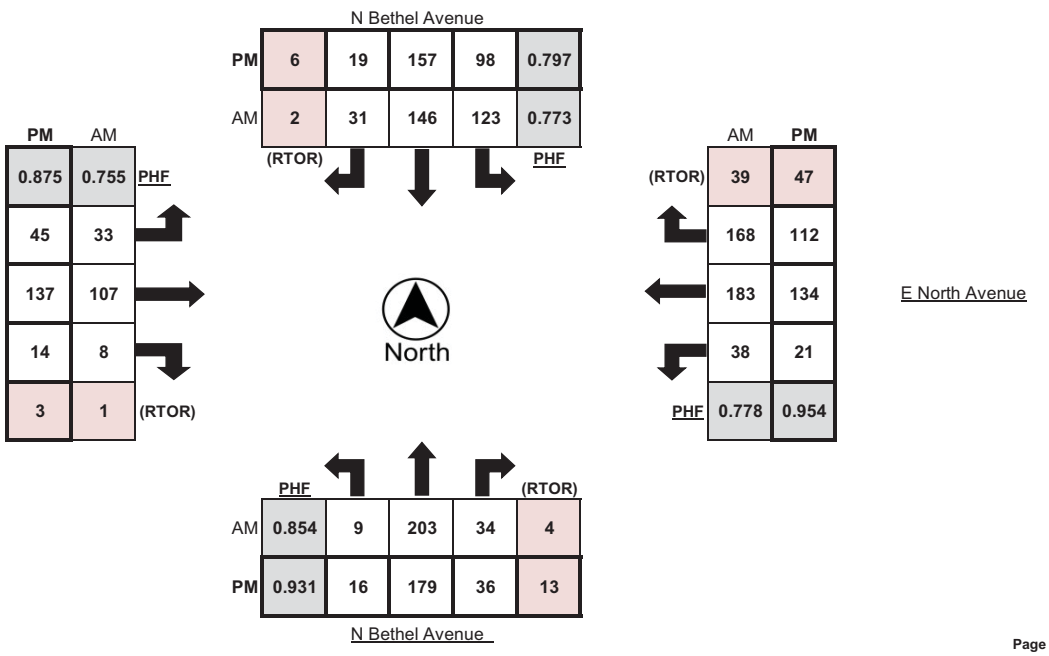
LATITUDE 36.6923
LONGITUDE -119.5743
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:00 AM - 7:15 AM	0	24	0	0	3	10	33	1	0	2	1	27	4	0	5	1	39	14	2	1
7:15 AM - 7:30 AM	1	27	6	0	1	14	38	6	0	0	3	23	4	0	5	6	53	19	2	3
7:30 AM - 7:45 AM	3	32	7	0	1	12	41	7	0	1	6	26	2	0	5	16	51	17	2	5
7:45 AM - 8:00 AM	0	64	8	2	0	25	40	8	0	2	13	35	1	1	2	10	44	31	10	2
8:00 AM - 8:15 AM	3	53	7	1	5	32	32	6	1	0	9	24	3	0	3	7	53	65	20	2
8:15 AM - 8:30 AM	3	54	12	1	1	54	33	10	1	3	5	22	2	0	1	5	35	55	7	5
8:30 AM - 8:45 AM	2	22	5	2	0	30	31	10	1	3	5	25	3	0	4	10	38	12	4	2
8:45 AM - 9:00 AM	1	16	1	1	0	15	21	0	0	2	9	38	1	0	3	1	34	10	3	7
TOTAL	**13**	**292**	**46**	**7**	**11**	**192**	**269**	**48**	**3**	**13**	**51**	**220**	**20**	**1**	**28**	**56**	**347**	**223**	**50**	**27**

	Northbound					Southbound					Eastbound					Westbound				
Time	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
4:00 PM - 4:15 PM	4	47	5	3	3	29	55	2	0	3	8	42	3	0	6	4	34	32	14	0
4:15 PM - 4:30 PM	2	45	6	2	1	22	28	2	2	0	10	41	5	2	5	11	30	28	14	4
4:30 PM - 4:45 PM	4	44	12	5	2	19	44	8	2	2	13	26	3	0	1	4	30	24	11	2
4:45 PM - 5:00 PM	6	43	13	3	1	28	30	7	2	0	14	28	3	1	0	2	40	28	8	2
5:00 PM - 5:15 PM	1	63	2	1	0	36	35	4	0	2	6	31	3	0	0	5	25	19	7	1
5:15 PM - 5:30 PM	1	51	8	2	0	28	35	5	0	0	8	46	3	0	2	13	26	33	11	1
5:30 PM - 5:45 PM	2	50	4	2	0	21	40	2	0	0	10	46	2	0	2	9	24	18	5	0
5:45 PM - 6:00 PM	3	41	4	1	1	27	33	5	0	2	13	38	1	0	1	6	24	25	12	2
TOTAL	**23**	**384**	**54**	**19**	**8**	**210**	**300**	**35**	**6**	**9**	**82**	**298**	**23**	**3**	**17**	**54**	**233**	**207**	**82**	**12**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**	**Left**	**Thru**	**Right**	**(RTOR)**	**Trucks**
7:30 AM - 8:30 AM	9	203	34	4	7	123	146	31	2	6	33	107	8	1	11	38	183	168	39	14
4:00 PM - 5:00 PM	16	179	36	13	7	98	157	19	6	5	45	137	14	3	12	21	134	112	47	8

	PHF	Trucks
AM	0.921	3.5%
PM	0.913	3.3%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

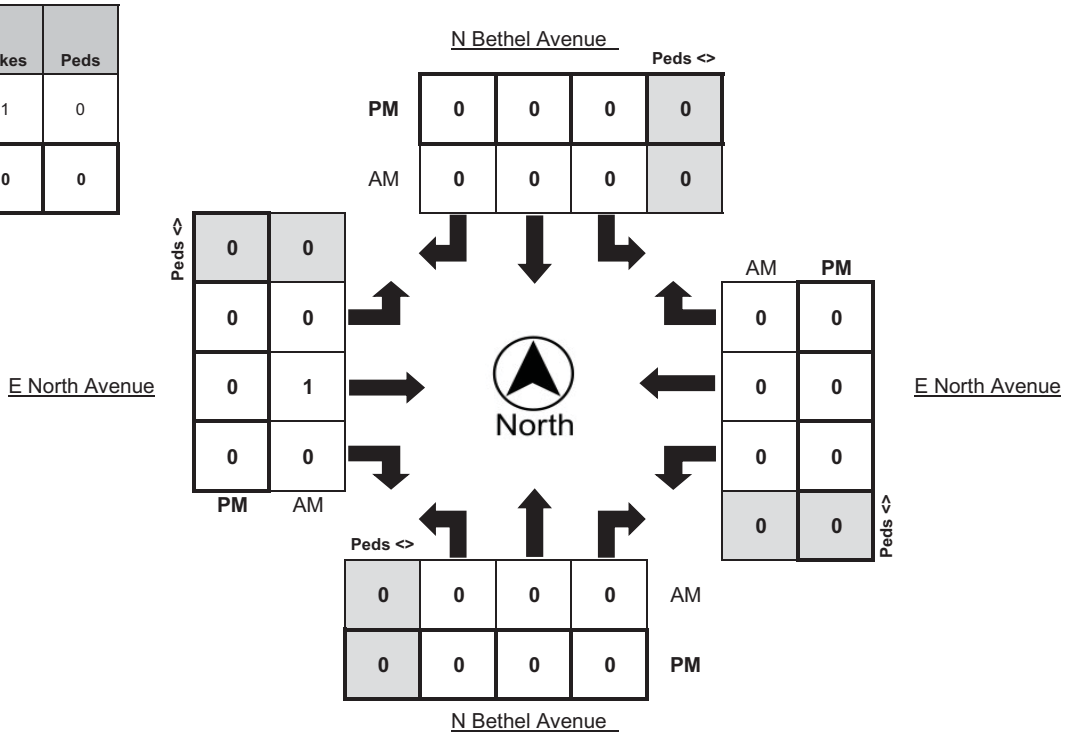
LOCATION North Avenue and Bethel Avenue
LATITUDE 36.6923
COUNTY Fresno
LONGITUDE -119.5743
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	1	0
PM Peak Total	0	0



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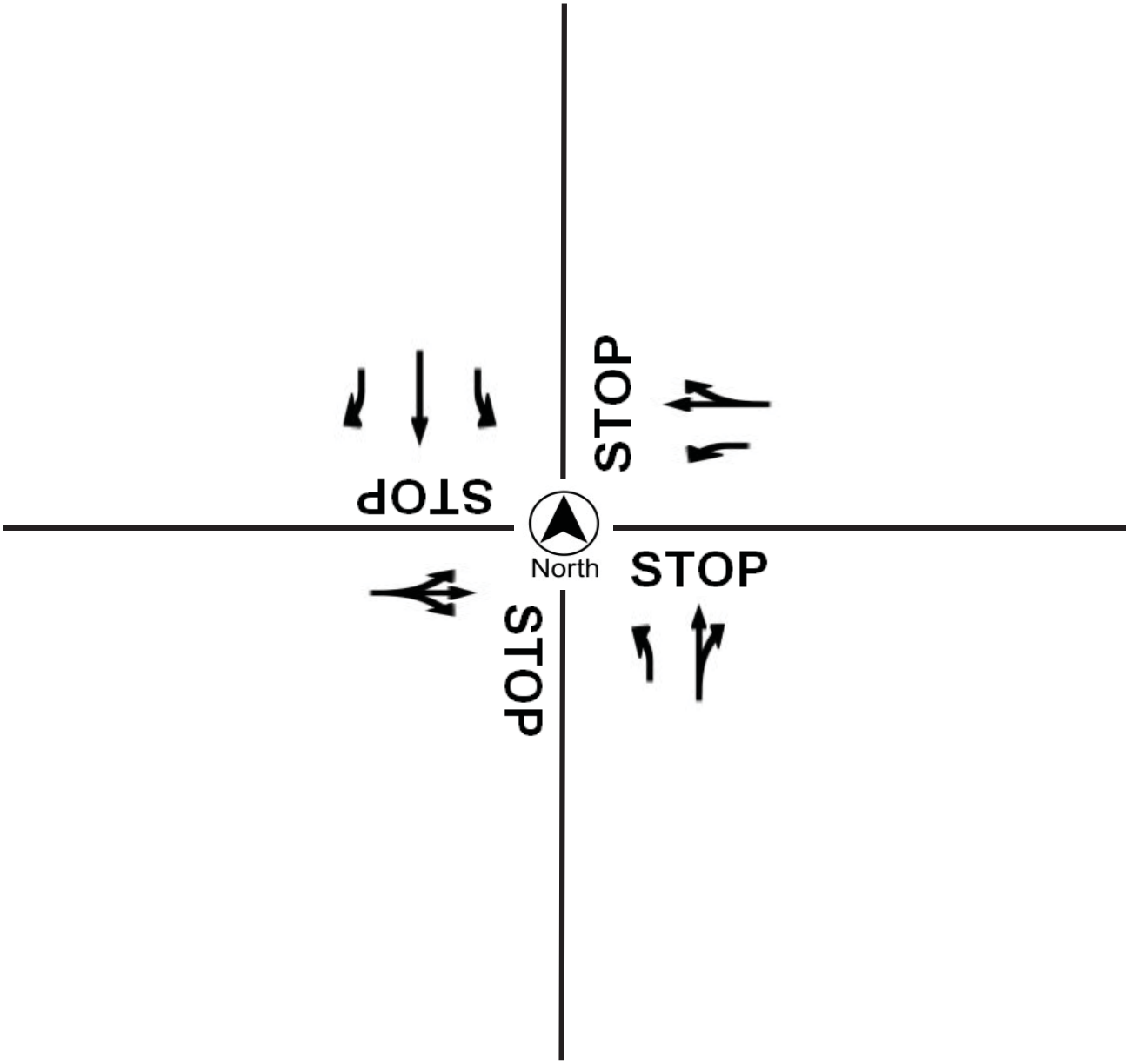
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	North Avenue and Bethel Avenue	**N/S STREET**	N Bethel Avenue / N Bethel Avenue
COUNTY	Fresno	**E/W STREET**	E North Avenue / E North Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



Metro Traffic Data Inc.
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Hanford, CA 93230

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Clovis, CA 93612

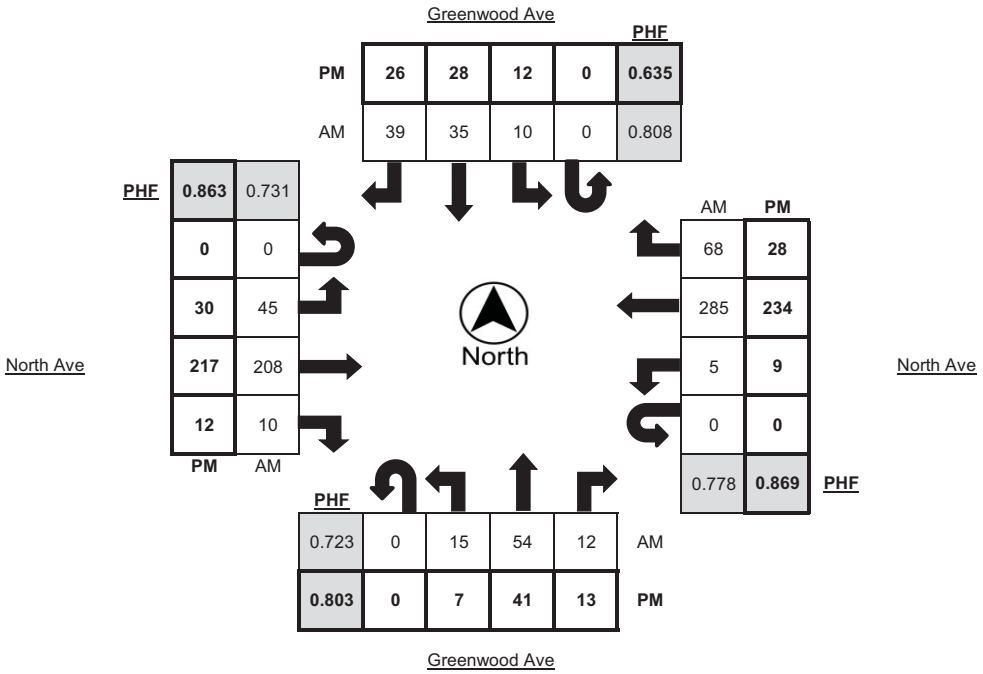
LOCATION North Avenue and Greenwood Avenue
LATITUDE 36.6923
COUNTY Fresno
LONGITUDE -119.5654
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	4	1	1	0	0	1	8	3	0	0	4	32	0	7	0	3	39	7	1
7:15 AM - 7:30 AM	0	3	10	1	0	0	3	6	9	0	0	6	36	0	4	0	2	61	8	5
7:30 AM - 7:45 AM	0	7	18	3	1	0	1	8	8	0	0	12	33	2	5	0	1	53	23	4
7:45 AM - 8:00 AM	0	5	19	2	0	0	4	11	10	0	0	11	48	1	0	0	2	55	29	1
8:00 AM - 8:15 AM	0	1	10	3	1	0	5	13	8	0	0	8	53	5	4	0	2	101	12	1
8:15 AM - 8:30 AM	0	2	7	4	0	0	0	3	13	0	0	14	74	2	2	0	0	76	4	5
8:30 AM - 8:45 AM	0	5	4	3	0	0	3	2	8	0	0	8	41	7	4	0	4	40	3	3
8:45 AM - 9:00 AM	0	5	4	1	0	0	2	2	4	0	0	1	54	1	3	0	0	28	3	6
TOTAL	**0**	**32**	**73**	**18**	**2**	**0**	**19**	**53**	**63**	**0**	**0**	**64**	**371**	**18**	**29**	**0**	**14**	**453**	**89**	**26**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	2	6	4	0	0	7	5	5	0	0	6	65	4	5	0	1	65	7	0
4:15 PM - 4:30 PM	0	2	11	3	0	0	2	12	12	0	0	12	55	2	2	0	1	56	5	5
4:30 PM - 4:45 PM	0	2	13	4	0	0	1	5	8	0	0	5	41	3	4	0	3	49	6	1
4:45 PM - 5:00 PM	0	1	11	2	0	0	2	6	1	0	0	7	56	3	0	0	4	64	10	3
5:00 PM - 5:15 PM	0	3	9	1	0	0	2	5	4	0	0	3	62	6	1	0	3	42	9	2
5:15 PM - 5:30 PM	0	2	7	6	0	0	3	5	8	1	0	6	71	4	1	0	2	50	6	0
5:30 PM - 5:45 PM	0	1	14	7	0	0	3	8	6	0	0	6	54	3	1	0	1	43	4	1
5:45 PM - 6:00 PM	0	4	10	4	0	0	5	9	5	0	0	6	58	4	1	0	2	43	3	1
TOTAL	**0**	**17**	**81**	**31**	**0**	**0**	**25**	**55**	**49**	**1**	**0**	**51**	**462**	**29**	**15**	**0**	**17**	**412**	**50**	**13**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	15	54	12	2	0	10	35	39	0	0	45	208	10	11	0	5	285	68	11
4:00 PM - 5:00 PM	0	7	41	13	0	0	12	28	26	0	0	30	217	12	11	0	9	234	28	9

	PHF	Trucks
AM	0.889	3.1%
PM	0.928	3.0%



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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

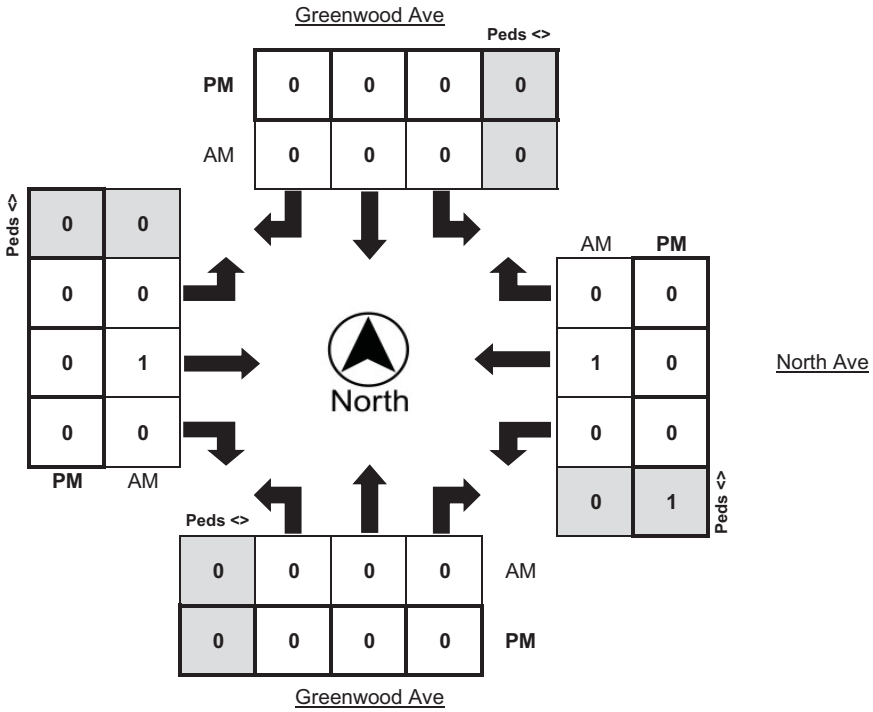
LOCATION North Avenue and Greenwood Avenue
LATITUDE 36.6923
COUNTY Fresno
LONGITUDE -119.5654
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
7:15 AM - 7:30 AM	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**1**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

	Bikes	Peds
AM Peak Total	2	0
PM Peak Total	0	1



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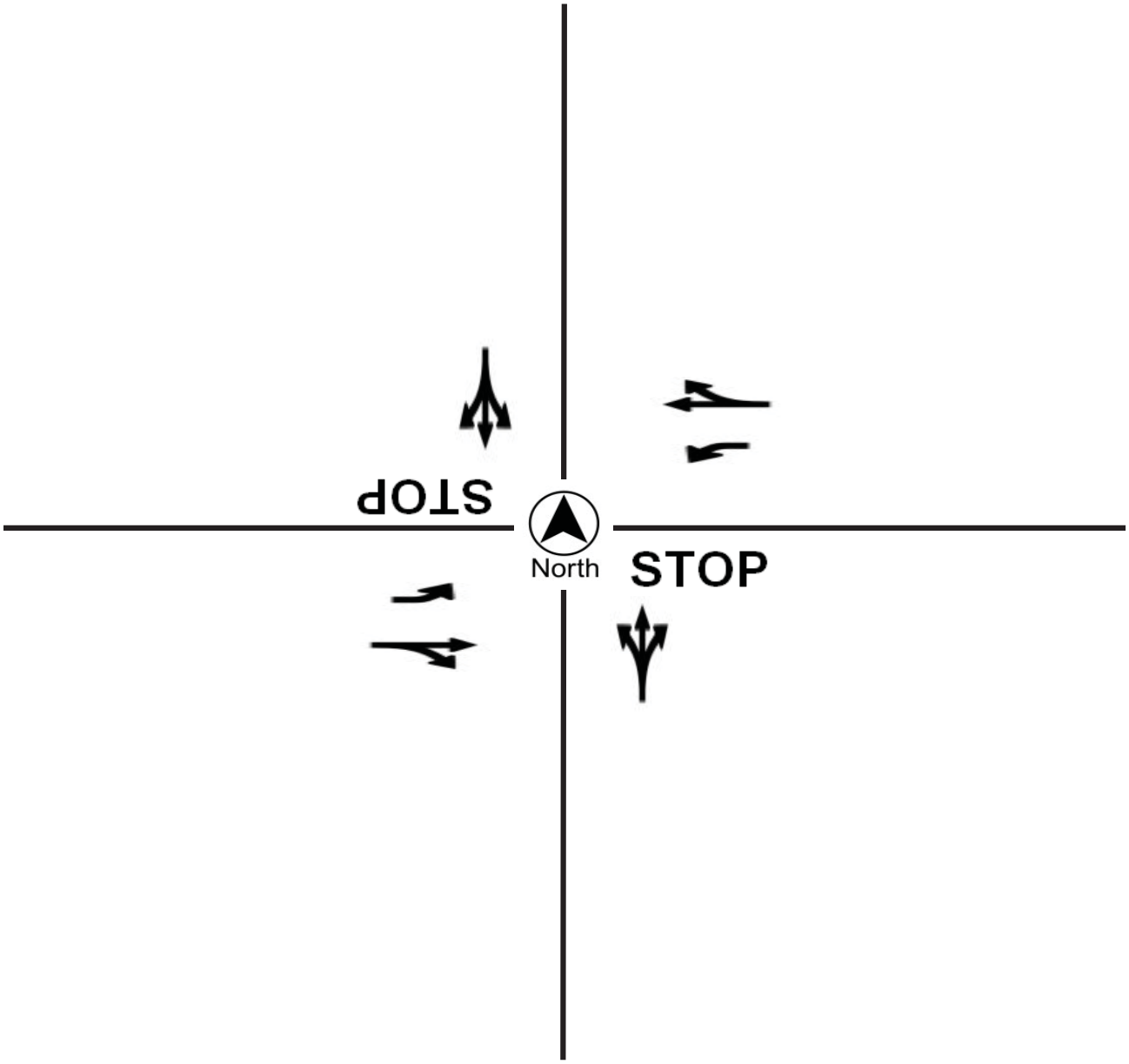
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	North Avenue and Greenwood Avenue	**N/S STREET**	Greenwood Ave
COUNTY	Fresno	**E/W STREET**	North Ave
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	Two-Way Stop

COMMENTS



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24 Hour Count Report

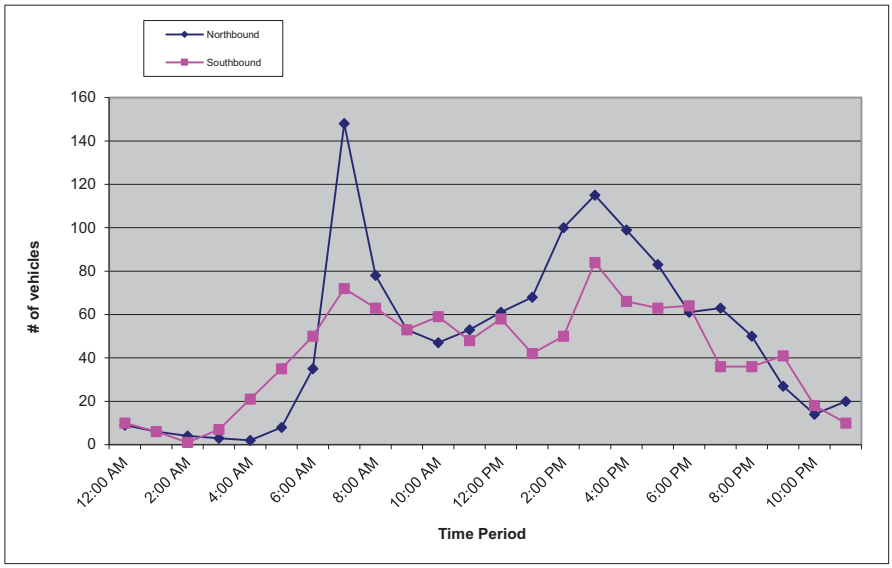
Prepared For: **Peters Engineering Group**
862 Pollasky Ave
Clovis, CA 93612

STREET Greenwood Ave
SEGMENT North of North Ave
COLLECTION DATE Thursday, May 23, 2024
NUMBER OF LANES 2

LATITUDE 36.6922651
LONGITUDE -119.5654061
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	2	2	4	**9**	2	1	3	4	**10**	**19**
1:00 AM	3	0	1	2	**6**	5	0	1	0	**6**	**12**
2:00 AM	1	1	2	0	**4**	0	0	0	1	**1**	**5**
3:00 AM	2	0	0	1	**3**	0	2	3	2	**7**	**10**
4:00 AM	0	0	1	1	**2**	1	1	11	8	**21**	**23**
5:00 AM	2	2	4	0	**8**	5	5	16	9	**35**	**43**
6:00 AM	6	5	8	16	**35**	10	16	12	12	**50**	**85**
7:00 AM	12	24	53	59	**148**	12	18	17	25	**72**	**220**
8:00 AM	30	25	15	8	**78**	26	16	13	8	**63**	**141**
9:00 AM	14	12	14	13	**53**	12	10	13	18	**53**	**106**
10:00 AM	10	11	12	14	**47**	17	16	14	12	**59**	**106**
11:00 AM	13	12	15	13	**53**	9	14	14	11	**48**	**101**
12:00 PM	25	15	8	13	**61**	15	14	20	9	**58**	**119**
1:00 PM	16	17	15	20	**68**	7	9	13	13	**42**	**110**
2:00 PM	18	23	31	28	**100**	9	12	11	18	**50**	**150**
3:00 PM	21	36	25	33	**115**	22	16	21	25	**84**	**199**
4:00 PM	19	28	24	28	**99**	17	26	14	9	**66**	**165**
5:00 PM	21	19	24	19	**83**	11	16	17	19	**63**	**146**
6:00 PM	17	14	15	15	**61**	20	14	15	15	**64**	**125**
7:00 PM	18	16	13	16	**63**	12	9	9	6	**36**	**99**
8:00 PM	8	19	11	12	**50**	6	7	13	10	**36**	**86**
9:00 PM	6	6	11	4	**27**	11	12	16	2	**41**	**68**
10:00 PM	4	2	3	5	**14**	3	6	5	4	**18**	**32**
11:00 PM	7	2	7	4	**20**	3	3	2	2	**10**	**30**
Total	**54.9%**				**1207**	**45.1%**				**993**	
	2200										

AM%	**39.6%**	**AM Peak**	**252**	**7:15 am to 8:15 am**	**AM P.H.F.**	**0.75**
PM%	**60.4%**	**PM Peak**	**199**	**3:00 pm to 4:00 pm**	**PM P.H.F.**	**0.86**



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24 Hour Count Report

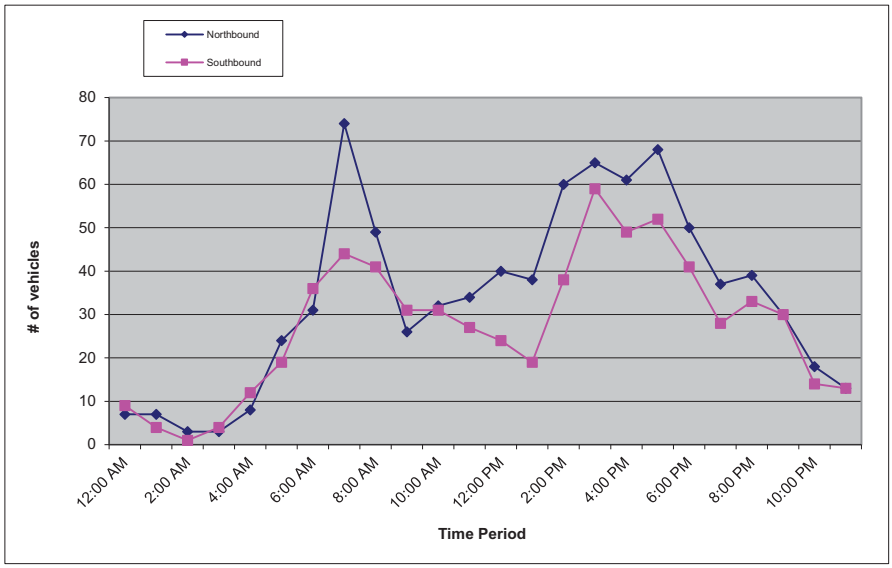
Prepared For: **Peters Engineering Group**
862 Pollasky Ave
Clovis, CA 93612

STREET Greenwood Ave
SEGMENT South of North Ave
COLLECTION DATE Thursday, May 23, 2024
NUMBER OF LANES 2

LATITUDE 36.6922651
LONGITUDE -119.5654061
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	1	2	3	7	2	2	3	2	9	16
1:00 AM	3	1	2	1	7	2	0	2	0	4	11
2:00 AM	1	1	1	0	3	1	0	0	0	1	4
3:00 AM	2	0	1	0	3	0	1	2	1	4	7
4:00 AM	2	1	1	4	8	2	0	7	3	12	20
5:00 AM	6	7	4	7	24	1	2	12	4	19	43
6:00 AM	5	8	8	10	31	7	12	9	8	36	67
7:00 AM	6	14	28	26	74	11	8	11	14	44	118
8:00 AM	14	13	12	10	49	20	5	13	3	41	90
9:00 AM	6	3	7	10	26	6	7	6	12	31	57
10:00 AM	6	5	11	10	32	10	10	6	5	31	63
11:00 AM	12	6	10	6	34	4	8	7	8	27	61
12:00 PM	15	9	10	6	40	7	7	7	3	24	64
1:00 PM	8	8	11	11	38	7	1	7	4	19	57
2:00 PM	10	13	18	19	60	10	8	8	12	38	98
3:00 PM	17	20	11	17	65	15	11	15	18	59	124
4:00 PM	12	16	19	14	61	10	15	11	13	49	110
5:00 PM	13	15	22	18	68	14	11	12	15	52	120
6:00 PM	12	11	12	15	50	13	12	7	9	41	91
7:00 PM	8	7	9	13	37	9	8	7	4	28	65
8:00 PM	7	18	9	5	39	7	8	9	9	33	72
9:00 PM	8	9	8	5	30	9	11	8	2	30	60
10:00 PM	7	3	4	4	18	1	5	5	3	14	32
11:00 PM	5	1	3	4	13	3	3	6	1	13	26
Total	55.4%				817	44.6%				659	
	1476										

AM%	37.7%	AM Peak	135	7:15 am to 8:15 am	AM P.H.F.	0.84
PM%	62.3%	PM Peak	124	3:00 pm to 4:00 pm	PM P.H.F.	0.89



Metro Traffic Data Inc.
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24 Hour Count Report

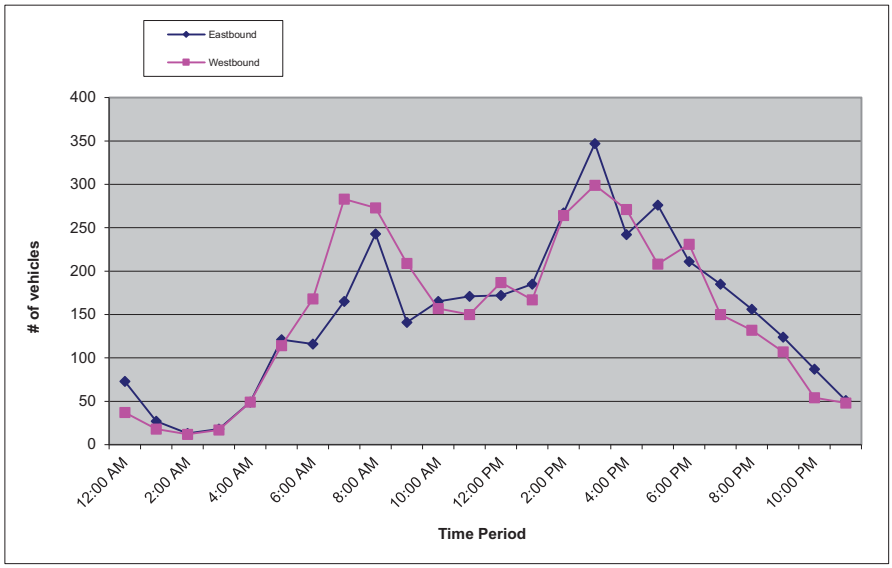
Prepared For: **Peters Engineering Group**
862 Pollasky Ave
Clovis, CA 93612

STREET North Ave
SEGMENT East of Greenwood Ave
COLLECTION DATE Thursday, May 23, 2024
NUMBER OF LANES 3

LATITUDE 36.6922651
LONGITUDE -119.5654061
WEATHER Clear

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	12	16	21	24	**73**	11	9	7	10	**37**	**110**
1:00 AM	11	7	3	6	**27**	8	4	5	1	**18**	**45**
2:00 AM	1	3	5	4	**13**	0	4	5	3	**12**	**25**
3:00 AM	1	4	5	8	**18**	3	2	7	5	**17**	**35**
4:00 AM	10	9	12	18	**49**	6	17	12	14	**49**	**98**
5:00 AM	22	21	26	52	**121**	21	27	36	30	**114**	**235**
6:00 AM	22	30	28	36	**116**	36	44	41	47	**168**	**284**
7:00 AM	34	40	37	54	**165**	49	71	77	86	**283**	**448**
8:00 AM	61	78	47	57	**243**	115	80	47	31	**273**	**516**
9:00 AM	53	34	24	30	**141**	39	43	70	57	**209**	**350**
10:00 AM	48	27	38	52	**165**	48	30	49	30	**157**	**322**
11:00 AM	64	39	35	33	**171**	43	33	39	35	**150**	**321**
12:00 PM	50	32	38	52	**172**	46	47	53	41	**187**	**359**
1:00 PM	50	31	49	55	**185**	42	40	41	44	**167**	**352**
2:00 PM	39	65	78	85	**267**	50	65	74	75	**264**	**531**
3:00 PM	71	66	127	83	**347**	53	78	89	79	**299**	**646**
4:00 PM	76	60	46	60	**242**	73	62	58	78	**271**	**513**
5:00 PM	65	80	64	67	**276**	54	58	48	48	**208**	**484**
6:00 PM	49	56	51	55	**211**	54	64	69	44	**231**	**442**
7:00 PM	56	55	42	32	**185**	42	40	41	27	**150**	**335**
8:00 PM	37	43	39	37	**156**	42	35	27	28	**132**	**288**
9:00 PM	36	34	31	23	**124**	36	24	28	19	**107**	**231**
10:00 PM	25	25	13	24	**87**	11	13	21	9	**54**	**141**
11:00 PM	18	7	16	10	**51**	14	11	10	13	**48**	**99**
Total	**50.0%**				**3605**	**50.0%**				**3605**	
	7210										

AM%	**38.7%**	**AM Peak**	**588**	**7:30 am to 8:30 am**	**AM P.H.F.**	**0.84**
PM%	**61.3%**	**PM Peak**	**671**	**3:15 pm to 4:15 pm**	**PM P.H.F.**	**0.78**



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24 Hour Count Report

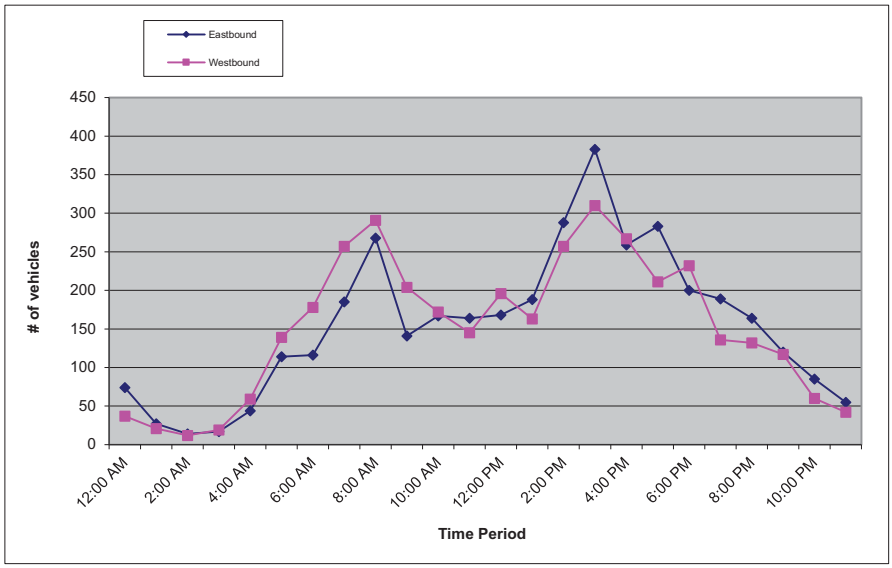
Prepared For: **Peters Engineering Group**
862 Pollasky Ave
Clovis, CA 93612

STREET North Ave
SEGMENT West of Greenwood Ave
COLLECTION DATE Thursday, May 23, 2024
NUMBER OF LANES 3

LATITUDE 36.6922651
LONGITUDE -119.5654061
WEATHER Clear

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	12	17	23	22	**74**	11	8	9	9	**37**	**111**
1:00 AM	11	7	2	7	**27**	11	5	4	1	**21**	**48**
2:00 AM	2	3	5	4	**14**	0	4	4	4	**12**	**26**
3:00 AM	1	4	5	7	**17**	3	3	9	4	**19**	**36**
4:00 AM	11	8	11	14	**44**	8	18	15	18	**59**	**103**
5:00 AM	18	18	30	48	**114**	25	32	44	38	**139**	**253**
6:00 AM	21	26	30	39	**116**	37	47	46	48	**178**	**294**
7:00 AM	36	42	47	60	**185**	46	73	68	70	**257**	**442**
8:00 AM	66	90	56	56	**268**	110	91	53	37	**291**	**559**
9:00 AM	57	36	22	26	**141**	41	39	68	56	**204**	**345**
10:00 AM	50	28	37	52	**167**	53	31	55	33	**172**	**339**
11:00 AM	58	41	33	32	**164**	41	35	39	30	**145**	**309**
12:00 PM	51	33	33	51	**168**	45	49	63	39	**196**	**364**
1:00 PM	51	29	47	61	**188**	35	37	41	50	**163**	**351**
2:00 PM	49	71	80	88	**288**	51	65	66	75	**257**	**545**
3:00 PM	75	76	142	90	**383**	60	77	96	77	**310**	**693**
4:00 PM	75	69	49	66	**259**	72	70	59	66	**267**	**526**
5:00 PM	71	81	63	68	**283**	49	60	50	52	**211**	**494**
6:00 PM	44	60	47	49	**200**	51	67	70	44	**232**	**432**
7:00 PM	59	58	40	32	**189**	38	35	37	26	**136**	**325**
8:00 PM	36	46	42	40	**164**	39	36	32	25	**132**	**296**
9:00 PM	33	36	28	23	**120**	37	30	30	20	**117**	**237**
10:00 PM	22	24	13	26	**85**	13	14	22	11	**60**	**145**
11:00 PM	19	7	20	9	**55**	13	10	6	13	**42**	**97**
Total	**50.4%**				**3713**	**49.6%**				**3657**	
	7370										

AM% 38.9% **AM Peak** 602 7:30 am to 8:30 am **AM P.H.F.** 0.83
PM% 61.1% **PM Peak** 705 3:15 pm to 4:15 pm **PM P.H.F.** 0.74



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Central Avenue and McCall Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

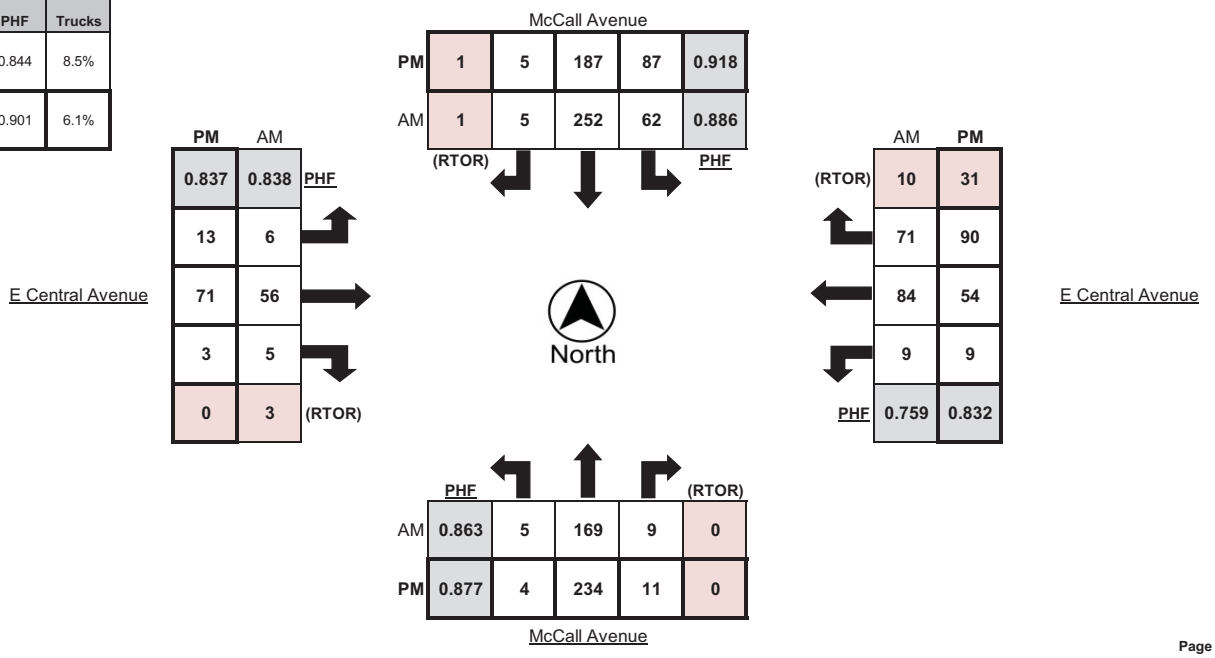
LATITUDE 36.6776
LONGITUDE -119.6105
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	1	40	1	0	2	12	48	2	0	5	1	13	1	0	7	2	17	8	1	0
7:15 AM - 7:30 AM	3	36	0	0	1	16	55	1	0	2	2	13	1	1	3	0	14	23	1	3
7:30 AM - 7:45 AM	0	50	3	0	2	15	75	0	0	3	2	18	0	0	9	4	33	17	3	9
7:45 AM - 8:00 AM	1	47	5	0	6	21	61	2	0	3	0	14	3	2	3	4	19	13	4	3
8:00 AM - 8:15 AM	1	36	1	0	2	10	61	2	1	2	2	11	1	0	3	1	18	18	2	8
8:15 AM - 8:30 AM	1	53	1	0	2	17	48	1	0	10	0	14	0	0	6	2	15	12	3	5
8:30 AM - 8:45 AM	1	34	1	0	2	5	42	0	0	4	1	9	1	1	1	0	13	6	3	7
8:45 AM - 9:00 AM	0	26	3	0	2	11	48	1	0	4	3	12	0	0	7	1	14	10	1	6
TOTAL	**8**	**322**	**15**	**0**	**19**	**107**	**438**	**9**	**1**	**33**	**11**	**104**	**7**	**4**	**39**	**14**	**143**	**107**	**18**	**41**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	2	61	2	0	3	18	58	0	0	6	3	16	0	0	2	4	13	24	13	1
4:15 PM - 4:30 PM	2	66	3	0	5	26	43	1	0	7	1	24	1	0	1	3	16	27	8	1
4:30 PM - 4:45 PM	0	56	6	0	4	23	44	2	0	4	4	16	2	0	5	2	9	20	5	1
4:45 PM - 5:00 PM	0	51	0	0	0	20	42	2	1	3	5	15	0	0	2	0	16	19	5	2
5:00 PM - 5:15 PM	2	64	1	0	0	14	44	2	0	4	2	21	6	2	1	0	5	19	14	1
5:15 PM - 5:30 PM	0	64	5	0	6	15	49	0	0	3	1	17	1	0	0	1	8	9	7	2
5:30 PM - 5:45 PM	2	53	1	0	0	12	38	0	0	2	3	14	1	0	0	0	8	12	10	1
5:45 PM - 6:00 PM	3	38	3	1	1	13	44	1	0	0	0	9	0	0	1	4	13	4	3	3
TOTAL	**11**	**453**	**21**	**1**	**19**	**141**	**362**	**8**	**1**	**29**	**19**	**132**	**11**	**2**	**12**	**14**	**88**	**134**	**65**	**12**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:15 AM - 8:15 AM	5	169	9	0	11	62	252	5	1	10	6	56	5	3	18	9	84	71	10	23
4:00 PM - 5:00 PM	4	234	11	0	12	87	187	5	1	20	13	71	3	0	10	9	54	90	31	5

	PHF	Trucks
AM	0.844	8.5%
PM	0.901	6.1%



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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

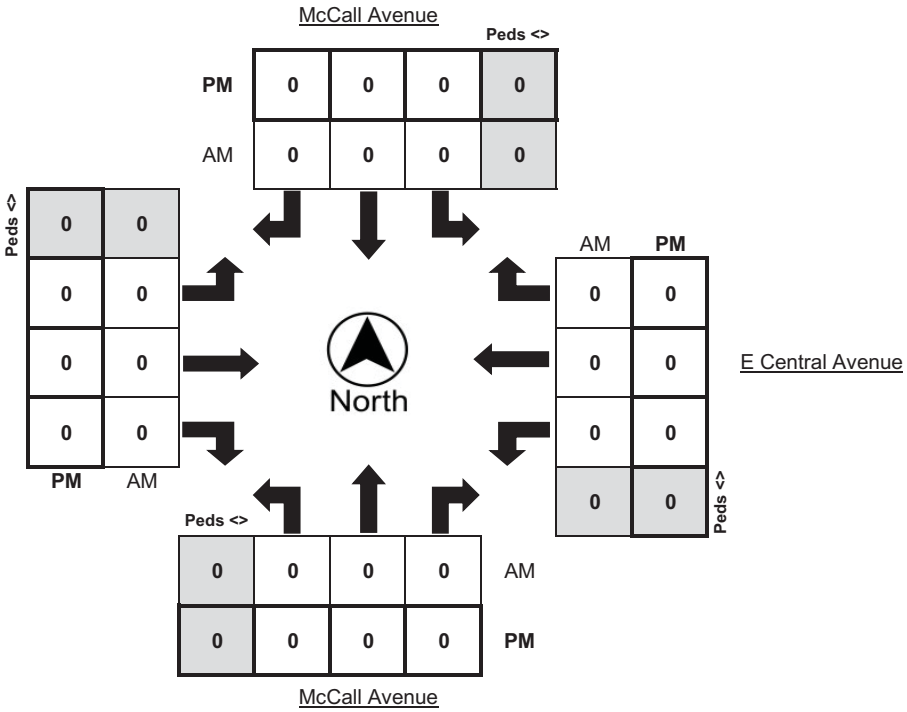
LOCATION Central Avenue and McCall Avenue
LATITUDE 36.6776
COUNTY Fresno
LONGITUDE -119.6105
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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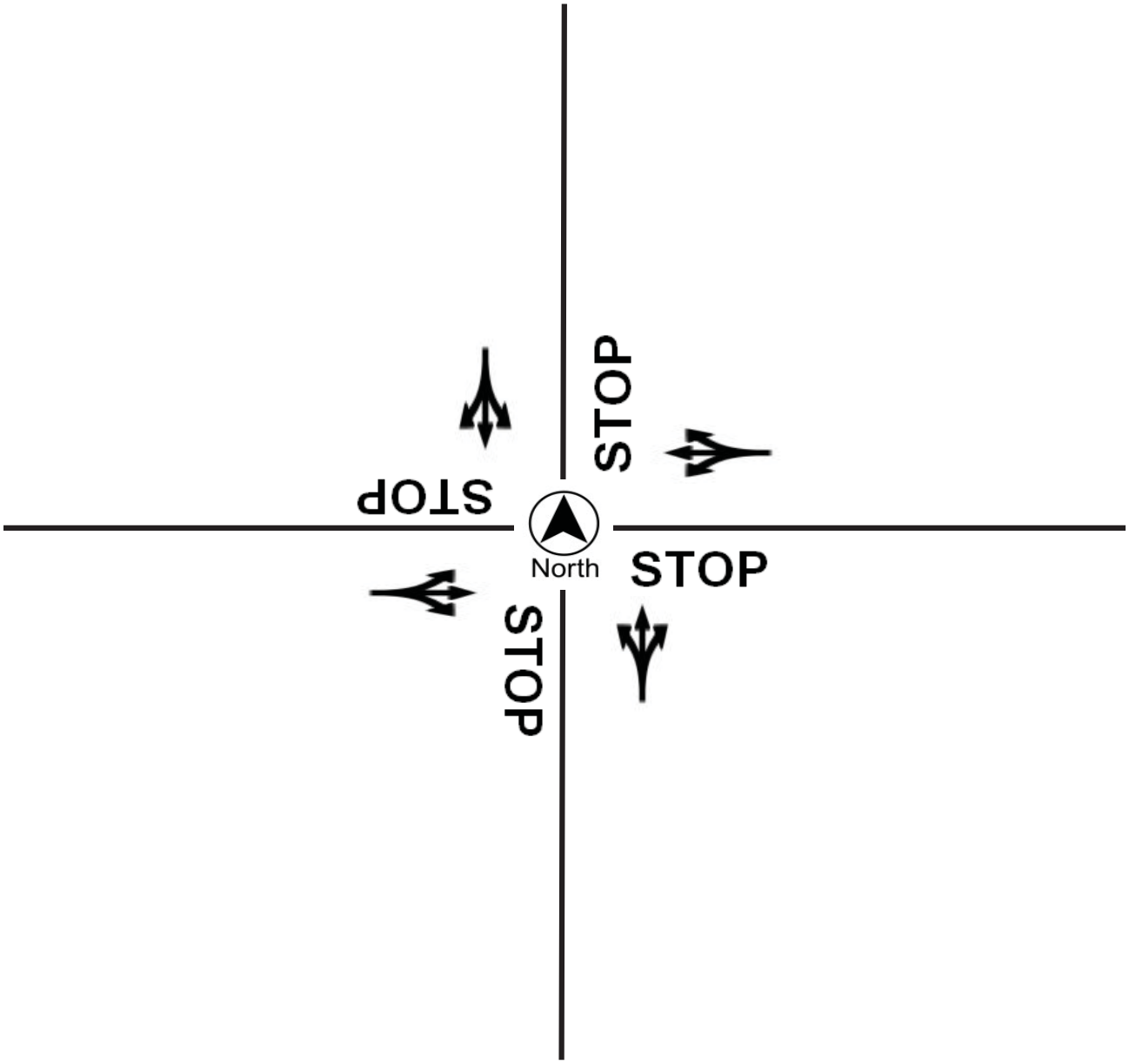
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Central Avenue and McCall Avenue	**N/S STREET**	McCall Avenue / McCall Avenue
COUNTY	Fresno	**E/W STREET**	E Central Avenue / E Central Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



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LOCATION Central Avenue and McCall Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

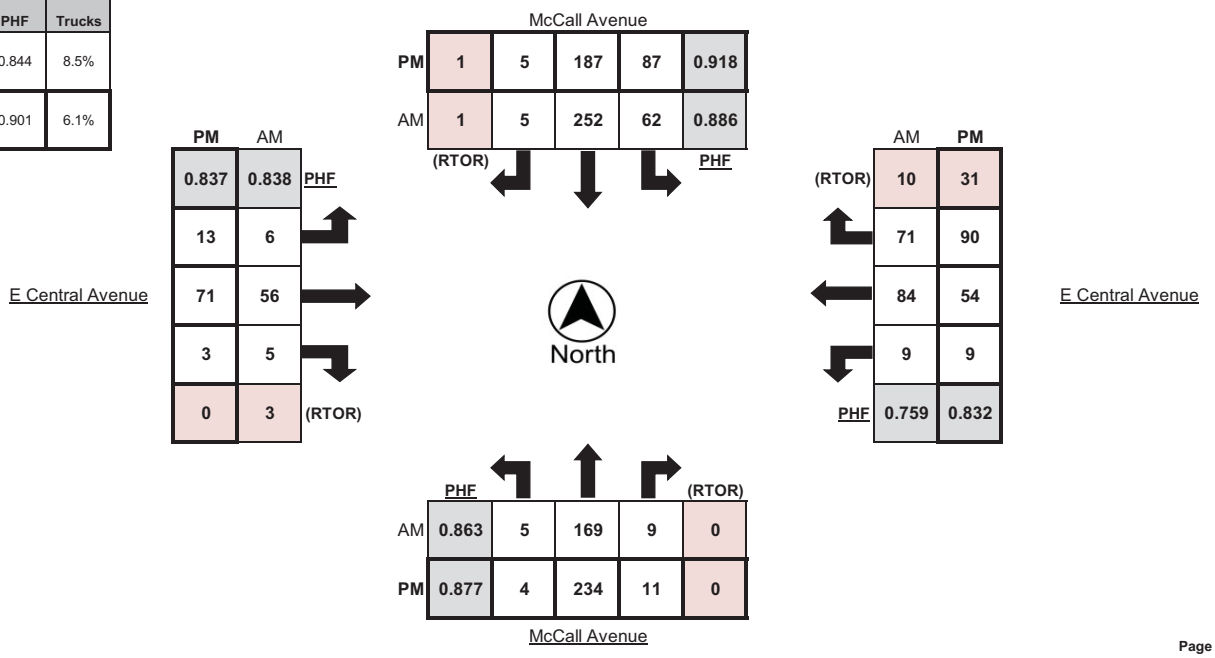
LATITUDE 36.6776
LONGITUDE -119.6105
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	1	40	1	0	2	12	48	2	0	5	1	13	1	0	7	2	17	8	1	0
7:15 AM - 7:30 AM	3	36	0	0	1	16	55	1	0	2	2	13	1	1	3	0	14	23	1	3
7:30 AM - 7:45 AM	0	50	3	0	2	15	75	0	0	3	2	18	0	0	9	4	33	17	3	9
7:45 AM - 8:00 AM	1	47	5	0	6	21	61	2	0	3	0	14	3	2	3	4	19	13	4	3
8:00 AM - 8:15 AM	1	36	1	0	2	10	61	2	1	2	2	11	1	0	3	1	18	18	2	8
8:15 AM - 8:30 AM	1	53	1	0	2	17	48	1	0	10	0	14	0	0	6	2	15	12	3	5
8:30 AM - 8:45 AM	1	34	1	0	2	5	42	0	0	4	1	9	1	1	1	0	13	6	3	7
8:45 AM - 9:00 AM	0	26	3	0	2	11	48	1	0	4	3	12	0	0	7	1	14	10	1	6
TOTAL	**8**	**322**	**15**	**0**	**19**	**107**	**438**	**9**	**1**	**33**	**11**	**104**	**7**	**4**	**39**	**14**	**143**	**107**	**18**	**41**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	2	61	2	0	3	18	58	0	0	6	3	16	0	0	2	4	13	24	13	1
4:15 PM - 4:30 PM	2	66	3	0	5	26	43	1	0	7	1	24	1	0	1	3	16	27	8	1
4:30 PM - 4:45 PM	0	56	6	0	4	23	44	2	0	4	4	16	2	0	5	2	9	20	5	1
4:45 PM - 5:00 PM	0	51	0	0	0	20	42	2	1	3	5	15	0	0	2	0	16	19	5	2
5:00 PM - 5:15 PM	2	64	1	0	0	14	44	2	0	4	2	21	6	2	1	0	5	19	14	1
5:15 PM - 5:30 PM	0	64	5	0	6	15	49	0	0	3	1	17	1	0	0	1	8	9	7	2
5:30 PM - 5:45 PM	2	53	1	0	0	12	38	0	0	2	3	14	1	0	0	0	8	12	10	1
5:45 PM - 6:00 PM	3	38	3	1	1	13	44	1	0	0	0	9	0	0	1	4	13	4	3	3
TOTAL	**11**	**453**	**21**	**1**	**19**	**141**	**362**	**8**	**1**	**29**	**19**	**132**	**11**	**2**	**12**	**14**	**88**	**134**	**65**	**12**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:15 AM - 8:15 AM	5	169	9	0	11	62	252	5	1	10	6	56	5	3	18	9	84	71	10	23
4:00 PM - 5:00 PM	4	234	11	0	12	87	187	5	1	20	13	71	3	0	10	9	54	90	31	5

	PHF	Trucks
AM	0.844	8.5%
PM	0.901	6.1%



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310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

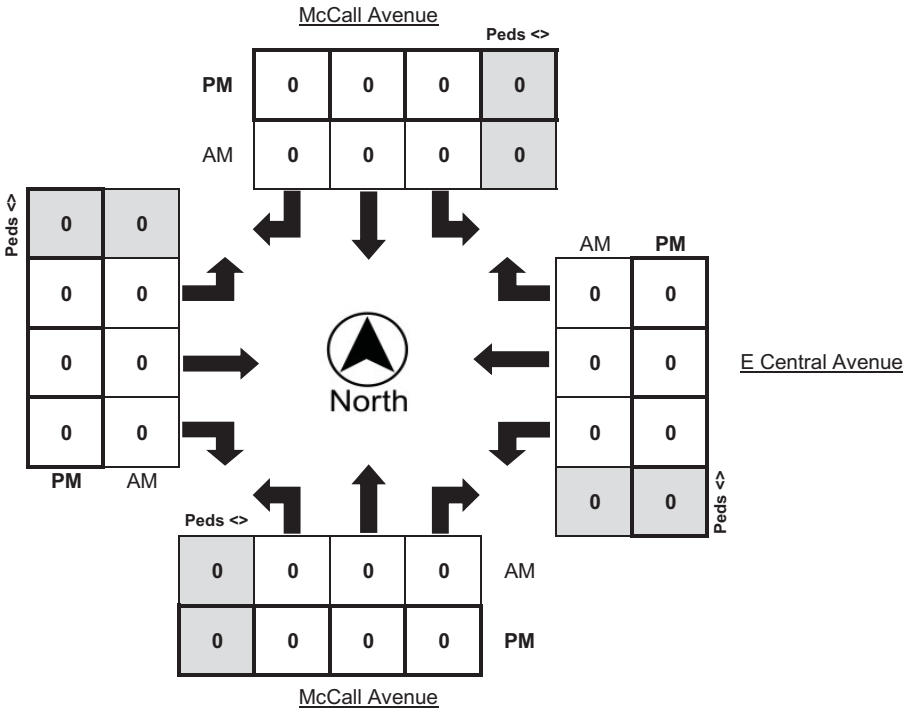
LOCATION Central Avenue and McCall Avenue
LATITUDE 36.6776
COUNTY Fresno
LONGITUDE -119.6105
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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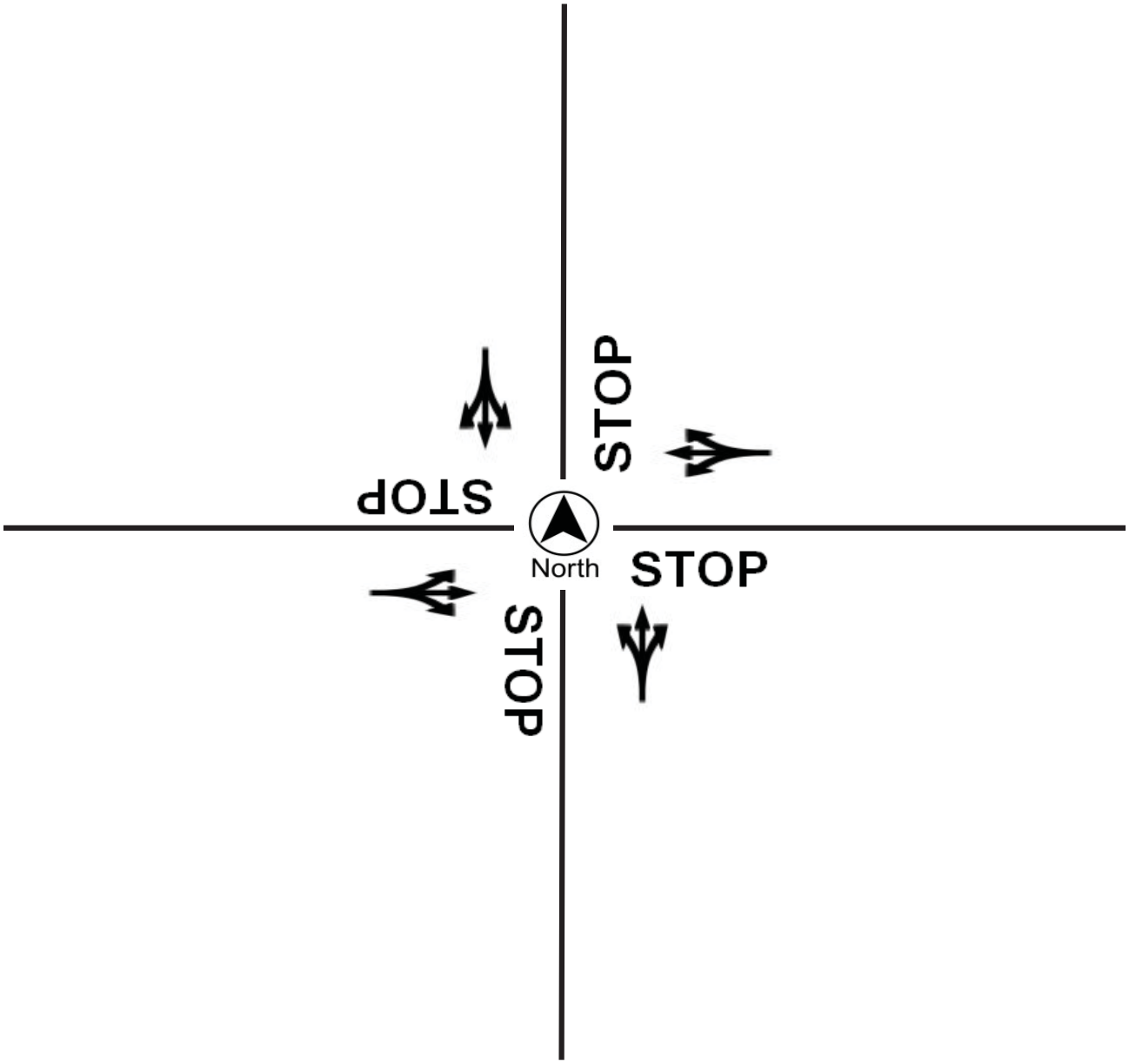
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Central Avenue and McCall Avenue	**N/S STREET**	McCall Avenue / McCall Avenue
COUNTY	Fresno	**E/W STREET**	E Central Avenue / E Central Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



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Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Central Avenue and Bethel Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024

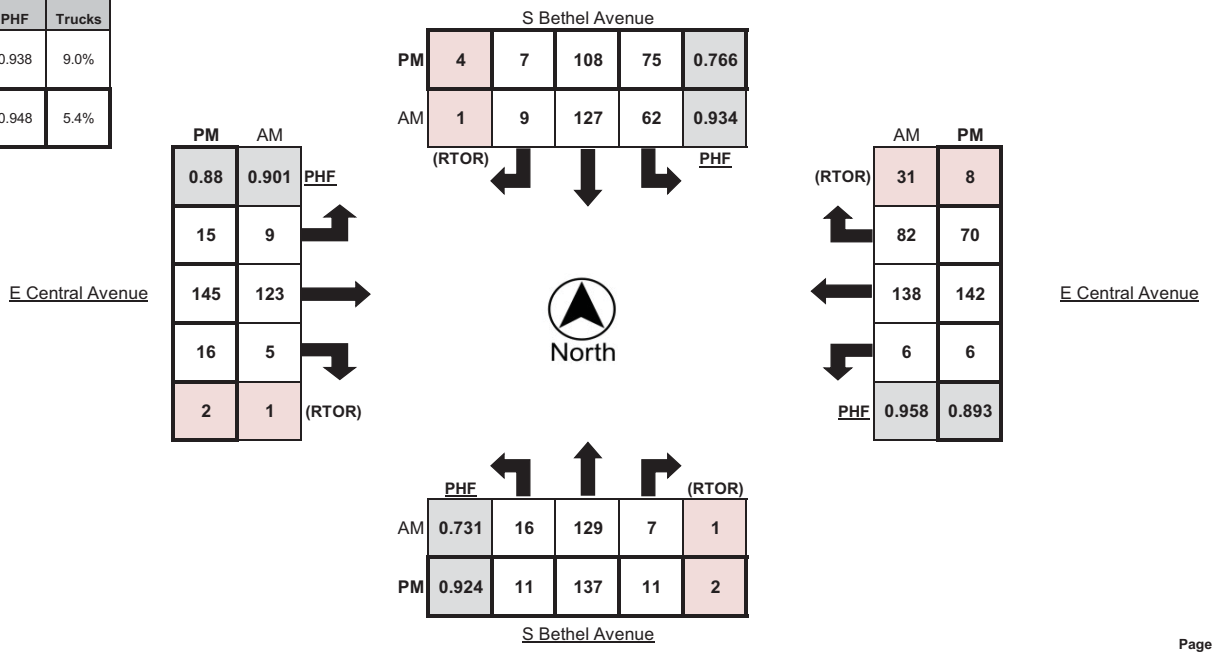
LATITUDE 36.6777
LONGITUDE -119.5744
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	4	8	3	1	2	14	21	4	0	2	1	24	2	1	9	2	23	11	0	3
7:15 AM - 7:30 AM	5	23	1	0	1	20	29	1	0	0	0	32	2	0	5	0	41	13	5	7
7:30 AM - 7:45 AM	3	25	3	0	1	17	33	3	1	4	1	34	1	0	10	2	34	21	8	7
7:45 AM - 8:00 AM	4	36	0	0	1	13	36	4	0	1	2	35	1	1	7	1	28	30	11	4
8:00 AM - 8:15 AM	4	45	3	1	1	12	29	1	0	1	6	22	1	0	3	3	35	18	7	11
8:15 AM - 8:30 AM	2	28	3	0	2	13	21	2	0	0	5	26	1	0	13	1	23	27	8	4
8:30 AM - 8:45 AM	0	15	2	0	0	15	28	0	0	1	0	20	1	1	4	0	24	10	2	7
8:45 AM - 9:00 AM	2	12	2	1	1	10	14	1	0	1	1	25	2	0	10	1	22	4	2	7
TOTAL	**24**	**192**	**17**	**3**	**9**	**114**	**211**	**16**	**1**	**10**	**16**	**218**	**11**	**3**	**61**	**10**	**230**	**134**	**43**	**50**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	1	31	2	0	1	26	34	2	1	2	3	33	4	0	3	1	38	21	1	2
4:15 PM - 4:30 PM	4	35	2	1	1	11	29	4	2	2	2	42	6	1	9	3	41	17	2	0
4:30 PM - 4:45 PM	3	34	4	1	3	19	30	1	1	1	3	34	6	1	7	0	33	17	2	3
4:45 PM - 5:00 PM	3	37	3	0	0	19	15	0	0	0	7	36	0	0	3	2	30	15	3	3
5:00 PM - 5:15 PM	4	38	6	1	0	13	25	0	0	0	3	28	2	0	2	2	22	22	5	1
5:15 PM - 5:30 PM	1	37	4	1	0	15	33	2	0	1	1	39	3	1	0	0	17	21	6	1
5:30 PM - 5:45 PM	3	30	2	0	0	13	38	1	0	0	2	26	4	0	1	2	18	24	5	1
5:45 PM - 6:00 PM	1	27	1	0	0	13	29	1	0	0	1	22	3	0	0	4	16	17	3	4
TOTAL	**20**	**269**	**24**	**4**	**5**	**129**	**233**	**11**	**4**	**6**	**22**	**260**	**28**	**3**	**25**	**14**	**215**	**154**	**27**	**15**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:15 AM - 8:15 AM	16	129	7	1	4	62	127	9	1	6	9	123	5	1	25	6	138	82	31	29
4:00 PM - 5:00 PM	11	137	11	2	5	75	108	7	4	5	15	145	16	2	22	6	142	70	8	8

	PHF	Trucks
AM	0.938	9.0%
PM	0.948	5.4%



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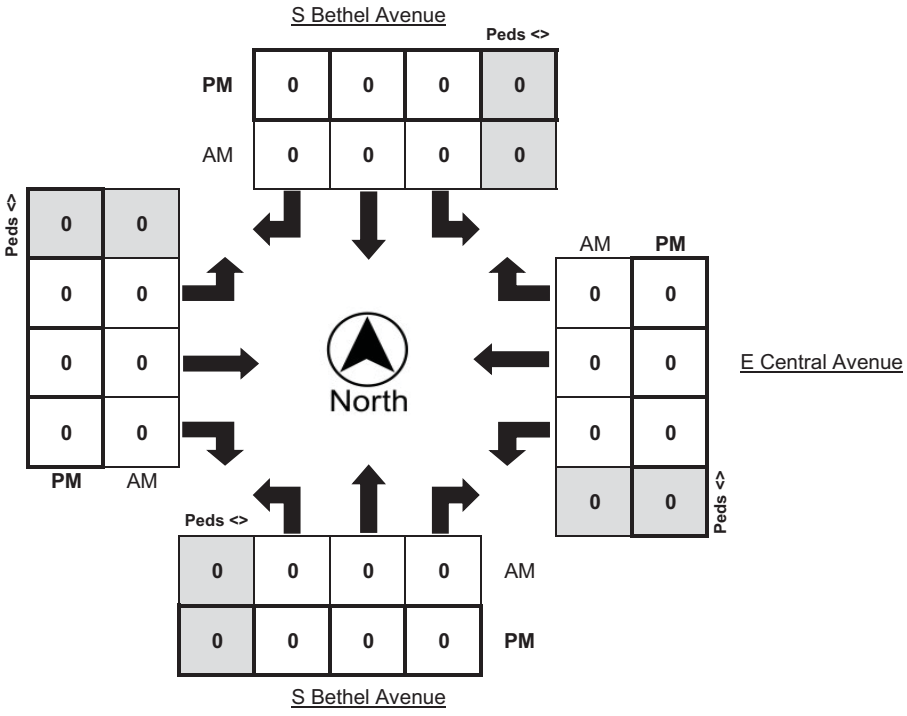
LOCATION Central Avenue and Bethel Avenue
LATITUDE 36.6777
COUNTY Fresno
LONGITUDE -119.5744
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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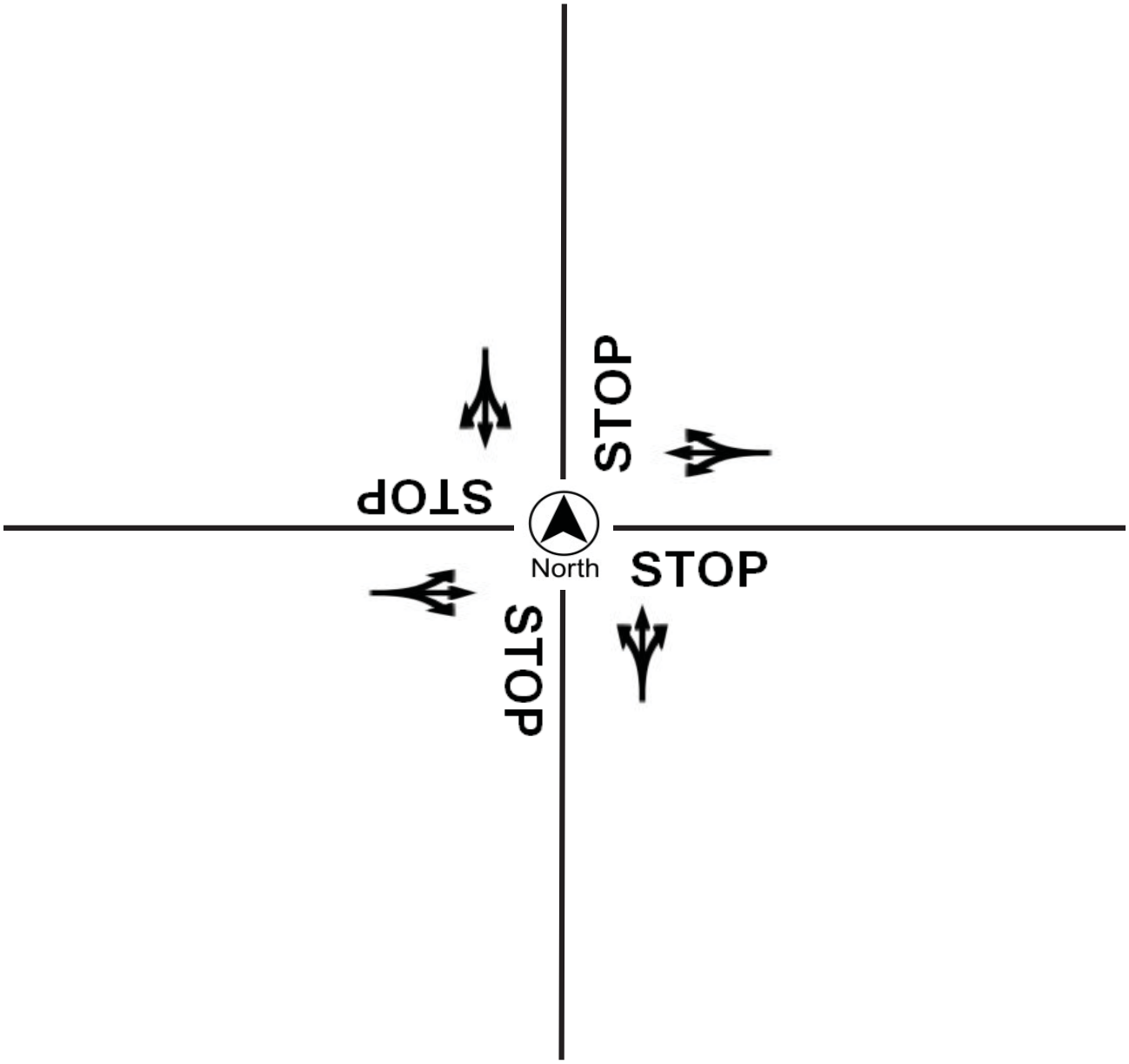
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Central Avenue and Bethel Avenue	**N/S STREET**	S Bethel Avenue / S Bethel Avenue
COUNTY	Fresno	**E/W STREET**	E Central Avenue / E Central Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



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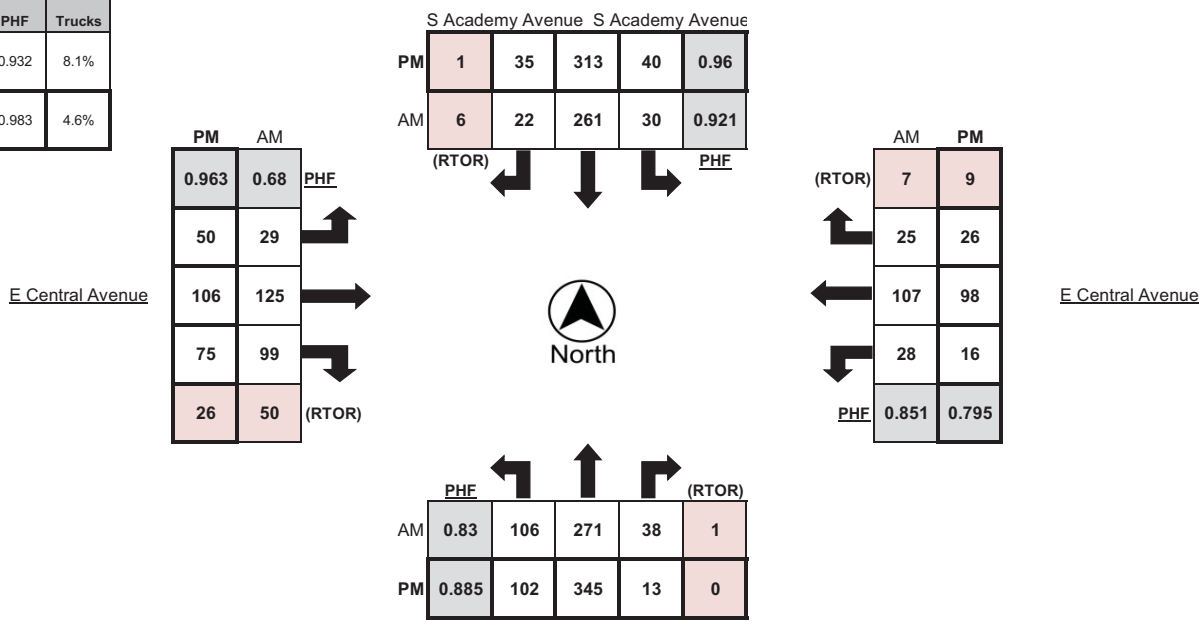
LOCATION Central Avenue and Academy Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024
LATITUDE 36.6777
LONGITUDE -119.5566
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	13	36	2	0	4	6	53	7	3	6	4	20	9	3	8	5	18	7	2	0
7:15 AM - 7:30 AM	26	55	9	0	2	13	63	9	3	1	11	51	31	15	14	4	17	7	2	4
7:30 AM - 7:45 AM	30	74	15	0	10	7	65	4	2	3	6	33	26	11	11	6	33	7	3	8
7:45 AM - 8:00 AM	34	82	9	1	4	1	64	4	1	3	6	26	17	13	4	9	32	6	1	6
8:00 AM - 8:15 AM	16	60	5	0	3	9	69	5	0	5	6	15	25	11	4	9	25	5	1	10
8:15 AM - 8:30 AM	23	62	6	0	7	14	50	5	0	3	9	18	12	4	14	5	20	9	2	4
8:30 AM - 8:45 AM	18	60	4	0	3	8	59	5	0	4	6	16	15	2	5	3	15	9	2	9
8:45 AM - 9:00 AM	11	49	3	0	2	3	39	4	0	3	9	19	8	2	9	3	16	10	1	9
TOTAL	**171**	**478**	**53**	**1**	**35**	**61**	**462**	**43**	**9**	**28**	**57**	**198**	**143**	**61**	**69**	**44**	**176**	**60**	**14**	**50**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	26	82	3	0	3	10	79	12	1	3	12	26	20	8	5	4	21	1	0	0
4:15 PM - 4:30 PM	20	84	3	0	5	10	77	12	0	4	19	24	17	3	12	3	31	10	3	0
4:30 PM - 4:45 PM	31	80	1	0	2	11	85	4	0	3	9	25	19	10	9	8	26	10	2	2
4:45 PM - 5:00 PM	25	99	6	0	2	9	72	7	0	1	10	31	19	5	4	1	20	5	4	1
5:00 PM - 5:15 PM	28	65	4	0	3	15	89	10	1	3	7	20	17	7	3	7	13	6	2	1
5:15 PM - 5:30 PM	23	66	6	1	2	15	65	4	0	1	8	27	27	8	1	6	19	13	7	3
5:30 PM - 5:45 PM	21	66	6	0	0	4	85	7	0	5	4	20	18	6	0	3	19	17	6	0
5:45 PM - 6:00 PM	16	82	6	1	3	12	53	8	0	3	5	10	24	7	0	3	18	4	2	1
TOTAL	**190**	**624**	**35**	**2**	**20**	**86**	**605**	**64**	**2**	**23**	**74**	**183**	**161**	**54**	**34**	**35**	**167**	**66**	**26**	**8**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:15 AM - 8:15 AM	106	271	38	1	19	30	261	22	6	12	29	125	99	50	33	28	107	25	7	28
4:00 PM - 5:00 PM	102	345	13	0	12	40	313	35	1	11	50	106	75	26	30	16	98	26	9	3

	PHF	Trucks
AM	0.932	8.1%
PM	0.983	4.6%



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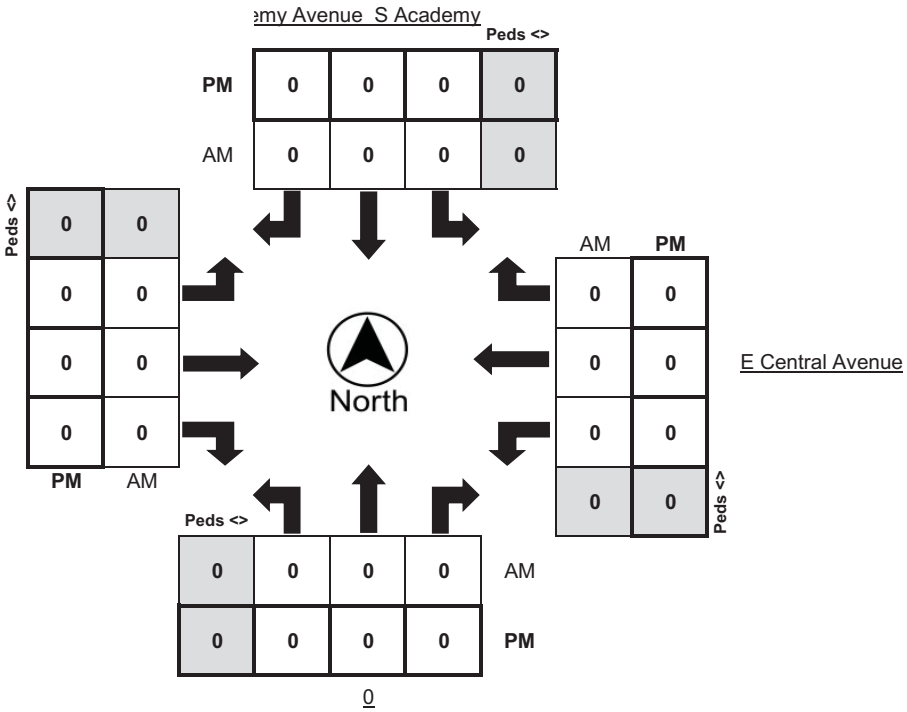
LOCATION Central Avenue and Academy Avenue
LATITUDE 36.6777
COUNTY Fresno
LONGITUDE -119.5566
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

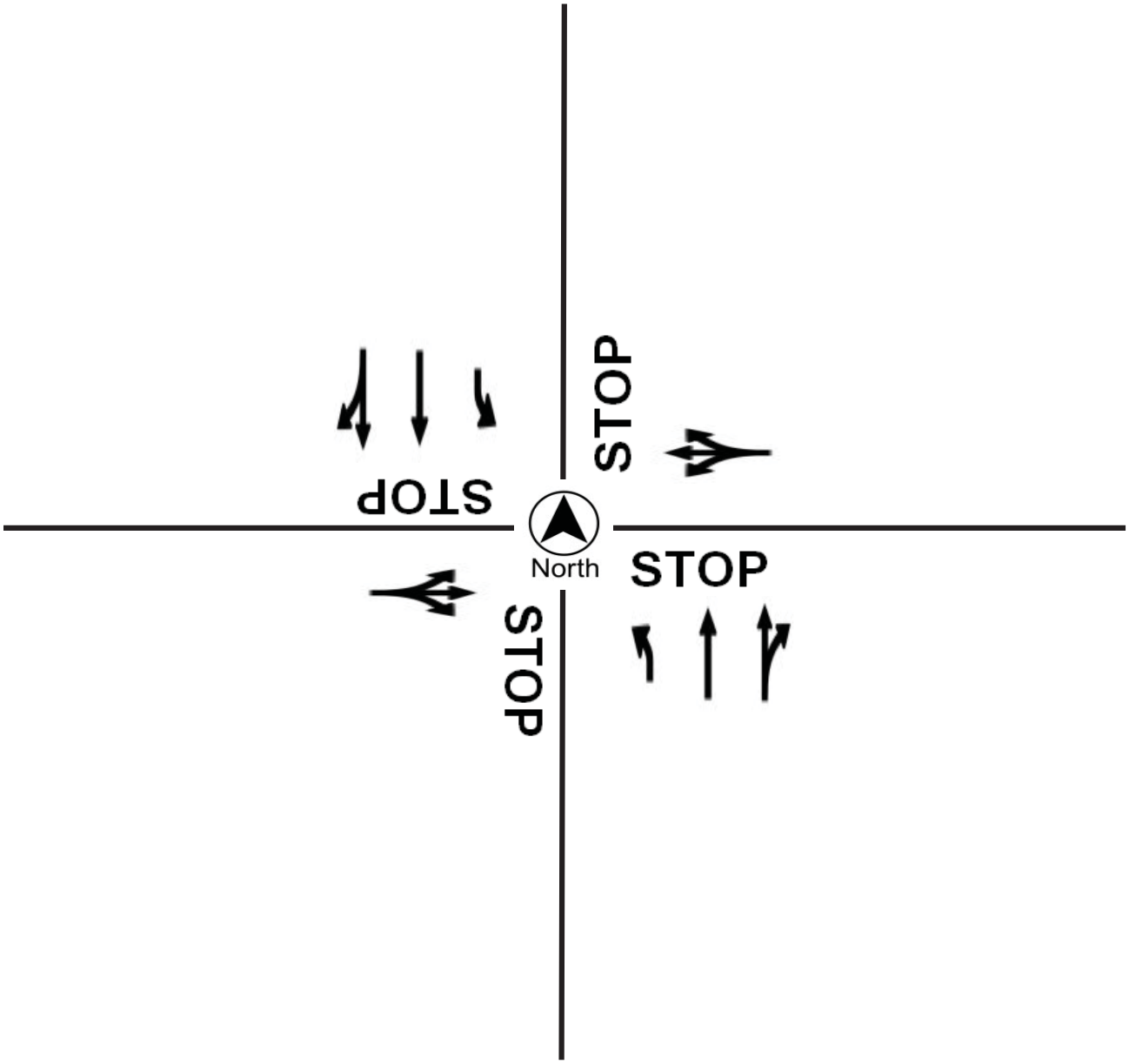
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Central Avenue and Academy Avenue	**N/S STREET**	S Academy Avenue S Academy Avenue /
COUNTY	Fresno	**E/W STREET**	E Central Avenue / E Central Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



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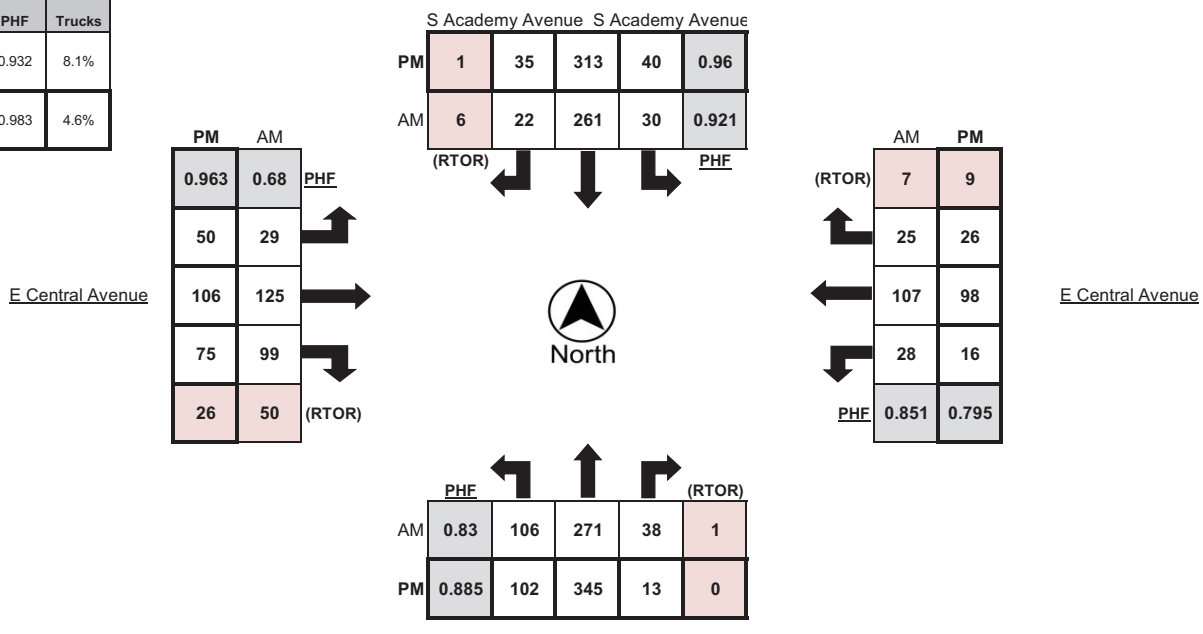
LOCATION Central Avenue and Academy Avenue
COUNTY Fresno
COLLECTION DATE Thursday, May 23, 2024
LATITUDE 36.6777
LONGITUDE -119.5566
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:00 AM - 7:15 AM	13	36	2	0	4	6	53	7	3	6	4	20	9	3	8	5	18	7	2	0
7:15 AM - 7:30 AM	26	55	9	0	2	13	63	9	3	1	11	51	31	15	14	4	17	7	2	4
7:30 AM - 7:45 AM	30	74	15	0	10	7	65	4	2	3	6	33	26	11	11	6	33	7	3	8
7:45 AM - 8:00 AM	34	82	9	1	4	1	64	4	1	3	6	26	17	13	4	9	32	6	1	6
8:00 AM - 8:15 AM	16	60	5	0	3	9	69	5	0	5	6	15	25	11	4	9	25	5	1	10
8:15 AM - 8:30 AM	23	62	6	0	7	14	50	5	0	3	9	18	12	4	14	5	20	9	2	4
8:30 AM - 8:45 AM	18	60	4	0	3	8	59	5	0	4	6	16	15	2	5	3	15	9	2	9
8:45 AM - 9:00 AM	11	49	3	0	2	3	39	4	0	3	9	19	8	2	9	3	16	10	1	9
TOTAL	**171**	**478**	**53**	**1**	**35**	**61**	**462**	**43**	**9**	**28**	**57**	**198**	**143**	**61**	**69**	**44**	**176**	**60**	**14**	**50**

	Northbound					Southbound					Eastbound					Westbound				
Time	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
4:00 PM - 4:15 PM	26	82	3	0	3	10	79	12	1	3	12	26	20	8	5	4	21	1	0	0
4:15 PM - 4:30 PM	20	84	3	0	5	10	77	12	0	4	19	24	17	3	12	3	31	10	3	0
4:30 PM - 4:45 PM	31	80	1	0	2	11	85	4	0	3	9	25	19	10	9	8	26	10	2	2
4:45 PM - 5:00 PM	25	99	6	0	2	9	72	7	0	1	10	31	19	5	4	1	20	5	4	1
5:00 PM - 5:15 PM	28	65	4	0	3	15	89	10	1	3	7	20	17	7	3	7	13	6	2	1
5:15 PM - 5:30 PM	23	66	6	1	2	15	65	4	0	1	8	27	27	8	1	6	19	13	7	3
5:30 PM - 5:45 PM	21	66	6	0	0	4	85	7	0	5	4	20	18	6	0	3	19	17	6	0
5:45 PM - 6:00 PM	16	82	6	1	3	12	53	8	0	3	5	10	24	7	0	3	18	4	2	1
TOTAL	**190**	**624**	**35**	**2**	**20**	**86**	**605**	**64**	**2**	**23**	**74**	**183**	**161**	**54**	**34**	**35**	**167**	**66**	**26**	**8**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks	Left	Thru	Right	(RTOR)	Trucks
7:15 AM - 8:15 AM	106	271	38	1	19	30	261	22	6	12	29	125	99	50	33	28	107	25	7	28
4:00 PM - 5:00 PM	102	345	13	0	12	40	313	35	1	11	50	106	75	26	30	16	98	26	9	3

	PHF	Trucks
AM	0.932	8.1%
PM	0.983	4.6%



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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

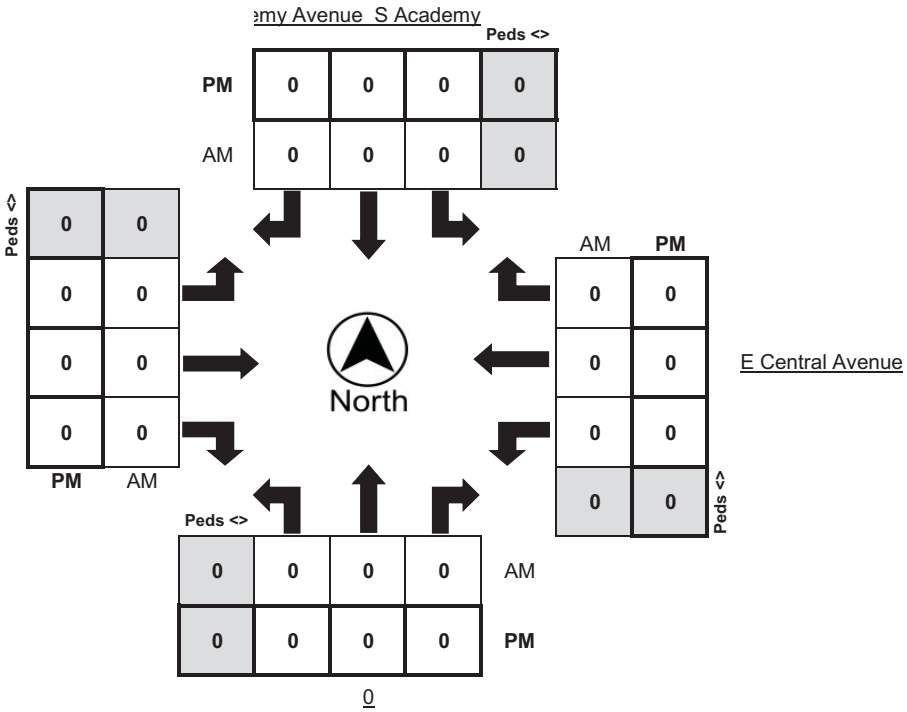
LOCATION Central Avenue and Academy Avenue
LATITUDE 36.6777
COUNTY Fresno
LONGITUDE -119.5566
COLLECTION DATE Thursday, May 23, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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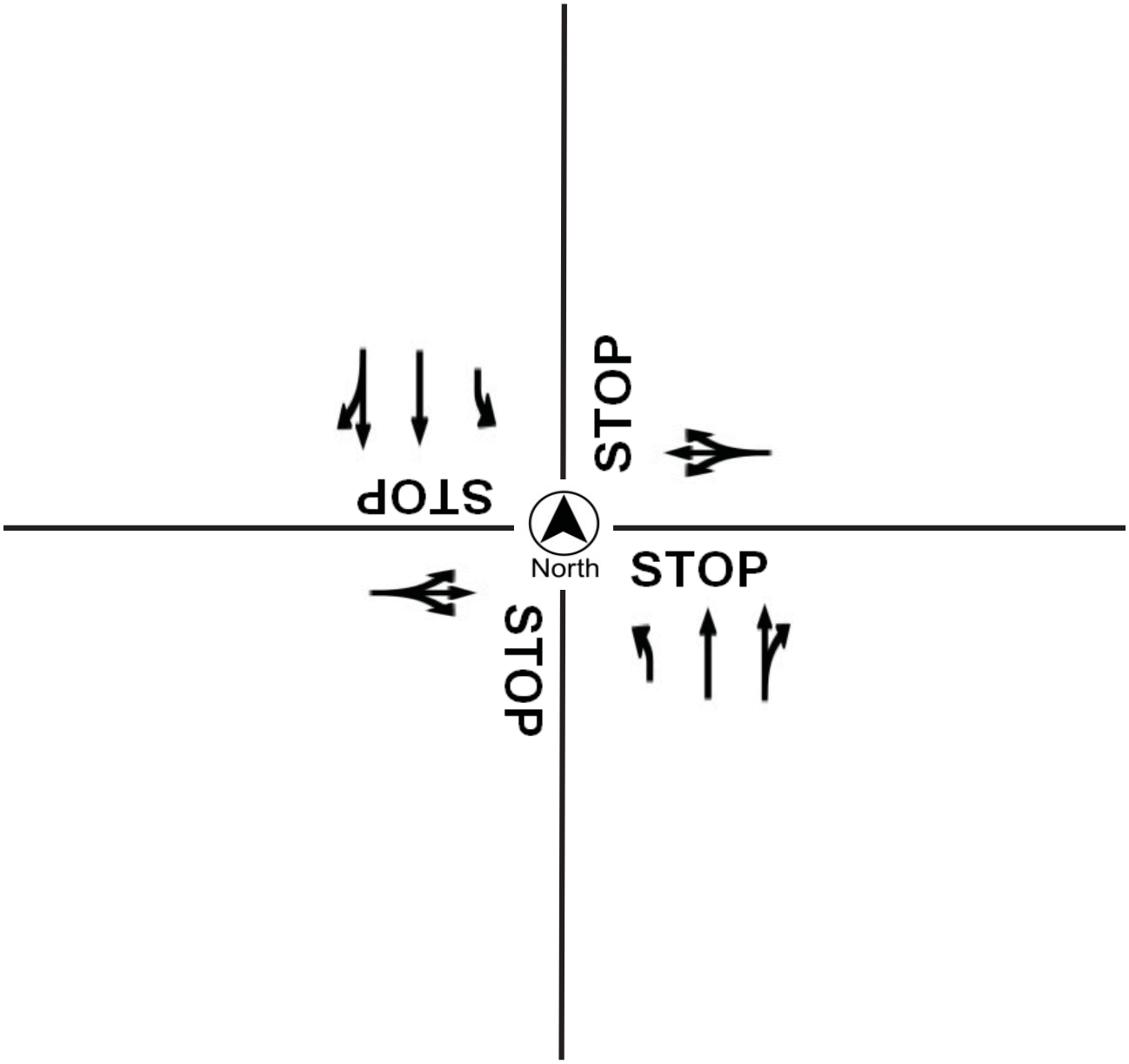
Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION	Central Avenue and Academy Avenue	**N/S STREET**	S Academy Avenue S Academy Avenue /
COUNTY	Fresno	**E/W STREET**	E Central Avenue / E Central Avenue
COLLECTION DATE	Thursday, May 23, 2024	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	All-way Stop

COMMENTS



APPENDIX B

VMT SCREENING AND FRESNO COUNTY TRAVEL MODEL

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

COG VMT SCREENING

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Fresno County - VMT Screening Application (zoom in for more information) User Manual

13 15 13 15 13 15

Find address or place

APN

Legend

Parcel Lot Lines

Parcel - Residential VMT per Capita (Fresno County - 13%)

- High (Greater than 13%)
- Medium (within +/- of 13%)
- Low (Less than 13%)
- No Population

E North Ave

S McCall Ave

Belmont Ave

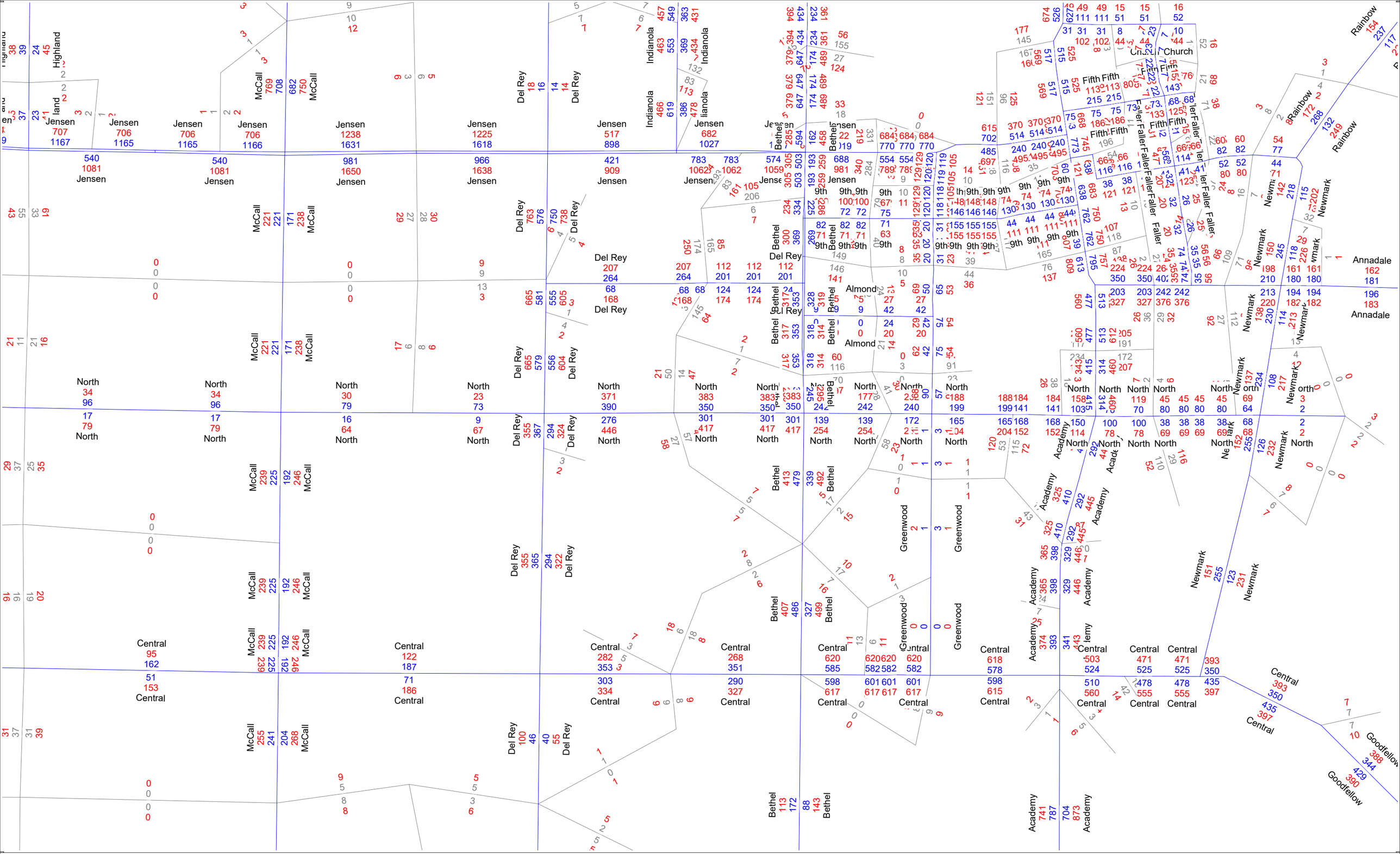
0.2mi

-119.545 36.701 Degrees

Fresno County Dept. PWP, Bureau of Land Management, Esri, HERE, Garmi

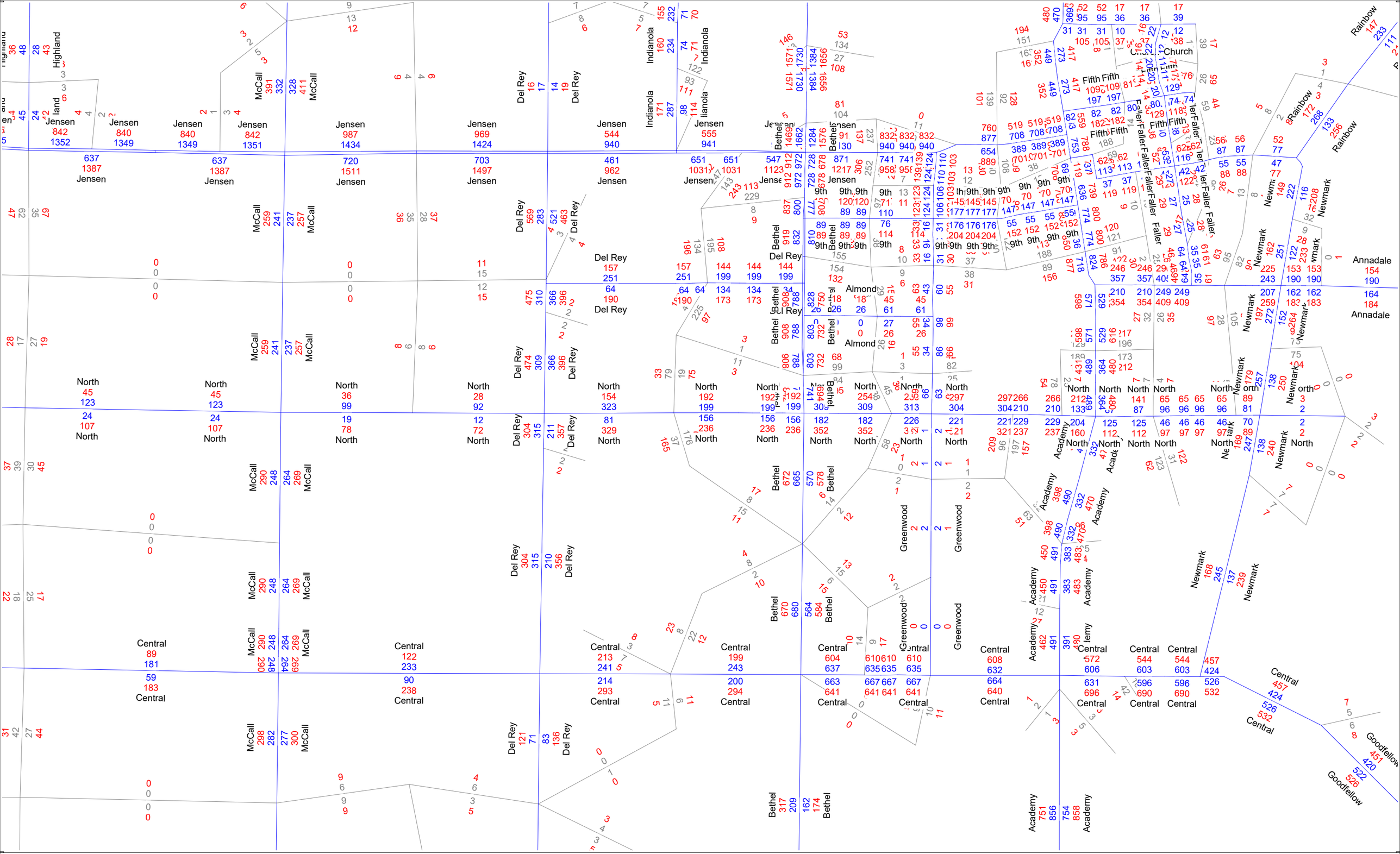
Base and Horizon Year Model Output

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION



2024 Fresno County Travel Model
AM and PM Peak-Hour Traffic Volumes

cube
Licensed to Peters Engineering



2046 Fresno County Travel Demand Model
AM and PM Peak-Hour Traffic VOlumes

cube

Licensed to Peters Engineering

APPENDIX C

SWITRS COLLISION RECORDS

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Primary Rd **GREENWOOD AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **JENSEN AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **001** *Type* **0** *CalTrans* *Badge* **M164** *Collision Date* **20220118** *Time* **2046** *Day* **TUE**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220208**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	M	H	HBD-UI		LFT TURN	N	A	0100	-	2012	-	3	A	21451	- M G
2	DRVR	20	M	H	HNBD		PROC ST	S	A	0100	-	2017	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **GREENWOOD AV** *Distance (ft)* **81.0** *Direction* **S** *Secondary Rd* **JENSEN AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **M01** *Type* **0** *CalTrans* *Badge* **M166** *Collision Date* **20221013** *Time* **1552** *Day* **THU**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20221104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	M	H	HNBD		LFT TURN	S	A	0100	-	2009	-	3	N		- M G
2	DRVR	50	F	H	HNBD		PROC ST	N	A	0100	-	2005	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		53	M	3	0	M	G

Primary Rd **GREENWOOD AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **NORTH AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **M340** *Beat* **M03** *Type* **0** *CalTrans* *Badge* **M158** *Collision Date* **20220616** *Time* **1443** *Day* **THU**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220808**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	M	H	HNBD		PROC ST	S	F	2600	FORD	2021	-	3	N		- M G
2	DRVR	22	M	H	HNBD		PROC ST	E	A	0100	-	2010	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		19	M	3	0	M	G
PASS		30	M	4	0	M	G

Primary Rd **GREENWOOD AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **WEBSTER ST** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **B02** *Type* **0** *CalTrans* *Badge* **M175** *Collision Date* **20220526** *Time* **2202** *Day* **THU**
Primary Collision Factor **STOP SGN|SIG** *Violation* **22450A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20221021**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - NO** *Ped Action* *Cntrl Dev* **OBSCR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	M	H	HBD-NUI		PROC ST	E	A	0100	-	2005	-	3	N		- L E
2	DRVR	83	M	H	HBD-NUI		PROC ST	S	A	0100	-	1998	-	3	N		- L B
3	PRKD	998	-				PARKED	N	-	0000	-	1997	-	3	N		- - -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	SEVERE	83	M	1	0	M	B

Primary Rd **GREENWOOD AVENUE** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **AMERICAN** *NCIC* **9435** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **UNINCORP.** *County* **Fresno** *Population* **9** *Rpt Dist* *Beat* **034** *Type* **3** *CalTrans* *Badge* **020592** *Collision Date* **20220530** *Time* **1355** *Day* **MON**
Primary Collision Factor **STOP SGN|SIG** *Violation* **22450A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **7** *Tow Away?* **Y** *Process Date* **20220606**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	35	F	H	HNBD		PROC ST	S	A	0700	GMC	2014	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	35	F	1	0	L	G
PASS	SERIOUS	14	M	5	3	L	B
PASS	SERIOUS	17	F	6	1	L	H

This report is accepted subject to the Terms of Use. Due to collision records processing backlogs, SWITRS data is typically seven months behind. Data requested for dates seven months prior to the current date will be incomplete.

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **FRANKWOOD AV** *NCIC* **1012** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Reedley** *County* **Fresno** *Population* **3** *Rpt Dist* **REEDL** *Beat* **L04C** *Type* **0** *CalTrans* *Badge* **L193** *Collision Date* **20221107** *Time* **1753** *Day* **MON**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20221216**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	-	0000	-		-	1	N		- - -
2	DRVR	21	F	H	HNBD		PROC ST	S	A	0100	-	2018	-	1	N		- L D

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **NORTH AV** *Distance (ft)* **44.0** *Direction* **W** *Secondary Rd* **GREENWOOD AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **M320** *Beat* **M03** *Type* **0** *CalTrans* *Badge* **M158** *Collision Date* **20221110** *Time* **1734** *Day* **THU**
Primary Collision Factor **PED VIOL** *Violation* **21954A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20221229**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **FELONY** *Motor Vehicle Involved With* **PED** *Lighting* **DARK - NO** *Ped Action* **NOT IN X-** *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	A	0100	-		-	3	N		- - -
2	PED	40	F	H			PROC ST	N	N	6000	-		-	3	N		- - -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	SEVERE	40	F	-	0	-	P

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **HANEY AV** *NCIC* **1012** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Reedley** *County* **Fresno** *Population* **3** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **L193** *Collision Date* **20221030** *Time* **2044** *Day* **SUN**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20221219**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	H	HBD-UI		PROC ST	E	D	2200	-	2018	-	3	A	21802	- M C
2	DRVR	37	F	H	HBD-NUI		PROC ST	N	D	2200	-	2000	-	3	N		- M C

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	37	F	1	0	M	C
PASS		11	M	3	0	M	C

Primary Rd **NORTH AVE** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **41 (W)** *NCIC* **1005** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Fresno** *County* **Fresno** *Population* **7** *Rpt Dist* **SOUTH** *Beat* **00G** *Type* **0** *CalTrans* *Badge* **P1094** *Collision Date* **20221018** *Time* **1456** *Day* **TUE**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20221020**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	F	H	HNBD		STOPPED	W	A	0100	HONDA	2002	-	3	N		- L G
2	DRVR	24	M	W	HNBD		STOPPED	S	A	0100	HONDA	2000	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	19	F	1	0	L	G
DRVR	POSSIBL	24	M	1	0	L	G

Primary Rd **NORTH AVE** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **99 HWY (E)** *NCIC* **1005** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Fresno** *County* **Fresno** *Population* **7** *Rpt Dist* **SW** *Beat* *Type* **0** *CalTrans* *Badge* **P1771** *Collision Date* **20220301** *Time* **2311** *Day* **TUE**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **HEAD-ON** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220323**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - NO** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	16	M	H	HNBD		LFT TURN	N	A	0100	MINI	2012	-	3	N		- L G
2	DRVR	46	F	O	HNBD		PROC ST	W	A	0100	HONDA	1999	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd GREENWOOD AV Distance (ft) 154. Direction S Secondary Rd 5TH ST NCIC 1013 State Hwy? N Route Postmile Prefix Postmile Side of Hwy
City Sanger County Fresno Population 3 Rpt Dist SANGE Beat M02 Type 0 CalTrans Badge M165 Collision Date 20210719 Time 1727 Day MON
Primary Collision Factor DRVR ALC|DRG Violation 23152A Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20210908
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
Hit and Run FELONY Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	H	HBD-UI		PROC ST	-	A	0700	-	2018	- 3	N		-	L G
2	DRVR	32	F	W	HNBD		LFT TURN	-	A	0100	-	2013	- 3	M		-	M G
3	PRKD	998	-				PARKED	N	A	0100	-	2006	- -	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	OTH VIS	32	F	1	0	M	G

Primary Rd GREENWOOD AV Distance (ft) 0.00 Direction Secondary Rd CHERRY AV NCIC 1013 State Hwy? N Route Postmile Prefix Postmile Side of Hwy
City Sanger County Fresno Population 3 Rpt Dist M320 Beat 003 Type 0 CalTrans Badge M161 Collision Date 20211125 Time 1327 Day THU
Primary Collision Factor UNKNOWN Violation Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 1 Tow Away? N Process Date 20220507
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	31	M	H			PROC ST	E	A	0100	FORD	2015	- 3	N		-	M G
2	DRVR	25	F	H			PROC ST	S	A	0100	-	2005	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	25	F	1	0	M	G

Primary Rd GREENWOOD AV Distance (ft) 657. Direction S Secondary Rd LIME AV NCIC 1013 State Hwy? N Route Postmile Prefix Postmile Side of Hwy
City Sanger County Fresno Population 3 Rpt Dist SANGE Beat M03 Type 0 CalTrans Badge M090 Collision Date 20211011 Time 1618 Day MON
Primary Collision Factor NOT STATED Violation Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20211207
Weather1 CLEAR Weather2 WIND Rdwy Surface DRY Rdwy Cond1 OTHER Rdwy Cond2 Spec Cond 0
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	72	M	H	HNBD		PROC ST	S	A	0100	JEEP	2007	- 3	E		-	L G
2	DRVR	37	M	H	HNBD		PROC ST	N	D	2200	-	2020	- 3	E		-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd GREENWOOD AV Distance (ft) 9.00 Direction S Secondary Rd NORTH AV NCIC 1013 State Hwy? N Route Postmile Prefix Postmile Side of Hwy
City Sanger County Fresno Population 3 Rpt Dist M320 Beat M03 Type 0 CalTrans Badge M158 Collision Date 20210430 Time 1516 Day FRI
Primary Collision Factor R-O-W AUTO Violation 21802A Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20210521
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	17	F	H	HNBD		RAN OFF RD	S	F	2600	FORD	2004	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd GREENWOOD AV Distance (ft) 0.00 Direction Secondary Rd NORTH AV NCIC 1013 State Hwy? N Route Postmile Prefix Postmile Side of Hwy
City Sanger County Fresno Population 3 Rpt Dist SANGE Beat M03 Type 0 CalTrans Badge M166 Collision Date 20211025 Time 0617 Day MON
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20211210
Weather1 RAINING Weather2 Rdwy Surface WET Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	29	M	H	HBD-NUI		PROC ST	E	A	0100	-	2005	- 3	N		-	L G
2	DRVR	50	F	W	HBD-NUI		PROC ST	S	A	0100	-	2013	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		33	F	3	0	L	G
PASS		23	F	6	0	P	G

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Primary Rd NORTH ABBY ST | Distance (ft) 100. | Direction N | Secondary Rd E OLIVE AVE | NCIC 1005 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Fresno | County Fresno | Population 7 | Rpt Dist CE | Beat 00G | Type 0 | CalTrans | Badge P1380 | Collision Date 20210709 | Time 1730 | Day FRI
Primary Collision Factor IMPROP TURN | Violation 22107 | Collision Type SIDESWIPE | Severity INJURY | #Killed 0 | #Injured 1 | Tow Away? N | Process Date 20210927
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run MSDMNR | Motor Vehicle Involved With OTHER MV | Lighting DAYLIGHT | Ped Action | Cntrl Dev NT PRS/FCTR | Loc Type | Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	CHANG LN	N	A	0100	CHEVR	2005	-	-	A		-	-	-
2	DRVR	57	M	W	HNBD		PROC ST	N	A	0100	HONDA	2004	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	58	F	6	0	M	H

Primary Rd NORTH AV | Distance (ft) 0.00 | Direction | Secondary Rd ACADEMY AV | NCIC 1013 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Sanger | County Fresno | Population 3 | Rpt Dist SANGE | Beat M03 | Type 0 | CalTrans | Badge M166 | Collision Date 20211005 | Time 1704 | Day TUE
Primary Collision Factor OTHER HAZ | Violation 21205 | Collision Type BROADSIDE | Severity INJURY | #Killed 0 | #Injured 1 | Tow Away? | Process Date 20211029
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With BICYCLE | Lighting DAYLIGHT | Ped Action | Cntrl Dev FNCTNG | Loc Type | Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	BICY	72	M	H	HBD-UI		PROC ST	E	L	0400	-		-	3	N		-	-	-
2	DRVR	21	M	A			PROC ST	N	A	0100	-	2007	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	OTH VIS	72	M	9	0	P	-

Primary Rd NORTH AV | Distance (ft) 12.0 | Direction W | Secondary Rd ACADEMY AV | NCIC 1013 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Sanger | County Fresno | Population 3 | Rpt Dist M350 | Beat M03 | Type 0 | CalTrans | Badge M158 | Collision Date 20211130 | Time 1257 | Day TUE
Primary Collision Factor IMPROP TURN | Violation 22107 | Collision Type HIT OBJECT | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? | Process Date 20211227
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With FIXED OBJ | Lighting DAYLIGHT | Ped Action | Cntrl Dev FNCTNG | Loc Type | Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	68	M	A	HNBD		RGT TURN	W	G	2531	-	2013	-	3	L		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd NORTH AV | Distance (ft) 0.00 | Direction | Secondary Rd GREENWOOD AV | NCIC 1013 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Sanger | County Fresno | Population 3 | Rpt Dist M320 | Beat M03 | Type 0 | CalTrans | Badge M160 | Collision Date 20210622 | Time 1927 | Day TUE
Primary Collision Factor STOP SGN|SIG | Violation 22450A | Collision Type BROADSIDE | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? Y | Process Date 20210720
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With OTHER MV | Lighting DAYLIGHT | Ped Action | Cntrl Dev NT PRS/FCTR | Loc Type | Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	32	M	H	HNBD		PROC ST	S	A	0100	-	2014	-	3	N		-	L	G
2	DRVR	57	M	W	HNBD		PROC ST	E	A	0700	JEEP	2014	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		19	F	3	0	L	G

Primary Rd NORTH AV | Distance (ft) 372. | Direction W | Secondary Rd J AVE | NCIC 1013 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Sanger | County Fresno | Population 3 | Rpt Dist SANGE | Beat BEAT3 | Type 0 | CalTrans | Badge M159 | Collision Date 20210310 | Time 2146 | Day WED
Primary Collision Factor R-O-W AUTO | Violation 21804A | Collision Type BROADSIDE | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? | Process Date 20210421
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run MSDMNR | Motor Vehicle Involved With OTHER MV | Lighting DARK - ST | Ped Action | Cntrl Dev NT PRS/FCTR | Loc Type | Ramp/Int

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	-		HNBD		PROC ST	W	A	0100	-		-	3	A	20002	-	N	B
2	DRVR	47	F		HNBD		LFT TURN	E	A	0700	-	2011	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		16	F	3	0	M	G
PASS		18	F	6	0	M	G

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Primary Rd **NORTH AV** *Distance (ft)* **46.0** *Direction* **E** *Secondary Rd* **BETHEL AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **03** *Beat* **M320** *Type* **0** *CalTrans* *Badge* **151** *Collision Date* **20200120** *Time* **1204** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200521**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	55	F	H	HNBD		PROC ST	N	A	0100	HONDA	2013	-	3	A	22450	- M G
2	DRVR	86	F	H	HNBD		STOPPED	W	A	0100	ACURA	2014	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		998	F	3	0	M	G

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BETHEL AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **M03** *Type* **0** *CalTrans* *Badge* **M158** *Collision Date* **20200618** *Time* **1610** *Day* **THU**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20200827**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	42	F	H	HNBD		PROC ST	E	A	0700	-	2008	-	3	N	-	M G
2	DRVR	64	M	H	HNBD		PROC ST	N	F	2600	-	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	42	F	1	0	M	G

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CEDAR AV** *NCIC* **1012** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Reedley** *County* **Fresno** *Population* **3** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **L180** *Collision Date* **20201011** *Time* **1738** *Day* **SUN**
Primary Collision Factor **R-O-W AUTO** *Violation* **21800A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20201229**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	30	F	H			RGT TURN	N	A	0100	-	2017	-	-	N	-	M G
2	DRVR	19	F	H			PROC ST	E	A	0100	-	2008	-	-	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	30	F	1	0	M	G
PASS		26	M	2	0	L	G

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **F ST** *NCIC* **1012** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Reedley** *County* **Fresno** *Population* **3** *Rpt Dist* **REEDL** *Beat* **0RE** *Type* **0** *CalTrans* *Badge* **L145** *Collision Date* **20200924** *Time* **1735** *Day* **THU**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201203**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **CONS ZONE** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	46	M	H	HBD-UI		PROC ST	W	A	0100	FORD	2000	-	3	N	-	L C

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **GREENWOOD AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **M340** *Beat* **B03** *Type* **0** *CalTrans* *Badge* **M166** *Collision Date* **20200209** *Time* **1352** *Day* **SUN**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20200617**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	18	M	H	HBD-NUI		PROC ST	S	A	0100	-	2001	-	1	N	-	M G
2	DRVR	45	F		HBD-NUI			E	A	0100	-	2012	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	45	F	1	0	L	G

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Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **GREENWOOD AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **003** *Type* **0** *CalTrans* *Badge* **M144** *Collision Date* **20201225** *Time* **1924** *Day* **FRI**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210225**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	18	F	B	HNBD		LFT TURN	S	A	0100	-	2003	-	3	N		- L G
2	DRVR	19	M	H	HNBD		PROC ST	E	A	0700	-	2021	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **NORTH AV** *Distance (ft)* **384.** *Direction* **E** *Secondary Rd* **GREENWOOD AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **BEAT 3** *Type* **0** *CalTrans* *Badge* **M159** *Collision Date* **20201227** *Time* **1449** *Day* **SUN**
Primary Collision Factor **OTHER EQPMNT** *Violation* **29003B** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210216**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	57	F	W	HNBD		PROC ST	E	G	2636	-	2008	-	3	O		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		33	F	3	0	M	G
PASS		7	F	4	0	M	G
PASS		4	F	5	0	M	G
PASS		13	M	6	0	M	G

Primary Rd **NORTH AV** *Distance (ft)* **431.** *Direction* **W** *Secondary Rd* **J ST** *NCIC* **1013** *State Hwy?* *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **M390** *Beat* **003** *Type* **0** *CalTrans* *Badge* **M144** *Collision Date* **20200309** *Time* **0925** *Day* **MON**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801B** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200626**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	56	M	H	HNBD		LFT TURN	N	-	0035	-	2003	-	3	N		- M G
2	DRVR	23	F	H	HNBD		PROC ST	E	A	0100	-	2014	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **NORTH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **LILY AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **BEAT3** *Type* **0** *CalTrans* *Badge* **M159** *Collision Date* **20200627** *Time* **0724** *Day* **SAT**
Primary Collision Factor **WRONG SIDE** *Violation* **21202A** *Collision Type* **HEAD-ON** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20200915**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	BICY	38	F	H	HNBD		RGT TURN	E	L	0400	-		-	3	N		- - -
2	DRVR	33	M	H	HNBD		PROC ST	S	F	7600	-	2019	-	3	F		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	COMP PN	38	F	-	0	-	P

Primary Rd **NORTH AV** *Distance (ft)* **49.0** *Direction* **E** *Secondary Rd* **SANGER AV** *NCIC* **1013** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Sanger** *County* **Fresno** *Population* **3** *Rpt Dist* **SANGE** *Beat* **M03** *Type* **0** *CalTrans* *Badge* **M158** *Collision Date* **20200103** *Time* **2126** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20200318**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

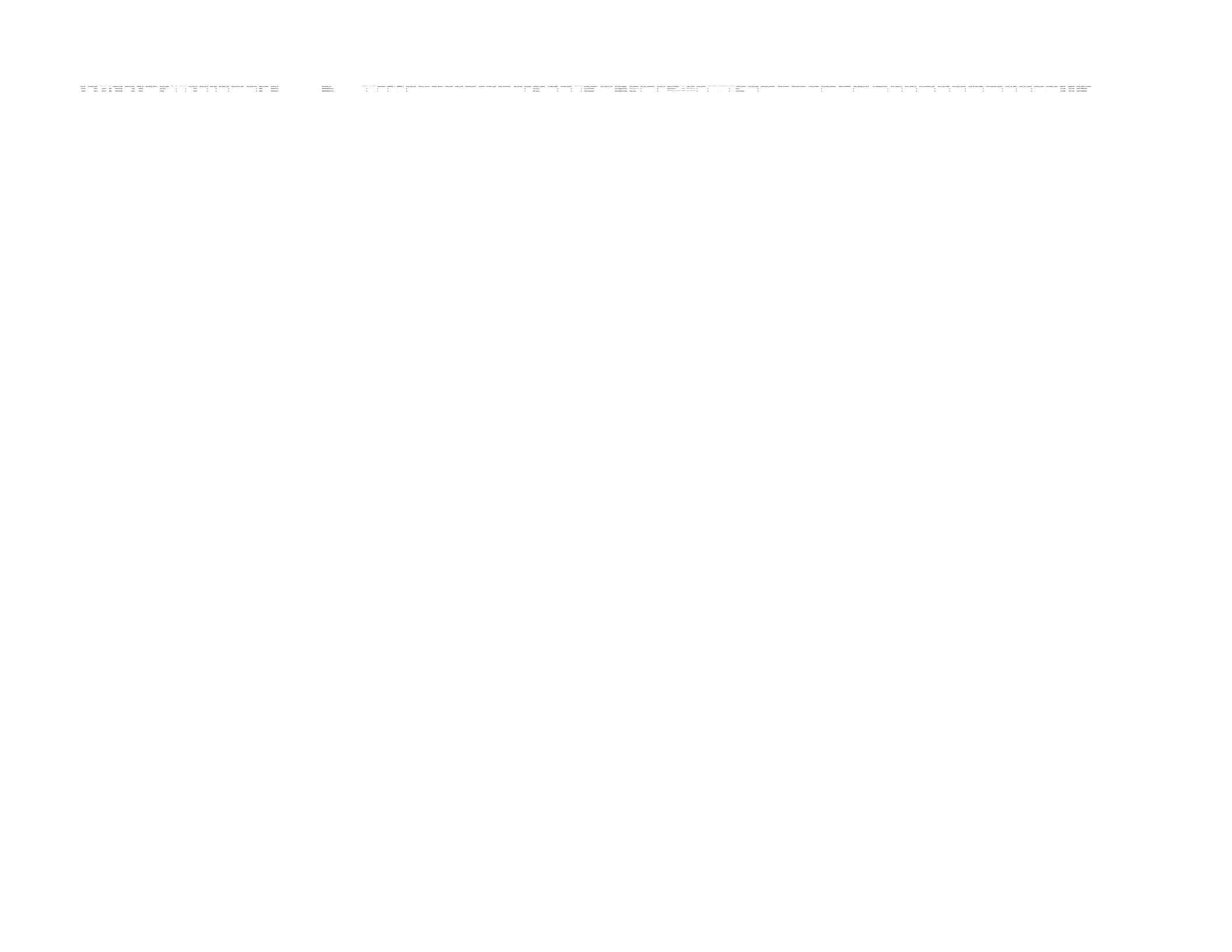
Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	A	HNBD		PROC ST	W	A	0700	SUZUK	2001	-	3	N		- M G
2	DRVR	22	F	A	HNBD		SLOWING	W	A	0100	TOYOT	2017	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	22	F	1	0	M	G
PASS		33	F	3	0	M	G

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APPENDIX D

TRAFFIC SIGNAL WARRANTS

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-23-24

DIST ____ CO ____ RTE ____ PM ____

CALC ____ DATE ____

CHK ____ DATE ____

Major St: NORTH AVE — Critical Approach Speed >40 mph

Minor St: GREENWOOD AVE — Critical Approach Speed <40 mph

Speed limit or critical speed on major street traffic > 40 mph ☒ } RURAL (R)

In built up area of isolated community of < 10,000 population ☐ } or

☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume **SATISFIED YES ☐ NO ☒**
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume **100% SATISFIED YES ☐ NO ☒**
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				0730	1530							
	U	R	U	R									Hour
APPROACH LANES	1		2 or More										
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	621	679							
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	(84)	(89)							

Condition B - Interruption of Continuous Traffic **100% SATISFIED YES ☐ NO ☒**
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				0715	0815	1400	1500	1600	1715	1815		
	U	R	U	R									Hour
APPROACH LANES	1		2 or More										
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	564	(456)	552	682	530	(464)	(434)		
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	86	(49)	60	84	66	72	56		

Combination of Conditions A & B **SATISFIED YES ☐ NO ☒**

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☒
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED* YES ☐ NO ☒**

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	1530 Hour			
Both Approaches - Major Street	X		679			
Higher Approach - Minor Street			89			

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☒

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☐**
(Part A or Part B must be satisfied)

PART A **SATISFIED YES ☐ NO ☒**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches. 841	Yes ☒ No ☐

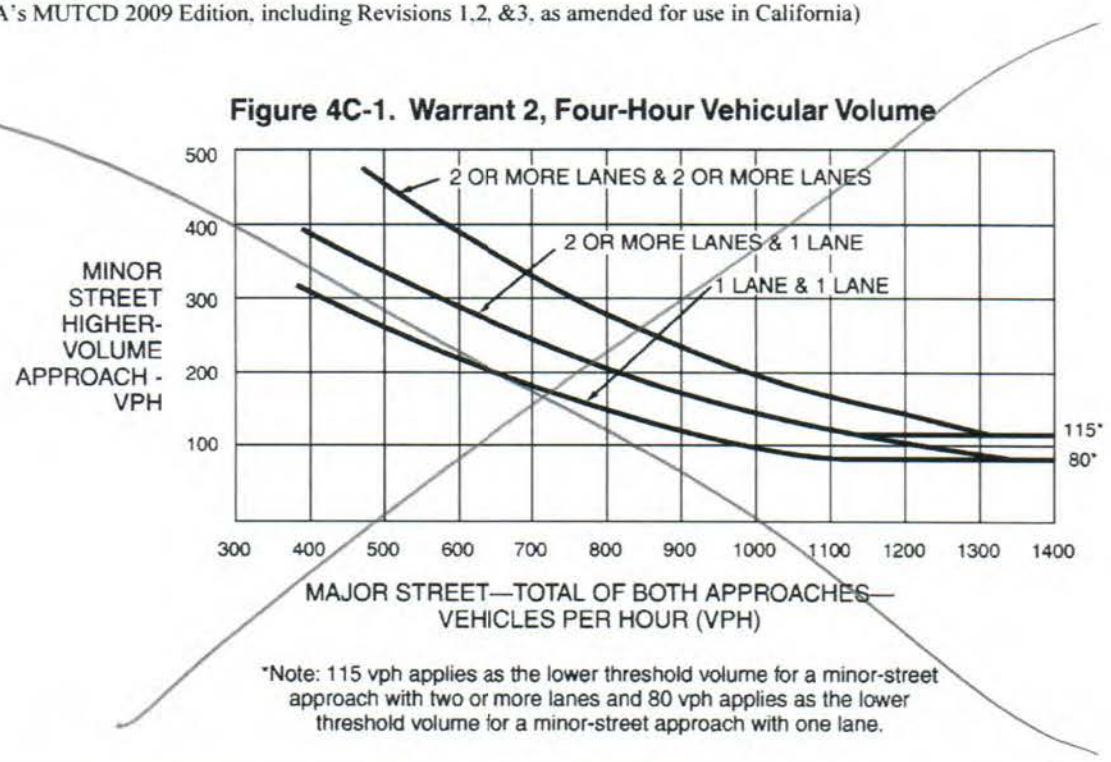
PART B **SATISFIED YES ☐ NO ☒**

APPROACH LANES	One	2 or More	1515 Hour
Both Approaches - Major Street	X		702
Higher Approach - Minor Street			79

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☐
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

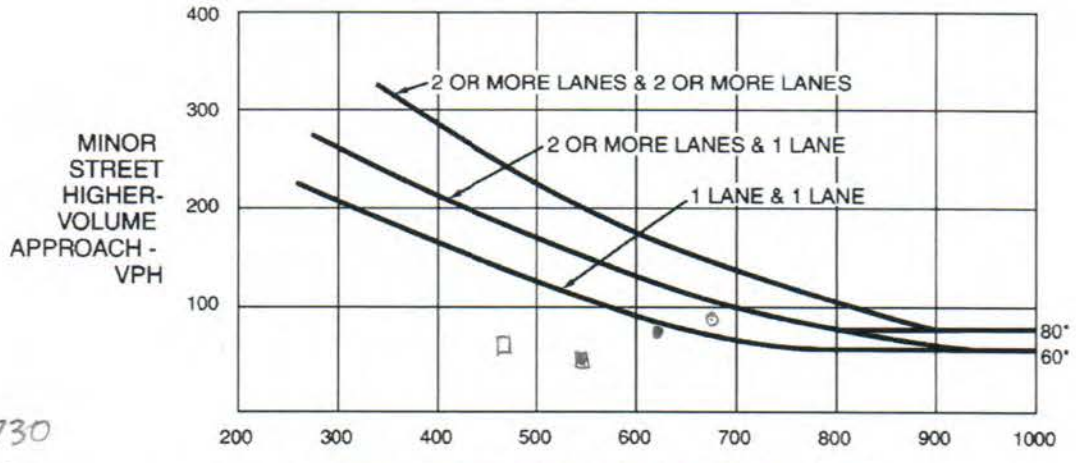
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

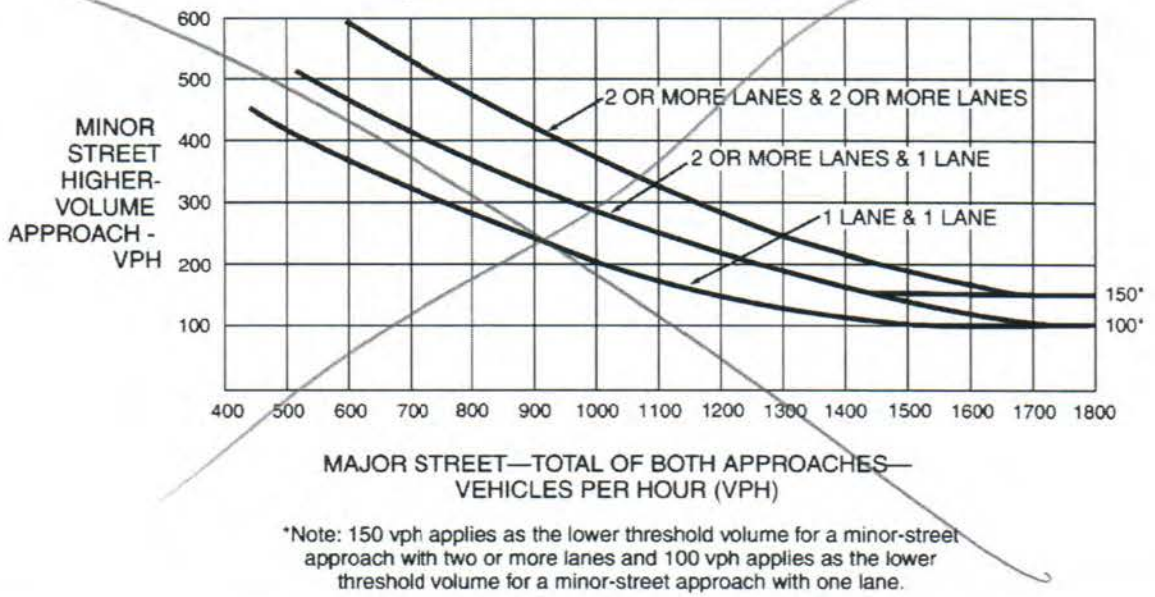
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

● 0730
○ 1530
▣ 1400
□ 1715

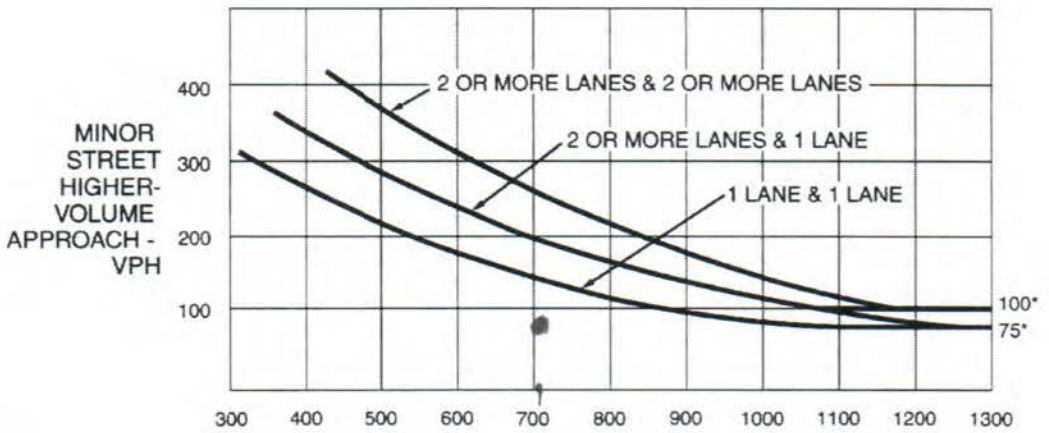
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



• 1515

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 4 of 5)

WARRANT 6 - Coordinated Signal System **SATISFIED YES ☐ NO ☐**
(All Parts Must Be Satisfied)

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	
≥ 1000 ft	N _____ ft, S _____ ft, E _____ ft, W _____ ft	Yes ☐ No ☐
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.		Yes ☐ No ☐
OR, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		

WARRANT 7 - Crash Experience Warrant **SATISFIED YES ☐ NO ☐**
(All Parts Must Be Satisfied)

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency.			Yes ☐ No ☒
REQUIREMENTS	Number of crashes reported within a 12 month period susceptible to correction by a traffic signal, and involving injury or damage exceeding the requirements for a reportable crash.		Yes ☐ No ☒
5 OR MORE	3		
REQUIREMENTS	CONDITIONS	✓	Yes ☐ No ☒
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic		
	OR, Warrant 4, Pedestrian Volume Condition Ped Vol ≥ 80% of Figure 4C-5 through Figure 4C-8		

WARRANT 8 - Roadway Network **SATISFIED YES ☐ NO ☐**
(All Parts Must Be Satisfied)

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULFILLED
1000 Veh/Hr	During Typical Weekday Peak Hour _____ Veh/Hr and has 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.		Yes ☐ No ☐
	OR During Each of Any 5 Hrs. of a Sat. or Sun _____ Veh/Hr		

CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B	
Hwy. System Serving as Principal Network for Through Traffic			
Rural or Suburban Highway Outside Of, Entering, or Traversing a City			
Appears as Major Route on an Official Plan			
Any Major Route Characteristics Met, Both Streets			Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

	MINOR		MAJOR		EB+WB	NB or SB						
Period	NB	SB	EB	WB	Combined Major	Greatest Minor	Major >350?	Minor >105?	100% Satisfied?	Major >280?	Minor >84?	80% Satisfied?
00:00	1	2	12	11								
00:15	1	1	17	9								
00:30	2	3	23	7								
00:45	3	4	22	10	111	10	NO	NO		NO	NO	
01:00	3	5	11	8	107	13	NO	NO		NO	NO	
01:15	1	0	7	4	92	12	NO	NO		NO	NO	
01:30	2	1	2	5	69	10	NO	NO		NO	NO	
01:45	1	0	7	1	45	7	NO	NO		NO	NO	
02:00	1	0	2	0	28	5	NO	NO		NO	NO	
02:15	1	0	3	4	24	5	NO	NO		NO	NO	
02:30	1	0	5	5	27	4	NO	NO		NO	NO	
02:45	0	1	4	3	26	3	NO	NO		NO	NO	
03:00	2	0	1	3	28	4	NO	NO		NO	NO	
03:15	0	2	4	2	27	3	NO	NO		NO	NO	
03:30	1	3	5	7	29	6	NO	NO		NO	NO	
03:45	0	2	7	5	34	7	NO	NO		NO	NO	
04:00	2	1	11	6	47	8	NO	NO		NO	NO	
04:15	1	1	8	17	66	7	NO	NO		NO	NO	
04:30	1	11	11	12	77	15	NO	NO		NO	NO	
04:45	4	8	14	14	93	21	NO	NO		NO	NO	
05:00	6	5	18	21	115	25	NO	NO		NO	NO	
05:15	7	5	18	27	135	29	NO	NO		NO	NO	
05:30	4	16	30	36	178	34	NO	NO		NO	NO	
05:45	7	9	48	30	228	35	NO	NO		NO	NO	
06:00	5	10	21	36	246	40	NO	NO		NO	NO	
06:15	8	16	26	44	271	51	NO	NO		NO	NO	
06:30	8	12	30	41	276	47	NO	NO		NO	NO	
06:45	10	12	39	47	284	50	NO	NO		YES	NO	
07:00	6	12	36	49	312	52	NO	NO		YES	NO	
07:15	14	18	42	71	355	54	YES	NO		YES	NO	
07:30	28	17	47	77	408	59	YES	NO		YES	NO	
07:45	26	25	60	86	468	74	YES	NO		YES	NO	
08:00	14	26	66	115	564	86	YES	NO		YES	YES	YES
08:15	13	16	90	80	621	84	YES	NO		YES	YES	YES
08:30	12	13	56	47	600	80	YES	NO		YES	NO	
08:45	10	8	56	31	541	63	YES	NO		YES	NO	
09:00	6	12	57	39	456	49	YES	NO		YES	NO	
09:15	3	10	36	43	365	43	YES	NO		YES	NO	
09:30	7	13	22	70	354	43	YES	NO		YES	NO	
09:45	10	18	26	57	350	53	YES	NO		YES	NO	
10:00	6	17	50	48	352	58	YES	NO		YES	NO	
10:15	5	16	28	30	331	64	NO	NO		YES	NO	
10:30	11	14	37	49	325	65	NO	NO		YES	NO	
10:45	10	12	52	30	324	59	NO	NO		YES	NO	
11:00	12	9	58	43	327	51	NO	NO		YES	NO	
11:15	6	14	41	33	343	49	NO	NO		YES	NO	
11:30	10	14	33	39	329	49	NO	NO		YES	NO	
11:45	6	11	32	35	314	48	NO	NO		YES	NO	
12:00	15	15	51	46	310	54	NO	NO		YES	NO	
12:15	9	14	33	47	316	54	NO	NO		YES	NO	
12:30	10	20	33	53	330	60	NO	NO		YES	NO	
12:45	6	9	51	41	355	58	YES	NO		YES	NO	
13:00	8	7	51	42	351	50	YES	NO		YES	NO	
13:15	8	9	29	40	340	45	NO	NO		YES	NO	
13:30	11	13	47	41	342	38	NO	NO		YES	NO	
13:45	11	13	61	44	355	42	YES	NO		YES	NO	
14:00	10	9	49	50	361	44	YES	NO		YES	NO	
14:15	13	12	71	65	428	47	YES	NO		YES	NO	
14:30	18	11	80	74	494	52	YES	NO		YES	NO	
14:45	19	18	88	75	552	60	YES	NO		YES	NO	
15:00	17	22	75	53	581	67	YES	NO		YES	NO	
15:15	20	16	76	78	599	74	YES	NO		YES	NO	
15:30	11	21	142	89	676	77	YES	NO		YES	NO	
15:45	17	25	90	79	682	84	YES	NO		YES	YES	YES
16:00	12	17	75	73	702	79	YES	NO		YES	NO	
16:15	16	26	69	62	679	89	YES	NO		YES	YES	YES
16:30	19	14	49	58	555	82	YES	NO		YES	NO	
16:45	14	9	66	78	530	66	YES	NO		YES	NO	
17:00	13	11	71	54	507	62	YES	NO		YES	NO	
17:15	15	16	81	58	515	61	YES	NO		YES	NO	
17:30	22	17	63	48	519	64	YES	NO		YES	NO	
17:45	18	19	68	48	491	68	YES	NO		YES	NO	
18:00	12	20	44	54	464	72	YES	NO		YES	NO	
18:15	11	14	60	64	449	70	YES	NO		YES	NO	
18:30	12	15	47	69	454	68	YES	NO		YES	NO	
18:45	15	15	49	44	431	64	YES	NO		YES	NO	
19:00	8	12	59	42	434	56	YES	NO		YES	NO	
19:15	7	9	58	40	408	51	YES	NO		YES	NO	
19:30	9	9	40	41	373	45	YES	NO		YES	NO	
19:45	13	6	32	27	339	37	NO	NO		YES	NO	
20:00	7	6	36	42	316	36	NO	NO		YES	NO	
20:15	18	7	46	35	299	47	NO	NO		YES	NO	
20:30	9	13	42	27	287	47	NO	NO		YES	NO	
20:45	5	10	40	28	296	39	NO	NO		YES	NO	
21:00	8	11	33	36	287	41	NO	NO		YES	NO	
21:15	9	12	36	24	266	46	NO	NO		NO	NO	
21:30	8	16	28	28	253	49	NO	NO		NO	NO	
21:45	5	2	23	19	227	41	NO	NO		NO	NO	
22:00	7	3	22	11	191	33	NO	NO		NO	NO	
22:15	3	6	24	13	168	27	NO	NO		NO	NO	
22:30	4	5	13	21	146	19	NO	NO		NO	NO	
22:45	4	4	26	9	139	18	NO	NO		NO	NO	
23:00	5	3	19	14	139	18	NO	NO		NO	NO	
23:15	1	3	7	11	120	15	NO	NO		NO	NO	
23:30	3	2	20	10	116	13	NO	NO		NO	NO	
23:45	4	2	9	13	103	13	NO	NO		NO	NO	

	MINOR		MAJOR		EB+WB	NB or SB						
Period	NB	SB	EB	WB	Combined Major	Greatest Minor	Major >525?	Minor >53?	100% Satisfied?	Major >420?	Minor >42?	80% Satisfied?
00:00	1	2	12	11								
00:15	1	1	17	9								
00:30	2	3	23	7								
00:45	3	4	22	10	111	10	NO	NO		NO	NO	
01:00	3	5	11	8	107	13	NO	NO		NO	NO	
01:15	1	0	7	4	92	12	NO	NO		NO	NO	
01:30	2	1	2	5	69	10	NO	NO		NO	NO	
01:45	1	0	7	1	45	7	NO	NO		NO	NO	
02:00	1	0	2	0	28	5	NO	NO		NO	NO	
02:15	1	0	3	4	24	5	NO	NO		NO	NO	
02:30	1	0	5	5	27	4	NO	NO		NO	NO	
02:45	0	1	4	3	26	3	NO	NO		NO	NO	
03:00	2	0	1	3	28	4	NO	NO		NO	NO	
03:15	0	2	4	2	27	3	NO	NO		NO	NO	
03:30	1	3	5	7	29	6	NO	NO		NO	NO	
03:45	0	2	7	5	34	7	NO	NO		NO	NO	
04:00	2	1	11	6	47	8	NO	NO		NO	NO	
04:15	1	1	8	17	66	7	NO	NO		NO	NO	
04:30	1	11	11	12	77	15	NO	NO		NO	NO	
04:45	4	8	14	14	93	21	NO	NO		NO	NO	
05:00	6	5	18	21	115	25	NO	NO		NO	NO	
05:15	7	5	18	27	135	29	NO	NO		NO	NO	
05:30	4	16	30	36	178	34	NO	NO		NO	NO	
05:45	7	9	48	30	228	35	NO	NO		NO	NO	
06:00	5	10	21	36	246	40	NO	NO		NO	NO	
06:15	8	16	26	44	271	51	NO	NO		NO	YES	
06:30	8	12	30	41	276	47	NO	NO		NO	YES	
06:45	10	12	39	47	284	50	NO	NO		NO	YES	
07:00	6	12	36	49	312	52	NO	NO		NO	YES	
07:15	14	18	42	71	355	54	NO	YES		NO	YES	
07:30	28	17	47	77	408	59	NO	YES		NO	YES	
07:45	26	25	60	86	468	74	NO	YES		YES	YES	YES
08:00	14	26	66	115	564	86	YES	YES	YES	YES	YES	YES
08:15	13	16	90	80	621	84	YES	YES	YES	YES	YES	YES
08:30	12	13	56	47	600	80	YES	YES	YES	YES	YES	YES
08:45	10	8	56	31	541	63	YES	YES	YES	YES	YES	YES
09:00	6	12	57	39	456	49	NO	NO		YES	YES	YES
09:15	3	10	36	43	365	43	NO	NO		NO	YES	
09:30	7	13	22	70	354	43	NO	NO		NO	YES	
09:45	10	18	26	57	350	53	NO	YES		NO	YES	
10:00	6	17	50	48	352	58	NO	YES		NO	YES	
10:15	5	16	28	30	331	64	NO	YES		NO	YES	
10:30	11	14	37	49	325	65	NO	YES		NO	YES	
10:45	10	12	52	30	324	59	NO	YES		NO	YES	
11:00	12	9	58	43	327	51	NO	NO		NO	YES	
11:15	6	14	41	33	343	49	NO	NO		NO	YES	
11:30	10	14	33	39	329	49	NO	NO		NO	YES	
11:45	6	11	32	35	314	48	NO	NO		NO	YES	
12:00	15	15	51	46	310	54	NO	YES		NO	YES	
12:15	9	14	33	47	316	54	NO	YES		NO	YES	
12:30	10	20	33	53	330	60	NO	YES		NO	YES	
12:45	6	9	51	41	355	58	NO	YES		NO	YES	
13:00	8	7	51	42	351	50	NO	NO		NO	YES	
13:15	8	9	29	40	340	45	NO	NO		NO	YES	
13:30	11	13	47	41	342	38	NO	NO		NO	NO	
13:45	11	13	61	44	355	42	NO	NO		NO	YES	
14:00	10	9	49	50	361	44	NO	NO		NO	YES	
14:15	13	12	71	65	428	47	NO	NO		YES	YES	YES
14:30	18	11	80	74	494	52	NO	NO		YES	YES	YES
14:45	19	18	88	75	552	60	YES	YES	YES	YES	YES	YES
15:00	17	22	75	53	581	67	YES	YES	YES	YES	YES	YES
15:15	20	16	76	78	599	74	YES	YES	YES	YES	YES	YES
15:30	11	21	142	89	676	77	YES	YES	YES	YES	YES	YES
15:45	17	25	90	79	682	84	YES	YES	YES	YES	YES	YES
16:00	12	17	75	73	702	79	YES	YES	YES	YES	YES	YES
16:15	16	26	69	62	679	89	YES	YES	YES	YES	YES	YES
16:30	19	14	49	58	555	82	YES	YES	YES	YES	YES	YES
16:45	14	9	66	78	530	66	YES	YES	YES	YES	YES	YES
17:00	13	11	71	54	507	62	NO	YES		YES	YES	YES
17:15	15	16	81	58	515	61	NO	YES		YES	YES	YES
17:30	22	17	63	48	519	64	NO	YES		YES	YES	YES
17:45	18	19	68	48	491	68	NO	YES		YES	YES	YES
18:00	12	20	44	54	464	72	NO	YES		YES	YES	YES
18:15	11	14	60	64	449	70	NO	YES		YES	YES	YES
18:30	12	15	47	69	454	68	NO	YES		YES	YES	YES
18:45	15	15	49	44	431	64	NO	YES		YES	YES	YES
19:00	8	12	59	42	434	56	NO	YES		YES	YES	YES
19:15	7	9	58	40	408	51	NO	NO		NO	YES	
19:30	9	9	40	41	373	45	NO	NO		NO	YES	
19:45	13	6	32	27	339	37	NO	NO		NO	NO	
20:00	7	6	36	42	316	36	NO	NO		NO	NO	
20:15	18	7	46	35	299	47	NO	NO		NO	YES	
20:30	9	13	42	27	287	47	NO	NO		NO	YES	
20:45	5	10	40	28	296	39	NO	NO		NO	NO	
21:00	8	11	33	36	287	41	NO	NO		NO	NO	
21:15	9	12	36	24	266	46	NO	NO		NO	YES	
21:30	8	16	28	28	253	49	NO	NO		NO	YES	
21:45	5	2	23	19	227	41	NO	NO		NO	NO	
22:00	7	3	22	11	191	33	NO	NO		NO	NO	
22:15	3	6	24	13	168	27	NO	NO		NO	NO	
22:30	4	5	13	21	146	19	NO	NO		NO	NO	
22:45	4	4	26	9	139	18	NO	NO		NO	NO	
23:00	5	3	19	14	139	18	NO	NO		NO	NO	
23:15	1	3	7	11	120	15	NO	NO		NO	NO	
23:30	3	2	20	10	116	13	NO	NO		NO	NO	
23:45	4	2	9	13	103	13	NO	NO		NO	NO	

	MINOR				MAJOR			EB+WB	NB+SB										
Period	NB	NB or EBPed/Bike	SB	SB or WB Ped/Bike	EB	EB or NB Ped/Bike	WB	WB or SB Ped/Bike	Combined Major	Combined Minor	For speeds less than 40 MPH on Major Street						Use 70% if speeds greater than 40 MPH on Major Street		
											Major ≥ 300?	Minor ≥ 150?	100% Satisfied?	Major ≥ 240?	Minor ≥ 120?	80% Satisfied?	Major ≥ 210?	Minor ≥ 105?	100% Satisfied?
00:00	1		1		7		6												
00:15	3		2		15		7												
00:30	1		1		20		4												
00:45	0		2		18		6		83	11	NO	NO		NO	NO		NO	NO	
01:00	1		2		8		6		84	12	NO	NO		NO	NO		NO	NO	
01:15	0		0		1		9		72	7	NO	NO		NO	NO		NO	NO	
01:30	0		0		3		10		61	5	NO	NO		NO	NO		NO	NO	
01:45	1		1		5		7		49	5	NO	NO		NO	NO		NO	NO	
02:00	0		3		5		3		43	5	NO	NO		NO	NO		NO	NO	
02:15	0		2		7		4		44	7	NO	NO		NO	NO		NO	NO	
02:30	0		1		4		9		44	8	NO	NO		NO	NO		NO	NO	
02:45	0		0		3		4		39	6	NO	NO		NO	NO		NO	NO	
03:00	0		1		2		4		37	4	NO	NO		NO	NO		NO	NO	
03:15	0		4		1		3		30	6	NO	NO		NO	NO		NO	NO	
03:30	1		1		7		3		27	7	NO	NO		NO	NO		NO	NO	
03:45	3		4		5		5		30	14	NO	NO		NO	NO		NO	NO	
04:00	0		3		3		5		32	16	NO	NO		NO	NO		NO	NO	
04:15	1		6		11		13		52	19	NO	NO		NO	NO		NO	NO	
04:30	0		7		8		6		56	24	NO	NO		NO	NO		NO	NO	
04:45	5		5		16		18		80	27	NO	NO		NO	NO		NO	NO	
05:00	1		8		12		13		97	33	NO	NO		NO	NO		NO	NO	
05:15	5		11		23		23		119	42	NO	NO		NO	NO		NO	NO	
05:30	6		20		22		22		149	61	NO	NO		NO	NO		NO	NO	
05:45	9		20		40		28		183	80	NO	NO		NO	NO		NO	NO	
06:00	8		14		20		27		205	93	NO	NO		NO	NO		NO	NO	
06:15	6		12		18		36		213	95	NO	NO		NO	NO		YES	NO	
06:30	5		22		26		50		245	96	NO	NO		YES	NO		YES	NO	
06:45	13		19		42		37		256	99	NO	NO		YES	NO		YES	NO	
07:00	12		11		33		35		277	100	NO	NO		YES	NO		YES	NO	
07:15	10		12		36		54		313	104	YES	NO		YES	NO		YES	NO	
07:30	27		16		68		90		395	120	YES	NO		YES	NO		YES	NO	
07:45	23		24		113		97		526	135	YES	NO		YES	NO		YES	NO	
08:00	19		31		64		70		592	162	YES	NO		YES	YES	YES	YES	YES	YES
08:15	13		15		74		92		668	168	YES	NO		YES	YES	YES	YES	YES	YES
08:30	8		13		72		44		626	146	YES	NO		YES	NO		YES	YES	YES
08:45	15		10		45		29		490	124	YES	NO		YES	NO		YES	NO	
09:00	10		11		37		32		425	95	YES	NO		YES	NO		YES	NO	
09:15	9		11		31		45		335	87	YES	NO		YES	NO		YES	NO	
09:30	9		7		27		31		277	82	NO	NO		YES	NO		YES	NO	
09:45	10		8		38		42		283	75	NO	NO		YES	NO		YES	NO	
10:00	13		12		23		37		274	79	NO	NO		YES	NO		YES	NO	
10:15	8		9		24		51		273	76	NO	NO		YES	NO		YES	NO	
10:30	10		13		25		27		267	83	NO	NO		YES	NO		YES	NO	
10:45	8		11		38		27		252	84	NO	NO		YES	NO		YES	NO	
11:00	6		8		25		40		257	73	NO	NO		YES	NO		YES	NO	
11:15	8		10		36		32		250	74	NO	NO		YES	NO		YES	NO	
11:30	13		12		39		40		277	76	NO	NO		YES	NO		YES	NO	
11:45	13		9		43		35		290	79	NO	NO		YES	NO		YES	NO	
12:00	4		14		31		35		291	83	NO	NO		YES	NO		YES	NO	
12:15	10		13		42		38		303	88	YES	NO		YES	NO		YES	NO	
12:30	18		12		55		48		327	93	YES	NO		YES	NO		YES	NO	
12:45	10		15		41		37		327	96	YES	NO		YES	NO		YES	NO	
13:00	12		11		45		48		354	101	YES	NO		YES	NO		YES	NO	
13:15	13		13		34		49		357	104	YES	NO		YES	NO		YES	NO	
13:30	8		19		34		41		329	101	YES	NO		YES	NO		YES	NO	
13:45	19		10		66		35		352	105	YES	NO		YES	NO		YES	NO	
14:00	19		12		53		56		368	113	YES	NO		YES	NO		YES	NO	
14:15	12		10		50		57		392	109	YES	NO		YES	NO		YES	NO	
14:30	25		12		87		57		461	119	YES	NO		YES	NO		YES	NO	
14:45	24		24		73		77		510	138	YES	NO		YES	NO		YES	NO	
15:00	17		26		65		99		565	150	YES	NO		YES	NO		YES	YES	YES
15:15	21		19		144		72		674	168	YES	NO		YES	YES	YES	YES	YES	YES
15:30	25		25		80		63		673	181	YES	NO		YES	YES	YES	YES	YES	YES
15:45	24		15		78		46		647	172	YES	NO		YES	YES	YES	YES	YES	YES
16:00	16		15		81		66		630	160	YES	NO		YES	YES	YES	YES	YES	YES
16:15	20		26		38		49		501	166	YES	NO		YES	YES	YES	YES	YES	YES
16:30	16		14		58		62		478	146	YES	NO		YES	NO		YES	YES	YES
16:45	19		16		77		60		491	142	YES	NO		YES	NO		YES	YES	YES
17:00	10		17		68		56		468	138	YES	NO		YES	NO		YES	NO	
17:15	24		11		72		59		512	127	YES	NO		YES	NO		YES	NO	
17:30	20		19		65		65		522	136	YES	NO		YES	NO		YES	NO	
17:45	14		14		60		59		504	129	YES	NO		YES	NO		YES	NO	
18:00	13		15		63		52		495	130	YES	NO		YES	NO		YES	NO	
18:15	15		12		44		42		450	122	YES	NO		YES	NO		YES	NO	
18:30	5		11		52		34		406	99	YES	NO		YES	NO		YES	NO	
18:45	11		15		58		26		371	97	YES	NO		YES	NO		YES	NO	
19:00	11		12		45		46		347	92	YES	NO		YES	NO		YES	NO	
19:15	14		18		36		41		338	97	YES	NO		YES	NO		YES	NO	
19:30	12		11		36		28		316	104	YES	NO		YES	NO		YES	NO	
19:45	10		8		25		44		301	96	YES	NO		YES	NO		YES	NO	
20:00	10		15		36		61		307	98	YES	NO		YES	NO		YES	NO	
20:15	10		12		31		49		310	88	YES	NO		YES	NO		YES	NO	
20:30	12		7		45		67		358	84	YES	NO		YES	NO		YES	NO	
20:45	3		6		33		33		355	75	YES	NO		YES	NO		YES	NO	
21:00	9		5		40		33		331	64	YES	NO		YES	NO		YES	NO	
21:15	13		8		28		17		296	63	NO	NO		YES	NO		YES	NO	
21:30	3		7		35		23		242	54	NO	NO		YES	NO		YES	NO	
21:45	10		3		21		21		218	58	NO	NO		NO	NO		YES	NO	
22:00	17		1		7		17		169	62	NO	NO		NO	NO		NO	NO	
22:15	13		3		3		10		137	57	NO	NO		NO	NO		NO	NO	
22:30	20		2		3		6		88	69	NO	NO		NO	NO		NO	NO	
22:45	1		0		17		10		73	57	NO	NO		NO	NO		NO	NO	
23:00	1		3		15		11		75	43	NO	NO		NO	NO		NO	NO	
23:15	4		3		12		11		85	34	NO	NO		NO	NO		NO	NO	
23:30	1		0		9		6		91	13	NO	NO		NO	NO		NO	NO	
23:45	2		2		17		8		89	16	NO	NO		NO	NO		NO	NO	

Warrant 3: Peak Hour

Near-Term With Project

8: McCall Ave & North Ave

Intersection Information:

	Major Street	Minor Street
Street Name	McCall Ave	North Ave
Direction	NB/SB	EB/WB
Number of Lanes	1	1
Approach Speed	50	50

Warrant 3 Met? **Yes**

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

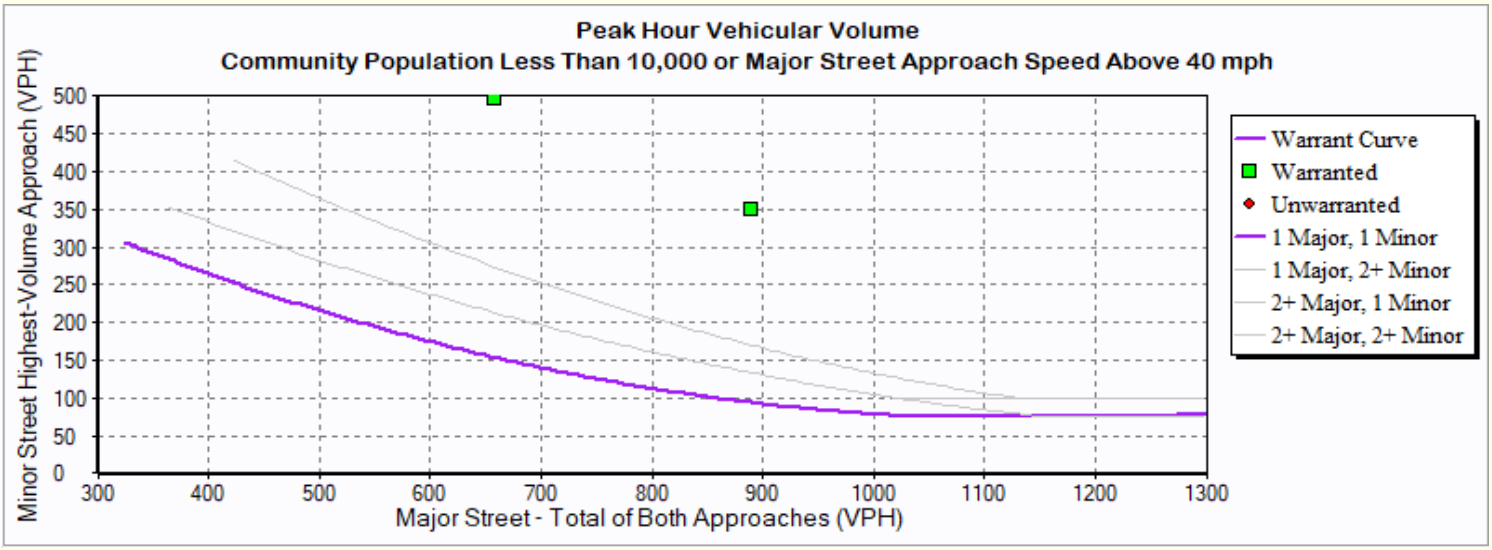
Condition B Met? Yes

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Warrant 3: Peak Hour

8: McCall Ave & North Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	658	519
16:45	890	349

Warrant 3: Peak Hour

Near-Term With Project

11: Bethel Ave & North Ave

Intersection Information:

	Major Street	Minor Street
Street Name	North Ave	Bethel Ave
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	50	40

Warrant 3 Met? **Yes**

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

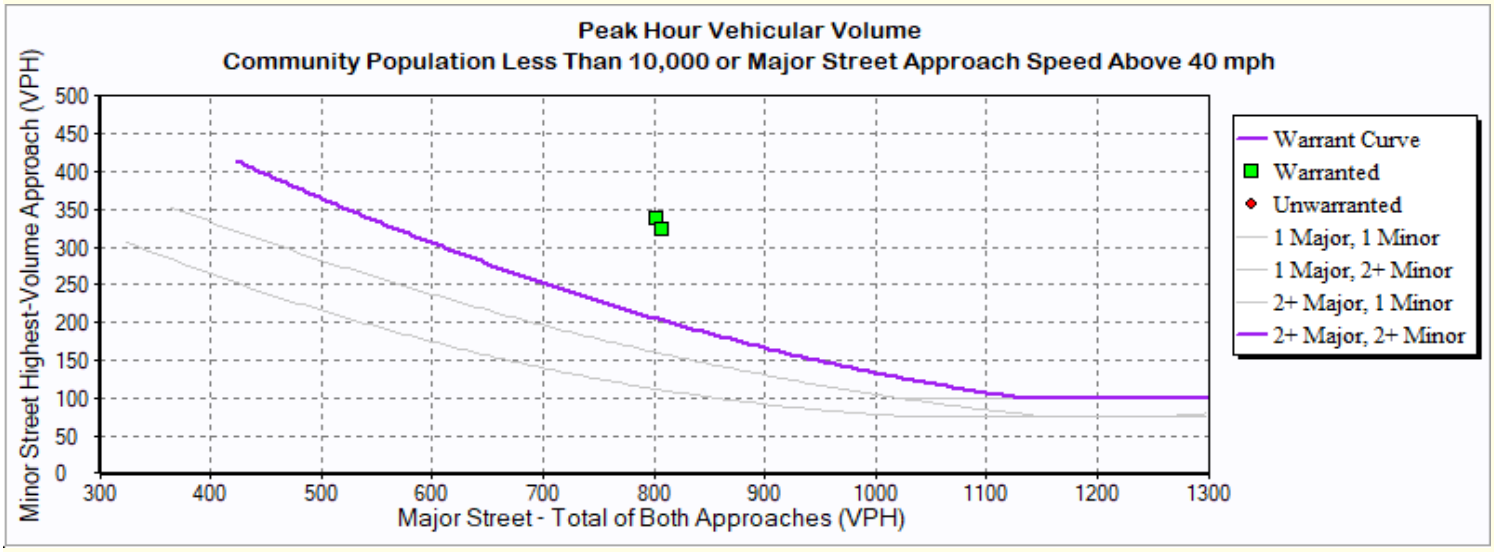
Condition B Met? Yes

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Warrant 3: Peak Hour

11: Bethel Ave & North Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	807	323
16:45	802	338

Warrant 3: Peak Hour

Year 2045 With Project

12: Greenwood Ave & North Ave

Intersection Information:

	Major Street	Minor Street
Street Name	North Ave	Greenwood Ave
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	50	50

Warrant 3 Met? **Yes**

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

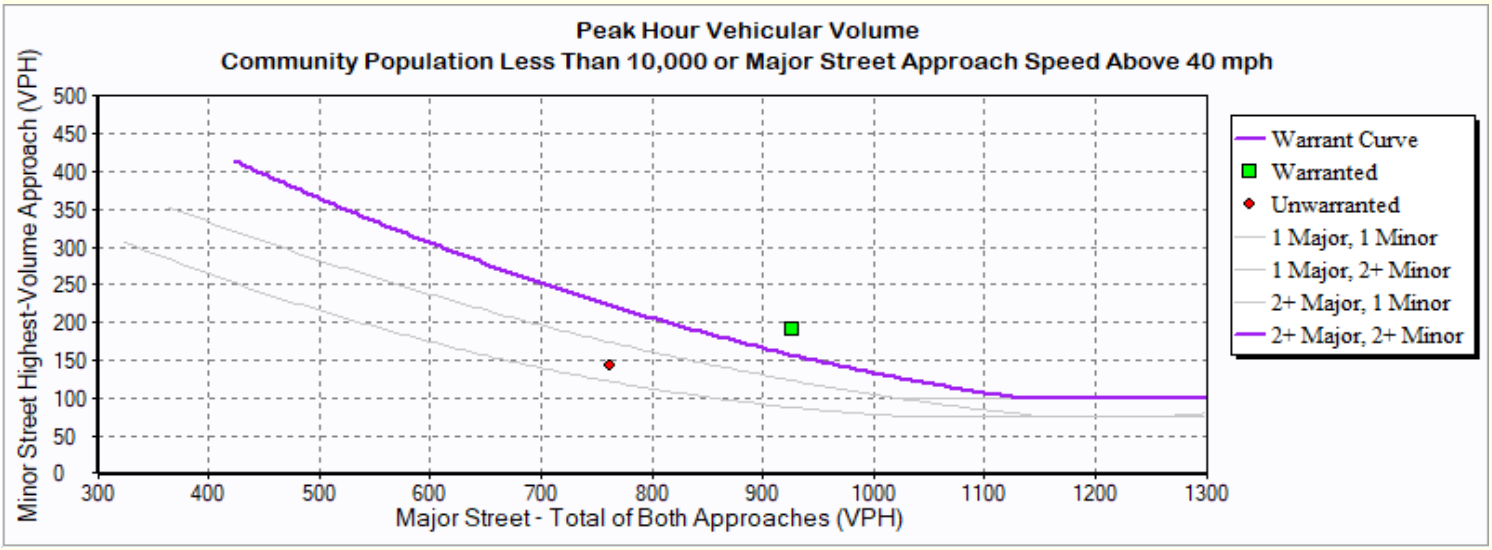
Condition B Met? Yes

Notes 1 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Warrant 3: Peak Hour

12: Greenwood Ave & North Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	927	191
17:00	762	144

Warrant 3: Peak Hour

Near-Term With Project

12: Greenwood Ave & North Ave

Intersection Information:

	Major Street	Minor Street
Street Name	North Ave	Greenwood Ave
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	50	50

Warrant 3 Met? **No**

Details

Low Population? No

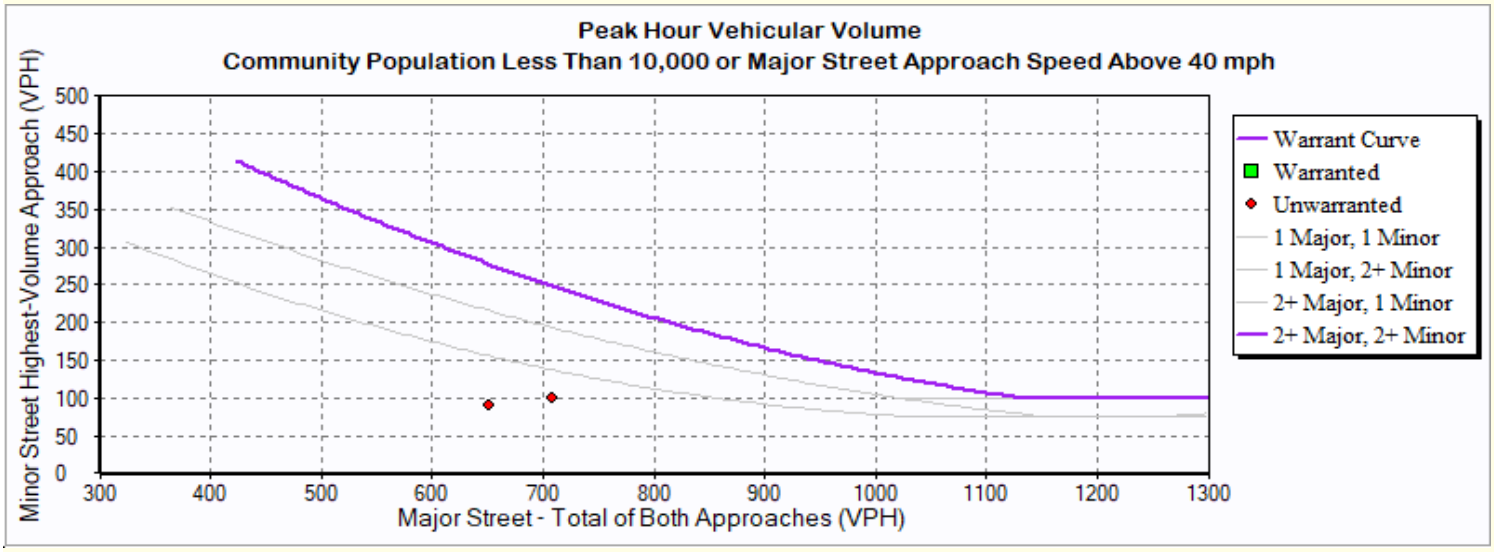
Condition A Met? No

Notes 0 Hours met (1 required)

Condition B Met? No

Notes 0 Hours met (1 required)

Minor Approach Time Delay Condition Met?	Not Met
Minor Approach Volume Condition Met?	Met
Total Entering Intersection Volume Condition Met?	Not Met



12: Greenwood Ave & North Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	708	100
17:00	651	90

Warrant 3: Peak Hour

Year 2045 With Project

13: McCall Ave & Central Ave

Intersection Information:

	Major Street	Minor Street
Street Name	McCall Ave	Central Ave
Direction	NB/SB	EB/WB
Number of Lanes	1	1
Approach Speed	50	50

Warrant 3 Met? **Yes**

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

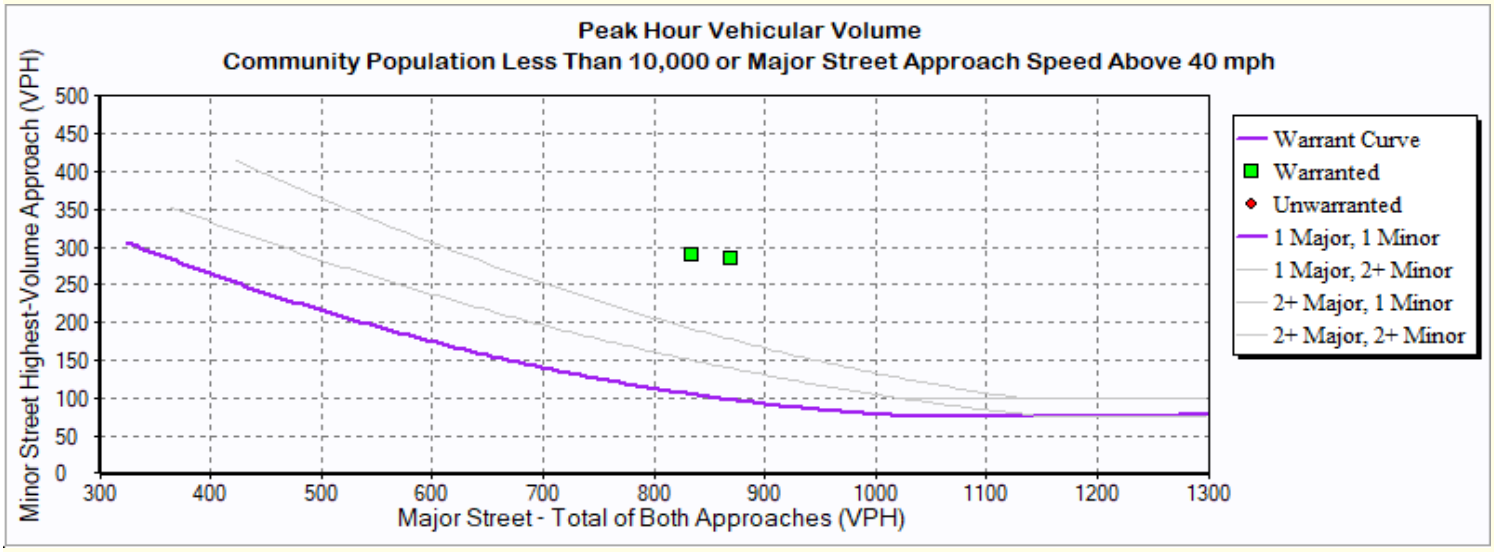
Condition B Met? Yes

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Warrant 3: Peak Hour

13: McCall Ave & Central Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	835	290
17:00	870	284

Warrant 3: Peak Hour

Year 2045 With Project

14: Bethel Ave & Central Ave

Intersection Information:

	Major Street	Minor Street
Street Name	Central Ave	Bethel Ave
Direction	EB/WB	NB/SB
Number of Lanes	1	1
Approach Speed	50	40

Warrant 3 Met? **Yes**

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

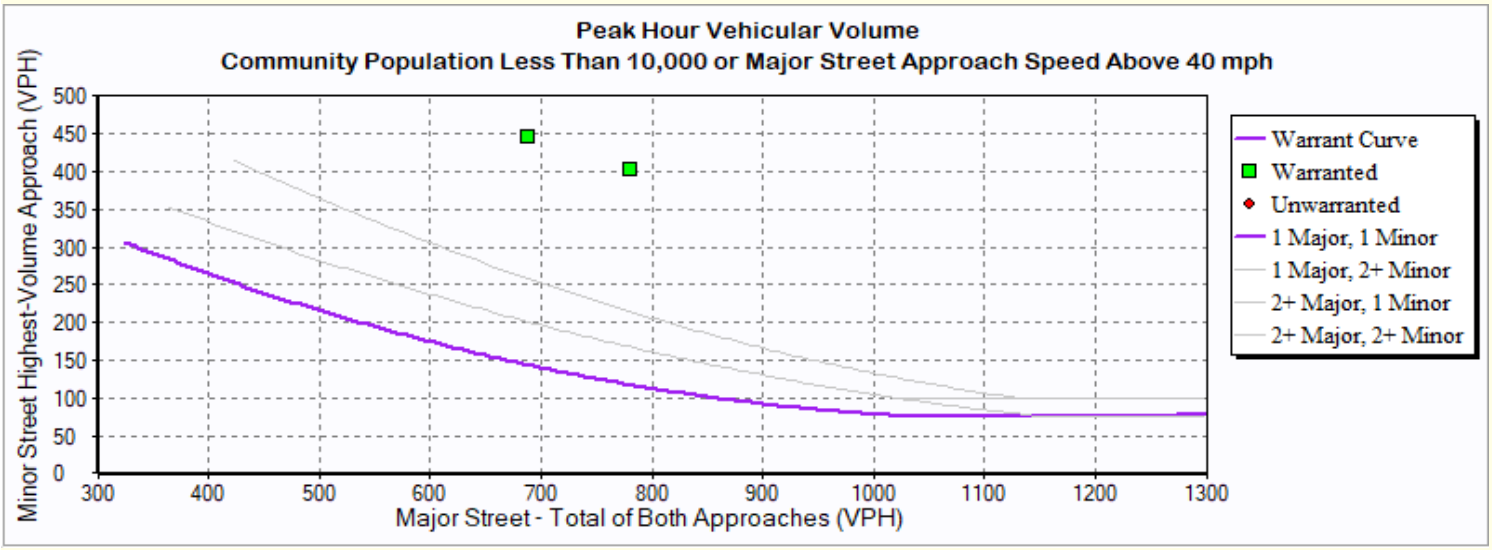
Condition B Met? Yes

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Warrant 3: Peak Hour

14: Bethel Ave & Central Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	688	445
17:00	781	403

Warrant 3: Peak Hour

Year 2045 With Project

15: Academy Ave & Central Ave

Intersection Information:

	Major Street	Minor Street
Street Name	Academy Ave	Central Ave
Direction	NB/SB	EB/WB
Number of Lanes	2	1
Approach Speed	50	50

Warrant 3 Met? **Yes**

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

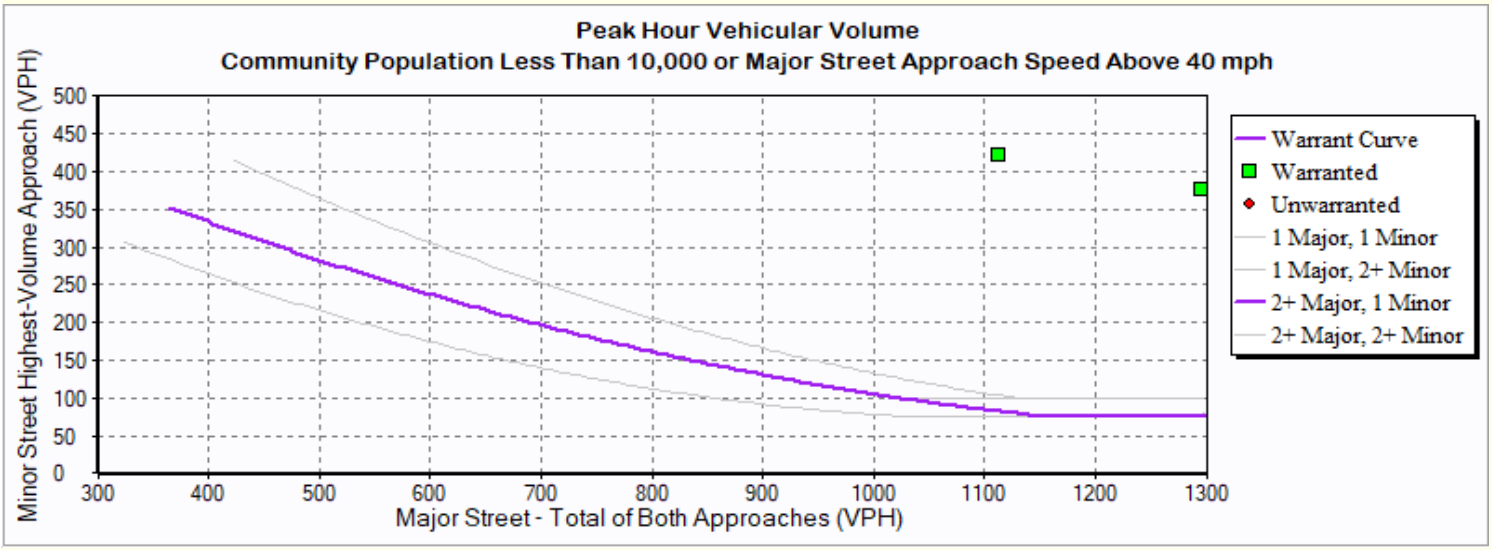
Condition B Met? Yes

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Warrant 3: Peak Hour

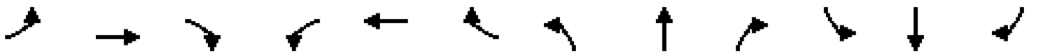
15: Academy Ave & Central Ave

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	1,113	423
17:00	1,329	375

APPENDIX E

INTERSECTION ANALYSIS SHEETS

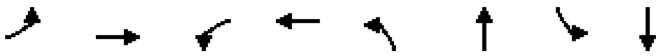
PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	391	53	30	597	96	156	238	29	143	324	51
Future Volume (veh/h)	24	391	53	30	597	96	156	238	29	143	324	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	412	42	32	628	79	164	251	29	151	341	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	50	862	87	61	860	108	210	464	54	195	432	67
Arrive On Green	0.03	0.27	0.27	0.03	0.27	0.27	0.12	0.28	0.28	0.11	0.28	0.28
Sat Flow, veh/h	1767	3221	326	1767	3139	394	1767	1630	188	1767	1564	243
Grp Volume(v), veh/h	25	224	230	32	352	355	164	0	280	151	0	394
Grp Sat Flow(s),veh/h/ln	1767	1763	1785	1767	1763	1771	1767	0	1818	1767	0	1807
Q Serve(g_s), s	0.8	6.3	6.4	1.0	10.7	10.7	5.3	0.0	7.7	4.9	0.0	11.9
Cycle Q Clear(g_c), s	0.8	6.3	6.4	1.0	10.7	10.7	5.3	0.0	7.7	4.9	0.0	11.9
Prop In Lane	1.00		0.18	1.00		0.22	1.00		0.10	1.00		0.13
Lane Grp Cap(c), veh/h	50	472	478	61	483	485	210	0	517	195	0	500
V/C Ratio(X)	0.50	0.48	0.48	0.52	0.73	0.73	0.78	0.00	0.54	0.77	0.00	0.79
Avail Cap(c_a), veh/h	180	692	701	180	692	695	390	0	850	469	0	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	18.1	18.1	27.9	19.4	19.4	25.2	0.0	17.8	25.4	0.0	19.7
Incr Delay (d2), s/veh	7.4	0.7	0.8	6.8	2.3	2.3	6.3	0.0	0.9	6.4	0.0	2.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.2	2.2	0.5	3.9	3.9	2.3	0.0	2.7	2.1	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.5	18.8	18.9	34.7	21.7	21.7	31.5	0.0	18.7	31.8	0.0	22.5
LnGrp LOS	D	B	B	C	C	C	C		B	C		C
Approach Vol, veh/h		479			739			444			545	
Approach Delay, s/veh		19.7			22.2			23.4			25.1	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	21.6	6.0	20.6	11.0	21.2	5.7	21.0
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	15.6	27.5	6.0	23.1	13.0	30.1	6.0	23.1
Max Q Clear Time (g_c+I1), s	6.9	9.7	3.0	8.4	7.3	13.9	2.8	12.7
Green Ext Time (p_c), s	0.2	1.3	0.0	2.0	0.2	1.9	0.0	2.8

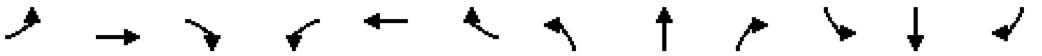
Intersection Summary	
HCM 7th Control Delay, s/veh	22.6
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	468	32	729	164	282	151	395
v/c Ratio	0.16	0.48	0.20	0.75	0.58	0.45	0.52	0.73
Control Delay (s/veh)	39.4	24.0	39.9	29.9	40.3	24.3	37.2	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.4	24.0	39.9	29.9	40.3	24.3	37.2	31.5
Queue Length 50th (ft)	10	77	13	134	62	91	57	140
Queue Length 95th (ft)	39	165	47	#288	#168	205	139	284
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	161	1224	161	1221	350	768	420	837
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.38	0.20	0.60	0.47	0.37	0.36	0.47

Intersection Summary

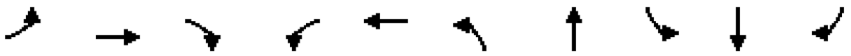
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	389	128	203	406	43	201	259	143	97	528	101
Future Volume (veh/h)	67	389	128	203	406	43	201	259	143	97	528	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	432	139	226	451	47	223	288	153	108	587	99
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	711	305	272	969	100	268	668	344	140	801	345
Arrive On Green	0.05	0.20	0.20	0.15	0.30	0.30	0.15	0.30	0.30	0.08	0.23	0.23
Sat Flow, veh/h	1781	3554	1523	1781	3240	336	1781	2246	1156	1781	3554	1530
Grp Volume(v), veh/h	74	432	139	226	246	252	223	226	215	108	587	99
Grp Sat Flow(s),veh/h/ln	1781	1777	1523	1781	1777	1799	1781	1777	1625	1781	1777	1530
Q Serve(g_s), s	3.0	8.0	5.8	8.9	8.1	8.2	8.8	7.4	7.7	4.3	11.1	3.9
Cycle Q Clear(g_c), s	3.0	8.0	5.8	8.9	8.1	8.2	8.8	7.4	7.7	4.3	11.1	3.9
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	95	711	305	272	531	538	268	528	483	140	801	345
V/C Ratio(X)	0.77	0.61	0.46	0.83	0.46	0.47	0.83	0.43	0.44	0.77	0.73	0.29
Avail Cap(c_a), veh/h	227	886	380	373	588	596	358	529	484	291	926	399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	26.3	25.4	29.7	20.6	20.6	29.8	20.4	20.5	32.6	25.9	23.2
Incr Delay (d2), s/veh	12.5	0.8	1.1	11.0	0.6	0.6	11.8	0.5	0.6	8.7	2.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.2	2.0	4.4	3.2	3.2	4.4	2.9	2.8	2.1	4.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.2	27.1	26.5	40.7	21.2	21.3	41.6	21.0	21.2	41.4	28.5	23.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		645			724			664			794	
Approach Delay, s/veh		29.2			27.3			27.9			29.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	26.4	15.9	19.3	15.8	21.2	8.8	26.5
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	11.8	21.5	15.1	18.0	14.5	18.8	9.2	23.9
Max Q Clear Time (g_c+I1), s	6.3	9.7	10.9	10.0	10.8	13.1	5.0	10.2
Green Ext Time (p_c), s	0.1	1.9	0.2	2.0	0.2	2.0	0.0	2.3

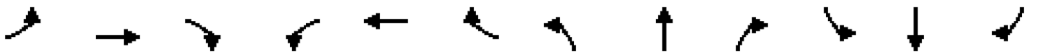
Intersection Summary	
HCM 7th Control Delay, s/veh	28.5
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	74	432	142	226	499	223	447	108	587	112
v/c Ratio	0.41	0.64	0.31	0.74	0.48	0.75	0.42	0.50	0.77	0.23
Control Delay (s/veh)	42.9	35.1	3.0	48.7	25.8	50.2	19.6	42.7	37.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.9	35.1	3.0	48.7	25.8	50.2	19.6	42.7	37.4	1.1
Queue Length 50th (ft)	37	111	0	114	115	113	74	54	153	0
Queue Length 95th (ft)	80	160	14	#218	164	#222	124	105	217	0
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	210	822	512	345	1086	331	1067	269	859	525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.53	0.28	0.66	0.46	0.67	0.42	0.40	0.68	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	29	22	228	30	153	20	514	181	141	692	36
Future Volume (veh/h)	52	29	22	228	30	153	20	514	181	141	692	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.82	1.00		0.96	1.00		0.84	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	34	25	265	35	161	23	598	209	164	805	41
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	86	63	328	52	239	45	684	238	200	1256	64
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.28	0.28	0.11	0.37	0.37
Sat Flow, veh/h	844	478	352	1781	282	1298	1781	2450	853	1781	3427	174
Grp Volume(v), veh/h	119	0	0	265	0	196	23	433	374	164	417	429
Grp Sat Flow(s),veh/h/ln	1675	0	0	1781	0	1580	1781	1777	1526	1781	1777	1824
Q Serve(g_s), s	5.0	0.0	0.0	11.4	0.0	9.3	1.0	18.6	18.7	7.2	15.6	15.6
Cycle Q Clear(g_c), s	5.0	0.0	0.0	11.4	0.0	9.3	1.0	18.6	18.7	7.2	15.6	15.6
Prop In Lane	0.50		0.21	1.00		0.82	1.00		0.56	1.00		0.10
Lane Grp Cap(c), veh/h	301	0	0	328	0	291	45	496	426	200	651	669
V/C Ratio(X)	0.40	0.00	0.00	0.81	0.00	0.67	0.52	0.87	0.88	0.82	0.64	0.64
Avail Cap(c_a), veh/h	376	0	0	403	0	357	113	537	461	225	651	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	0.0	31.3	0.0	30.4	38.6	27.5	27.6	34.7	21.0	21.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	9.7	0.0	3.6	9.0	14.0	16.4	19.0	2.1	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	5.6	0.0	3.7	0.5	9.2	8.2	4.0	6.3	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.9	0.0	0.0	41.0	0.0	34.1	47.5	41.5	44.0	53.7	23.1	23.1
LnGrp LOS	C			D		C	D	D	D	D	C	C
Approach Vol, veh/h		119			461			830			1010	
Approach Delay, s/veh		29.9			38.0			42.8			28.1	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	27.2		19.3	6.9	34.3		19.6				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	10.1	24.2		18.0	5.1	29.2		18.1				
Max Q Clear Time (g_c+I1), s	9.2	20.7		7.0	3.0	17.6		13.4				
Green Ext Time (p_c), s	0.0	1.6		0.4	0.0	3.9		0.9				

Intersection Summary			
HCM 7th Control Delay, s/veh		35.1	
HCM 7th LOS		D	



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	120	265	213	23	808	164	847
v/c Ratio	0.49	0.72	0.45	0.19	0.82	0.70	0.54
Control Delay (s/veh)	36.9	42.8	11.0	41.8	32.8	53.0	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.9	42.8	11.0	41.8	32.8	53.0	19.9
Queue Length 50th (ft)	52	126	15	12	190	83	149
Queue Length 95th (ft)	98	#215	66	35	#285	#179	262
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	433	442	528	124	1108	246	1580
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.60	0.40	0.19	0.73	0.67	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	96	328	1	51	336
Future Vol, veh/h	5	96	328	1	51	336
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	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	5	105	360	1	56	369

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	842	361	0	0	362	0
Stage 1	361	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	332	679	-	-	1186	-
Stage 1	701	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	312	679	-	-	1186	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	581	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.78	0	1.08
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	642	237	-
HCM Lane V/C Ratio	-	-	0.173	0.047	-
HCM Control Delay (s/veh)	-	-	11.8	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	60	3	25	109	61	4	31	27	156	42	0
Future Vol, veh/h	3	60	3	25	109	61	4	31	27	156	42	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	86	4	36	156	87	6	44	39	223	60	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.2	10.8	8.8	11.7
HCM LOS	A	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	5%	13%	79%
Vol Thru, %	50%	91%	56%	21%
Vol Right, %	44%	5%	31%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	66	195	198
LT Vol	4	3	25	156
Through Vol	31	60	109	42
RT Vol	27	3	61	0
Lane Flow Rate	89	94	279	283
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.139	0.374	0.402
Departure Headway (Hd)	5.093	5.326	4.839	5.111
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	708	677	735	696
Service Time	3.097	3.33	2.923	3.201
HCM Lane V/C Ratio	0.126	0.139	0.38	0.407
HCM Control Delay, s/veh	8.8	9.2	10.8	11.7
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.4	0.5	1.7	1.9

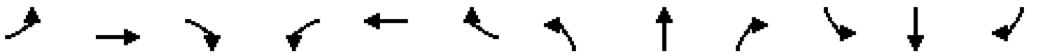
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	227	166	15	20	34
Future Vol, veh/h	16	227	166	15	20	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	65	215	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	24	344	252	23	30	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	274	0	-	0	644	252
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	392	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1295	-	-	-	439	790
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	685	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	429	790
Mov Cap-2 Maneuver	-	-	-	-	429	-
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	685	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.52	0	11.42
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	119	-	-	-	429	790
HCM Lane V/C Ratio	0.019	-	-	-	0.071	0.065
HCM Control Delay (s/veh)	7.8	0	-	-	14	9.9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.2



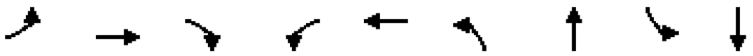
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	31	146	15	101	8	171	408	9	133	404	222
Future Volume (veh/h)	124	31	146	15	101	8	171	408	9	133	404	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.92	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	130	197	20	136	11	231	551	12	180	546	300
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	329	267	214	205	17	274	1097	24	222	620	340
Arrive On Green	0.18	0.18	0.18	0.12	0.12	0.12	0.15	0.31	0.31	0.12	0.28	0.28
Sat Flow, veh/h	1781	1870	1517	1781	1704	138	1781	3548	77	1781	2212	1214
Grp Volume(v), veh/h	105	130	197	20	0	147	231	276	287	180	438	408
Grp Sat Flow(s),veh/h/ln	1781	1870	1517	1781	0	1841	1781	1777	1848	1781	1777	1649
Q Serve(g_s), s	3.7	4.5	8.9	0.7	0.0	5.5	9.2	9.2	9.2	7.1	17.1	17.2
Cycle Q Clear(g_c), s	3.7	4.5	8.9	0.7	0.0	5.5	9.2	9.2	9.2	7.1	17.1	17.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.04	1.00		0.74
Lane Grp Cap(c), veh/h	313	329	267	214	0	221	274	550	572	222	498	462
V/C Ratio(X)	0.34	0.40	0.74	0.09	0.00	0.66	0.84	0.50	0.50	0.81	0.88	0.88
Avail Cap(c_a), veh/h	442	464	376	442	0	457	317	550	572	317	526	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	26.5	28.3	28.4	0.0	30.5	29.9	20.5	20.5	30.9	25.0	25.0
Incr Delay (d2), s/veh	0.6	0.8	4.6	0.2	0.0	3.4	16.5	0.7	0.7	10.0	15.3	16.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.9	3.2	0.3	0.0	2.4	4.9	3.6	3.7	3.5	8.6	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.8	27.3	33.0	28.6	0.0	33.9	46.4	21.2	21.2	40.9	40.2	41.4
LnGrp LOS	C	C	C	C		C	D	C	C	D	D	D
Approach Vol, veh/h		432			167			794			1026	
Approach Delay, s/veh		29.8			33.3			28.5			40.8	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	27.3		17.6	16.1	25.2		13.6				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	12.9	21.5		18.0	12.9	21.5		18.0				
Max Q Clear Time (g_c+I1), s	9.1	11.2		10.9	11.2	19.2		7.5				
Green Ext Time (p_c), s	0.2	2.3		0.9	0.1	1.2		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	34.3
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	104	106	197	20	147	231	563	180	846
v/c Ratio	0.46	0.46	0.53	0.08	0.53	0.76	0.54	0.66	0.83
Control Delay (s/veh)	37.6	37.4	10.7	29.0	36.9	50.3	25.8	44.1	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	37.4	10.7	29.0	36.9	50.3	25.8	44.1	31.9
Queue Length 50th (ft)	47	48	0	8	62	104	115	78	168
Queue Length 95th (ft)	82	83	27	23	99	#180	155	129	211
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	406	415	510	427	447	306	1051	306	1037
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.26	0.39	0.05	0.33	0.75	0.54	0.59	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	66	20	16	139	90	19	220	7	50	284	13
Future Vol, veh/h	11	66	20	16	139	90	19	220	7	50	284	13
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	12	73	22	18	153	99	21	242	8	55	312	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.9	13.4	13.3	16.7
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	11%	7%	14%
Vol Thru, %	89%	68%	57%	82%
Vol Right, %	3%	21%	37%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	97	245	347
LT Vol	19	11	16	50
Through Vol	220	66	139	284
RT Vol	7	20	90	13
Lane Flow Rate	270	107	269	381
Geometry Grp	1	1	1	1
Degree of Util (X)	0.435	0.187	0.437	0.596
Departure Headway (Hd)	5.797	6.313	5.843	5.623
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	616	563	611	637
Service Time	3.874	4.412	3.921	3.691
HCM Lane V/C Ratio	0.438	0.19	0.44	0.598
HCM Control Delay, s/veh	13.3	10.9	13.4	16.7
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	2.2	0.7	2.2	3.9

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	100	8	6	222	8	3	37	13	13	36	21
Future Vol, veh/h	10	100	8	6	222	8	3	37	13	13	36	21
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	11	115	9	7	255	9	3	43	15	15	41	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.7	9.9	8.4	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	8%	3%	19%
Vol Thru, %	70%	85%	94%	51%
Vol Right, %	25%	7%	3%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	118	236	70
LT Vol	3	10	6	13
Through Vol	37	100	222	36
RT Vol	13	8	8	21
Lane Flow Rate	61	136	271	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.083	0.175	0.34	0.109
Departure Headway (Hd)	4.931	4.649	4.51	4.897
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	725	772	798	731
Service Time	2.973	2.68	2.536	2.937
HCM Lane V/C Ratio	0.084	0.176	0.34	0.109
HCM Control Delay, s/veh	8.4	8.7	9.9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	1.5	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	124	4	4	237	1	4
Future Vol, veh/h	124	4	4	237	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	135	4	4	258	1	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	139	0	403	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	266	-
Critical Hdwy	-	-	4.16	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.254	-	3.554	3.354
Pot Cap-1 Maneuver	-	-	1420	-	596	901
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	769	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1420	-	593	901
Mov Cap-2 Maneuver	-	-	-	-	593	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	766	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.13	9.44
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	816	-	-	30	-
HCM Lane V/C Ratio	0.007	-	-	0.003	-
HCM Control Delay (s/veh)	9.4	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	107	8	38	183	168	9	203	34	123	146	31
Future Vol, veh/h	33	107	8	38	183	168	9	203	34	123	146	31
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	36	116	9	41	199	183	10	221	37	134	159	34
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	15.9	27.1	20.1	14.3
HCM LOS	C	D	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	22%	100%	0%	100%	0%	0%
Vol Thru, %	0%	86%	72%	0%	52%	0%	100%	0%
Vol Right, %	0%	14%	5%	0%	48%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	237	148	38	351	123	146	31
LT Vol	9	0	33	38	0	123	0	0
Through Vol	0	203	107	0	183	0	146	0
RT Vol	0	34	8	0	168	0	0	31
Lane Flow Rate	10	258	161	41	382	134	159	34
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.023	0.562	0.37	0.092	0.755	0.31	0.345	0.066
Departure Headway (Hd)	8.477	7.856	8.273	7.976	7.126	8.337	7.822	7.102
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	421	456	433	448	507	429	457	501
Service Time	6.263	5.642	6.065	5.749	4.899	6.122	5.607	4.886
HCM Lane V/C Ratio	0.024	0.566	0.372	0.092	0.753	0.312	0.348	0.068
HCM Control Delay, s/veh	11.5	20.4	15.9	11.6	28.8	14.9	14.7	10.4
HCM Lane LOS	B	C	C	B	D	B	B	B
HCM 95th-tile Q	0.1	3.4	1.7	0.3	6.5	1.3	1.5	0.2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	208	10	5	285	68	15	54	12	10	35	39
Future Vol, veh/h	45	208	10	5	285	68	15	54	12	10	35	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	51	234	11	6	320	76	17	61	13	11	39	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	397	0	0	245	0	0	692	748	239	735	716	358
Stage 1	-	-	-	-	-	-	340	340	-	370	370	-
Stage 2	-	-	-	-	-	-	351	408	-	365	346	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1157	-	-	1315	-	-	357	340	797	334	355	684
Stage 1	-	-	-	-	-	-	672	637	-	648	619	-
Stage 2	-	-	-	-	-	-	663	595	-	652	634	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1157	-	-	1315	-	-	283	323	797	256	338	684
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	323	-	256	338	-
Stage 1	-	-	-	-	-	-	643	609	-	646	616	-
Stage 2	-	-	-	-	-	-	579	592	-	552	606	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.41	0.11	18.64	16.02
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	314	797	1157	-	-	1315	-	-	421
HCM Lane V/C Ratio	0.247	0.017	0.044	-	-	0.004	-	-	0.224
HCM Control Delay (s/veh)	20.2	9.6	8.3	-	-	7.7	-	-	16
HCM Lane LOS	C	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1	0.1	0.1	-	-	0	-	-	0.9

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	4	57	4	11	85	60	3	186	10	63	245	5
Future Vol, veh/h	4	57	4	11	85	60	3	186	10	63	245	5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	5	68	5	13	101	71	4	221	12	75	292	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.9	10.9	11.2	14.1
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	6%	7%	20%
Vol Thru, %	93%	88%	54%	78%
Vol Right, %	5%	6%	38%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	65	156	313
LT Vol	3	4	11	63
Through Vol	186	57	85	245
RT Vol	10	4	60	5
Lane Flow Rate	237	77	186	373
Geometry Grp	1	1	1	1
Degree of Util (X)	0.351	0.128	0.287	0.538
Departure Headway (Hd)	5.328	5.978	5.568	5.195
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	598	644	693
Service Time	3.363	4.028	3.609	3.225
HCM Lane V/C Ratio	0.351	0.129	0.289	0.538
HCM Control Delay, s/veh	11.2	9.9	10.9	14.1
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1.6	0.4	1.2	3.2

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	123	5	6	138	82	16	129	7	62	127	9
Future Vol, veh/h	9	123	5	6	138	82	16	129	7	62	127	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	10	131	5	6	147	87	17	137	7	66	135	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10	10.8	10.2	10.9
HCM LOS	A	B	B	B

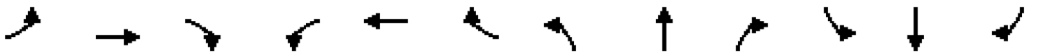
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	7%	3%	31%
Vol Thru, %	85%	90%	61%	64%
Vol Right, %	5%	4%	36%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	137	226	198
LT Vol	16	9	6	62
Through Vol	129	123	138	127
RT Vol	7	5	82	9
Lane Flow Rate	162	146	240	211
Geometry Grp	1	1	1	1
Degree of Util (X)	0.244	0.221	0.341	0.316
Departure Headway (Hd)	5.431	5.452	5.11	5.394
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	661	659	704	668
Service Time	3.461	3.483	3.139	3.421
HCM Lane V/C Ratio	0.245	0.222	0.341	0.316
HCM Control Delay, s/veh	10.2	10	10.8	10.9
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1	0.8	1.5	1.4

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	125	99	28	107	25	106	271	38	30	261	22
Future Vol, veh/h	29	125	99	28	107	25	106	271	38	30	261	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	31	134	106	30	115	27	114	291	41	32	281	24
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	17.6	14.4	12.9	13
HCM LOS	C	B	B	B

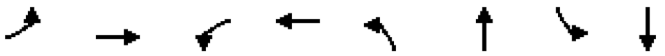
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	11%	18%	100%	0%	0%
Vol Thru, %	0%	100%	70%	49%	67%	0%	100%	80%
Vol Right, %	0%	0%	30%	39%	16%	0%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	181	128	253	160	30	174	109
LT Vol	106	0	0	29	28	30	0	0
Through Vol	0	181	90	125	107	0	174	87
RT Vol	0	0	38	99	25	0	0	22
Lane Flow Rate	114	194	138	272	172	32	187	117
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.238	0.377	0.26	0.532	0.358	0.069	0.372	0.228
Departure Headway (Hd)	7.503	6.989	6.775	7.045	7.488	7.677	7.162	7.016
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	479	515	530	511	480	467	501	512
Service Time	5.246	4.731	4.518	4.786	5.232	5.423	4.907	4.761
HCM Lane V/C Ratio	0.238	0.377	0.26	0.532	0.358	0.069	0.373	0.229
HCM Control Delay, s/veh	12.6	13.9	11.9	17.6	14.4	11	14.1	11.8
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	0.9	1.7	1	3.1	1.6	0.2	1.7	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	476	73	22	312	113	66	254	55	164	263	9
Future Volume (veh/h)	46	476	73	22	312	113	66	254	55	164	263	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	512	66	24	335	112	71	273	56	176	283	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	758	97	51	573	188	113	361	74	230	552	18
Arrive On Green	0.05	0.24	0.24	0.03	0.22	0.22	0.06	0.24	0.24	0.13	0.31	0.31
Sat Flow, veh/h	1781	3167	407	1781	2628	864	1781	1506	309	1781	1803	57
Grp Volume(v), veh/h	49	286	292	24	225	222	71	0	329	176	0	292
Grp Sat Flow(s),veh/h/ln	1781	1777	1797	1781	1777	1715	1781	0	1815	1781	0	1860
Q Serve(g_s), s	1.3	7.2	7.2	0.7	5.6	5.7	1.9	0.0	8.3	4.7	0.0	6.3
Cycle Q Clear(g_c), s	1.3	7.2	7.2	0.7	5.6	5.7	1.9	0.0	8.3	4.7	0.0	6.3
Prop In Lane	1.00		0.23	1.00		0.50	1.00		0.17	1.00		0.03
Lane Grp Cap(c), veh/h	88	425	430	51	387	374	113	0	436	230	0	570
V/C Ratio(X)	0.55	0.67	0.68	0.47	0.58	0.59	0.63	0.00	0.76	0.76	0.00	0.51
Avail Cap(c_a), veh/h	247	811	821	218	782	755	338	0	999	610	0	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.8	16.9	16.9	23.5	17.2	17.2	22.4	0.0	17.3	20.6	0.0	14.0
Incr Delay (d2), s/veh	5.3	1.9	1.9	6.7	1.4	1.5	5.7	0.0	2.7	5.2	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	2.5	0.3	1.9	1.9	0.8	0.0	3.0	1.9	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.1	18.8	18.8	30.2	18.5	18.7	28.1	0.0	20.0	25.8	0.0	14.7
LnGrp LOS	C	B	B	C	B	B	C		B	C		B
Approach Vol, veh/h		627			471			400			468	
Approach Delay, s/veh		19.5			19.2			21.4			18.9	
Approach LOS		B			B			C			B	

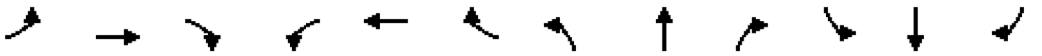
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	16.7	5.4	16.6	7.1	19.9	6.4	15.6
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	16.8	27.0	6.0	22.4	9.3	34.5	6.8	21.6
Max Q Clear Time (g_c+I1), s	6.7	10.3	2.7	9.2	3.9	8.3	3.3	7.7
Green Ext Time (p_c), s	0.3	1.5	0.0	2.5	0.0	1.5	0.0	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	19.7
HCM 7th LOS	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	590	24	457	71	332	176	293
v/c Ratio	0.27	0.61	0.14	0.54	0.33	0.68	0.54	0.38
Control Delay (s/veh)	39.2	25.5	38.8	24.2	37.7	30.9	35.5	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.2	25.5	38.8	24.2	37.7	30.9	35.5	19.1
Queue Length 50th (ft)	19	94	10	81	28	121	68	97
Queue Length 95th (ft)	63	213	38	153	81	244	157	188
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	199	1318	175	1249	272	816	492	1058
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.45	0.14	0.37	0.26	0.41	0.36	0.28

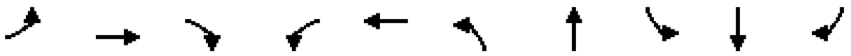
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	414	142	110	343	51	157	233	70	121	305	82
Future Volume (veh/h)	200	414	142	110	343	51	157	233	70	121	305	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	222	460	155	122	381	56	174	259	72	134	339	78
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	995	429	158	670	97	217	625	169	171	720	306
Arrive On Green	0.15	0.28	0.28	0.09	0.22	0.22	0.12	0.23	0.23	0.10	0.20	0.20
Sat Flow, veh/h	1781	3554	1532	1781	3092	450	1781	2736	741	1781	3554	1512
Grp Volume(v), veh/h	222	460	155	122	217	220	174	166	165	134	339	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1781	1777	1766	1781	1777	1700	1781	1777	1512
Q Serve(g_s), s	7.7	6.8	5.2	4.3	7.0	7.1	6.1	5.1	5.3	4.7	5.4	2.8
Cycle Q Clear(g_c), s	7.7	6.8	5.2	4.3	7.0	7.1	6.1	5.1	5.3	4.7	5.4	2.8
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	271	995	429	158	385	382	217	406	388	171	720	306
V/C Ratio(X)	0.82	0.46	0.36	0.77	0.56	0.57	0.80	0.41	0.43	0.78	0.47	0.25
Avail Cap(c_a), veh/h	365	1063	458	335	501	498	282	562	538	254	1068	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	19.0	18.4	28.5	22.3	22.4	27.3	21.0	21.1	28.2	22.4	21.4
Incr Delay (d2), s/veh	10.3	0.3	0.5	7.7	1.3	1.4	11.8	0.7	0.7	9.0	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.5	1.7	2.0	2.8	2.8	3.1	2.0	2.0	2.3	2.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.5	19.4	18.9	36.2	23.6	23.8	39.1	21.6	21.8	37.3	22.9	21.8
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		837			559			505			551	
Approach Delay, s/veh		23.8			26.4			27.7			26.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	19.5	10.6	22.8	12.7	17.8	14.6	18.7
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	9.1	20.2	12.0	19.1	10.1	19.2	13.1	18.0
Max Q Clear Time (g_c+I1), s	6.7	7.3	6.3	8.8	8.1	7.4	9.7	9.1
Green Ext Time (p_c), s	0.1	1.4	0.1	2.5	0.1	1.8	0.2	1.6

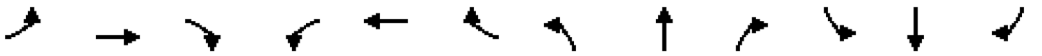
Intersection Summary	
HCM 7th Control Delay, s/veh	25.8
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	222	460	158	122	438	174	337	134	339	91
v/c Ratio	0.70	0.46	0.30	0.49	0.62	0.68	0.40	0.59	0.53	0.23
Control Delay (s/veh)	41.8	24.3	6.1	35.4	28.1	45.4	22.3	42.4	29.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.8	24.3	6.1	35.4	28.1	45.4	22.3	42.4	29.1	2.1
Queue Length 50th (ft)	86	87	0	48	84	70	57	53	68	0
Queue Length 95th (ft)	#205	146	43	105	138	#179	100	#137	114	7
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	348	1068	564	319	946	268	1070	242	1021	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.43	0.28	0.38	0.46	0.65	0.31	0.55	0.33	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	19	7	54	23	102	9	439	57	107	477	35
Future Volume (veh/h)	34	19	7	54	23	102	9	439	57	107	477	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	37	21	7	59	25	95	10	477	61	116	518	37
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	97	55	18	257	47	178	23	824	105	152	1120	80
Arrive On Green	0.10	0.10	0.10	0.14	0.14	0.14	0.01	0.26	0.26	0.08	0.33	0.33
Sat Flow, veh/h	1015	576	192	1795	328	1248	1795	3171	403	1795	3377	240
Grp Volume(v), veh/h	65	0	0	59	0	120	10	268	270	116	274	281
Grp Sat Flow(s),veh/h/ln	1783	0	0	1795	0	1576	1795	1791	1783	1795	1791	1827
Q Serve(g_s), s	1.6	0.0	0.0	1.4	0.0	3.3	0.3	6.1	6.2	3.0	5.7	5.7
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	3.3	0.3	6.1	6.2	3.0	5.7	5.7
Prop In Lane	0.57		0.11	1.00		0.79	1.00		0.23	1.00		0.13
Lane Grp Cap(c), veh/h	170	0	0	257	0	225	23	465	463	152	594	606
V/C Ratio(X)	0.38	0.00	0.00	0.23	0.00	0.53	0.43	0.58	0.58	0.76	0.46	0.46
Avail Cap(c_a), veh/h	687	0	0	692	0	607	195	835	831	470	1109	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	0.0	17.8	0.0	18.7	23.0	15.1	15.2	21.0	12.4	12.4
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.5	0.0	2.0	11.9	1.1	1.2	7.6	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.5	0.0	1.2	0.2	2.1	2.2	1.4	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.4	0.0	0.0	18.3	0.0	20.6	34.9	16.3	16.3	28.7	13.0	13.0
LnGrp LOS	C			B		C	C	B	B	C	B	B
Approach Vol, veh/h		65			179			548			671	
Approach Delay, s/veh		21.4			19.9			16.6			15.7	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	17.1		9.4	5.5	20.5		11.6				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	12.3	21.9		18.1	5.1	29.1		18.1				
Max Q Clear Time (g_c+I1), s	5.0	8.2		3.6	2.3	7.7		5.3				
Green Ext Time (p_c), s	0.1	2.5		0.2	0.0	3.1		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		16.8	
HCM 7th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	59	136	10	539	116	556
v/c Ratio	0.24	0.22	0.40	0.05	0.37	0.36	0.26
Control Delay (s/veh)	26.4	27.9	13.3	31.2	18.3	28.2	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.4	27.9	13.3	31.2	18.3	28.2	10.1
Queue Length 50th (ft)	19	19	8	3	85	38	56
Queue Length 95th (ft)	60	57	57	19	155	97	137
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	692	686	680	193	1767	466	2187
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.20	0.05	0.31	0.25	0.25

Intersection Summary

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	39	375	4	27	319
Future Vol, veh/h	2	39	375	4	27	319
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	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	42	403	4	29	343

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	806	405	0	0	408	0
Stage 1	405	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	350	643	-	-	1146	-
Stage 1	671	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	339	643	-	-	1146	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.29	0	0.64
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	616	140	-
HCM Lane V/C Ratio	-	-	0.072	0.025	-
HCM Control Delay (s/veh)	-	-	11.3	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	51	1	9	33	21	3	39	18	50	25	1
Future Vol, veh/h	1	51	1	9	33	21	3	39	18	50	25	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	55	1	10	35	23	3	42	19	54	27	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.5	7.4	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	2%	14%	66%
Vol Thru, %	65%	96%	52%	33%
Vol Right, %	30%	2%	33%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	53	63	76
LT Vol	3	1	9	50
Through Vol	39	51	33	25
RT Vol	18	1	21	1
Lane Flow Rate	65	57	68	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	0.067	0.076	0.098
Departure Headway (Hd)	4.044	4.232	4.06	4.324
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	833	868	820
Service Time	2.128	2.324	2.152	2.4
HCM Lane V/C Ratio	0.074	0.068	0.078	0.1
HCM Control Delay, s/veh	7.4	7.6	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.3

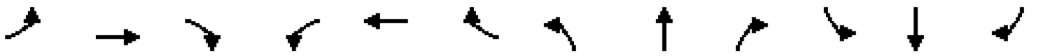
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	93	48	6	8	13
Future Vol, veh/h	25	93	48	6	8	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	65	215	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	27	102	53	7	9	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	59	0	-	0	210	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1551	-	-	-	781	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1551	-	-	-	766	1018
Mov Cap-2 Maneuver	-	-	-	-	766	-
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	874	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.56	0	9.03
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	381	-	-	-	766	1018
HCM Lane V/C Ratio	0.018	-	-	-	0.011	0.014
HCM Control Delay (s/veh)	7.4	0	-	-	9.8	8.6
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0



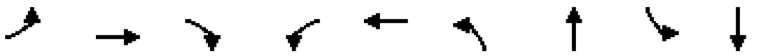
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	7	46	5	3	2	46	366	7	54	389	7
Future Volume (veh/h)	57	7	46	5	3	2	46	366	7	54	389	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	68	0	50	5	3	2	50	398	8	59	423	8
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	407	0	172	59	34	23	99	842	17	112	870	16
Arrive On Green	0.11	0.00	0.11	0.03	0.03	0.03	0.05	0.23	0.23	0.06	0.24	0.24
Sat Flow, veh/h	3591	0	1518	1795	1041	694	1795	3588	72	1795	3593	68
Grp Volume(v), veh/h	68	0	50	5	0	5	50	198	208	59	211	220
Grp Sat Flow(s),veh/h/ln	1795	0	1518	1795	0	1735	1795	1791	1869	1795	1791	1870
Q Serve(g_s), s	0.6	0.0	1.1	0.1	0.0	0.1	1.0	3.4	3.4	1.1	3.6	3.6
Cycle Q Clear(g_c), s	0.6	0.0	1.1	0.1	0.0	0.1	1.0	3.4	3.4	1.1	3.6	3.6
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.04	1.00		0.04
Lane Grp Cap(c), veh/h	407	0	172	59	0	57	99	421	439	112	434	453
V/C Ratio(X)	0.17	0.00	0.29	0.09	0.00	0.09	0.51	0.47	0.47	0.53	0.49	0.49
Avail Cap(c_a), veh/h	1948	0	823	923	0	892	464	1226	1279	464	1226	1280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	0.0	14.3	16.5	0.0	16.5	16.2	11.6	11.6	16.0	11.5	11.5
Incr Delay (d2), s/veh	0.2	0.0	0.9	0.6	0.0	0.7	4.0	0.8	0.8	3.8	0.8	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	0.4	1.0	1.1	0.5	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.3	0.0	15.2	17.1	0.0	17.2	20.2	12.4	12.4	19.8	12.3	12.3
LnGrp LOS	B		B	B		B	C	B	B	B	B	B
Approach Vol, veh/h		118			10			456			490	
Approach Delay, s/veh		14.7			17.2			13.3			13.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	13.2		8.9	6.8	13.4		6.1				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	9.1	24.1		19.1	9.1	24.1		18.1				
Max Q Clear Time (g_c+I1), s	3.1	5.4		3.1	3.0	5.6		2.1				
Green Ext Time (p_c), s	0.0	2.0		0.3	0.0	2.2		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	13.4	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	35	35	50	5	5	50	406	59	431
v/c Ratio	0.11	0.11	0.12	0.02	0.02	0.14	0.19	0.16	0.20
Control Delay (s/veh)	17.9	17.9	0.6	19.4	17.4	17.4	10.2	17.4	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.9	17.9	0.6	19.4	17.4	17.4	10.2	17.4	10.2
Queue Length 50th (ft)	4	4	0	1	0	6	16	7	17
Queue Length 95th (ft)	34	34	0	10	10	42	97	47	103
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	978	992	943	976	957	490	2590	490	2590
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.05	0.01	0.01	0.10	0.16	0.12	0.17

Intersection Summary

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	122	30	8	92	69	22	299	20	63	240	11
Future Vol, veh/h	12	122	30	8	92	69	22	299	20	63	240	11
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	13	133	33	9	100	75	24	325	22	68	261	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	12.5	12.3	17.2	16.2
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	7%	5%	20%
Vol Thru, %	88%	74%	54%	76%
Vol Right, %	6%	18%	41%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	341	164	169	314
LT Vol	22	12	8	63
Through Vol	299	122	92	240
RT Vol	20	30	69	11
Lane Flow Rate	371	178	184	341
Geometry Grp	1	1	1	1
Degree of Util (X)	0.6	0.318	0.321	0.561
Departure Headway (Hd)	5.828	6.432	6.286	5.918
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	623	558	571	611
Service Time	3.842	4.484	4.335	3.931
HCM Lane V/C Ratio	0.596	0.319	0.322	0.558
HCM Control Delay, s/veh	17.2	12.5	12.3	16.2
HCM Lane LOS	C	B	B	C
HCM 95th-tile Q	4	1.4	1.4	3.5

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	209	2	8	130	8	4	36	13	2	26	6
Future Vol, veh/h	15	209	2	8	130	8	4	36	13	2	26	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	232	2	9	144	9	4	40	14	2	29	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.3	8.6	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	7%	5%	6%
Vol Thru, %	68%	92%	89%	76%
Vol Right, %	25%	1%	5%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	226	146	34
LT Vol	4	15	8	2
Through Vol	36	209	130	26
RT Vol	13	2	8	6
Lane Flow Rate	59	251	162	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.078	0.305	0.2	0.051
Departure Headway (Hd)	4.792	4.367	4.43	4.859
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	747	824	811	737
Service Time	2.823	2.388	2.452	2.891
HCM Lane V/C Ratio	0.079	0.305	0.2	0.052
HCM Control Delay, s/veh	8.2	9.3	8.6	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.3	0.7	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	216	3	4	136	3	5
Future Vol, veh/h	216	3	4	136	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	235	3	4	148	3	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	238	0	393	236
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1329	-	612	803
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1329	-	609	803
Mov Cap-2 Maneuver	-	-	-	-	609	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	869	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.22	10.08
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	717	-	-	51	-
HCM Lane V/C Ratio	0.012	-	-	0.003	-
HCM Control Delay (s/veh)	10.1	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	137	14	21	134	112	16	179	36	98	157	19
Future Vol, veh/h	45	137	14	21	134	112	16	179	36	98	157	19
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	49	151	15	23	147	123	18	197	40	108	173	21
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	16.7	17.1	16.7	13.6
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	23%	100%	0%	100%	0%	0%
Vol Thru, %	0%	83%	70%	0%	54%	0%	100%	0%
Vol Right, %	0%	17%	7%	0%	46%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	215	196	21	246	98	157	19
LT Vol	16	0	45	21	0	98	0	0
Through Vol	0	179	137	0	134	0	157	0
RT Vol	0	36	14	0	112	0	0	19
Lane Flow Rate	18	236	215	23	270	108	173	21
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.039	0.487	0.456	0.051	0.53	0.237	0.356	0.039
Departure Headway (Hd)	8.056	7.421	7.617	7.893	7.06	7.932	7.419	6.702
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	444	484	472	453	511	452	483	533
Service Time	5.819	5.183	5.378	5.652	4.819	5.693	5.18	4.463
HCM Lane V/C Ratio	0.041	0.488	0.456	0.051	0.528	0.239	0.358	0.039
HCM Control Delay, s/veh	11.1	17.1	16.7	11.1	17.6	13.2	14.3	9.7
HCM Lane LOS	B	C	C	B	C	B	B	A
HCM 95th-tile Q	0.1	2.6	2.3	0.2	3.1	0.9	1.6	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	217	12	9	234	28	7	41	13	12	28	26
Future Vol, veh/h	30	217	12	9	234	28	7	41	13	12	28	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	233	13	10	252	30	8	44	14	13	30	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	282	0	0	246	0	0	590	605	240	606	597	267
Stage 1	-	-	-	-	-	-	304	304	-	286	286	-
Stage 2	-	-	-	-	-	-	286	301	-	320	311	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1275	-	-	1314	-	-	418	410	797	408	415	770
Stage 1	-	-	-	-	-	-	703	661	-	719	673	-
Stage 2	-	-	-	-	-	-	719	663	-	690	657	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1275	-	-	1314	-	-	361	397	797	346	402	770
Mov Cap-2 Maneuver	-	-	-	-	-	-	361	397	-	346	402	-
Stage 1	-	-	-	-	-	-	685	644	-	714	668	-
Stage 2	-	-	-	-	-	-	657	658	-	615	640	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.91	0.26	14.31	13.85
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	391	797	1275	-	-	1314	-	-	478
HCM Lane V/C Ratio	0.132	0.018	0.025	-	-	0.007	-	-	0.149
HCM Control Delay (s/veh)	15.6	9.6	7.9	-	-	7.8	-	-	13.9
HCM Lane LOS	C	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	0.1	-	-	0	-	-	0.5

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	71	3	9	54	90	4	234	11	87	187	5
Future Vol, veh/h	13	71	3	9	54	90	4	234	11	87	187	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	14	79	3	10	60	100	4	260	12	97	208	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10	10.2	11.7	12.5
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	15%	6%	31%
Vol Thru, %	94%	82%	35%	67%
Vol Right, %	4%	3%	59%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	249	87	153	279
LT Vol	4	13	9	87
Through Vol	234	71	54	187
RT Vol	11	3	90	5
Lane Flow Rate	277	97	170	310
Geometry Grp	1	1	1	1
Degree of Util (X)	0.4	0.157	0.254	0.45
Departure Headway (Hd)	5.199	5.86	5.375	5.223
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	692	611	668	691
Service Time	3.23	3.904	3.415	3.254
HCM Lane V/C Ratio	0.4	0.159	0.254	0.449
HCM Control Delay, s/veh	11.7	10	10.2	12.5
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1.9	0.6	1	2.3

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	145	16	6	142	70	11	137	11	75	108	7
Future Vol, veh/h	15	145	16	6	142	70	11	137	11	75	108	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	16	153	17	6	149	74	12	144	12	79	114	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.4	10.6	10.2	10.8
HCM LOS	B	B	B	B

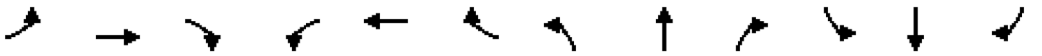
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	9%	3%	39%
Vol Thru, %	86%	82%	65%	57%
Vol Right, %	7%	9%	32%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	159	176	218	190
LT Vol	11	15	6	75
Through Vol	137	145	142	108
RT Vol	11	16	70	7
Lane Flow Rate	167	185	229	200
Geometry Grp	1	1	1	1
Degree of Util (X)	0.251	0.274	0.326	0.301
Departure Headway (Hd)	5.395	5.32	5.11	5.422
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	666	676	704	664
Service Time	3.428	3.351	3.14	3.454
HCM Lane V/C Ratio	0.251	0.274	0.325	0.301
HCM Control Delay, s/veh	10.2	10.4	10.6	10.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1	1.1	1.4	1.3

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	106	75	16	98	26	102	345	13	40	313	35
Future Vol, veh/h	50	106	75	16	98	26	102	345	13	40	313	35
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	51	108	77	16	100	27	104	352	13	41	319	36
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	16	13.3	13.2	13
HCM LOS	C	B	B	B

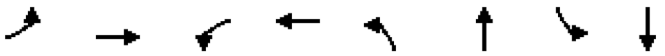
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	22%	11%	100%	0%	0%
Vol Thru, %	0%	100%	90%	46%	70%	0%	100%	75%
Vol Right, %	0%	0%	10%	32%	19%	0%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	230	128	231	140	40	209	139
LT Vol	102	0	0	50	16	40	0	0
Through Vol	0	230	115	106	98	0	209	104
RT Vol	0	0	13	75	26	0	0	35
Lane Flow Rate	104	235	131	236	143	41	213	142
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.21	0.44	0.242	0.467	0.295	0.084	0.406	0.264
Departure Headway (Hd)	7.258	6.745	6.672	7.134	7.43	7.372	6.859	6.678
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	495	535	538	504	484	487	526	539
Service Time	4.996	4.483	4.41	4.872	5.173	5.111	4.597	4.416
HCM Lane V/C Ratio	0.21	0.439	0.243	0.468	0.295	0.084	0.405	0.263
HCM Control Delay, s/veh	11.9	14.7	11.5	16	13.3	10.8	14.2	11.8
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	0.8	2.2	0.9	2.4	1.2	0.3	2	1.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	393	89	30	600	101	266	258	29	145	330	51
Future Volume (veh/h)	24	393	89	30	600	101	266	258	29	145	330	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	414	80	32	632	84	280	272	29	153	347	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	49	741	142	59	804	107	332	559	60	195	410	63
Arrive On Green	0.03	0.25	0.25	0.03	0.26	0.26	0.19	0.34	0.34	0.11	0.26	0.26
Sat Flow, veh/h	1767	2934	562	1767	3115	413	1767	1646	175	1767	1568	239
Grp Volume(v), veh/h	25	247	247	32	357	359	280	0	301	153	0	400
Grp Sat Flow(s),veh/h/ln	1767	1763	1733	1767	1763	1766	1767	0	1821	1767	0	1807
Q Serve(g_s), s	0.9	8.2	8.4	1.2	12.7	12.7	10.3	0.0	8.8	5.7	0.0	14.1
Cycle Q Clear(g_c), s	0.9	8.2	8.4	1.2	12.7	12.7	10.3	0.0	8.8	5.7	0.0	14.1
Prop In Lane	1.00		0.32	1.00		0.23	1.00		0.10	1.00		0.13
Lane Grp Cap(c), veh/h	49	445	437	59	455	456	332	0	618	195	0	473
V/C Ratio(X)	0.51	0.56	0.56	0.54	0.78	0.79	0.84	0.00	0.49	0.78	0.00	0.85
Avail Cap(c_a), veh/h	157	592	581	157	592	592	499	0	762	404	0	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	21.9	21.9	32.0	23.2	23.3	26.4	0.0	17.6	29.2	0.0	23.6
Incr Delay (d2), s/veh	8.0	1.1	1.1	7.5	5.2	5.3	8.1	0.0	0.6	6.8	0.0	7.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	3.1	0.6	5.2	5.2	4.5	0.0	3.2	2.5	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.3	23.0	23.1	39.5	28.4	28.6	34.5	0.0	18.2	35.9	0.0	30.8
LnGrp LOS	D	C	C	D	C	C	C		B	D		C
Approach Vol, veh/h		519			748			581			553	
Approach Delay, s/veh		23.9			29.0			26.1			32.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	27.8	6.3	21.9	16.7	22.5	5.9	22.3
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	15.4	28.2	6.0	22.6	19.0	24.6	6.0	22.6
Max Q Clear Time (g_c+I1), s	7.7	10.8	3.2	10.4	12.3	16.1	2.9	14.7
Green Ext Time (p_c), s	0.2	1.4	0.0	2.0	0.4	1.4	0.0	2.4

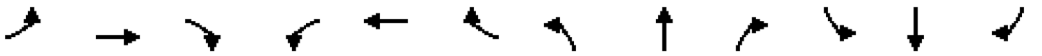
Intersection Summary	
HCM 7th Control Delay, s/veh	27.9
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	508	32	738	280	303	153	401
v/c Ratio	0.18	0.58	0.23	0.77	0.74	0.50	0.56	0.80
Control Delay (s/veh)	42.1	28.5	43.1	33.0	44.1	25.2	41.5	41.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.1	28.5	43.1	33.0	44.1	25.2	41.5	41.1
Queue Length 50th (ft)	13	124	16	170	137	117	76	189
Queue Length 95th (ft)	39	177	47	#300	#268	218	142	#354
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	143	1059	143	1099	454	711	368	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.48	0.22	0.67	0.62	0.43	0.42	0.66

Intersection Summary

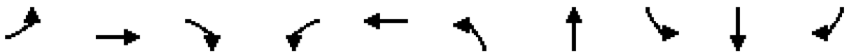
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	389	128	211	406	43	201	273	146	97	533	101
Future Volume (veh/h)	67	389	128	211	406	43	201	273	146	97	533	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	432	139	234	451	47	223	303	156	108	592	99
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	708	303	279	980	102	268	673	337	140	798	344
Arrive On Green	0.05	0.20	0.20	0.16	0.30	0.30	0.15	0.30	0.30	0.08	0.22	0.22
Sat Flow, veh/h	1781	3554	1523	1781	3240	336	1781	2270	1136	1781	3554	1530
Grp Volume(v), veh/h	74	432	139	234	246	252	223	235	224	108	592	99
Grp Sat Flow(s),veh/h/ln	1781	1777	1523	1781	1777	1799	1781	1777	1630	1781	1777	1530
Q Serve(g_s), s	3.0	8.1	5.9	9.3	8.2	8.3	8.9	7.8	8.2	4.3	11.3	3.9
Cycle Q Clear(g_c), s	3.0	8.1	5.9	9.3	8.2	8.3	8.9	7.8	8.2	4.3	11.3	3.9
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	96	708	303	279	537	544	268	527	483	140	798	344
V/C Ratio(X)	0.77	0.61	0.46	0.84	0.46	0.46	0.83	0.45	0.46	0.77	0.74	0.29
Avail Cap(c_a), veh/h	225	878	376	374	588	596	355	527	483	289	908	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	26.6	25.7	29.8	20.6	20.6	30.1	20.8	20.9	32.9	26.3	23.4
Incr Delay (d2), s/veh	12.5	0.9	1.1	11.8	0.6	0.6	12.1	0.6	0.7	8.8	2.9	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.2	2.1	4.6	3.2	3.2	4.4	3.0	2.9	2.1	4.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.5	27.4	26.8	41.6	21.2	21.2	42.1	21.4	21.6	41.7	29.1	23.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		645			732			682			799	
Approach Delay, s/veh		29.5			27.7			28.2			30.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	26.5	16.3	19.4	15.8	21.3	8.8	26.9
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	11.8	21.3	15.3	18.0	14.5	18.6	9.2	24.1
Max Q Clear Time (g_c+I1), s	6.3	10.2	11.3	10.1	10.9	13.3	5.0	10.3
Green Ext Time (p_c), s	0.1	2.0	0.2	2.0	0.2	1.9	0.0	2.3

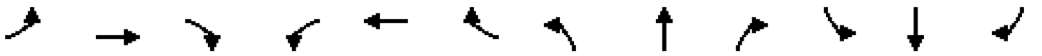
Intersection Summary	
HCM 7th Control Delay, s/veh	28.9
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	74	432	142	234	499	223	465	108	592	112
v/c Ratio	0.42	0.65	0.31	0.76	0.48	0.75	0.44	0.50	0.78	0.23
Control Delay (s/veh)	43.1	35.2	3.0	49.5	25.7	50.4	20.6	42.8	38.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.1	35.2	3.0	49.5	25.7	50.4	20.6	42.8	38.1	1.1
Queue Length 50th (ft)	37	111	0	118	114	113	81	54	155	0
Queue Length 95th (ft)	80	160	14	#227	163	#222	134	105	#220	0
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	209	819	511	348	1092	330	1058	268	846	521
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.53	0.28	0.67	0.46	0.68	0.44	0.40	0.70	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	29	22	236	30	153	20	531	184	141	705	36
Future Volume (veh/h)	52	29	22	236	30	153	20	531	184	141	705	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.82	1.00		0.96	1.00		0.84	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	34	25	274	35	161	23	617	213	164	820	41
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	85	63	333	53	243	44	693	239	200	1266	63
Arrive On Green	0.18	0.18	0.18	0.19	0.19	0.19	0.02	0.28	0.28	0.11	0.37	0.37
Sat Flow, veh/h	844	478	352	1781	282	1299	1781	2460	847	1781	3431	171
Grp Volume(v), veh/h	119	0	0	274	0	196	23	445	385	164	425	436
Grp Sat Flow(s),veh/h/ln	1674	0	0	1781	0	1581	1781	1777	1531	1781	1777	1825
Q Serve(g_s), s	5.1	0.0	0.0	12.0	0.0	9.4	1.0	19.5	19.6	7.3	16.1	16.1
Cycle Q Clear(g_c), s	5.1	0.0	0.0	12.0	0.0	9.4	1.0	19.5	19.6	7.3	16.1	16.1
Prop In Lane	0.50		0.21	1.00		0.82	1.00		0.55	1.00		0.09
Lane Grp Cap(c), veh/h	298	0	0	333	0	296	44	500	431	200	656	673
V/C Ratio(X)	0.40	0.00	0.00	0.82	0.00	0.66	0.52	0.89	0.89	0.82	0.65	0.65
Avail Cap(c_a), veh/h	371	0	0	396	0	352	112	529	455	221	656	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	0.0	31.8	0.0	30.7	39.2	28.0	28.0	35.3	21.3	21.3
Incr Delay (d2), s/veh	0.9	0.0	0.0	11.3	0.0	3.6	9.0	16.4	18.9	19.7	2.2	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	6.0	0.0	3.7	0.5	9.9	8.9	4.1	6.5	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.4	0.0	0.0	43.1	0.0	34.2	48.2	44.3	46.9	55.0	23.5	23.5
LnGrp LOS	C			D		C	D	D	D	D	C	C
Approach Vol, veh/h		119			470			853			1025	
Approach Delay, s/veh		30.4			39.4			45.6			28.5	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	27.8		19.4	6.9	34.9		20.1				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	10.1	24.2		18.0	5.1	29.2		18.1				
Max Q Clear Time (g_c+I1), s	9.3	21.6		7.1	3.0	18.1		14.0				
Green Ext Time (p_c), s	0.0	1.3		0.4	0.0	3.9		0.8				

Intersection Summary			
HCM 7th Control Delay, s/veh		36.6	
HCM 7th LOS		D	



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	120	274	213	23	831	164	862
v/c Ratio	0.50	0.74	0.45	0.19	0.83	0.70	0.54
Control Delay (s/veh)	37.1	44.0	10.9	42.0	33.7	53.7	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.1	44.0	10.9	42.0	33.7	53.7	20.1
Queue Length 50th (ft)	52	131	15	12	198	83	154
Queue Length 95th (ft)	98	#234	66	35	#300	#179	267
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	427	435	523	122	1094	243	1583
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.63	0.41	0.19	0.76	0.67	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	157	397	1	71	358
Future Vol, veh/h	5	157	397	1	71	358
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	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	5	173	436	1	78	393

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	986	437	0	0	437	0
Stage 1	437	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	272	615	-	-	1112	-
Stage 1	647	-	-	-	-	-
Stage 2	574	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	248	615	-	-	1112	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	523	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.75	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	589	298	-
HCM Lane V/C Ratio	-	-	0.302	0.07	-
HCM Control Delay (s/veh)	-	-	13.7	8.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2	-

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	3	80	3	25	170	69	4	31	27	159	42	1
Future Vol, veh/h	3	80	3	25	170	69	4	31	27	159	42	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	114	4	36	243	99	6	44	39	227	60	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10	13.8	9.5	13
HCM LOS	A	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	3%	9%	79%
Vol Thru, %	50%	93%	64%	21%
Vol Right, %	44%	3%	26%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	86	264	202
LT Vol	4	3	25	159
Through Vol	31	80	170	42
RT Vol	27	3	69	1
Lane Flow Rate	89	123	377	289
Geometry Grp	1	1	1	1
Degree of Util (X)	0.136	0.191	0.532	0.446
Departure Headway (Hd)	5.535	5.585	5.079	5.569
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	646	641	709	646
Service Time	3.584	3.628	3.112	3.607
HCM Lane V/C Ratio	0.138	0.192	0.532	0.447
HCM Control Delay, s/veh	9.5	10	13.8	13
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.5	0.7	3.2	2.3

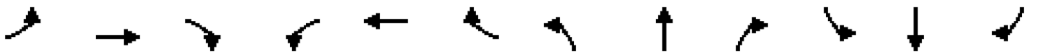
Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	227	24	13	166	15	69	12	11	20	12	34
Future Vol, veh/h	16	227	24	13	166	15	69	12	11	20	12	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	65	-	-	-	215	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	92	92	66	66	92	92	92	66	92	66
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	24	344	26	14	252	23	75	13	12	30	13	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	274	0	0	370	0	0	692	708	357	679	698	252
Stage 1	-	-	-	-	-	-	405	405	-	280	280	-
Stage 2	-	-	-	-	-	-	286	303	-	399	419	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.52	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.018	3.309
Pot Cap-1 Maneuver	1295	-	-	1188	-	-	358	360	687	367	364	790
Stage 1	-	-	-	-	-	-	622	598	-	729	679	-
Stage 2	-	-	-	-	-	-	721	664	-	629	590	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1295	-	-	1188	-	-	311	346	687	335	351	790
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	346	-	335	351	-
Stage 1	-	-	-	-	-	-	607	584	-	719	670	-
Stage 2	-	-	-	-	-	-	652	655	-	590	576	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.48	0.4	20.1	13.11
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	338	109	-	-	96	-	-	335	630
HCM Lane V/C Ratio	0.296	0.019	-	-	0.012	-	-	0.091	0.102
HCM Control Delay (s/veh)	20.1	7.8	0	-	8.1	0	-	16.8	11.4
HCM Lane LOS	C	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0	-	-	0.3	0.3



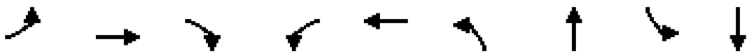
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	31	146	15	101	8	171	417	9	133	412	235
Future Volume (veh/h)	135	31	146	15	101	8	171	417	9	133	412	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.92	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	0	197	20	136	11	231	564	12	180	557	318
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	619	0	264	214	204	17	273	1118	24	222	624	356
Arrive On Green	0.17	0.00	0.17	0.12	0.12	0.12	0.15	0.31	0.31	0.12	0.29	0.29
Sat Flow, veh/h	3563	0	1517	1781	1704	138	1781	3550	75	1781	2178	1242
Grp Volume(v), veh/h	212	0	197	20	0	147	231	282	294	180	454	421
Grp Sat Flow(s),veh/h/ln	1781	0	1517	1781	0	1841	1781	1777	1849	1781	1777	1644
Q Serve(g_s), s	3.8	0.0	9.1	0.7	0.0	5.6	9.3	9.5	9.5	7.2	18.0	18.0
Cycle Q Clear(g_c), s	3.8	0.0	9.1	0.7	0.0	5.6	9.3	9.5	9.5	7.2	18.0	18.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.04	1.00		0.76
Lane Grp Cap(c), veh/h	619	0	264	214	0	221	273	560	582	222	509	471
V/C Ratio(X)	0.34	0.00	0.75	0.09	0.00	0.67	0.85	0.50	0.50	0.81	0.89	0.89
Avail Cap(c_a), veh/h	873	0	372	437	0	451	303	560	582	313	530	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	28.8	28.8	0.0	30.9	30.3	20.5	20.5	31.3	25.1	25.1
Incr Delay (d2), s/veh	0.3	0.0	5.1	0.2	0.0	3.4	18.1	0.7	0.7	10.4	17.0	18.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	3.3	0.3	0.0	2.5	5.1	3.7	3.8	3.5	9.2	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	0.0	33.9	29.0	0.0	34.3	48.3	21.2	21.2	41.7	42.1	43.3
LnGrp LOS	C		C	C		C	D	C	C	D	D	D
Approach Vol, veh/h		409			167			807			1055	
Approach Delay, s/veh		30.3			33.7			29.0			42.5	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	28.0		17.7	16.1	25.9		13.7				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	12.9	21.5		18.0	12.5	21.9		18.0				
Max Q Clear Time (g_c+I1), s	9.2	11.5		11.1	11.3	20.0		7.6				
Green Ext Time (p_c), s	0.2	2.3		0.8	0.1	1.0		0.5				

Intersection Summary		
HCM 7th Control Delay, s/veh	35.4	
HCM 7th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	111	113	197	20	147	231	576	180	875
v/c Ratio	0.48	0.48	0.52	0.08	0.54	0.79	0.54	0.67	0.84
Control Delay (s/veh)	38.0	37.7	10.4	29.2	37.2	53.3	26.1	44.9	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.0	37.7	10.4	29.2	37.2	53.3	26.1	44.9	32.2
Queue Length 50th (ft)	51	52	0	8	63	105	120	79	175
Queue Length 95th (ft)	86	87	28	23	100	#186	160	129	219
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	401	410	506	422	442	293	1059	302	1047
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.28	0.39	0.05	0.33	0.79	0.54	0.60	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	20.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	75	20	35	169	159	19	220	13	72	284	13
Future Vol, veh/h	11	75	20	35	169	159	19	220	13	72	284	13
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	12	82	22	38	186	175	21	242	14	79	312	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	12.4	22.3	16.4	24
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	10%	10%	20%
Vol Thru, %	87%	71%	47%	77%
Vol Right, %	5%	19%	44%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	106	363	369
LT Vol	19	11	35	72
Through Vol	220	75	169	284
RT Vol	13	20	159	13
Lane Flow Rate	277	116	399	405
Geometry Grp	1	1	1	1
Degree of Util (X)	0.509	0.232	0.692	0.717
Departure Headway (Hd)	6.611	7.157	6.241	6.364
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	543	499	578	568
Service Time	4.685	5.249	4.305	4.43
HCM Lane V/C Ratio	0.51	0.232	0.69	0.713
HCM Control Delay, s/veh	16.4	12.4	22.3	24
HCM Lane LOS	C	B	C	C
HCM 95th-tile Q	2.9	0.9	5.4	5.9

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	139	8	6	340	8	3	37	13	13	36	21
Future Vol, veh/h	10	139	8	6	340	8	3	37	13	13	36	21
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	11	160	9	7	391	9	3	43	15	15	41	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.4	12.5	9	9.1
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	6%	2%	19%
Vol Thru, %	70%	89%	96%	51%
Vol Right, %	25%	5%	2%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	157	354	70
LT Vol	3	10	6	13
Through Vol	37	139	340	36
RT Vol	13	8	8	21
Lane Flow Rate	61	180	407	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.091	0.242	0.519	0.119
Departure Headway (Hd)	5.366	4.836	4.595	5.326
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	663	738	781	668
Service Time	3.441	2.891	2.64	3.398
HCM Lane V/C Ratio	0.092	0.244	0.521	0.12
HCM Control Delay, s/veh	9	9.4	12.5	9.1
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.3	0.9	3	0.4

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	39	124	4	4	237	16	1	12	4	46	12	118
Future Vol, veh/h	39	124	4	4	237	16	1	12	4	46	12	118
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	6	6	6	6	2	6	2	6	2	2	2
Mvmt Flow	42	135	4	4	258	17	1	13	4	50	13	128

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	275	0	0	139	0	0	495	505	137	501	499	266
Stage 1	-	-	-	-	-	-	222	222	-	275	275	-
Stage 2	-	-	-	-	-	-	273	284	-	226	224	-
Critical Hdwy	4.12	-	-	4.16	-	-	7.16	6.52	6.26	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.254	-	-	3.554	4.018	3.354	3.518	4.018	3.318
Pot Cap-1 Maneuver	1288	-	-	1420	-	-	479	469	901	480	473	772
Stage 1	-	-	-	-	-	-	772	720	-	731	683	-
Stage 2	-	-	-	-	-	-	724	677	-	777	718	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1288	-	-	1420	-	-	373	451	901	447	455	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	373	451	-	447	455	-
Stage 1	-	-	-	-	-	-	744	694	-	729	680	-
Stage 2	-	-	-	-	-	-	590	674	-	731	693	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.84	0.12	12.41	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	504	418	-	-	28	-	-	624
HCM Lane V/C Ratio	0.037	0.033	-	-	0.003	-	-	0.307
HCM Control Delay (s/veh)	12.4	7.9	0	-	7.5	0	-	13.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	1.3

Intersection	
Intersection Delay, s/veh	23.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	124	33	38	188	168	17	203	34	123	146	34
Future Vol, veh/h	36	124	33	38	188	168	17	203	34	123	146	34
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	39	135	36	41	204	183	18	221	37	134	159	37
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	19.3	33.7	22	15.3
HCM LOS	C	D	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	86%	64%	0%	53%	0%	100%	0%
Vol Right, %	0%	14%	17%	0%	47%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	237	193	38	356	123	146	34
LT Vol	17	0	36	38	0	123	0	0
Through Vol	0	203	124	0	188	0	146	0
RT Vol	0	34	33	0	168	0	0	34
Lane Flow Rate	18	258	210	41	387	134	159	37
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.046	0.596	0.494	0.096	0.816	0.327	0.366	0.078
Departure Headway (Hd)	8.951	8.326	8.485	8.399	7.592	8.816	8.299	7.576
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	433	424	427	480	408	433	472
Service Time	6.708	6.083	6.244	6.141	5.292	6.573	6.056	5.332
HCM Lane V/C Ratio	0.045	0.596	0.495	0.096	0.806	0.328	0.367	0.078
HCM Control Delay, s/veh	12.1	22.7	19.3	12	36	15.8	15.8	11
HCM Lane LOS	B	C	C	B	E	C	C	B
HCM 95th-tile Q	0.1	3.8	2.7	0.3	7.8	1.4	1.7	0.3

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	222	10	5	288	68	15	54	12	10	35	41
Future Vol, veh/h	48	222	10	5	288	68	15	54	12	10	35	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	54	249	11	6	324	76	17	61	13	11	39	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	400	0	0	261	0	0	717	774	255	761	742	362
Stage 1	-	-	-	-	-	-	363	363	-	373	373	-
Stage 2	-	-	-	-	-	-	354	411	-	388	369	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1153	-	-	1298	-	-	343	328	781	321	343	681
Stage 1	-	-	-	-	-	-	654	623	-	646	616	-
Stage 2	-	-	-	-	-	-	661	593	-	634	619	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1153	-	-	1298	-	-	269	311	781	243	325	681
Mov Cap-2 Maneuver	-	-	-	-	-	-	269	311	-	243	325	-
Stage 1	-	-	-	-	-	-	623	594	-	643	614	-
Stage 2	-	-	-	-	-	-	574	590	-	533	590	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.42	0.11	19.38	16.41
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	781	1153	-	-	1298	-	-	412
HCM Lane V/C Ratio	0.258	0.017	0.047	-	-	0.004	-	-	0.235
HCM Control Delay (s/veh)	21.1	9.7	8.3	-	-	7.8	-	-	16.4
HCM Lane LOS	C	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1	0.1	0.1	-	-	0	-	-	0.9

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	57	4	11	85	60	3	191	10	63	259	10
Future Vol, veh/h	6	57	4	11	85	60	3	191	10	63	259	10
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	68	5	13	101	71	4	227	12	75	308	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.1	11	11.5	15.1
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	9%	7%	19%
Vol Thru, %	94%	85%	54%	78%
Vol Right, %	5%	6%	38%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	67	156	332
LT Vol	3	6	11	63
Through Vol	191	57	85	259
RT Vol	10	4	60	10
Lane Flow Rate	243	80	186	395
Geometry Grp	1	1	1	1
Degree of Util (X)	0.363	0.135	0.292	0.573
Departure Headway (Hd)	5.386	6.079	5.659	5.217
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	668	589	633	692
Service Time	3.426	4.132	3.703	3.251
HCM Lane V/C Ratio	0.364	0.136	0.294	0.571
HCM Control Delay, s/veh	11.5	10.1	11	15.1
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	1.7	0.5	1.2	3.7

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	123	5	6	138	87	16	132	7	79	135	9
Future Vol, veh/h	9	123	5	6	138	87	16	132	7	79	135	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	10	131	5	6	147	93	17	140	7	84	144	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.2	11.1	10.4	11.5
HCM LOS	B	B	B	B

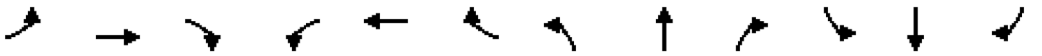
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	7%	3%	35%
Vol Thru, %	85%	90%	60%	61%
Vol Right, %	5%	4%	38%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	137	231	223
LT Vol	16	9	6	79
Through Vol	132	123	138	135
RT Vol	7	5	87	9
Lane Flow Rate	165	146	246	237
Geometry Grp	1	1	1	1
Degree of Util (X)	0.252	0.225	0.355	0.359
Departure Headway (Hd)	5.512	5.565	5.201	5.444
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	644	691	662
Service Time	3.548	3.603	3.233	3.477
HCM Lane V/C Ratio	0.253	0.227	0.356	0.358
HCM Control Delay, s/veh	10.4	10.2	11.1	11.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1	0.9	1.6	1.6

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	131	110	28	109	25	109	271	38	30	261	22
Future Vol, veh/h	29	131	110	28	109	25	109	271	38	30	261	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	31	141	118	30	117	27	117	291	41	32	281	24
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	18.9	14.7	13.2	13.2
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	11%	17%	100%	0%	0%
Vol Thru, %	0%	100%	70%	49%	67%	0%	100%	80%
Vol Right, %	0%	0%	30%	41%	15%	0%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	181	128	270	162	30	174	109
LT Vol	109	0	0	29	28	30	0	0
Through Vol	0	181	90	131	109	0	174	87
RT Vol	0	0	38	110	25	0	0	22
Lane Flow Rate	117	194	138	290	174	32	187	117
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.248	0.383	0.264	0.571	0.367	0.07	0.378	0.232
Departure Headway (Hd)	7.612	7.097	6.883	7.077	7.577	7.794	7.278	7.132
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	471	507	522	511	474	459	494	503
Service Time	5.36	4.844	4.63	4.82	5.327	5.545	5.028	4.882
HCM Lane V/C Ratio	0.248	0.383	0.264	0.568	0.367	0.07	0.379	0.233
HCM Control Delay, s/veh	12.9	14.2	12.1	18.9	14.7	11.1	14.4	12
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	1	1.8	1.1	3.5	1.7	0.2	1.7	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	479	198	24	315	113	140	267	55	170	285	9
Future Volume (veh/h)	46	479	198	24	315	113	140	267	55	170	285	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	515	201	26	339	112	151	287	56	183	306	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	690	268	53	680	221	193	366	71	236	478	14
Arrive On Green	0.05	0.28	0.28	0.03	0.26	0.26	0.11	0.24	0.24	0.13	0.26	0.26
Sat Flow, veh/h	1781	2501	972	1781	2636	857	1781	1520	297	1781	1808	53
Grp Volume(v), veh/h	49	365	351	26	227	224	151	0	343	183	0	315
Grp Sat Flow(s),veh/h/ln	1781	1777	1695	1781	1777	1716	1781	0	1817	1781	0	1861
Q Serve(g_s), s	1.5	10.4	10.5	0.8	6.0	6.2	4.6	0.0	9.8	5.5	0.0	8.3
Cycle Q Clear(g_c), s	1.5	10.4	10.5	0.8	6.0	6.2	4.6	0.0	9.8	5.5	0.0	8.3
Prop In Lane	1.00		0.57	1.00		0.50	1.00		0.16	1.00		0.03
Lane Grp Cap(c), veh/h	85	491	468	53	459	443	193	0	437	236	0	492
V/C Ratio(X)	0.58	0.74	0.75	0.49	0.49	0.51	0.78	0.00	0.78	0.78	0.00	0.64
Avail Cap(c_a), veh/h	219	718	685	193	693	669	299	0	885	540	0	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	18.3	18.3	26.5	17.5	17.5	24.1	0.0	19.7	23.2	0.0	18.0
Incr Delay (d2), s/veh	6.0	2.4	2.6	6.9	0.8	0.9	7.0	0.0	3.1	5.4	0.0	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.7	3.6	0.4	2.1	2.1	2.0	0.0	3.7	2.3	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.8	20.7	20.9	33.3	18.3	18.4	31.0	0.0	22.8	28.7	0.0	19.4
LnGrp LOS	C	C	C	C	B	B	C		C	C		B
Approach Vol, veh/h		765			477			494			498	
Approach Delay, s/veh		21.5			19.2			25.3			22.8	
Approach LOS		C			B			C			C	

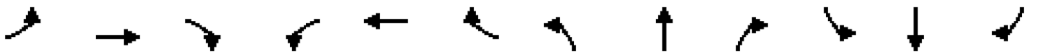
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	18.2	5.6	20.2	10.0	19.6	6.6	19.2
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	16.8	27.0	6.0	22.4	9.3	34.5	6.8	21.6
Max Q Clear Time (g_c+I1), s	7.5	11.8	2.8	12.5	6.6	10.3	3.5	8.2
Green Ext Time (p_c), s	0.3	1.5	0.0	2.8	0.1	1.6	0.0	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	22.2
HCM 7th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	728	26	461	151	346	183	316
v/c Ratio	0.28	0.72	0.16	0.51	0.61	0.70	0.57	0.55
Control Delay (s/veh)	40.2	26.8	39.5	24.2	46.6	32.1	36.9	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.2	26.8	39.5	24.2	46.6	32.1	36.9	24.0
Queue Length 50th (ft)	20	117	11	84	62	129	72	110
Queue Length 95th (ft)	63	#263	40	155	#191	255	163	204
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	188	1255	166	1186	258	775	466	1004
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.58	0.16	0.39	0.59	0.45	0.39	0.31

Intersection Summary

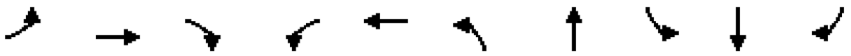
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	414	142	115	343	51	157	243	80	121	321	82
Future Volume (veh/h)	200	414	142	115	343	51	157	243	80	121	321	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	222	460	155	128	381	56	174	270	83	134	357	78
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	977	421	165	668	97	217	616	184	171	730	311
Arrive On Green	0.15	0.27	0.27	0.09	0.22	0.22	0.12	0.23	0.23	0.10	0.21	0.21
Sat Flow, veh/h	1781	3554	1531	1781	3092	450	1781	2666	798	1781	3554	1513
Grp Volume(v), veh/h	222	460	155	128	217	220	174	177	176	134	357	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1765	1781	1777	1687	1781	1777	1513
Q Serve(g_s), s	7.8	6.9	5.2	4.5	7.0	7.2	6.1	5.5	5.7	4.7	5.7	2.8
Cycle Q Clear(g_c), s	7.8	6.9	5.2	4.5	7.0	7.2	6.1	5.5	5.7	4.7	5.7	2.8
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	271	977	421	165	384	381	217	411	390	171	730	311
V/C Ratio(X)	0.82	0.47	0.37	0.77	0.57	0.58	0.80	0.43	0.45	0.78	0.49	0.25
Avail Cap(c_a), veh/h	363	1040	448	341	498	495	280	559	531	252	1062	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	19.4	18.8	28.5	22.5	22.6	27.5	21.1	21.2	28.4	22.6	21.4
Incr Delay (d2), s/veh	10.5	0.4	0.5	7.5	1.3	1.4	12.0	0.7	0.8	9.2	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.6	1.7	2.1	2.8	2.8	3.1	2.1	2.1	2.3	2.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.9	19.8	19.3	36.0	23.8	23.9	39.5	21.8	22.0	37.6	23.1	21.8
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		837			565			527			569	
Approach Delay, s/veh		24.2			26.6			27.7			26.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	19.7	10.9	22.6	12.7	18.1	14.7	18.8
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	9.1	20.2	12.3	18.8	10.1	19.2	13.1	18.0
Max Q Clear Time (g_c+I1), s	6.7	7.7	6.5	8.9	8.1	7.7	9.8	9.2
Green Ext Time (p_c), s	0.1	1.5	0.1	2.4	0.1	1.8	0.2	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	26.0
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	222	460	158	128	438	174	359	134	357	91
v/c Ratio	0.71	0.47	0.30	0.50	0.62	0.69	0.42	0.59	0.55	0.22
Control Delay (s/veh)	42.4	24.7	6.1	35.9	28.3	46.1	22.1	43.0	29.3	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.4	24.7	6.1	35.9	28.3	46.1	22.1	43.0	29.3	2.0
Queue Length 50th (ft)	87	88	0	50	85	70	60	54	73	0
Queue Length 95th (ft)	#207	149	43	109	140	#180	105	#138	119	7
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	345	1048	557	324	939	266	1068	240	1014	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.44	0.28	0.40	0.47	0.65	0.34	0.56	0.35	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	19	7	59	23	102	9	458	67	107	498	35
Future Volume (veh/h)	34	19	7	59	23	102	9	458	67	107	498	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	37	21	7	64	25	95	10	498	72	116	541	37
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	96	55	18	257	47	179	23	831	119	152	1147	78
Arrive On Green	0.09	0.09	0.09	0.14	0.14	0.14	0.01	0.27	0.27	0.08	0.34	0.34
Sat Flow, veh/h	1015	576	192	1795	328	1248	1795	3115	448	1795	3389	231
Grp Volume(v), veh/h	65	0	0	64	0	120	10	285	285	116	285	293
Grp Sat Flow(s),veh/h/ln	1783	0	0	1795	0	1576	1795	1791	1772	1795	1791	1829
Q Serve(g_s), s	1.6	0.0	0.0	1.5	0.0	3.4	0.3	6.6	6.7	3.0	6.0	6.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.5	0.0	3.4	0.3	6.6	6.7	3.0	6.0	6.0
Prop In Lane	0.57		0.11	1.00		0.79	1.00		0.25	1.00		0.13
Lane Grp Cap(c), veh/h	169	0	0	257	0	226	23	478	473	152	606	619
V/C Ratio(X)	0.38	0.00	0.00	0.25	0.00	0.53	0.43	0.60	0.60	0.76	0.47	0.47
Avail Cap(c_a), veh/h	676	0	0	680	0	597	192	821	812	462	1091	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	18.2	0.0	19.0	23.4	15.3	15.3	21.4	12.4	12.4
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.5	0.0	1.9	11.9	1.2	1.2	7.6	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.6	0.0	1.2	0.2	2.3	2.3	1.4	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.7	0.0	0.0	18.7	0.0	20.9	35.3	16.5	16.5	29.0	13.0	13.0
LnGrp LOS	C			B		C	D	B	B	C	B	B
Approach Vol, veh/h		65			184			580			694	
Approach Delay, s/veh		21.7			20.1			16.8			15.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	17.6		9.4	5.5	21.1		11.7				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	12.3	21.9		18.1	5.1	29.1		18.1				
Max Q Clear Time (g_c+I1), s	5.0	8.7		3.6	2.3	8.0		5.4				
Green Ext Time (p_c), s	0.1	2.7		0.2	0.0	3.2		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		16.9	
HCM 7th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	64	136	10	571	116	579
v/c Ratio	0.24	0.23	0.40	0.05	0.38	0.36	0.27
Control Delay (s/veh)	26.7	28.3	13.4	31.6	18.5	28.5	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.7	28.3	13.4	31.6	18.5	28.5	10.2
Queue Length 50th (ft)	20	21	8	4	92	39	59
Queue Length 95th (ft)	60	62	57	19	165	97	144
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	685	679	675	191	1748	461	2186
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.20	0.05	0.33	0.25	0.26

Intersection Summary

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	79	422	4	96	398
Future Vol, veh/h	2	79	422	4	96	398
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	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	85	454	4	103	428

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1090	456	0	0	458	0
Stage 1	456	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	237	602	-	-	1098	-
Stage 1	636	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	208	602	-	-	1098	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	461	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	12.37	0	1.68
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	575	350	-
HCM Lane V/C Ratio	-	-	0.151	0.094	-
HCM Control Delay (s/veh)	-	-	12.4	8.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.3	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	120	1	9	73	26	3	39	18	60	25	1
Future Vol, veh/h	1	120	1	9	73	26	3	39	18	60	25	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	129	1	10	78	28	3	42	19	65	27	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	8	7.8	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	1%	8%	70%
Vol Thru, %	65%	98%	68%	29%
Vol Right, %	30%	1%	24%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	122	108	86
LT Vol	3	1	9	60
Through Vol	39	120	73	25
RT Vol	18	1	26	1
Lane Flow Rate	65	131	116	92
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.161	0.139	0.121
Departure Headway (Hd)	4.434	4.428	4.322	4.698
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	809	812	831	765
Service Time	2.455	2.445	2.341	2.718
HCM Lane V/C Ratio	0.08	0.161	0.14	0.12
HCM Control Delay, s/veh	7.8	8.3	8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.5	0.4

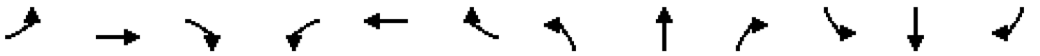
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	93	79	18	48	6	45	12	18	8	12	13
Future Vol, veh/h	25	93	79	18	48	6	45	12	18	8	12	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	65	-	-	-	215	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	92	92	91	91	92	92	92	91	92	91
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	27	102	86	20	53	7	49	13	20	9	13	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	188	0	0	298	299	145	256	335	53
Stage 1	-	-	-	-	-	-	200	200	-	92	92	-
Stage 2	-	-	-	-	-	-	98	98	-	164	243	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.52	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.018	3.309
Pot Cap-1 Maneuver	1551	-	-	1386	-	-	654	614	902	700	585	1018
Stage 1	-	-	-	-	-	-	802	736	-	918	819	-
Stage 2	-	-	-	-	-	-	908	814	-	841	705	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1386	-	-	609	592	902	647	565	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	609	592	-	647	565	-
Stage 1	-	-	-	-	-	-	786	721	-	904	807	-
Stage 2	-	-	-	-	-	-	868	802	-	791	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.94	1.89	11.25	10.21
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	657	210	-	-	487	-	-	647	736
HCM Lane V/C Ratio	0.124	0.018	-	-	0.014	-	-	0.014	0.037
HCM Control Delay (s/veh)	11.3	7.4	0	-	7.6	0	-	10.6	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0	0.1



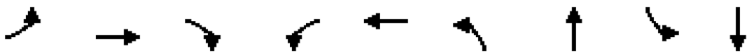
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	7	46	5	3	2	46	377	7	54	397	25
Future Volume (veh/h)	75	7	46	5	3	2	46	377	7	54	397	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	88	0	50	5	3	2	50	410	8	59	432	27
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	429	0	181	59	34	23	98	873	17	111	855	53
Arrive On Green	0.12	0.00	0.12	0.03	0.03	0.03	0.05	0.24	0.24	0.06	0.25	0.25
Sat Flow, veh/h	3591	0	1516	1795	1041	694	1795	3590	70	1795	3415	213
Grp Volume(v), veh/h	88	0	50	5	0	5	50	204	214	59	226	233
Grp Sat Flow(s),veh/h/ln	1795	0	1516	1795	0	1735	1795	1791	1869	1795	1791	1837
Q Serve(g_s), s	0.8	0.0	1.1	0.1	0.0	0.1	1.0	3.5	3.5	1.2	3.9	3.9
Cycle Q Clear(g_c), s	0.8	0.0	1.1	0.1	0.0	0.1	1.0	3.5	3.5	1.2	3.9	3.9
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.04	1.00		0.12
Lane Grp Cap(c), veh/h	429	0	181	59	0	57	98	435	454	111	448	460
V/C Ratio(X)	0.20	0.00	0.28	0.09	0.00	0.09	0.51	0.47	0.47	0.53	0.50	0.51
Avail Cap(c_a), veh/h	1899	0	802	900	0	869	452	1195	1248	452	1195	1226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	14.5	16.9	0.0	16.9	16.6	11.7	11.7	16.4	11.6	11.6
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.6	0.0	0.7	4.1	0.8	0.8	3.9	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	0.4	1.1	1.1	0.5	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.6	0.0	15.3	17.6	0.0	17.6	20.7	12.5	12.4	20.3	12.5	12.5
LnGrp LOS	B		B	B		B	C	B	B	C	B	B
Approach Vol, veh/h		138			10			468			518	
Approach Delay, s/veh		14.8			17.6			13.3			13.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	13.7		9.2	6.9	13.9		6.1				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	9.1	24.1		19.1	9.1	24.1		18.1				
Max Q Clear Time (g_c+I1), s	3.2	5.5		3.1	3.0	5.9		2.1				
Green Ext Time (p_c), s	0.0	2.1		0.3	0.0	2.3		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	13.6	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	45	45	50	5	5	50	418	59	459
v/c Ratio	0.14	0.14	0.12	0.02	0.02	0.15	0.23	0.17	0.26
Control Delay (s/veh)	18.4	18.3	0.6	20.2	18.2	18.3	11.0	18.4	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.4	18.3	0.6	20.2	18.2	18.3	11.0	18.4	10.9
Queue Length 50th (ft)	5	5	0	1	0	6	17	6	20
Queue Length 95th (ft)	42	42	0	10	10	43	102	48	111
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	927	937	901	924	907	465	2454	465	2437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.06	0.01	0.01	0.11	0.17	0.13	0.19

Intersection Summary

Intersection	
Intersection Delay, s/veh	26.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	157	30	21	111	116	22	299	42	142	240	11
Future Vol, veh/h	12	157	30	21	111	116	22	299	42	142	240	11
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	13	171	33	23	121	126	24	325	46	154	261	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	17.2	18.9	28.8	35
HCM LOS	C	C	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	6%	8%	36%
Vol Thru, %	82%	79%	45%	61%
Vol Right, %	12%	15%	47%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	363	199	248	393
LT Vol	22	12	21	142
Through Vol	299	157	111	240
RT Vol	42	30	116	11
Lane Flow Rate	395	216	270	427
Geometry Grp	1	1	1	1
Degree of Util (X)	0.759	0.461	0.547	0.824
Departure Headway (Hd)	6.929	7.677	7.308	6.948
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	521	467	491	521
Service Time	4.995	5.756	5.382	5.013
HCM Lane V/C Ratio	0.758	0.463	0.55	0.82
HCM Control Delay, s/veh	28.8	17.2	18.9	35
HCM Lane LOS	D	C	C	D
HCM 95th-tile Q	6.6	2.4	3.2	8.2

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	346	2	8	209	8	4	36	13	2	26	6
Future Vol, veh/h	15	346	2	8	209	8	4	36	13	2	26	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	384	2	9	232	9	4	40	14	2	29	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	12	9.9	8.9	8.8
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	4%	4%	6%
Vol Thru, %	68%	95%	93%	76%
Vol Right, %	25%	1%	4%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	363	225	34
LT Vol	4	15	8	2
Through Vol	36	346	209	26
RT Vol	13	2	8	6
Lane Flow Rate	59	403	250	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.087	0.503	0.321	0.057
Departure Headway (Hd)	5.334	4.489	4.628	5.411
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	668	803	775	658
Service Time	3.398	2.524	2.669	3.477
HCM Lane V/C Ratio	0.088	0.502	0.323	0.058
HCM Control Delay, s/veh	8.9	12	9.9	8.8
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.3	2.9	1.4	0.2

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	137	216	3	4	136	53	3	12	5	31	12	79
Future Vol, veh/h	137	216	3	4	136	53	3	12	5	31	12	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	149	235	3	4	148	58	3	13	5	34	13	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	238	0	0	697	748	236	724	721	177
Stage 1	-	-	-	-	-	-	534	534	-	185	185	-
Stage 2	-	-	-	-	-	-	163	214	-	539	536	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1366	-	-	1329	-	-	355	341	803	341	353	866
Stage 1	-	-	-	-	-	-	530	524	-	816	746	-
Stage 2	-	-	-	-	-	-	839	725	-	526	523	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1329	-	-	269	297	803	283	308	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	269	297	-	283	308	-
Stage 1	-	-	-	-	-	-	463	458	-	813	744	-
Stage 2	-	-	-	-	-	-	740	723	-	444	458	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.06	0.16	16.11	14.54
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	691	-	-	35	-	-	509
HCM Lane V/C Ratio	0.063	0.109	-	-	0.003	-	-	0.26
HCM Control Delay (s/veh)	16.1	8	0	-	7.7	0	-	14.5
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.4	-	-	0	-	-	1

Intersection	
Intersection Delay, s/veh	17.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	148	30	21	153	112	45	179	36	98	157	24
Future Vol, veh/h	48	148	30	21	153	112	45	179	36	98	157	24
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	53	163	33	23	168	123	49	197	40	108	173	26
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	19.8	20.2	17.4	14.4
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	21%	100%	0%	100%	0%	0%
Vol Thru, %	0%	83%	65%	0%	58%	0%	100%	0%
Vol Right, %	0%	17%	13%	0%	42%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	215	226	21	265	98	157	24
LT Vol	45	0	48	21	0	98	0	0
Through Vol	0	179	148	0	153	0	157	0
RT Vol	0	36	30	0	112	0	0	24
Lane Flow Rate	49	236	248	23	291	108	173	26
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.116	0.511	0.544	0.053	0.602	0.25	0.376	0.052
Departure Headway (Hd)	8.422	7.784	7.883	8.248	7.436	8.36	7.846	7.126
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	424	461	454	432	483	428	455	500
Service Time	6.21	5.572	5.67	6.03	5.217	6.15	5.635	4.914
HCM Lane V/C Ratio	0.116	0.512	0.546	0.053	0.602	0.252	0.38	0.052
HCM Control Delay, s/veh	12.3	18.5	19.8	11.5	20.9	13.9	15.3	10.3
HCM Lane LOS	B	C	C	B	C	B	C	B
HCM 95th-tile Q	0.4	2.8	3.2	0.2	3.9	1	1.7	0.2

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	226	12	9	249	28	7	41	13	12	28	30
Future Vol, veh/h	32	226	12	9	249	28	7	41	13	12	28	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	34	243	13	10	268	30	8	44	14	13	30	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	298	0	0	256	0	0	620	635	249	636	627	283
Stage 1	-	-	-	-	-	-	318	318	-	302	302	-
Stage 2	-	-	-	-	-	-	302	317	-	334	325	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1258	-	-	1303	-	-	399	394	787	389	399	754
Stage 1	-	-	-	-	-	-	691	652	-	705	662	-
Stage 2	-	-	-	-	-	-	705	652	-	678	647	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1258	-	-	1303	-	-	340	381	787	328	385	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	381	-	328	385	-
Stage 1	-	-	-	-	-	-	672	634	-	700	657	-
Stage 2	-	-	-	-	-	-	639	648	-	602	630	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.94	0.24	14.77	14.13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	374	787	1258	-	-	1303	-	-	469
HCM Lane V/C Ratio	0.138	0.018	0.027	-	-	0.007	-	-	0.16
HCM Control Delay (s/veh)	16.1	9.7	7.9	-	-	7.8	-	-	14.1
HCM Lane LOS	C	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	0.1	-	-	0	-	-	0.6

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	71	3	9	54	90	4	250	11	87	197	8
Future Vol, veh/h	19	71	3	9	54	90	4	250	11	87	197	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	21	79	3	10	60	100	4	278	12	97	219	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.3	10.5	12.3	13.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	20%	6%	30%
Vol Thru, %	94%	76%	35%	67%
Vol Right, %	4%	3%	59%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	93	153	292
LT Vol	4	19	9	87
Through Vol	250	71	54	197
RT Vol	11	3	90	8
Lane Flow Rate	294	103	170	324
Geometry Grp	1	1	1	1
Degree of Util (X)	0.431	0.172	0.259	0.476
Departure Headway (Hd)	5.264	5.98	5.491	5.283
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	683	598	653	681
Service Time	3.301	4.031	3.538	3.319
HCM Lane V/C Ratio	0.43	0.172	0.26	0.476
HCM Control Delay, s/veh	12.3	10.3	10.5	13.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.2	0.6	1	2.6

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	145	16	6	142	89	11	147	11	86	113	7
Future Vol, veh/h	15	145	16	6	142	89	11	147	11	86	113	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	16	153	17	6	149	94	12	155	12	91	119	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.6	11.1	10.6	11.3
HCM LOS	B	B	B	B

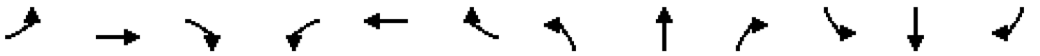
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	9%	3%	42%
Vol Thru, %	87%	82%	60%	55%
Vol Right, %	7%	9%	38%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	176	237	206
LT Vol	11	15	6	86
Through Vol	147	145	142	113
RT Vol	11	16	89	7
Lane Flow Rate	178	185	249	217
Geometry Grp	1	1	1	1
Degree of Util (X)	0.272	0.281	0.359	0.333
Departure Headway (Hd)	5.506	5.456	5.181	5.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	658	694	651
Service Time	3.547	3.496	3.219	3.564
HCM Lane V/C Ratio	0.273	0.281	0.359	0.333
HCM Control Delay, s/veh	10.6	10.6	11.1	11.3
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.1	1.1	1.6	1.5

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	109	83	16	104	26	115	345	13	40	313	35
Future Vol, veh/h	50	109	83	16	104	26	115	345	13	40	313	35
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	51	111	85	16	106	27	117	352	13	41	319	36
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	16.8	13.7	13.5	13.3
HCM LOS	C	B	B	B

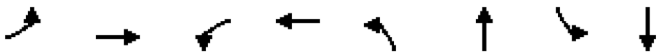
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	21%	11%	100%	0%	0%
Vol Thru, %	0%	100%	90%	45%	71%	0%	100%	75%
Vol Right, %	0%	0%	10%	34%	18%	0%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	230	128	242	146	40	209	139
LT Vol	115	0	0	50	16	40	0	0
Through Vol	0	230	115	109	104	0	209	104
RT Vol	0	0	13	83	26	0	0	35
Lane Flow Rate	117	235	131	247	149	41	213	142
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.24	0.446	0.246	0.494	0.312	0.085	0.413	0.269
Departure Headway (Hd)	7.362	6.848	6.775	7.195	7.53	7.497	6.983	6.802
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	488	526	530	501	477	478	515	527
Service Time	5.104	4.59	4.517	4.936	5.276	5.24	4.726	4.545
HCM Lane V/C Ratio	0.24	0.447	0.247	0.493	0.312	0.086	0.414	0.269
HCM Control Delay, s/veh	12.4	15	11.7	16.8	13.7	10.9	14.6	12
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	0.9	2.3	1	2.7	1.3	0.3	2	1.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	394	118	30	600	104	353	275	29	145	335	51
Future Volume (veh/h)	24	394	118	30	600	104	353	275	29	145	335	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	415	110	32	632	87	372	289	29	153	353	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	48	644	169	57	744	102	417	638	64	193	406	61
Arrive On Green	0.03	0.23	0.23	0.03	0.24	0.24	0.24	0.39	0.39	0.11	0.26	0.26
Sat Flow, veh/h	1767	2741	718	1767	3099	426	1767	1657	166	1767	1572	236
Grp Volume(v), veh/h	25	265	260	32	359	360	372	0	318	153	0	406
Grp Sat Flow(s),veh/h/ln	1767	1763	1696	1767	1763	1762	1767	0	1823	1767	0	1808
Q Serve(g_s), s	1.0	10.1	10.3	1.3	14.5	14.6	15.2	0.0	9.7	6.3	0.0	16.0
Cycle Q Clear(g_c), s	1.0	10.1	10.3	1.3	14.5	14.6	15.2	0.0	9.7	6.3	0.0	16.0
Prop In Lane	1.00		0.42	1.00		0.24	1.00		0.09	1.00		0.13
Lane Grp Cap(c), veh/h	48	414	398	57	423	423	417	0	702	193	0	467
V/C Ratio(X)	0.52	0.64	0.65	0.56	0.85	0.85	0.89	0.00	0.45	0.79	0.00	0.87
Avail Cap(c_a), veh/h	140	474	457	140	474	474	497	0	752	364	0	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.9	25.7	25.8	35.6	27.1	27.1	27.6	0.0	17.1	32.4	0.0	26.5
Incr Delay (d2), s/veh	8.5	2.4	2.7	8.2	12.4	12.7	16.2	0.0	0.5	7.2	0.0	10.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.0	4.0	0.7	6.9	6.9	7.6	0.0	3.6	2.9	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.4	28.1	28.5	43.8	39.5	39.8	43.8	0.0	17.5	39.7	0.0	36.9
LnGrp LOS	D	C	C	D	D	D	D		B	D		D
Approach Vol, veh/h		550			751			690			559	
Approach Delay, s/veh		29.0			39.8			31.7			37.6	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	33.7	6.4	22.4	21.6	24.2	6.0	22.8
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	15.4	30.8	5.9	20.1	21.0	25.2	5.9	20.1
Max Q Clear Time (g_c+I1), s	8.3	11.7	3.3	12.3	17.2	18.0	3.0	16.6
Green Ext Time (p_c), s	0.2	1.5	0.0	1.7	0.4	1.2	0.0	1.3

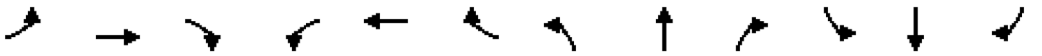
Intersection Summary	
HCM 7th Control Delay, s/veh	34.8
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	539	32	741	372	320	153	407
v/c Ratio	0.20	0.64	0.25	0.81	0.85	0.47	0.59	0.83
Control Delay (s/veh)	43.3	31.3	44.6	37.8	51.4	23.5	43.8	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.3	31.3	44.6	37.8	51.4	23.5	43.8	44.5
Queue Length 50th (ft)	13	137	17	181	201	129	81	204
Queue Length 95th (ft)	39	195	47	#333	#372	221	142	#357
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	130	875	130	938	463	718	339	576
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.62	0.25	0.79	0.80	0.45	0.45	0.71

Intersection Summary

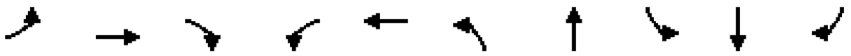
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	389	128	217	406	43	201	284	149	97	536	101
Future Volume (veh/h)	67	389	128	217	406	43	201	284	149	97	536	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	432	139	241	451	47	223	316	160	108	596	99
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	705	302	286	990	103	267	674	332	140	794	342
Arrive On Green	0.05	0.20	0.20	0.16	0.31	0.31	0.15	0.30	0.30	0.08	0.22	0.22
Sat Flow, veh/h	1781	3554	1523	1781	3240	336	1781	2283	1126	1781	3554	1530
Grp Volume(v), veh/h	74	432	139	241	246	252	223	244	232	108	596	99
Grp Sat Flow(s),veh/h/ln	1781	1777	1523	1781	1777	1799	1781	1777	1632	1781	1777	1530
Q Serve(g_s), s	3.0	8.1	5.9	9.6	8.2	8.3	8.9	8.2	8.6	4.4	11.5	3.9
Cycle Q Clear(g_c), s	3.0	8.1	5.9	9.6	8.2	8.3	8.9	8.2	8.6	4.4	11.5	3.9
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	96	705	302	286	543	550	267	525	482	140	794	342
V/C Ratio(X)	0.77	0.61	0.46	0.84	0.45	0.46	0.83	0.47	0.48	0.77	0.75	0.29
Avail Cap(c_a), veh/h	223	872	374	379	591	599	352	525	482	287	887	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	26.8	25.9	29.9	20.5	20.6	30.3	21.1	21.2	33.2	26.6	23.6
Incr Delay (d2), s/veh	12.5	0.9	1.1	12.2	0.6	0.6	12.4	0.6	0.7	8.8	3.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.3	2.1	4.8	3.2	3.3	4.5	3.2	3.1	2.1	4.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.7	27.7	27.0	42.1	21.1	21.2	42.6	21.8	22.0	41.9	29.8	24.1
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		645			739			699			803	
Approach Delay, s/veh		29.7			28.0			28.5			30.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	26.6	16.7	19.5	15.9	21.3	8.8	27.3
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	11.8	21.0	15.6	18.0	14.5	18.3	9.2	24.4
Max Q Clear Time (g_c+I1), s	6.4	10.6	11.6	10.1	10.9	13.5	5.0	10.3
Green Ext Time (p_c), s	0.1	2.0	0.2	1.9	0.2	1.8	0.0	2.3

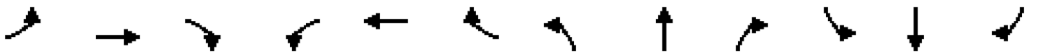
Intersection Summary	
HCM 7th Control Delay, s/veh	29.3
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	74	432	142	241	499	223	482	108	596	112
v/c Ratio	0.42	0.65	0.31	0.77	0.47	0.75	0.46	0.50	0.79	0.23
Control Delay (s/veh)	43.1	35.3	3.0	49.8	25.5	50.5	21.5	42.9	38.9	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.1	35.3	3.0	49.8	25.5	50.5	21.5	42.9	38.9	1.1
Queue Length 50th (ft)	37	111	0	122	114	113	87	54	157	0
Queue Length 95th (ft)	80	160	14	#233	163	#222	142	105	#228	0
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	208	815	509	353	1101	328	1050	267	829	514
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.53	0.28	0.68	0.45	0.68	0.46	0.40	0.72	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	29	22	242	30	153	20	545	187	141	715	36
Future Volume (veh/h)	52	29	22	242	30	153	20	545	187	141	715	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.82	1.00		0.97	1.00		0.84	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	34	25	281	35	161	23	634	216	164	831	41
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	84	62	337	53	245	44	707	240	199	1280	63
Arrive On Green	0.18	0.18	0.18	0.19	0.19	0.19	0.02	0.29	0.29	0.11	0.37	0.37
Sat Flow, veh/h	843	478	351	1781	282	1299	1781	2472	841	1781	3433	169
Grp Volume(v), veh/h	119	0	0	281	0	196	23	455	395	164	430	442
Grp Sat Flow(s),veh/h/ln	1673	0	0	1781	0	1581	1781	1777	1536	1781	1777	1826
Q Serve(g_s), s	5.2	0.0	0.0	12.6	0.0	9.5	1.1	20.3	20.4	7.4	16.6	16.6
Cycle Q Clear(g_c), s	5.2	0.0	0.0	12.6	0.0	9.5	1.1	20.3	20.4	7.4	16.6	16.6
Prop In Lane	0.50		0.21	1.00		0.82	1.00		0.55	1.00		0.09
Lane Grp Cap(c), veh/h	295	0	0	337	0	299	44	508	439	199	662	681
V/C Ratio(X)	0.40	0.00	0.00	0.83	0.00	0.66	0.52	0.90	0.90	0.82	0.65	0.65
Avail Cap(c_a), veh/h	364	0	0	390	0	346	110	533	461	205	662	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	0.0	32.3	0.0	31.0	39.8	28.3	28.4	35.9	21.5	21.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	12.9	0.0	3.6	9.2	17.2	19.7	22.7	2.2	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	6.4	0.0	3.8	0.6	10.4	9.3	4.3	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.1	0.0	0.0	45.2	0.0	34.6	49.0	45.6	48.1	58.7	23.7	23.6
LnGrp LOS	C			D		C	D	D	D	E	C	C
Approach Vol, veh/h		119			477			873			1036	
Approach Delay, s/veh		31.1			40.9			46.8			29.2	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.1	28.5		19.5	7.0	35.7		20.5				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	9.5	24.8		18.0	5.1	29.2		18.1				
Max Q Clear Time (g_c+I1), s	9.4	22.4		7.2	3.1	18.6		14.6				
Green Ext Time (p_c), s	0.0	1.2		0.4	0.0	3.8		0.7				

Intersection Summary			
HCM 7th Control Delay, s/veh		37.6	
HCM 7th LOS		D	



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	120	281	213	23	851	164	873
v/c Ratio	0.50	0.76	0.45	0.19	0.84	0.73	0.55
Control Delay (s/veh)	37.2	45.0	10.9	42.1	33.8	56.6	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.2	45.0	10.9	42.1	33.8	56.6	20.2
Queue Length 50th (ft)	52	135	15	12	203	84	156
Queue Length 95th (ft)	98	#243	66	35	#305	#186	271
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	423	432	521	121	1111	226	1585
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.65	0.41	0.19	0.77	0.73	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	157	500	1	71	390
Future Vol, veh/h	5	157	500	1	71	390
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	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	5	173	549	1	78	429

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1135	550	0	0	551	0
Stage 1	550	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	222	531	-	-	1009	-
Stage 1	574	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	199	531	-	-	1009	-
Mov Cap-2 Maneuver	199	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	497	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.96	0	1.37
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	505	277	-
HCM Lane V/C Ratio	-	-	0.353	0.077	-
HCM Control Delay (s/veh)	-	-	16	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0.3	-

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	3	80	3	25	170	69	4	31	27	159	42	1
Future Vol, veh/h	3	80	3	25	170	69	4	31	27	159	42	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	114	4	36	243	99	6	44	39	227	60	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10	13.8	9.5	13
HCM LOS	A	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	3%	9%	79%
Vol Thru, %	50%	93%	64%	21%
Vol Right, %	44%	3%	26%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	86	264	202
LT Vol	4	3	25	159
Through Vol	31	80	170	42
RT Vol	27	3	69	1
Lane Flow Rate	89	123	377	289
Geometry Grp	1	1	1	1
Degree of Util (X)	0.136	0.191	0.532	0.446
Departure Headway (Hd)	5.535	5.585	5.079	5.569
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	646	641	709	646
Service Time	3.584	3.628	3.112	3.607
HCM Lane V/C Ratio	0.138	0.192	0.532	0.447
HCM Control Delay, s/veh	9.5	10	13.8	13
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.5	0.7	3.2	2.3

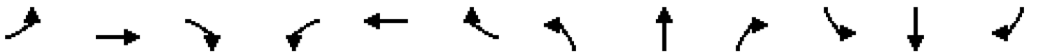
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	227	24	13	166	15	69	2	11	20	2	34
Future Vol, veh/h	16	227	24	13	166	15	69	2	11	20	2	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	65	-	-	-	215	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	92	92	66	66	92	92	92	66	92	66
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	24	344	26	14	252	23	75	2	12	30	2	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	274	0	0	370	0	0	686	708	357	673	698	252
Stage 1	-	-	-	-	-	-	405	405	-	280	280	-
Stage 2	-	-	-	-	-	-	281	303	-	394	419	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.52	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.018	3.309
Pot Cap-1 Maneuver	1295	-	-	1188	-	-	361	360	687	370	364	790
Stage 1	-	-	-	-	-	-	622	598	-	729	679	-
Stage 2	-	-	-	-	-	-	726	664	-	633	590	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1295	-	-	1188	-	-	323	346	687	348	351	790
Mov Cap-2 Maneuver	-	-	-	-	-	-	323	346	-	348	351	-
Stage 1	-	-	-	-	-	-	607	584	-	719	670	-
Stage 2	-	-	-	-	-	-	667	655	-	605	576	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.48	0.4	18.84	12.39
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	349	109	-	-	96	-	-	348	752
HCM Lane V/C Ratio	0.256	0.019	-	-	0.012	-	-	0.087	0.071
HCM Control Delay (s/veh)	18.8	7.8	0	-	8.1	0	-	16.3	10.2
HCM Lane LOS	C	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.3	0.2

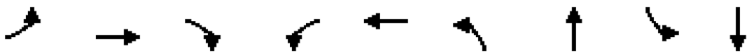


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	31	148	15	101	8	176	461	9	133	428	235
Future Volume (veh/h)	135	31	148	15	101	8	176	461	9	133	428	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.92	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	0	200	20	136	11	238	623	12	180	578	318
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	0	265	213	204	16	279	1135	22	221	633	348
Arrive On Green	0.17	0.00	0.17	0.12	0.12	0.12	0.16	0.32	0.32	0.12	0.29	0.29
Sat Flow, veh/h	3563	0	1517	1781	1704	138	1781	3559	69	1781	2210	1215
Grp Volume(v), veh/h	212	0	200	20	0	147	238	311	324	180	465	431
Grp Sat Flow(s),veh/h/ln	1781	0	1517	1781	0	1841	1781	1777	1851	1781	1777	1649
Q Serve(g_s), s	3.9	0.0	9.3	0.7	0.0	5.7	9.7	10.8	10.8	7.3	18.8	18.8
Cycle Q Clear(g_c), s	3.9	0.0	9.3	0.7	0.0	5.7	9.7	10.8	10.8	7.3	18.8	18.8
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.04	1.00		0.74
Lane Grp Cap(c), veh/h	622	0	265	213	0	220	279	566	590	221	509	472
V/C Ratio(X)	0.34	0.00	0.76	0.09	0.00	0.67	0.85	0.55	0.55	0.81	0.91	0.91
Avail Cap(c_a), veh/h	861	0	366	430	0	445	304	566	590	306	517	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	29.2	29.2	0.0	31.4	30.6	21.0	21.0	31.8	25.7	25.7
Incr Delay (d2), s/veh	0.3	0.0	5.7	0.2	0.0	3.5	19.1	1.1	1.1	11.1	20.5	21.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	3.5	0.3	0.0	2.5	5.4	4.2	4.4	3.6	10.1	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.3	0.0	35.0	29.4	0.0	34.9	49.7	22.1	22.0	42.9	46.2	47.5
LnGrp LOS	C		C	C		C	D	C	C	D	D	D
Approach Vol, veh/h		412			167			873			1076	
Approach Delay, s/veh		31.0			34.2			29.6			46.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	28.7		17.9	16.6	26.2		13.8				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	12.8	21.6		18.0	12.7	21.7		18.0				
Max Q Clear Time (g_c+I1), s	9.3	12.8		11.3	11.7	20.8		7.7				
Green Ext Time (p_c), s	0.1	2.4		0.8	0.1	0.5		0.5				

Intersection Summary			
HCM 7th Control Delay, s/veh		37.2	
HCM 7th LOS		D	

Notes
User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	111	113	200	20	147	238	635	180	896
v/c Ratio	0.48	0.48	0.53	0.08	0.54	0.80	0.60	0.67	0.87
Control Delay (s/veh)	38.0	37.8	10.5	29.2	37.3	54.3	27.0	45.3	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.0	37.8	10.5	29.2	37.3	54.3	27.0	45.3	34.6
Queue Length 50th (ft)	51	52	0	8	63	108	135	79	184
Queue Length 95th (ft)	86	87	28	23	100	#192	176	129	229
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	400	408	507	421	441	297	1067	299	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.28	0.39	0.05	0.33	0.80	0.60	0.60	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	54.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	88	20	50	207	262	19	220	18	104	284	13
Future Vol, veh/h	11	88	20	50	207	262	19	220	18	104	284	13
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	12	97	22	55	227	288	21	242	20	114	312	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	15.2	86.4	22.2	45.1
HCM LOS	C	F	C	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	9%	10%	26%
Vol Thru, %	86%	74%	40%	71%
Vol Right, %	7%	17%	50%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	119	519	401
LT Vol	19	11	50	104
Through Vol	220	88	207	284
RT Vol	18	20	262	13
Lane Flow Rate	282	131	570	441
Geometry Grp	1	1	1	1
Degree of Util (X)	0.598	0.299	1.074	0.884
Departure Headway (Hd)	7.985	8.592	6.782	7.549
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	455	421	536	485
Service Time	5.985	6.592	4.847	5.549
HCM Lane V/C Ratio	0.62	0.311	1.063	0.909
HCM Control Delay, s/veh	22.2	15.2	86.4	45.1
HCM Lane LOS	C	C	F	E
HCM 95th-tile Q	3.8	1.2	17.2	9.6

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	190	8	6	498	8	3	37	13	13	36	21
Future Vol, veh/h	10	190	8	6	498	8	3	37	13	13	36	21
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	11	218	9	7	572	9	3	43	15	15	41	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.9	21.9	9.8	10
HCM LOS	B	C	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	5%	1%	19%
Vol Thru, %	70%	91%	97%	51%
Vol Right, %	25%	4%	2%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	208	512	70
LT Vol	3	10	6	13
Through Vol	37	190	498	36
RT Vol	13	8	8	21
Lane Flow Rate	61	239	589	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.103	0.345	0.769	0.135
Departure Headway (Hd)	6.08	5.194	4.707	6.024
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	592	696	759	598
Service Time	4.095	3.194	2.797	4.038
HCM Lane V/C Ratio	0.103	0.343	0.776	0.134
HCM Control Delay, s/veh	9.8	10.9	21.9	10
HCM Lane LOS	A	B	C	A
HCM 95th-tile Q	0.3	1.5	7.4	0.5

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	39	175	4	4	395	16	1	3	4	46	2	118
Future Vol, veh/h	39	175	4	4	395	16	1	3	4	46	2	118
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	6	6	6	6	2	6	2	6	2	2	2
Mvmt Flow	42	190	4	4	429	17	1	3	4	50	2	128

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	447	0	0	195	0	0	716	733	192	723	726	438
Stage 1	-	-	-	-	-	-	277	277	-	447	447	-
Stage 2	-	-	-	-	-	-	439	455	-	277	279	-
Critical Hdwy	4.12	-	-	4.16	-	-	7.16	6.52	6.26	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.254	-	-	3.554	4.018	3.354	3.518	4.018	3.318
Pot Cap-1 Maneuver	1114	-	-	1355	-	-	340	348	839	341	351	619
Stage 1	-	-	-	-	-	-	721	681	-	591	574	-
Stage 2	-	-	-	-	-	-	589	568	-	730	680	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1355	-	-	255	332	839	321	335	619
Mov Cap-2 Maneuver	-	-	-	-	-	-	255	332	-	321	335	-
Stage 1	-	-	-	-	-	-	690	652	-	588	571	-
Stage 2	-	-	-	-	-	-	463	566	-	691	651	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.5	0.07	13.13	16.64
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	451	321	-	-	17	-	-	488
HCM Lane V/C Ratio	0.019	0.038	-	-	0.003	-	-	0.37
HCM Control Delay (s/veh)	13.1	8.4	0	-	7.7	0	-	16.6
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	1.7

Intersection	
Intersection Delay, s/veh	81.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	167	44	43	312	205	50	217	36	138	151	34
Future Vol, veh/h	36	167	44	43	312	205	50	217	36	138	151	34
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	39	182	48	47	339	223	54	236	39	150	164	37
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	31.4	168.1	29	19.1
HCM LOS	D	F	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	15%	100%	0%	100%	0%	0%
Vol Thru, %	0%	86%	68%	0%	60%	0%	100%	0%
Vol Right, %	0%	14%	18%	0%	40%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	253	247	43	517	138	151	34
LT Vol	50	0	36	43	0	138	0	0
Through Vol	0	217	167	0	312	0	151	0
RT Vol	0	36	44	0	205	0	0	34
Lane Flow Rate	54	275	268	47	562	150	164	37
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.145	0.687	0.682	0.12	1.312	0.4	0.415	0.086
Departure Headway (Hd)	10.564	9.928	9.905	9.209	8.408	10.491	9.965	9.23
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	342	366	368	389	433	345	364	391
Service Time	8.264	7.628	7.605	6.979	6.177	8.191	7.665	6.93
HCM Lane V/C Ratio	0.158	0.751	0.728	0.121	1.298	0.435	0.451	0.095
HCM Control Delay, s/veh	15	31.8	31.4	13.2	181	20	19.6	12.8
HCM Lane LOS	B	D	D	B	F	C	C	B
HCM 95th-tile Q	0.5	4.9	4.8	0.4	24.9	1.9	2	0.3

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	250	13	8	308	68	24	58	18	10	36	46
Future Vol, veh/h	61	250	13	8	308	68	24	58	18	10	36	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	69	281	15	9	346	76	27	65	20	11	40	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	296	0	0	810	866	288	853	835	384
Stage 1	-	-	-	-	-	-	425	425	-	402	402	-
Stage 2	-	-	-	-	-	-	384	440	-	451	433	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1131	-	-	1260	-	-	297	290	749	278	303	661
Stage 1	-	-	-	-	-	-	605	585	-	623	598	-
Stage 2	-	-	-	-	-	-	637	576	-	586	580	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1131	-	-	1260	-	-	221	271	749	195	282	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	271	-	195	282	-
Stage 1	-	-	-	-	-	-	568	549	-	618	594	-
Stage 2	-	-	-	-	-	-	543	571	-	472	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.58	0.16	23.94	18.45
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	254	749	1131	-	-	1260	-	-	370
HCM Lane V/C Ratio	0.363	0.027	0.061	-	-	0.007	-	-	0.279
HCM Control Delay (s/veh)	27	9.9	8.4	-	-	7.9	-	-	18.4
HCM Lane LOS	D	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.6	0.1	0.2	-	-	0	-	-	1.1

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	57	4	11	85	60	3	194	10	63	270	13
Future Vol, veh/h	7	57	4	11	85	60	3	194	10	63	270	13
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	8	68	5	13	101	71	4	231	12	75	321	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.2	11.2	11.7	15.8
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	10%	7%	18%
Vol Thru, %	94%	84%	54%	78%
Vol Right, %	5%	6%	38%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	68	156	346
LT Vol	3	7	11	63
Through Vol	194	57	85	270
RT Vol	10	4	60	13
Lane Flow Rate	246	81	186	412
Geometry Grp	1	1	1	1
Degree of Util (X)	0.371	0.138	0.295	0.599
Departure Headway (Hd)	5.425	6.148	5.72	5.231
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	663	581	628	688
Service Time	3.467	4.205	3.768	3.266
HCM Lane V/C Ratio	0.371	0.139	0.296	0.599
HCM Control Delay, s/veh	11.7	10.2	11.2	15.8
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	1.7	0.5	1.2	4

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	123	5	6	138	92	16	141	7	93	157	13
Future Vol, veh/h	10	123	5	6	138	92	16	141	7	93	157	13
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	11	131	5	6	147	98	17	150	7	99	167	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.6	11.6	10.8	12.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	7%	3%	35%
Vol Thru, %	86%	89%	58%	60%
Vol Right, %	4%	4%	39%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	138	236	263
LT Vol	16	10	6	93
Through Vol	141	123	138	157
RT Vol	7	5	92	13
Lane Flow Rate	174	147	251	280
Geometry Grp	1	1	1	1
Degree of Util (X)	0.274	0.235	0.374	0.428
Departure Headway (Hd)	5.644	5.764	5.369	5.513
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	621	668	652
Service Time	3.688	3.811	3.412	3.554
HCM Lane V/C Ratio	0.274	0.237	0.376	0.429
HCM Control Delay, s/veh	10.8	10.6	11.6	12.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.1	0.9	1.7	2.1

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	136	119	28	110	25	112	276	38	30	269	22
Future Vol, veh/h	29	136	119	28	110	25	112	276	38	30	269	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	31	146	128	30	118	27	120	297	41	32	289	24
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	20.3	15	13.6	13.7
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	10%	17%	100%	0%	0%
Vol Thru, %	0%	100%	71%	48%	67%	0%	100%	80%
Vol Right, %	0%	0%	29%	42%	15%	0%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	112	184	130	284	163	30	179	112
LT Vol	112	0	0	29	28	30	0	0
Through Vol	0	184	92	136	110	0	179	90
RT Vol	0	0	38	119	25	0	0	22
Lane Flow Rate	120	198	140	305	175	32	193	120
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.258	0.396	0.272	0.606	0.375	0.071	0.396	0.242
Departure Headway (Hd)	7.727	7.211	7	7.143	7.698	7.909	7.392	7.249
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	499	513	504	466	452	486	495
Service Time	5.481	4.965	4.753	4.893	5.455	5.666	5.148	5.006
HCM Lane V/C Ratio	0.258	0.397	0.273	0.605	0.376	0.071	0.397	0.242
HCM Control Delay, s/veh	13.2	14.6	12.4	20.3	15	11.3	14.9	12.3
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	1	1.9	1.1	4	1.7	0.2	1.9	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	482	295	25	318	113	197	277	55	170	303	9
Future Volume (veh/h)	46	482	295	25	318	113	197	277	55	170	303	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	518	305	27	342	112	212	298	56	183	326	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	660	388	54	767	247	265	372	70	232	407	11
Arrive On Green	0.05	0.31	0.31	0.03	0.29	0.29	0.15	0.24	0.24	0.13	0.22	0.22
Sat Flow, veh/h	1781	2154	1265	1781	2642	852	1781	1531	288	1781	1811	50
Grp Volume(v), veh/h	49	427	396	27	228	226	212	0	354	183	0	335
Grp Sat Flow(s),veh/h/ln	1781	1777	1643	1781	1777	1717	1781	0	1819	1781	0	1861
Q Serve(g_s), s	1.7	13.5	13.5	0.9	6.4	6.6	7.1	0.0	11.2	6.1	0.0	10.4
Cycle Q Clear(g_c), s	1.7	13.5	13.5	0.9	6.4	6.6	7.1	0.0	11.2	6.1	0.0	10.4
Prop In Lane	1.00		0.77	1.00		0.50	1.00		0.16	1.00		0.03
Lane Grp Cap(c), veh/h	82	544	503	54	516	498	265	0	442	232	0	418
V/C Ratio(X)	0.60	0.78	0.79	0.50	0.44	0.45	0.80	0.00	0.80	0.79	0.00	0.80
Avail Cap(c_a), veh/h	198	727	672	174	704	681	465	0	774	436	0	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	19.4	19.4	29.3	17.7	17.8	25.2	0.0	21.8	25.8	0.0	22.5
Incr Delay (d2), s/veh	6.7	4.1	4.5	7.2	0.6	0.6	5.6	0.0	3.4	5.9	0.0	3.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	4.8	0.5	2.3	2.2	3.0	0.0	4.4	2.6	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.4	23.5	23.9	36.4	18.3	18.4	30.8	0.0	25.2	31.8	0.0	26.1
LnGrp LOS	D	C	C	D	B	B	C		C	C		C
Approach Vol, veh/h		872			481			566			518	
Approach Delay, s/veh		24.3			19.4			27.3			28.1	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	19.8	5.8	23.7	13.1	18.7	6.8	22.7
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	15.0	26.1	6.0	25.1	16.0	25.1	6.8	24.3
Max Q Clear Time (g_c+I1), s	8.1	13.2	2.9	15.5	9.1	12.4	3.7	8.6
Green Ext Time (p_c), s	0.2	1.5	0.0	3.3	0.3	1.3	0.0	2.1

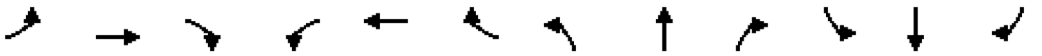
Intersection Summary	
HCM 7th Control Delay, s/veh	24.8
HCM 7th LOS	C

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	835	27	464	212	357	183	336
v/c Ratio	0.29	0.75	0.17	0.49	0.64	0.71	0.60	0.70
Control Delay (s/veh)	41.1	25.0	40.3	23.1	40.0	33.1	40.0	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.1	25.0	40.3	23.1	40.0	33.1	40.0	34.5
Queue Length 50th (ft)	20	131	11	86	85	136	74	133
Queue Length 95th (ft)	63	268	41	148	#203	270	168	259
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	182	1358	160	1286	428	724	402	706
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.61	0.17	0.36	0.50	0.49	0.46	0.48

Intersection Summary

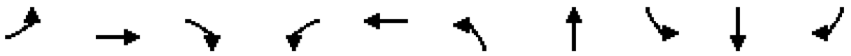
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	414	142	119	343	51	157	250	87	121	333	82
Future Volume (veh/h)	200	414	142	119	343	51	157	250	87	121	333	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	222	460	155	132	381	56	174	278	91	134	370	78
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	965	416	170	666	97	217	610	194	171	736	314
Arrive On Green	0.15	0.27	0.27	0.10	0.22	0.22	0.12	0.23	0.23	0.10	0.21	0.21
Sat Flow, veh/h	1781	3554	1531	1781	3092	450	1781	2621	835	1781	3554	1514
Grp Volume(v), veh/h	222	460	155	132	217	220	174	186	183	134	370	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1765	1781	1777	1679	1781	1777	1514
Q Serve(g_s), s	7.8	7.0	5.3	4.7	7.1	7.2	6.1	5.8	6.1	4.7	5.9	2.8
Cycle Q Clear(g_c), s	7.8	7.0	5.3	4.7	7.1	7.2	6.1	5.8	6.1	4.7	5.9	2.8
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	270	965	416	170	383	380	217	414	391	171	736	314
V/C Ratio(X)	0.82	0.48	0.37	0.77	0.57	0.58	0.80	0.45	0.47	0.78	0.50	0.25
Avail Cap(c_a), veh/h	362	1025	441	345	496	493	279	556	526	251	1058	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	19.7	19.0	28.5	22.6	22.7	27.6	21.2	21.3	28.5	22.6	21.4
Incr Delay (d2), s/veh	10.6	0.4	0.6	7.3	1.3	1.4	12.2	0.8	0.9	9.3	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.6	1.7	2.2	2.8	2.8	3.1	2.2	2.2	2.3	2.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.1	20.0	19.6	35.8	23.9	24.1	39.7	22.0	22.2	37.8	23.2	21.8
LnGrp LOS	D	C	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		837			569			543			582	
Approach Delay, s/veh		24.5			26.7			27.7			26.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	19.9	11.1	22.4	12.8	18.3	14.7	18.8
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	9.1	20.2	12.5	18.6	10.1	19.2	13.1	18.0
Max Q Clear Time (g_c+I1), s	6.7	8.1	6.7	9.0	8.1	7.9	9.8	9.2
Green Ext Time (p_c), s	0.1	1.6	0.1	2.4	0.1	1.9	0.2	1.6

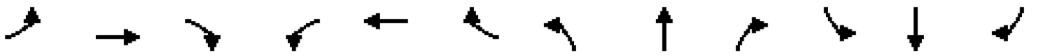
Intersection Summary	
HCM 7th Control Delay, s/veh	26.1
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	222	460	158	132	438	174	375	134	370	91
v/c Ratio	0.71	0.47	0.30	0.51	0.62	0.69	0.43	0.60	0.56	0.22
Control Delay (s/veh)	42.8	25.0	6.2	36.1	28.5	46.5	22.1	43.4	29.4	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.8	25.0	6.2	36.1	28.5	46.5	22.1	43.4	29.4	2.0
Queue Length 50th (ft)	88	90	0	52	85	71	63	54	75	0
Queue Length 95th (ft)	#208	150	44	112	140	#181	109	#139	123	7
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	344	1035	551	328	934	265	1066	239	1009	542
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.44	0.29	0.40	0.47	0.66	0.35	0.56	0.37	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	19	7	63	23	102	9	473	74	107	514	35
Future Volume (veh/h)	34	19	7	63	23	102	9	473	74	107	514	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	37	21	7	68	25	95	10	514	79	116	559	37
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	96	54	18	257	47	179	23	842	129	152	1170	77
Arrive On Green	0.09	0.09	0.09	0.14	0.14	0.14	0.01	0.27	0.27	0.08	0.34	0.34
Sat Flow, veh/h	1015	576	192	1795	328	1248	1795	3086	472	1795	3398	224
Grp Volume(v), veh/h	65	0	0	68	0	120	10	297	296	116	294	302
Grp Sat Flow(s),veh/h/ln	1783	0	0	1795	0	1576	1795	1791	1767	1795	1791	1831
Q Serve(g_s), s	1.7	0.0	0.0	1.6	0.0	3.4	0.3	7.0	7.1	3.1	6.2	6.3
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.6	0.0	3.4	0.3	7.0	7.1	3.1	6.2	6.3
Prop In Lane	0.57		0.11	1.00		0.79	1.00		0.27	1.00		0.12
Lane Grp Cap(c), veh/h	168	0	0	257	0	226	23	489	482	152	617	631
V/C Ratio(X)	0.39	0.00	0.00	0.26	0.00	0.53	0.43	0.61	0.61	0.76	0.48	0.48
Avail Cap(c_a), veh/h	666	0	0	671	0	589	189	854	843	411	1076	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	0.0	18.5	0.0	19.2	23.7	15.3	15.4	21.7	12.5	12.5
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.5	0.0	1.9	11.9	1.2	1.3	7.8	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.6	0.0	1.2	0.2	2.5	2.5	1.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.1	0.0	0.0	19.0	0.0	21.2	35.7	16.6	16.6	29.5	13.0	13.0
LnGrp LOS	C			B		C	D	B	B	C	B	B
Approach Vol, veh/h		65			188			603			712	
Approach Delay, s/veh		22.1			20.4			16.9			15.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	18.1		9.5	5.5	21.6		11.8				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	11.1	23.1		18.1	5.1	29.1		18.1				
Max Q Clear Time (g_c+I1), s	5.1	9.1		3.7	2.3	8.3		5.4				
Green Ext Time (p_c), s	0.1	2.9		0.2	0.0	3.3		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		17.0	
HCM 7th LOS		B	



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	68	136	10	594	116	597
v/c Ratio	0.24	0.25	0.40	0.05	0.39	0.37	0.28
Control Delay (s/veh)	26.8	28.6	13.3	31.7	18.2	29.4	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.8	28.6	13.3	31.7	18.2	29.4	10.3
Queue Length 50th (ft)	20	23	8	4	97	39	62
Queue Length 95th (ft)	60	64	57	19	168	99	148
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	681	674	671	190	1681	413	2182
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.10	0.20	0.05	0.35	0.28	0.27

Intersection Summary

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	79	489	4	96	514
Future Vol, veh/h	2	79	489	4	96	514
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	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	85	526	4	103	553

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1287	528	0	0	530	0
Stage 1	528	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	180	548	-	-	1032	-
Stage 1	590	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	548	-	-	1032	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	394	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.39	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	516	283	-
HCM Lane V/C Ratio	-	-	0.169	0.1	-
HCM Control Delay (s/veh)	-	-	13.4	8.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	120	1	9	73	26	3	39	18	60	25	1
Future Vol, veh/h	1	120	1	9	73	26	3	39	18	60	25	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	129	1	10	78	28	3	42	19	65	27	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	8	7.8	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	1%	8%	70%
Vol Thru, %	65%	98%	68%	29%
Vol Right, %	30%	1%	24%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	122	108	86
LT Vol	3	1	9	60
Through Vol	39	120	73	25
RT Vol	18	1	26	1
Lane Flow Rate	65	131	116	92
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.161	0.139	0.121
Departure Headway (Hd)	4.434	4.428	4.322	4.698
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	809	812	831	765
Service Time	2.455	2.445	2.341	2.718
HCM Lane V/C Ratio	0.08	0.161	0.14	0.12
HCM Control Delay, s/veh	7.8	8.3	8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.5	0.4

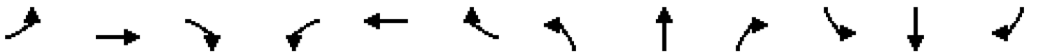
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	93	79	18	48	6	45	2	18	8	2	13
Future Vol, veh/h	25	93	79	18	48	6	45	2	18	8	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	65	-	-	-	215	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	92	92	91	91	92	92	92	91	92	91
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	27	102	86	20	53	7	49	2	20	9	2	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	188	0	0	293	299	145	250	335	53
Stage 1	-	-	-	-	-	-	200	200	-	92	92	-
Stage 2	-	-	-	-	-	-	93	98	-	158	243	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.52	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.018	3.309
Pot Cap-1 Maneuver	1551	-	-	1386	-	-	659	614	902	705	585	1018
Stage 1	-	-	-	-	-	-	802	736	-	918	819	-
Stage 2	-	-	-	-	-	-	914	814	-	846	705	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1386	-	-	625	592	902	664	565	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	592	-	664	565	-
Stage 1	-	-	-	-	-	-	786	721	-	904	807	-
Stage 2	-	-	-	-	-	-	886	802	-	809	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.94	1.89	10.89	9.51
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	682	210	-	-	487	-	-	664	920
HCM Lane V/C Ratio	0.104	0.018	-	-	0.014	-	-	0.013	0.018
HCM Control Delay (s/veh)	10.9	7.4	0	-	7.6	0	-	10.5	9
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0	0.1



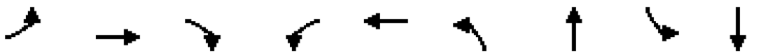
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	7	51	5	3	2	49	409	7	54	448	25
Future Volume (veh/h)	75	7	51	5	3	2	49	409	7	54	448	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	88	0	55	5	3	2	53	445	8	59	487	27
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	428	0	181	59	34	23	102	940	17	110	916	51
Arrive On Green	0.12	0.00	0.12	0.03	0.03	0.03	0.06	0.26	0.26	0.06	0.27	0.27
Sat Flow, veh/h	3591	0	1515	1795	1040	694	1795	3597	65	1795	3443	190
Grp Volume(v), veh/h	88	0	55	5	0	5	53	221	232	59	253	261
Grp Sat Flow(s),veh/h/ln	1795	0	1515	1795	0	1734	1795	1791	1871	1795	1791	1842
Q Serve(g_s), s	0.8	0.0	1.2	0.1	0.0	0.1	1.1	3.9	3.9	1.2	4.5	4.5
Cycle Q Clear(g_c), s	0.8	0.0	1.2	0.1	0.0	0.1	1.1	3.9	3.9	1.2	4.5	4.5
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.03	1.00		0.10
Lane Grp Cap(c), veh/h	428	0	181	59	0	57	102	468	489	110	476	490
V/C Ratio(X)	0.21	0.00	0.30	0.09	0.00	0.09	0.52	0.47	0.47	0.54	0.53	0.53
Avail Cap(c_a), veh/h	1839	0	776	871	0	842	390	1205	1259	390	1205	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	15.0	17.5	0.0	17.5	17.1	11.6	11.6	17.0	11.7	11.7
Incr Delay (d2), s/veh	0.2	0.0	0.9	0.6	0.0	0.7	4.1	0.7	0.7	4.0	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.0	0.0	0.0	0.5	1.2	1.2	0.5	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	0.0	15.9	18.1	0.0	18.2	21.2	12.4	12.3	21.0	12.6	12.6
LnGrp LOS	B		B	B		B	C	B	B	C	B	B
Approach Vol, veh/h		143			10			506			573	
Approach Delay, s/veh		15.4			18.1			13.3			13.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	14.6		9.3	7.0	14.8		6.1				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	8.1	25.1		19.1	8.1	25.1		18.1				
Max Q Clear Time (g_c+I1), s	3.2	5.9		3.2	3.1	6.5		2.1				
Green Ext Time (p_c), s	0.0	2.3		0.3	0.0	2.7		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	13.7
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	45	45	55	5	5	53	453	59	514
v/c Ratio	0.14	0.14	0.14	0.02	0.02	0.16	0.25	0.18	0.28
Control Delay (s/veh)	18.6	18.5	0.7	20.4	18.2	18.9	10.7	18.9	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.6	18.5	0.7	20.4	18.2	18.9	10.7	18.9	10.8
Queue Length 50th (ft)	5	5	0	1	0	6	19	7	22
Queue Length 95th (ft)	42	42	0	10	10	46	107	49	121
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	921	931	897	919	901	411	2540	411	2525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.06	0.01	0.01	0.13	0.18	0.14	0.20

Intersection Summary

Intersection	
Intersection Delay, s/veh	102.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	200	30	31	135	183	22	299	60	258	240	11
Future Vol, veh/h	12	200	30	31	135	183	22	299	60	258	240	11
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	13	217	33	34	147	199	24	325	65	280	261	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	31.9	53.1	69.2	195.8
HCM LOS	D	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	5%	9%	51%
Vol Thru, %	78%	83%	39%	47%
Vol Right, %	16%	12%	52%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	381	242	349	509
LT Vol	22	12	31	258
Through Vol	299	200	135	240
RT Vol	60	30	183	11
Lane Flow Rate	414	263	379	553
Geometry Grp	1	1	1	1
Degree of Util (X)	0.967	0.67	0.886	1.345
Departure Headway (Hd)	9.357	10.306	9.397	8.749
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	389	352	387	420
Service Time	7.357	8.306	7.397	6.749
HCM Lane V/C Ratio	1.064	0.747	0.979	1.317
HCM Control Delay, s/veh	69.2	31.9	53.1	195.8
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	11	4.6	8.9	25.8

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	520	2	8	312	8	4	36	13	2	26	6
Future Vol, veh/h	15	520	2	8	312	8	4	36	13	2	26	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	578	2	9	347	9	4	40	14	2	29	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	21.8	12.7	9.8	9.7
HCM LOS	C	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	3%	2%	6%
Vol Thru, %	68%	97%	95%	76%
Vol Right, %	25%	0%	2%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	537	328	34
LT Vol	4	15	8	2
Through Vol	36	520	312	26
RT Vol	13	2	8	6
Lane Flow Rate	59	597	364	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.101	0.772	0.494	0.066
Departure Headway (Hd)	6.147	4.657	4.884	6.246
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	586	770	729	576
Service Time	4.151	2.728	2.968	4.251
HCM Lane V/C Ratio	0.101	0.775	0.499	0.066
HCM Control Delay, s/veh	9.8	21.8	12.7	9.7
HCM Lane LOS	A	C	B	A
HCM 95th-tile Q	0.3	7.5	2.8	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	137	390	3	4	240	53	3	2	5	31	2	79
Future Vol, veh/h	137	390	3	4	240	53	3	2	5	31	2	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	149	424	3	4	261	58	3	2	5	34	2	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	318	0	0	427	0	0	994	1051	426	1021	1023	290
Stage 1	-	-	-	-	-	-	723	723	-	298	298	-
Stage 2	-	-	-	-	-	-	271	327	-	723	725	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1242	-	-	1132	-	-	224	227	629	215	236	749
Stage 1	-	-	-	-	-	-	417	431	-	710	667	-
Stage 2	-	-	-	-	-	-	735	648	-	418	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1242	-	-	1132	-	-	165	190	629	177	198	749
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	190	-	177	198	-
Stage 1	-	-	-	-	-	-	352	363	-	707	664	-
Stage 2	-	-	-	-	-	-	646	645	-	347	362	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.14	0.11	18.75	18.62
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	273	465	-	-	23	-	-	385
HCM Lane V/C Ratio	0.04	0.12	-	-	0.004	-	-	0.316
HCM Control Delay (s/veh)	18.7	8.3	0	-	8.2	0	-	18.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0	-	-	1.3

Intersection	
Intersection Delay, s/veh	70.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	286	68	26	235	139	67	189	42	141	173	24
Future Vol, veh/h	48	286	68	26	235	139	67	189	42	141	173	24
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	53	314	75	29	258	153	74	208	46	155	190	26
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	125.6	86	29.5	22.3
HCM LOS	F	F	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	12%	100%	0%	100%	0%	0%
Vol Thru, %	0%	82%	71%	0%	63%	0%	100%	0%
Vol Right, %	0%	18%	17%	0%	37%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	231	402	26	374	141	173	24
LT Vol	67	0	48	26	0	141	0	0
Through Vol	0	189	286	0	235	0	173	0
RT Vol	0	42	68	0	139	0	0	24
Lane Flow Rate	74	254	442	29	411	155	190	26
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.212	0.684	1.153	0.079	1.046	0.443	0.517	0.067
Departure Headway (Hd)	11.196	10.526	9.679	10.473	9.679	10.978	10.45	9.711
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	322	345	380	344	378	330	348	371
Service Time	8.896	8.226	7.379	8.173	7.379	8.678	8.15	7.411
HCM Lane V/C Ratio	0.23	0.736	1.163	0.084	1.087	0.47	0.546	0.07
HCM Control Delay, s/veh	16.9	33.2	125.6	14.1	91	22.1	23.8	13.1
HCM Lane LOS	C	D	F	B	F	C	C	B
HCM 95th-tile Q	0.8	4.8	16.7	0.3	13.2	2.2	2.8	0.2

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	257	23	15	287	28	13	44	17	12	32	46
Future Vol, veh/h	41	257	23	15	287	28	13	44	17	12	32	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	44	276	25	16	309	30	14	47	18	13	34	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	339	0	0	301	0	0	735	748	289	744	745	324
Stage 1	-	-	-	-	-	-	377	377	-	356	356	-
Stage 2	-	-	-	-	-	-	358	371	-	388	389	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1215	-	-	1254	-	-	334	340	748	329	341	715
Stage 1	-	-	-	-	-	-	643	614	-	660	627	-
Stage 2	-	-	-	-	-	-	658	618	-	634	606	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1215	-	-	1254	-	-	266	323	748	263	324	715
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	323	-	263	324	-
Stage 1	-	-	-	-	-	-	619	592	-	651	619	-
Stage 2	-	-	-	-	-	-	571	610	-	548	584	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.03	0.36	17.35	15.74
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	308	748	1215	-	-	1254	-	-	431
HCM Lane V/C Ratio	0.199	0.024	0.036	-	-	0.013	-	-	0.224
HCM Control Delay (s/veh)	19.6	9.9	8.1	-	-	7.9	-	-	15.7
HCM Lane LOS	C	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	0.1	-	-	0	-	-	0.9

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	24	71	3	9	54	90	4	262	11	87	204	11
Future Vol, veh/h	24	71	3	9	54	90	4	262	11	87	204	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	27	79	3	10	60	100	4	291	12	97	227	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.5	10.6	12.8	13.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	24%	6%	29%
Vol Thru, %	95%	72%	35%	68%
Vol Right, %	4%	3%	59%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	277	98	153	302
LT Vol	4	24	9	87
Through Vol	262	71	54	204
RT Vol	11	3	90	11
Lane Flow Rate	308	109	170	336
Geometry Grp	1	1	1	1
Degree of Util (X)	0.455	0.184	0.264	0.497
Departure Headway (Hd)	5.317	6.073	5.582	5.331
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	589	641	674
Service Time	3.361	4.132	3.636	3.373
HCM Lane V/C Ratio	0.455	0.185	0.265	0.499
HCM Control Delay, s/veh	12.8	10.5	10.6	13.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.4	0.7	1.1	2.8

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	145	16	6	142	106	11	173	11	95	128	9
Future Vol, veh/h	19	145	16	6	142	106	11	173	11	95	128	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	20	153	17	6	149	112	12	182	12	100	135	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	11.2	12	11.5	12.3
HCM LOS	B	B	B	B

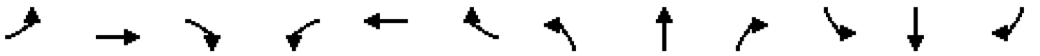
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	11%	2%	41%
Vol Thru, %	89%	81%	56%	55%
Vol Right, %	6%	9%	42%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	195	180	254	232
LT Vol	11	19	6	95
Through Vol	173	145	142	128
RT Vol	11	16	106	9
Lane Flow Rate	205	189	267	244
Geometry Grp	1	1	1	1
Degree of Util (X)	0.324	0.3	0.398	0.385
Departure Headway (Hd)	5.675	5.7	5.365	5.682
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	632	627	668	630
Service Time	3.731	3.759	3.419	3.737
HCM Lane V/C Ratio	0.324	0.301	0.4	0.387
HCM Control Delay, s/veh	11.5	11.2	12	12.3
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.4	1.3	1.9	1.8

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	112	89	16	109	26	125	359	13	40	318	35
Future Vol, veh/h	50	112	89	16	109	26	125	359	13	40	318	35
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	51	114	91	16	111	27	128	366	13	41	324	36
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	17.7	14.1	14.1	13.7
HCM LOS	C	B	B	B

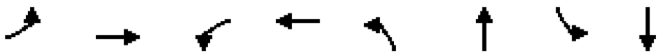
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	20%	11%	100%	0%	0%
Vol Thru, %	0%	100%	90%	45%	72%	0%	100%	75%
Vol Right, %	0%	0%	10%	35%	17%	0%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	239	133	251	151	40	212	141
LT Vol	125	0	0	50	16	40	0	0
Through Vol	0	239	120	112	109	0	212	106
RT Vol	0	0	13	89	26	0	0	35
Lane Flow Rate	128	244	135	256	154	41	216	144
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.265	0.472	0.259	0.519	0.328	0.087	0.428	0.277
Departure Headway (Hd)	7.47	6.956	6.885	7.299	7.665	7.635	7.12	6.941
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	481	518	521	494	468	469	506	517
Service Time	5.217	4.702	4.631	5.046	5.419	5.384	4.869	4.69
HCM Lane V/C Ratio	0.266	0.471	0.259	0.518	0.329	0.087	0.427	0.279
HCM Control Delay, s/veh	12.9	15.8	12	17.7	14.1	11.1	15.1	12.3
HCM Lane LOS	B	C	B	C	B	B	C	B
HCM 95th-tile Q	1.1	2.5	1	2.9	1.4	0.3	2.1	1.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	495	139	37	770	138	416	330	36	182	411	95
Future Volume (veh/h)	45	495	139	37	770	138	416	330	36	182	411	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	521	132	39	811	123	438	347	36	192	433	99
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	60	771	194	52	835	127	454	709	74	220	432	99
Arrive On Green	0.03	0.28	0.28	0.03	0.27	0.27	0.26	0.43	0.43	0.12	0.30	0.30
Sat Flow, veh/h	1767	2770	698	1767	3055	463	1767	1651	171	1767	1456	333
Grp Volume(v), veh/h	47	330	323	39	468	466	438	0	383	192	0	532
Grp Sat Flow(s),veh/h/ln	1767	1763	1706	1767	1763	1756	1767	0	1822	1767	0	1789
Q Serve(g_s), s	3.4	21.4	21.6	2.8	33.7	33.7	31.4	0.0	19.5	13.7	0.0	38.1
Cycle Q Clear(g_c), s	3.4	21.4	21.6	2.8	33.7	33.7	31.4	0.0	19.5	13.7	0.0	38.1
Prop In Lane	1.00		0.41	1.00		0.26	1.00		0.09	1.00		0.19
Lane Grp Cap(c), veh/h	60	491	475	52	482	480	454	0	782	220	0	531
V/C Ratio(X)	0.78	0.67	0.68	0.75	0.97	0.97	0.96	0.00	0.49	0.87	0.00	1.00
Avail Cap(c_a), veh/h	83	491	475	83	482	480	454	0	782	328	0	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	61.5	41.1	41.2	61.9	46.1	46.1	47.1	0.0	26.5	55.2	0.0	45.1
Incr Delay (d2), s/veh	26.9	3.6	3.9	19.6	33.5	33.6	33.0	0.0	0.5	15.5	0.0	39.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.4	9.2	1.5	18.6	18.5	17.4	0.0	8.1	6.9	0.0	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.4	44.8	45.1	81.5	79.6	79.7	80.1	0.0	26.9	70.7	0.0	84.7
LnGrp LOS	F	D	D	F	E	E	F		C	E		F
Approach Vol, veh/h		700			973			821			724	
Approach Delay, s/veh		47.9			79.7			55.3			81.0	
Approach LOS		D			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	60.0	7.8	40.6	37.0	43.0	8.4	40.0
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	23.8	47.3	6.0	35.1	33.0	38.1	6.0	35.1
Max Q Clear Time (g_c+I1), s	15.7	21.5	4.8	23.6	33.4	40.1	5.4	35.7
Green Ext Time (p_c), s	0.3	2.1	0.0	2.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	66.8
HCM 7th LOS	E

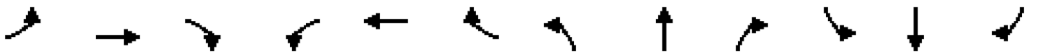


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	667	39	956	438	385	192	533
v/c Ratio	0.58	0.71	0.49	1.02	0.97	0.52	0.75	0.99
Control Delay (s/veh)	88.3	45.5	80.9	79.2	83.2	32.6	70.3	82.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	88.3	45.5	80.9	79.2	83.2	32.6	70.3	82.3
Queue Length 50th (ft)	40	258	33	~450	369	242	157	~453
Queue Length 95th (ft)	#96	331	#76	#586	#586	364	233	#692
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	81	934	81	939	451	743	325	536
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.71	0.48	1.02	0.97	0.52	0.59	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

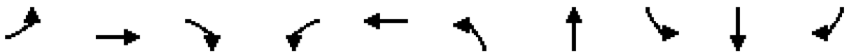
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	480	159	264	504	53	252	345	182	120	659	126
Future Volume (veh/h)	89	480	159	264	504	53	252	345	182	120	659	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	522	170	287	548	57	274	375	193	130	716	124
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	681	291	322	980	102	308	706	357	162	817	352
Arrive On Green	0.07	0.19	0.19	0.18	0.30	0.30	0.17	0.31	0.31	0.09	0.23	0.23
Sat Flow, veh/h	1781	3554	1521	1781	3240	336	1781	2263	1144	1781	3554	1531
Grp Volume(v), veh/h	97	522	170	287	300	305	274	293	275	130	716	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1521	1781	1777	1799	1781	1777	1630	1781	1777	1531
Q Serve(g_s), s	4.7	12.1	8.9	13.7	12.3	12.4	13.1	11.8	12.2	6.2	16.9	5.9
Cycle Q Clear(g_c), s	4.7	12.1	8.9	13.7	12.3	12.4	13.1	11.8	12.2	6.2	16.9	5.9
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	124	681	291	322	537	544	308	555	509	162	817	352
V/C Ratio(X)	0.78	0.77	0.58	0.89	0.56	0.56	0.89	0.53	0.54	0.80	0.88	0.35
Avail Cap(c_a), veh/h	214	733	314	329	537	544	308	555	509	202	864	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	33.4	32.1	34.9	25.5	25.6	35.2	24.7	24.8	38.9	32.4	28.1
Incr Delay (d2), s/veh	10.0	4.6	2.4	24.6	1.3	1.3	25.5	0.9	1.2	16.7	9.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.4	3.3	7.8	5.1	5.2	7.6	4.8	4.6	3.4	8.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.9	38.0	34.5	59.5	26.8	26.9	60.8	25.7	26.0	55.6	42.1	28.7
LnGrp LOS	D	D	C	E	C	C	E	C	C	E	D	C
Approach Vol, veh/h		789			892			842			970	
Approach Delay, s/veh		38.7			37.4			37.2			42.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	32.1	20.6	21.6	20.0	25.0	11.0	31.3
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	9.9	26.4	16.1	18.0	15.1	21.2	10.5	23.6
Max Q Clear Time (g_c+I1), s	8.2	14.2	15.7	14.1	15.1	18.9	6.7	14.4
Green Ext Time (p_c), s	0.0	2.6	0.0	1.4	0.0	1.1	0.1	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	39.0
HCM 7th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	97	522	173	287	606	274	573	130	716	137
v/c Ratio	0.53	0.77	0.35	0.90	0.59	0.90	0.54	0.69	0.87	0.25
Control Delay (s/veh)	48.6	42.5	2.6	68.3	30.0	70.9	23.2	58.4	45.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.6	42.5	2.6	68.3	30.0	70.9	23.2	58.4	45.1	1.1
Queue Length 50th (ft)	53	147	0	162	157	155	115	72	206	0
Queue Length 95th (ft)	102	204	8	#309	216	#302	168	#151	#301	0
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	211	726	515	324	1032	304	1067	199	855	561
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.72	0.34	0.89	0.59	0.90	0.54	0.65	0.84	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	36	27	271	37	193	25	672	208	175	881	44
Future Volume (veh/h)	64	36	27	271	37	193	25	672	208	175	881	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.81	1.00		0.96	1.00		0.86	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	42	30	315	43	207	29	781	241	203	1024	50
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	79	56	334	51	245	50	828	256	223	1444	71
Arrive On Green	0.16	0.16	0.16	0.19	0.19	0.19	0.03	0.32	0.32	0.12	0.42	0.42
Sat Flow, veh/h	846	480	343	1781	272	1307	1781	2562	790	1781	3437	168
Grp Volume(v), veh/h	146	0	0	315	0	250	29	542	480	203	529	545
Grp Sat Flow(s),veh/h/ln	1669	0	0	1781	0	1579	1781	1777	1576	1781	1777	1827
Q Serve(g_s), s	7.8	0.0	0.0	17.0	0.0	14.9	1.6	29.0	29.0	11.0	24.0	24.0
Cycle Q Clear(g_c), s	7.8	0.0	0.0	17.0	0.0	14.9	1.6	29.0	29.0	11.0	24.0	24.0
Prop In Lane	0.51		0.21	1.00		0.83	1.00		0.50	1.00		0.09
Lane Grp Cap(c), veh/h	273	0	0	334	0	296	50	574	509	223	747	768
V/C Ratio(X)	0.53	0.00	0.00	0.94	0.00	0.84	0.58	0.94	0.94	0.91	0.71	0.71
Avail Cap(c_a), veh/h	308	0	0	334	0	296	93	580	515	223	747	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	0.0	39.2	0.0	38.3	46.9	32.2	32.2	42.2	23.4	23.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	34.7	0.0	19.6	10.4	23.9	26.0	37.3	3.1	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	10.5	0.0	7.2	0.8	15.5	14.1	7.0	10.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.0	0.0	0.0	73.9	0.0	57.9	57.3	56.1	58.2	79.5	26.5	26.4
LnGrp LOS	D			E		E	E	E	E	E	C	C
Approach Vol, veh/h		146			565			1051			1277	
Approach Delay, s/veh		39.0			66.8			57.1			34.9	
Approach LOS		D			E			E			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.1	36.5		20.9	7.6	45.9		23.2				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	12.2	31.9		18.0	5.1	39.0		18.3				
Max Q Clear Time (g_c+I1), s	13.0	31.0		9.8	3.6	26.0		19.0				
Green Ext Time (p_c), s	0.0	0.6		0.4	0.0	5.4		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		48.7	
HCM 7th LOS		D	



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	147	315	267	29	1023	203	1075
v/c Ratio	0.62	0.92	0.55	0.31	0.92	0.89	0.68
Control Delay (s/veh)	46.9	71.7	12.8	53.2	44.1	79.7	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.9	71.7	12.8	53.2	44.1	79.7	24.5
Queue Length 50th (ft)	77	188	22	17	297	122	281
Queue Length 95th (ft)	133	#346	87	46	#427	#251	366
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	333	343	486	95	1120	228	1591
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.92	0.55	0.31	0.91	0.89	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	6.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	207	576	8	92	469
Future Vol, veh/h	27	207	576	8	92	469
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, %	4	4	4	4	4	4
Mvmt Flow	29	225	626	9	100	510

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1340	630	0	0	635	0
Stage 1	630	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	167	478	-	-	939	-
Stage 1	527	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	142	478	-	-	939	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	412	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	32.57	0	1.52
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	375	295	-
HCM Lane V/C Ratio	-	-	0.678	0.107	-
HCM Control Delay (s/veh)	-	-	32.6	9.3	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	4.8	0.4	-

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	110	4	31	244	83	5	38	33	195	52	1
Future Vol, veh/h	4	110	4	31	244	83	5	38	33	195	52	1
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	4	120	4	34	265	90	5	41	36	212	57	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.9	13.9	9.4	12.6
HCM LOS	A	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	3%	9%	79%
Vol Thru, %	50%	93%	68%	21%
Vol Right, %	43%	3%	23%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	118	358	248
LT Vol	5	4	31	195
Through Vol	38	110	244	52
RT Vol	33	4	83	1
Lane Flow Rate	83	128	389	270
Geometry Grp	1	1	1	1
Degree of Util (X)	0.127	0.197	0.544	0.419
Departure Headway (Hd)	5.543	5.522	5.033	5.595
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	645	649	716	644
Service Time	3.589	3.565	3.066	3.63
HCM Lane V/C Ratio	0.129	0.197	0.543	0.419
HCM Control Delay, s/veh	9.4	9.9	13.9	12.6
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.4	0.7	3.3	2.1

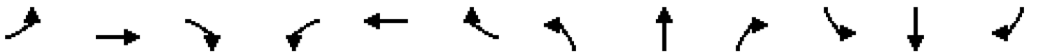
Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	280	29	23	205	26	70	26	21	45	33	90
Future Vol, veh/h	36	280	29	23	205	26	70	26	21	45	33	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	65	-	-	-	215	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	41	318	33	26	233	30	80	30	24	51	38	102

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	263	0	0	351	0	0	720	731	335	700	718	233
Stage 1	-	-	-	-	-	-	416	416	-	285	285	-
Stage 2	-	-	-	-	-	-	304	315	-	415	433	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.52	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.018	3.309
Pot Cap-1 Maneuver	1308	-	-	1208	-	-	343	349	707	355	355	809
Stage 1	-	-	-	-	-	-	614	592	-	724	676	-
Stage 2	-	-	-	-	-	-	705	656	-	617	582	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1308	-	-	1208	-	-	251	326	707	294	332	809
Mov Cap-2 Maneuver	-	-	-	-	-	-	251	326	-	294	332	-
Stage 1	-	-	-	-	-	-	590	568	-	706	658	-
Stage 2	-	-	-	-	-	-	566	639	-	543	559	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.82	0.73	26.08	14.89
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	301	184	-	-	182	-	-	294	584
HCM Lane V/C Ratio	0.442	0.031	-	-	0.022	-	-	0.174	0.239
HCM Control Delay (s/veh)	26.1	7.8	0	-	8	0	-	19.8	13.1
HCM Lane LOS	D	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	2.2	0.1	-	-	0.1	-	-	0.6	0.9



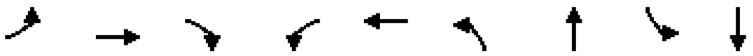
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	38	197	18	124	10	218	560	11	164	526	292
Future Volume (veh/h)	169	38	197	18	124	10	218	560	11	164	526	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	264	0	266	24	168	14	295	757	15	222	711	395
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	614	0	261	224	214	18	324	1324	26	254	734	407
Arrive On Green	0.17	0.00	0.17	0.13	0.13	0.13	0.18	0.37	0.37	0.14	0.33	0.33
Sat Flow, veh/h	3563	0	1516	1781	1699	142	1781	3558	70	1781	2203	1222
Grp Volume(v), veh/h	264	0	266	24	0	182	295	378	394	222	573	533
Grp Sat Flow(s),veh/h/ln	1781	0	1516	1781	0	1841	1781	1777	1852	1781	1777	1648
Q Serve(g_s), s	7.0	0.0	18.1	1.3	0.0	10.1	17.1	17.8	17.8	12.8	33.3	33.4
Cycle Q Clear(g_c), s	7.0	0.0	18.1	1.3	0.0	10.1	17.1	17.8	17.8	12.8	33.3	33.4
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.04	1.00		0.74
Lane Grp Cap(c), veh/h	614	0	261	224	0	232	324	661	689	254	592	549
V/C Ratio(X)	0.43	0.00	1.02	0.11	0.00	0.79	0.91	0.57	0.57	0.87	0.97	0.97
Avail Cap(c_a), veh/h	614	0	261	305	0	316	327	661	689	310	592	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	43.4	40.7	0.0	44.5	42.1	26.3	26.3	44.1	34.4	34.5
Incr Delay (d2), s/veh	0.5	0.0	60.3	0.2	0.0	8.8	28.3	1.2	1.1	19.9	28.9	30.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	10.8	0.5	0.0	4.9	9.8	7.4	7.7	6.9	18.4	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.3	0.0	103.7	40.9	0.0	53.3	70.4	27.5	27.4	64.0	63.3	65.2
LnGrp LOS	D		F	D		D	E	C	C	E	E	E
Approach Vol, veh/h		530			206			1067			1328	
Approach Delay, s/veh		71.7			51.8			39.3			64.2	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.9	44.0		23.0	24.0	39.9		18.1				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	18.3	36.0		18.1	19.3	35.0		18.0				
Max Q Clear Time (g_c+I1), s	14.8	19.8		20.1	19.1	35.4		12.1				
Green Ext Time (p_c), s	0.2	4.1		0.0	0.0	0.0		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		56.2
HCM 7th LOS		E

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	140	266	24	182	295	772	222	1106
v/c Ratio	0.62	0.61	0.62	0.10	0.69	0.89	0.59	0.78	0.92
Control Delay (s/veh)	54.9	54.2	12.1	39.8	55.9	70.6	29.7	61.8	43.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.9	54.2	12.1	39.8	55.9	70.6	29.7	61.8	43.3
Queue Length 50th (ft)	92	92	0	14	113	191	219	139	337
Queue Length 95th (ft)	130	130	27	32	154	#269	242	188	346
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	300	307	483	315	329	337	1303	320	1216
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.46	0.55	0.08	0.55	0.88	0.59	0.69	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	115.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	103	25	53	240	283	23	274	20	116	358	29
Future Vol, veh/h	18	103	25	53	240	283	23	274	20	116	358	29
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	20	112	27	58	261	308	25	298	22	126	389	32
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	20.1	171.4	37.3	128.2
HCM LOS	C	F	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	12%	9%	23%
Vol Thru, %	86%	71%	42%	71%
Vol Right, %	6%	17%	49%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	146	576	503
LT Vol	23	18	53	116
Through Vol	274	103	240	358
RT Vol	20	25	283	29
Lane Flow Rate	345	159	626	547
Geometry Grp	1	1	1	1
Degree of Util (X)	0.767	0.397	1.293	1.173
Departure Headway (Hd)	9.359	10.39	7.909	8.558
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	389	349	463	426
Service Time	7.359	8.39	5.909	6.558
HCM Lane V/C Ratio	0.887	0.456	1.352	1.284
HCM Control Delay, s/veh	37.3	20.1	171.4	128.2
HCM Lane LOS	E	C	F	F
HCM 95th-tile Q	6.3	1.8	25.4	18.9

Intersection	
Intersection Delay, s/veh	21.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	213	10	7	550	10	4	46	16	16	44	26
Future Vol, veh/h	12	213	10	7	550	10	4	46	16	16	44	26
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, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	13	232	11	8	598	11	4	50	17	17	48	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	11.6	28.5	10.2	10.5
HCM LOS	B	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	5%	1%	19%
Vol Thru, %	70%	91%	97%	51%
Vol Right, %	24%	4%	2%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	235	567	86
LT Vol	4	12	7	16
Through Vol	46	213	550	44
RT Vol	16	10	10	26
Lane Flow Rate	72	255	616	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.379	0.844	0.161
Departure Headway (Hd)	6.274	5.34	4.929	6.205
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	570	674	740	577
Service Time	4.331	3.376	2.929	4.26
HCM Lane V/C Ratio	0.126	0.378	0.832	0.161
HCM Control Delay, s/veh	10.2	11.6	28.5	10.5
HCM Lane LOS	B	B	D	B
HCM 95th-tile Q	0.4	1.8	9.7	0.6

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	44	204	6	14	450	21	2	25	10	51	34	123
Future Vol, veh/h	44	204	6	14	450	21	2	25	10	51	34	123
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	6	6	6	6	2	6	2	6	2	2	2
Mvmt Flow	48	222	7	15	489	23	2	27	11	55	37	134

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	512	0	0	228	0	0	859	863	225	862	855	501
Stage 1	-	-	-	-	-	-	321	321	-	531	531	-
Stage 2	-	-	-	-	-	-	538	542	-	331	324	-
Critical Hdwy	4.12	-	-	4.16	-	-	7.16	6.52	6.26	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.254	-	-	3.554	4.018	3.354	3.518	4.018	3.318
Pot Cap-1 Maneuver	1053	-	-	1317	-	-	272	292	805	275	296	570
Stage 1	-	-	-	-	-	-	683	652	-	532	526	-
Stage 2	-	-	-	-	-	-	520	520	-	682	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1053	-	-	1317	-	-	170	273	805	230	276	570
Mov Cap-2 Maneuver	-	-	-	-	-	-	170	273	-	230	276	-
Stage 1	-	-	-	-	-	-	647	618	-	523	518	-
Stage 2	-	-	-	-	-	-	364	512	-	610	616	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.49	0.22	17.89	28.77
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	319	310	-	-	51	-	-	371
HCM Lane V/C Ratio	0.126	0.045	-	-	0.012	-	-	0.61
HCM Control Delay (s/veh)	17.9	8.6	0	-	7.8	0	-	28.8
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	3.9

Intersection	
Intersection Delay, s/veh	162.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	191	46	52	354	246	52	268	44	175	196	41
Future Vol, veh/h	44	191	46	52	354	246	52	268	44	175	196	41
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	48	208	50	57	385	267	57	291	48	190	213	45
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	56.6	349	61.1	27.7
HCM LOS	F	F	F	D

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	16%	100%	0%	100%	0%	0%
Vol Thru, %	0%	86%	68%	0%	59%	0%	100%	0%
Vol Right, %	0%	14%	16%	0%	41%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	52	312	281	52	600	175	196	41
LT Vol	52	0	44	52	0	175	0	0
Through Vol	0	268	191	0	354	0	196	0
RT Vol	0	44	46	0	246	0	0	41
Lane Flow Rate	57	339	305	57	652	190	213	45
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.163	0.921	0.854	0.166	1.765	0.547	0.583	0.113
Departure Headway (Hd)	12.335	11.687	11.815	10.567	9.745	12.195	11.662	10.915
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	293	312	308	341	378	299	311	331
Service Time	10.035	9.387	9.515	8.267	7.445	9.895	9.362	8.615
HCM Lane V/C Ratio	0.195	1.087	0.99	0.167	1.725	0.635	0.685	0.136
HCM Control Delay, s/veh	17.4	68.4	56.6	15.4	377.9	28.7	29.5	15
HCM Lane LOS	C	F	F	C	F	D	D	B
HCM 95th-tile Q	0.6	8.9	7.5	0.6	41.3	3.1	3.5	0.4

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	299	15	9	374	84	27	70	21	12	44	55
Future Vol, veh/h	72	299	15	9	374	84	27	70	21	12	44	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	78	325	16	10	407	91	29	76	23	13	48	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	498	0	0	341	0	0	940	1007	333	991	970	452
Stage 1	-	-	-	-	-	-	490	490	-	472	472	-
Stage 2	-	-	-	-	-	-	450	517	-	520	498	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1061	-	-	1212	-	-	243	240	706	224	252	605
Stage 1	-	-	-	-	-	-	558	547	-	571	557	-
Stage 2	-	-	-	-	-	-	587	532	-	538	543	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1061	-	-	1212	-	-	162	220	706	134	232	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	220	-	134	232	-
Stage 1	-	-	-	-	-	-	517	507	-	566	553	-
Stage 2	-	-	-	-	-	-	479	528	-	410	503	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.62	0.15	35.8	24.85
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	200	706	1061	-	-	1212	-	-	300
HCM Lane V/C Ratio	0.526	0.032	0.074	-	-	0.008	-	-	0.402
HCM Control Delay (s/veh)	41.3	10.3	8.7	-	-	8	-	-	24.9
HCM Lane LOS	E	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	2.7	0.1	0.2	-	-	0	-	-	1.9

Intersection	
Intersection Delay, s/veh	42.9
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	106	7	20	158	112	6	292	19	95	403	20
Future Vol, veh/h	11	106	7	20	158	112	6	292	19	95	403	20
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, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	12	115	8	22	172	122	7	317	21	103	438	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	14.8	21.7	23.2	73.6
HCM LOS	B	C	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	9%	7%	18%
Vol Thru, %	92%	85%	54%	78%
Vol Right, %	6%	6%	39%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	124	290	518
LT Vol	6	11	20	95
Through Vol	292	106	158	403
RT Vol	19	7	112	20
Lane Flow Rate	345	135	315	563
Geometry Grp	1	1	1	1
Degree of Util (X)	0.664	0.299	0.623	1.034
Departure Headway (Hd)	7.147	8.268	7.337	6.612
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	510	438	495	546
Service Time	5.147	6.268	5.337	4.67
HCM Lane V/C Ratio	0.676	0.308	0.636	1.031
HCM Control Delay, s/veh	23.2	14.8	21.7	73.6
HCM Lane LOS	C	B	C	F
HCM 95th-tile Q	4.8	1.2	4.2	15.7

Intersection	
Intersection Delay, s/veh	74.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	229	9	11	257	164	30	253	13	154	270	21
Future Vol, veh/h	18	229	9	11	257	164	30	253	13	154	270	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	19	244	10	12	273	174	32	269	14	164	287	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	32	86.7	39	110.6
HCM LOS	D	F	E	F

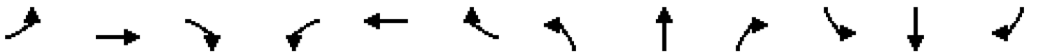
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	7%	3%	35%
Vol Thru, %	85%	89%	59%	61%
Vol Right, %	4%	4%	38%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	296	256	432	445
LT Vol	30	18	11	154
Through Vol	253	229	257	270
RT Vol	13	9	164	21
Lane Flow Rate	315	272	460	473
Geometry Grp	1	1	1	1
Degree of Util (X)	0.779	0.691	1.046	1.12
Departure Headway (Hd)	9.515	9.783	8.672	8.785
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	384	373	423	417
Service Time	7.515	7.783	6.672	6.785
HCM Lane V/C Ratio	0.82	0.729	1.087	1.134
HCM Control Delay, s/veh	39	32	86.7	110.6
HCM Lane LOS	E	D	F	F
HCM 95th-tile Q	6.5	5	14	16.5

Intersection	
Intersection Delay, s/veh	50.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	204	175	42	166	38	168	416	47	45	404	33
Future Vol, veh/h	44	204	175	42	166	38	168	416	47	45	404	33
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	47	219	188	45	178	41	181	447	51	48	434	35
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	19.7	33.4	27.5	28.2
HCM LOS	F	D	D	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	10%	17%	100%	0%	0%
Vol Thru, %	0%	100%	75%	48%	67%	0%	100%	80%
Vol Right, %	0%	0%	25%	41%	15%	0%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	277	186	423	246	45	269	168
LT Vol	168	0	0	44	42	45	0	0
Through Vol	0	277	139	204	166	0	269	135
RT Vol	0	0	47	175	38	0	0	33
Lane Flow Rate	181	298	200	455	265	48	290	180
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.475	0.743	0.488	1.143	0.701	0.13	0.737	0.452
Departure Headway (Hd)	10.168	9.635	9.447	9.043	10.135	10.354	9.821	9.674
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	356	379	383	400	360	348	371	375
Service Time	7.868	7.335	7.147	6.818	7.835	8.054	7.521	7.374
HCM Lane V/C Ratio	0.508	0.786	0.522	1.138	0.736	0.138	0.782	0.48
HCM Control Delay, s/veh	21.7	35.5	20.8	119.7	33.4	14.6	35.6	20.1
HCM Lane LOS	C	E	C	F	D	B	E	C
HCM 95th-tile Q	2.5	5.8	2.6	17	5.1	0.4	5.7	2.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	626	342	30	410	145	272	336	68	222	364	67
Future Volume (veh/h)	86	626	342	30	410	145	272	336	68	222	364	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	673	356	32	441	146	292	361	70	239	391	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	690	365	55	715	235	327	458	89	275	418	76
Arrive On Green	0.07	0.31	0.31	0.03	0.27	0.27	0.18	0.30	0.30	0.15	0.27	0.27
Sat Flow, veh/h	1781	2246	1188	1781	2629	863	1781	1522	295	1781	1540	280
Grp Volume(v), veh/h	92	532	497	32	297	290	292	0	431	239	0	462
Grp Sat Flow(s),veh/h/ln	1781	1777	1657	1781	1777	1715	1781	0	1817	1781	0	1820
Q Serve(g_s), s	4.4	25.5	25.6	1.5	12.6	12.8	13.8	0.0	18.7	11.3	0.0	21.4
Cycle Q Clear(g_c), s	4.4	25.5	25.6	1.5	12.6	12.8	13.8	0.0	18.7	11.3	0.0	21.4
Prop In Lane	1.00		0.72	1.00		0.50	1.00		0.16	1.00		0.15
Lane Grp Cap(c), veh/h	118	546	509	55	483	466	327	0	547	275	0	494
V/C Ratio(X)	0.78	0.97	0.98	0.58	0.61	0.62	0.89	0.00	0.79	0.87	0.00	0.94
Avail Cap(c_a), veh/h	209	546	509	122	483	466	337	0	550	283	0	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.6	29.5	29.5	41.2	27.4	27.5	34.4	0.0	27.6	35.6	0.0	30.7
Incr Delay (d2), s/veh	10.4	32.0	33.4	9.2	2.3	2.6	24.1	0.0	7.5	23.7	0.0	25.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	14.6	13.8	0.8	5.2	5.1	7.7	0.0	8.5	6.4	0.0	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.0	61.6	63.0	50.4	29.7	30.1	58.5	0.0	35.1	59.3	0.0	55.8
LnGrp LOS	D	E	E	D	C	C	E		D	E		E
Approach Vol, veh/h		1121			619			723			701	
Approach Delay, s/veh		61.2			31.0			44.5			57.0	
Approach LOS		E			C			D			E	

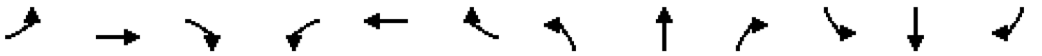
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	30.9	6.7	31.4	19.8	28.3	9.7	28.4
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	13.7	26.1	5.9	26.5	16.3	23.5	10.1	22.3
Max Q Clear Time (g_c+I1), s	13.3	20.7	3.5	27.6	15.8	23.4	6.4	14.8
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	0.0	0.1	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	50.6
HCM 7th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	92	1041	32	597	292	434	239	463
v/c Ratio	0.51	0.92	0.27	0.65	0.88	0.78	0.86	0.93
Control Delay (s/veh)	47.6	40.2	45.6	30.7	64.3	39.5	66.0	58.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.6	40.2	45.6	30.7	64.3	39.5	66.0	58.2
Queue Length 50th (ft)	50	278	18	147	164	223	135	255
Queue Length 95th (ft)	98	#418	47	206	#314	#378	#269	#449
Internal Link Dist (ft)		5105		2589		2531		2112
Turn Bay Length (ft)	150		135		140		85	
Base Capacity (vph)	209	1134	122	963	337	562	283	507
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.92	0.26	0.62	0.87	0.77	0.84	0.91

Intersection Summary

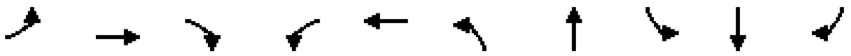
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	514	179	144	425	63	195	304	103	149	404	108
Future Volume (veh/h)	250	514	179	144	425	63	195	304	103	149	404	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	272	559	192	157	462	67	212	330	107	162	439	104
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	994	429	195	662	95	252	609	193	200	722	307
Arrive On Green	0.18	0.28	0.28	0.11	0.21	0.21	0.14	0.23	0.23	0.11	0.20	0.20
Sat Flow, veh/h	1781	3554	1532	1781	3097	446	1781	2623	833	1781	3554	1513
Grp Volume(v), veh/h	272	559	192	157	264	265	212	221	216	162	439	104
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1781	1777	1766	1781	1777	1679	1781	1777	1513
Q Serve(g_s), s	10.9	9.9	7.6	6.3	10.1	10.2	8.5	8.0	8.3	6.5	8.3	4.3
Cycle Q Clear(g_c), s	10.9	9.9	7.6	6.3	10.1	10.2	8.5	8.0	8.3	6.5	8.3	4.3
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	313	994	429	195	380	378	252	412	390	200	722	307
V/C Ratio(X)	0.87	0.56	0.45	0.80	0.69	0.70	0.84	0.54	0.55	0.81	0.61	0.34
Avail Cap(c_a), veh/h	322	1018	439	247	434	432	256	461	435	242	892	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	22.7	21.8	32.0	26.7	26.8	30.8	24.8	24.9	31.9	26.7	25.1
Incr Delay (d2), s/veh	21.4	0.7	0.7	14.1	4.0	4.3	21.4	1.1	1.2	15.5	0.8	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	3.9	2.6	3.3	4.4	4.4	4.9	3.3	3.2	3.5	3.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.9	23.3	22.6	46.1	30.7	31.1	52.2	25.9	26.2	47.4	27.5	25.8
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1023			686			649			705	
Approach Delay, s/veh		30.5			34.4			34.6			31.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	22.0	13.0	25.5	15.3	19.9	17.8	20.7
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	10.0	19.1	10.2	21.1	10.6	18.5	13.3	18.0
Max Q Clear Time (g_c+I1), s	8.5	10.3	8.3	11.9	10.5	10.3	12.9	12.2
Green Ext Time (p_c), s	0.1	1.6	0.1	2.9	0.0	1.9	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	32.6
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	272	559	195	157	530	212	442	162	439	117
v/c Ratio	0.85	0.61	0.37	0.68	0.72	0.83	0.59	0.71	0.63	0.28
Control Delay (s/veh)	57.4	27.8	6.1	48.5	32.5	61.0	26.6	50.8	31.7	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.4	27.8	6.1	48.5	32.5	61.0	26.6	50.8	31.7	3.8
Queue Length 50th (ft)	127	121	0	72	116	100	86	75	100	0
Queue Length 95th (ft)	#277	180	48	#162	176	#231	133	#170	147	21
Internal Link Dist (ft)		2529			2195		1232		1355	
Turn Bay Length (ft)	195		120	120		205				100
Base Capacity (vph)	320	1017	570	246	860	255	915	241	892	497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.55	0.34	0.64	0.62	0.83	0.48	0.67	0.49	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	23	9	71	28	128	11	584	84	136	634	43
Future Volume (veh/h)	42	23	9	71	28	128	11	584	84	136	634	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	46	25	9	77	30	123	12	635	90	148	689	46
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	98	53	19	286	49	202	27	895	127	191	1283	86
Arrive On Green	0.10	0.10	0.10	0.16	0.16	0.16	0.02	0.29	0.29	0.11	0.38	0.38
Sat Flow, veh/h	1023	556	200	1795	309	1269	1795	3124	442	1795	3396	227
Grp Volume(v), veh/h	80	0	0	77	0	153	12	363	362	148	363	372
Grp Sat Flow(s),veh/h/ln	1779	0	0	1795	0	1578	1795	1791	1775	1795	1791	1831
Q Serve(g_s), s	2.4	0.0	0.0	2.1	0.0	5.0	0.4	10.1	10.2	4.5	8.8	8.8
Cycle Q Clear(g_c), s	2.4	0.0	0.0	2.1	0.0	5.0	0.4	10.1	10.2	4.5	8.8	8.8
Prop In Lane	0.57		0.11	1.00		0.80	1.00		0.25	1.00		0.12
Lane Grp Cap(c), veh/h	171	0	0	286	0	252	27	513	508	191	677	692
V/C Ratio(X)	0.47	0.00	0.00	0.27	0.00	0.61	0.44	0.71	0.71	0.77	0.54	0.54
Avail Cap(c_a), veh/h	577	0	0	582	0	512	164	738	732	360	934	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	20.6	0.0	21.8	27.2	17.8	17.8	24.3	13.5	13.6
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.5	0.0	2.4	10.7	1.8	1.9	6.5	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.8	0.0	1.8	0.2	3.8	3.8	2.0	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.8	0.0	0.0	21.1	0.0	24.2	38.0	19.6	19.7	30.8	14.2	14.2
LnGrp LOS	C			C		C	D	B	B	C	B	B
Approach Vol, veh/h		80			230			737			883	
Approach Delay, s/veh		25.8			23.2			20.0			17.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	20.9		10.3	5.7	26.0		13.8				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	11.2	23.0		18.1	5.1	29.1		18.1				
Max Q Clear Time (g_c+I1), s	6.5	12.2		4.4	2.4	10.8		7.0				
Green Ext Time (p_c), s	0.1	3.2		0.2	0.0	4.1		0.8				

Intersection Summary			
HCM 7th Control Delay, s/veh		19.2	
HCM 7th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	77	169	12	726	148	736
v/c Ratio	0.33	0.31	0.50	0.08	0.58	0.51	0.41
Control Delay (s/veh)	30.6	32.0	14.5	34.1	22.0	35.5	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.6	32.0	14.5	34.1	22.0	35.5	12.5
Queue Length 50th (ft)	29	30	11	5	135	57	85
Queue Length 95th (ft)	72	72	65	22	221	126	197
Internal Link Dist (ft)	833		946		1247		1232
Turn Bay Length (ft)		105		95		120	
Base Capacity (vph)	556	551	587	155	1373	341	1960
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.14	0.29	0.08	0.53	0.43	0.38

Intersection Summary

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	106	576	30	132	588
Future Vol, veh/h	16	106	576	30	132	588
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	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	114	619	32	142	632

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1552	635	0	0	652	0
Stage 1	635	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	124	476	-	-	930	-
Stage 1	526	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	95	476	-	-	930	-
Mov Cap-2 Maneuver	95	-	-	-	-	-
Stage 1	526	-	-	-	-	-
Stage 2	297	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	24.64	0	1.75
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	312	330	-
HCM Lane V/C Ratio	-	-	0.42	0.153	-
HCM Control Delay (s/veh)	-	-	24.6	9.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2	0.5	-

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	187	1	11	113	31	4	48	22	71	31	1
Future Vol, veh/h	1	187	1	11	113	31	4	48	22	71	31	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	201	1	12	122	33	4	52	24	76	33	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.2	8.8	8.4	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	1%	7%	69%
Vol Thru, %	65%	99%	73%	30%
Vol Right, %	30%	1%	20%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	189	155	103
LT Vol	4	1	11	71
Through Vol	48	187	113	31
RT Vol	22	1	31	1
Lane Flow Rate	80	203	167	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.105	0.259	0.21	0.154
Departure Headway (Hd)	4.767	4.595	4.536	5.018
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	749	780	790	712
Service Time	2.815	2.63	2.573	3.064
HCM Lane V/C Ratio	0.107	0.26	0.211	0.156
HCM Control Delay, s/veh	8.4	9.2	8.8	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1	0.8	0.5

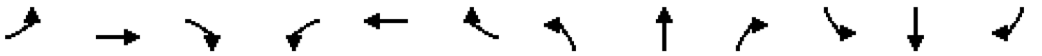
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	86	115	84	30	59	31	46	38	33	26	27	48
Future Vol, veh/h	86	115	84	30	59	31	46	38	33	26	27	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	65	-	-	-	215	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	93	125	91	33	64	34	50	41	36	28	29	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	98	0	0	216	0	0	502	521	171	462	533	64
Stage 1	-	-	-	-	-	-	358	358	-	129	129	-
Stage 2	-	-	-	-	-	-	144	163	-	333	403	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.52	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.52	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.018	3.309
Pot Cap-1 Maneuver	1502	-	-	1353	-	-	480	460	873	512	453	1003
Stage 1	-	-	-	-	-	-	660	628	-	877	789	-
Stage 2	-	-	-	-	-	-	859	763	-	683	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1502	-	-	1353	-	-	385	416	873	404	410	1003
Mov Cap-2 Maneuver	-	-	-	-	-	-	385	416	-	404	410	-
Stage 1	-	-	-	-	-	-	613	583	-	854	769	-
Stage 2	-	-	-	-	-	-	763	744	-	565	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.28	1.93	15.46	12.09
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	471	501	-	-	607	-	-	404	659
HCM Lane V/C Ratio	0.27	0.062	-	-	0.024	-	-	0.07	0.124
HCM Control Delay (s/veh)	15.5	7.6	0	-	7.7	0	-	14.6	11.2
HCM Lane LOS	C	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	1.1	0.2	-	-	0.1	-	-	0.2	0.4



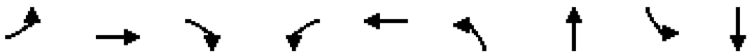
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	9	70	6	4	2	76	499	9	67	542	34
Future Volume (veh/h)	96	9	70	6	4	2	76	499	9	67	542	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	111	0	76	7	4	2	83	542	10	73	589	37
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
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	439	0	185	65	42	21	134	1063	20	124	990	62
Arrive On Green	0.12	0.00	0.12	0.04	0.04	0.04	0.07	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	3591	0	1510	1795	1171	585	1795	3595	66	1795	3414	214
Grp Volume(v), veh/h	111	0	76	7	0	6	83	270	282	73	308	318
Grp Sat Flow(s),veh/h/ln	1795	0	1510	1795	0	1756	1795	1791	1870	1795	1791	1838
Q Serve(g_s), s	1.1	0.0	1.9	0.2	0.0	0.1	1.8	5.1	5.1	1.6	6.1	6.1
Cycle Q Clear(g_c), s	1.1	0.0	1.9	0.2	0.0	0.1	1.8	5.1	5.1	1.6	6.1	6.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.04	1.00		0.12
Lane Grp Cap(c), veh/h	439	0	185	65	0	63	134	529	553	124	519	533
V/C Ratio(X)	0.25	0.00	0.41	0.11	0.00	0.10	0.62	0.51	0.51	0.59	0.59	0.60
Avail Cap(c_a), veh/h	1582	0	665	791	0	774	428	1086	1134	407	1064	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	16.7	19.2	0.0	19.2	18.4	12.0	12.0	18.6	12.5	12.5
Incr Delay (d2), s/veh	0.3	0.0	1.5	0.7	0.0	0.6	4.6	0.8	0.7	4.4	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.6	0.1	0.0	0.1	0.8	1.6	1.7	0.7	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.6	0.0	18.1	19.9	0.0	19.8	23.1	12.8	12.7	23.0	13.6	13.6
LnGrp LOS	B		B	B		B	C	B	B	C	B	B
Approach Vol, veh/h		187			13			635			699	
Approach Delay, s/veh		17.2			19.8			14.1			14.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	17.0		9.9	8.0	16.8		6.4				
Change Period (Y+Rc), s	4.9	4.9		4.9	4.9	4.9		4.9				
Max Green Setting (Gmax), s	9.3	24.9		18.1	9.8	24.4		18.1				
Max Q Clear Time (g_c+I1), s	3.6	7.1		3.9	3.8	8.1		2.2				
Green Ext Time (p_c), s	0.1	2.9		0.5	0.1	3.2		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			14.7									
HCM 7th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	57	76	7	6	83	552	73	626
v/c Ratio	0.19	0.19	0.20	0.03	0.02	0.25	0.31	0.23	0.36
Control Delay (s/veh)	22.0	21.9	2.1	23.8	21.5	22.1	12.2	22.3	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.0	21.9	2.1	23.8	21.5	22.1	12.2	22.3	12.7
Queue Length 50th (ft)	12	12	0	2	1	18	55	16	64
Queue Length 95th (ft)	54	54	7	14	12	70	136	64	157
Internal Link Dist (ft)		2507			956		2590		1247
Turn Bay Length (ft)	100		100	40		195		215	
Base Capacity (vph)	786	794	786	827	821	447	2268	425	2208
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.07	0.10	0.01	0.01	0.19	0.24	0.17	0.28

Intersection Summary

Intersection	
Intersection Delay, s/veh	202.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	228	37	33	157	199	27	378	65	272	302	22
Future Vol, veh/h	30	228	37	33	157	199	27	378	65	272	302	22
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	33	248	40	36	171	216	29	411	71	296	328	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	61.2	103.5	191.2	345.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	10%	8%	46%
Vol Thru, %	80%	77%	40%	51%
Vol Right, %	14%	13%	51%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	470	295	389	596
LT Vol	27	30	33	272
Through Vol	378	228	157	302
RT Vol	65	37	199	22
Lane Flow Rate	511	321	423	648
Geometry Grp	1	1	1	1
Degree of Util (X)	1.309	0.859	1.058	1.685
Departure Headway (Hd)	11.339	12.788	11.695	10.532
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	327	285	313	350
Service Time	9.339	10.788	9.695	8.532
HCM Lane V/C Ratio	1.563	1.126	1.351	1.851
HCM Control Delay, s/veh	191.2	61.2	103.5	345.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	20	7.4	12.2	35.4

Intersection	
Intersection Delay, s/veh	23
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	568	2	10	342	10	5	44	16	2	32	7
Future Vol, veh/h	18	568	2	10	342	10	5	44	16	2	32	7
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	20	617	2	11	372	11	5	48	17	2	35	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	30.6	14.5	10.3	10.1
HCM LOS	D	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	3%	3%	5%
Vol Thru, %	68%	97%	94%	78%
Vol Right, %	25%	0%	3%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	588	362	41
LT Vol	5	18	10	2
Through Vol	44	568	342	32
RT Vol	16	2	10	7
Lane Flow Rate	71	639	393	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.865	0.559	0.08
Departure Headway (Hd)	6.376	4.871	5.112	6.5
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	561	748	704	550
Service Time	4.427	2.871	3.141	4.554
HCM Lane V/C Ratio	0.127	0.854	0.558	0.082
HCM Control Delay, s/veh	10.3	30.6	14.5	10.1
HCM Lane LOS	B	D	B	B
HCM 95th-tile Q	0.4	10.5	3.5	0.3

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	142	440	4	14	272	58	6	37	30	36	23	84
Future Vol, veh/h	142	440	4	14	272	58	6	37	30	36	23	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	154	478	4	15	296	63	7	40	33	39	25	91

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	359	0	0	483	0	0	1128	1178	480	1165	1149	327
Stage 1	-	-	-	-	-	-	789	789	-	358	358	-
Stage 2	-	-	-	-	-	-	339	389	-	807	791	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1200	-	-	1080	-	-	182	191	586	171	198	714
Stage 1	-	-	-	-	-	-	384	402	-	660	628	-
Stage 2	-	-	-	-	-	-	676	608	-	375	401	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1200	-	-	1080	-	-	112	154	586	102	161	714
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	154	-	102	161	-
Stage 1	-	-	-	-	-	-	316	331	-	648	617	-
Stage 2	-	-	-	-	-	-	556	597	-	257	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.05	0.34	31.85	46.87
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	212	435	-	-	71	-	-	233
HCM Lane V/C Ratio	0.375	0.129	-	-	0.014	-	-	0.668
HCM Control Delay (s/veh)	31.9	8.4	0	-	8.4	0	-	46.9
HCM Lane LOS	D	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	1.6	0.4	-	-	0	-	-	4.2

Intersection	
Intersection Delay, s/veh	125.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	317	71	31	266	173	71	244	50	169	216	28
Future Vol, veh/h	59	317	71	31	266	173	71	244	50	169	216	28
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	64	345	77	34	289	188	77	265	54	184	235	30
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	1
HCM Control Delay, s/veh	214.1	177.9	56.2	31.3
HCM LOS	F	F	F	D

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	13%	100%	0%	100%	0%	0%
Vol Thru, %	0%	83%	71%	0%	61%	0%	100%	0%
Vol Right, %	0%	17%	16%	0%	39%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	294	447	31	439	169	216	28
LT Vol	71	0	59	31	0	169	0	0
Through Vol	0	244	317	0	266	0	216	0
RT Vol	0	50	71	0	173	0	0	28
Lane Flow Rate	77	320	486	34	477	184	235	30
Geometry Grp	6	6	6	6	6	6	6	6
Degree of Util (X)	0.23	0.899	1.37	0.1	1.309	0.545	0.664	0.08
Departure Headway (Hd)	12.644	11.972	11.026	11.77	10.949	12.414	11.88	11.132
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	286	307	335	306	334	292	308	324
Service Time	10.344	9.672	8.726	9.47	8.649	10.114	9.58	8.832
HCM Lane V/C Ratio	0.269	1.042	1.451	0.111	1.428	0.63	0.763	0.093
HCM Control Delay, s/veh	19.1	65.2	214.1	15.8	189.4	29	35.2	14.8
HCM Lane LOS	C	F	F	C	F	D	E	B
HCM 95th-tile Q	0.9	8.3	22.5	0.3	20.6	3	4.4	0.3

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	308	26	17	341	35	15	53	20	15	38	52
Future Vol, veh/h	48	308	26	17	341	35	15	53	20	15	38	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	155	-	-	155	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	52	331	28	18	367	38	16	57	22	16	41	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	404	0	0	359	0	0	872	889	345	885	884	385
Stage 1	-	-	-	-	-	-	448	448	-	422	422	-
Stage 2	-	-	-	-	-	-	424	441	-	463	462	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1149	-	-	1194	-	-	270	281	695	265	283	660
Stage 1	-	-	-	-	-	-	588	571	-	607	586	-
Stage 2	-	-	-	-	-	-	606	575	-	577	563	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1149	-	-	1194	-	-	198	264	695	192	266	660
Mov Cap-2 Maneuver	-	-	-	-	-	-	198	264	-	192	266	-
Stage 1	-	-	-	-	-	-	561	545	-	598	578	-
Stage 2	-	-	-	-	-	-	508	567	-	478	538	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.04	0.35	22.18	20.09
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	246	695	1149	-	-	1194	-	-	350
HCM Lane V/C Ratio	0.297	0.031	0.045	-	-	0.015	-	-	0.322
HCM Control Delay (s/veh)	25.7	10.3	8.3	-	-	8.1	-	-	20.1
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.2	0.1	0.1	-	-	0	-	-	1.4

Intersection	
Intersection Delay, s/veh	54.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	132	6	17	100	167	7	390	20	132	305	16
Future Vol, veh/h	38	132	6	17	100	167	7	390	20	132	305	16
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	41	143	7	18	109	182	8	424	22	143	332	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	19.9	26.8	58.5	81.6
HCM LOS	C	D	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	22%	6%	29%
Vol Thru, %	94%	75%	35%	67%
Vol Right, %	5%	3%	59%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	417	176	284	453
LT Vol	7	38	17	132
Through Vol	390	132	100	305
RT Vol	20	6	167	16
Lane Flow Rate	453	191	309	492
Geometry Grp	1	1	1	1
Degree of Util (X)	0.952	0.47	0.681	1.045
Departure Headway (Hd)	7.73	9.066	8.127	7.641
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	471	400	448	478
Service Time	5.73	7.066	6.127	5.641
HCM Lane V/C Ratio	0.962	0.478	0.69	1.029
HCM Control Delay, s/veh	58.5	19.9	26.8	81.6
HCM Lane LOS	F	C	D	F
HCM 95th-tile Q	11.6	2.4	5	15

Intersection	
Intersection Delay, s/veh	94.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	270	30	11	264	174	20	295	20	165	223	15
Future Vol, veh/h	32	270	30	11	264	174	20	295	20	165	223	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	34	284	32	12	278	183	21	311	21	174	235	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	61.3	131.9	62.9	104.9
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	10%	2%	41%
Vol Thru, %	88%	81%	59%	55%
Vol Right, %	6%	9%	39%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	335	332	449	403
LT Vol	20	32	11	165
Through Vol	295	270	264	223
RT Vol	20	30	174	15
Lane Flow Rate	353	349	473	424
Geometry Grp	1	1	1	1
Degree of Util (X)	0.919	0.911	1.173	1.087
Departure Headway (Hd)	10.315	10.319	9.419	9.938
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	353	353	388	369
Service Time	8.315	8.319	7.419	7.938
HCM Lane V/C Ratio	1	0.989	1.219	1.149
HCM Control Delay, s/veh	62.9	61.3	131.9	104.9
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	9.3	9.1	17.7	14.3

Intersection	
Intersection Delay, s/veh	43.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	168	131	24	163	39	183	536	16	61	480	53
Future Vol, veh/h	76	168	131	24	163	39	183	536	16	61	480	53
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	78	171	134	24	166	40	187	547	16	62	490	54
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay, s/veh	77.7	29	38.9	34.1
HCM LOS	F	D	E	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	20%	11%	100%	0%	0%
Vol Thru, %	0%	100%	92%	45%	72%	0%	100%	75%
Vol Right, %	0%	0%	8%	35%	17%	0%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	357	195	375	226	61	320	213
LT Vol	183	0	0	76	24	61	0	0
Through Vol	0	357	179	168	163	0	320	160
RT Vol	0	0	16	131	39	0	0	53
Lane Flow Rate	187	365	199	383	231	62	327	217
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.495	0.915	0.495	1.002	0.635	0.168	0.836	0.546
Departure Headway (Hd)	9.831	9.301	9.24	9.43	10.168	10.013	9.482	9.297
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	370	394	393	390	357	360	385	391
Service Time	7.531	7.001	6.94	7.107	7.868	7.713	7.182	6.997
HCM Lane V/C Ratio	0.505	0.926	0.506	0.982	0.647	0.172	0.849	0.555
HCM Control Delay, s/veh	21.8	57.6	20.7	77.7	29	14.7	45.5	22.6
HCM Lane LOS	C	F	C	F	D	B	E	C
HCM 95th-tile Q	2.6	9.7	2.7	12	4.2	0.6	7.7	3.2

APPENDIX F

INTERSECTION ANALYSIS SHEETS
IMPROVED CONDITIONS

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Intersection	
Intersection Delay, s/veh	18.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	75	20	35	169	159	19	220	13	72	284	13
Future Vol, veh/h	11	75	20	35	169	159	19	220	13	72	284	13
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	12	82	22	38	186	175	21	242	14	79	312	14
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	12.3	21.8	16.6	18.6
HCM LOS	B	C	C	C

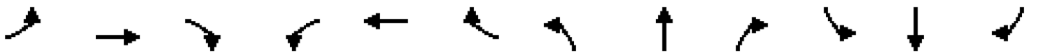
Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	8%	10%	10%	100%	0%
Vol Thru, %	87%	71%	47%	0%	96%
Vol Right, %	5%	19%	44%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	106	363	72	297
LT Vol	19	11	35	72	0
Through Vol	220	75	169	0	284
RT Vol	13	20	159	0	13
Lane Flow Rate	277	116	399	79	326
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.513	0.23	0.686	0.162	0.621
Departure Headway (Hd)	6.673	7.095	6.187	7.391	6.849
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	540	504	582	484	525
Service Time	4.733	5.168	4.236	5.147	4.605
HCM Lane V/C Ratio	0.513	0.23	0.686	0.163	0.621
HCM Control Delay, s/veh	16.6	12.3	21.8	11.6	20.3
HCM Lane LOS	C	B	C	B	C
HCM 95th-tile Q	2.9	0.9	5.3	0.6	4.2

Intersection	
Intersection Delay, s/veh	19.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	157	30	21	111	116	22	299	42	142	240	11
Future Vol, veh/h	12	157	30	21	111	116	22	299	42	142	240	11
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	13	171	33	23	121	126	24	325	46	154	261	12
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	16	17.4	26.4	16.8
HCM LOS	C	C	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	6%	6%	8%	100%	0%
Vol Thru, %	82%	79%	45%	0%	96%
Vol Right, %	12%	15%	47%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	363	199	248	142	251
LT Vol	22	12	21	142	0
Through Vol	299	157	111	0	240
RT Vol	42	30	116	0	11
Lane Flow Rate	395	216	270	154	273
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.736	0.438	0.52	0.33	0.542
Departure Headway (Hd)	6.717	7.284	6.94	7.703	7.158
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	537	491	515	465	502
Service Time	4.799	5.382	5.03	5.491	4.947
HCM Lane V/C Ratio	0.736	0.44	0.524	0.331	0.544
HCM Control Delay, s/veh	26.4	16	17.4	14.3	18.2
HCM Lane LOS	D	C	C	B	C
HCM 95th-tile Q	6.2	2.2	3	1.4	3.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	88	20	50	207	262	19	220	18	104	284	13
Future Volume (veh/h)	11	88	20	50	207	262	19	220	18	104	284	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	12	97	17	55	227	233	21	242	17	114	312	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	27	277	49	99	410	347	45	351	25	157	476	18
Arrive On Green	0.02	0.18	0.18	0.06	0.23	0.23	0.03	0.21	0.21	0.09	0.27	0.27
Sat Flow, veh/h	1725	1501	263	1725	1811	1535	1725	1672	117	1725	1732	67
Grp Volume(v), veh/h	12	0	114	55	227	233	21	0	259	114	0	324
Grp Sat Flow(s),veh/h/ln	1725	0	1764	1725	1811	1535	1725	0	1790	1725	0	1799
Q Serve(g_s), s	0.3	0.0	2.2	1.2	4.3	5.4	0.5	0.0	5.2	2.5	0.0	6.2
Cycle Q Clear(g_c), s	0.3	0.0	2.2	1.2	4.3	5.4	0.5	0.0	5.2	2.5	0.0	6.2
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.07	1.00		0.04
Lane Grp Cap(c), veh/h	27	0	325	99	410	347	45	0	375	157	0	494
V/C Ratio(X)	0.45	0.00	0.35	0.55	0.55	0.67	0.47	0.00	0.69	0.73	0.00	0.66
Avail Cap(c_a), veh/h	261	0	816	266	842	714	261	0	883	399	0	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	13.8	17.9	13.3	13.7	18.7	0.0	14.2	17.2	0.0	12.5
Incr Delay (d2), s/veh	11.1	0.0	0.6	4.7	1.2	2.2	7.3	0.0	2.3	6.3	0.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	0.5	1.3	1.5	0.2	0.0	1.7	1.0	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.1	0.0	14.5	22.6	14.5	16.0	26.0	0.0	16.5	23.5	0.0	14.0
LnGrp LOS	C		B	C	B	B	C		B	C		B
Approach Vol, veh/h		126			515			280			438	
Approach Delay, s/veh		16.0			16.0			17.2			16.4	
Approach LOS		B			B			B			B	

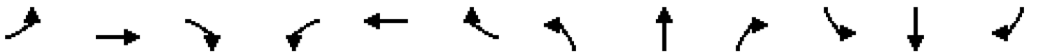
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	13.1	6.2	12.1	5.0	15.6	4.6	13.7
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.0	19.2	6.0	18.0	5.9	22.3	5.9	18.1
Max Q Clear Time (g_c+I1), s	4.5	7.2	3.2	4.2	2.5	8.2	2.3	7.4
Green Ext Time (p_c), s	0.1	1.0	0.0	0.4	0.0	1.4	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	12	119	55	227	288	21	262	114	326
v/c Ratio	0.05	0.30	0.24	0.44	0.45	0.09	0.55	0.39	0.43
Control Delay (s/veh)	27.5	20.2	29.0	19.7	5.4	27.8	23.1	28.1	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.5	20.2	29.0	19.7	5.4	27.8	23.1	28.1	14.4
Queue Length 50th (ft)	4	30	17	54	0	6	74	33	62
Queue Length 95th (ft)	20	75	56	146	53	29	162	94	192
Internal Link Dist (ft)		2572		5227			2032		2578
Turn Bay Length (ft)									
Base Capacity (vph)	234	741	238	773	821	234	797	357	989
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.16	0.23	0.29	0.35	0.09	0.33	0.32	0.33

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	167	44	43	312	205	50	217	36	138	151	34
Future Volume (veh/h)	36	167	44	43	312	205	50	217	36	138	151	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	39	182	38	47	339	178	54	236	31	150	164	29
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	76	452	383	88	464	393	97	348	295	194	449	380
Arrive On Green	0.04	0.24	0.24	0.05	0.25	0.25	0.06	0.19	0.19	0.11	0.24	0.24
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	39	182	38	47	339	178	54	236	31	150	164	29
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.9	3.6	0.8	1.1	7.3	4.2	1.3	5.1	0.7	3.6	3.2	0.6
Cycle Q Clear(g_c), s	0.9	3.6	0.8	1.1	7.3	4.2	1.3	5.1	0.7	3.6	3.2	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	452	383	88	464	393	97	348	295	194	449	380
V/C Ratio(X)	0.51	0.40	0.10	0.53	0.73	0.45	0.55	0.68	0.11	0.77	0.37	0.08
Avail Cap(c_a), veh/h	240	773	655	240	773	655	260	816	691	370	931	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	13.8	12.7	20.2	14.9	13.8	20.0	16.4	14.6	18.8	13.7	12.7
Incr Delay (d2), s/veh	5.2	0.6	0.1	4.9	2.2	0.8	4.9	2.3	0.2	6.4	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	0.2	0.5	2.5	1.1	0.6	2.0	0.2	1.6	1.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.5	14.4	12.9	25.1	17.2	14.6	24.9	18.8	14.8	25.3	14.2	12.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		259			564			321			343	
Approach Delay, s/veh		15.8			17.0			19.4			18.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	13.0	6.2	15.5	6.4	15.4	5.9	15.8
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.1	19.1	5.9	18.1	6.4	21.8	5.9	18.1
Max Q Clear Time (g_c+I1), s	5.6	7.1	3.1	5.6	3.3	5.2	2.9	9.3
Green Ext Time (p_c), s	0.1	1.0	0.0	0.7	0.0	0.8	0.0	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	17.8
HCM 7th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	182	48	47	339	223	54	236	39	150	164	37
v/c Ratio	0.18	0.37	0.09	0.22	0.61	0.35	0.24	0.52	0.08	0.49	0.27	0.06
Control Delay (s/veh)	30.1	22.0	0.3	30.4	24.8	5.3	30.2	24.5	0.3	33.0	18.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.1	22.0	0.3	30.4	24.8	5.3	30.2	24.5	0.3	33.0	18.0	0.2
Queue Length 50th (ft)	13	56	0	15	87	0	17	71	0	48	44	0
Queue Length 95th (ft)	44	117	0	50	#240	48	55	147	0	#139	98	0
Internal Link Dist (ft)		2565			2492			2582			2590	
Turn Bay Length (ft)				155			100			150		150
Base Capacity (vph)	222	720	705	222	737	760	241	760	736	343	871	822
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.25	0.07	0.21	0.46	0.29	0.22	0.31	0.05	0.44	0.19	0.05

Intersection Summary

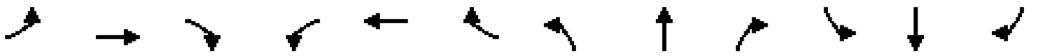
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	250	13	8	308	68	24	58	18	10	36	46
Future Vol, veh/h	61	250	13	8	308	68	24	58	18	10	36	46
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	69	281	15	9	346	76	27	65	20	11	40	52
Number of Lanes	1	1	0	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay, s/veh	13	18.6	11	11.3
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	0%	100%	0%	100%	0%	11%
Vol Thru, %	71%	0%	0%	95%	0%	82%	39%
Vol Right, %	0%	100%	0%	5%	0%	18%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	18	61	263	8	376	92
LT Vol	24	0	61	0	8	0	10
Through Vol	58	0	0	250	0	308	36
RT Vol	0	18	0	13	0	68	46
Lane Flow Rate	92	20	69	296	9	422	103
Geometry Grp	5	5	5	5	5	5	4b
Degree of Util (X)	0.18	0.035	0.121	0.476	0.016	0.662	0.191
Departure Headway (Hd)	7.047	6.185	6.341	5.8	6.276	5.642	6.667
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	577	565	621	570	638	536
Service Time	4.809	3.947	4.084	3.542	4.016	3.382	4.73
HCM Lane V/C Ratio	0.181	0.035	0.122	0.477	0.016	0.661	0.192
HCM Control Delay, s/veh	11.4	9.2	10	13.7	9.1	18.8	11.3
HCM Lane LOS	B	A	A	B	A	C	B
HCM 95th-tile Q	0.7	0.1	0.4	2.6	0	5	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	200	30	31	135	183	22	299	60	258	240	11
Future Volume (veh/h)	12	200	30	31	135	183	22	299	60	258	240	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	13	217	24	34	147	159	24	325	54	280	261	10
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
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	28	286	32	64	361	306	48	398	66	339	747	29
Arrive On Green	0.02	0.18	0.18	0.04	0.20	0.20	0.03	0.26	0.26	0.20	0.43	0.43
Sat Flow, veh/h	1725	1602	177	1725	1811	1535	1725	1514	252	1725	1733	66
Grp Volume(v), veh/h	13	0	241	34	147	159	24	0	379	280	0	271
Grp Sat Flow(s),veh/h/ln	1725	0	1779	1725	1811	1535	1725	0	1766	1725	0	1799
Q Serve(g_s), s	0.4	0.0	7.0	1.1	3.9	5.1	0.8	0.0	11.0	8.5	0.0	5.5
Cycle Q Clear(g_c), s	0.4	0.0	7.0	1.1	3.9	5.1	0.8	0.0	11.0	8.5	0.0	5.5
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	28	0	318	64	361	306	48	0	464	339	0	776
V/C Ratio(X)	0.46	0.00	0.76	0.53	0.41	0.52	0.50	0.00	0.82	0.83	0.00	0.35
Avail Cap(c_a), veh/h	186	0	585	186	596	505	186	0	720	504	0	1065
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	21.3	25.9	19.1	19.6	26.2	0.0	18.9	21.1	0.0	10.4
Incr Delay (d2), s/veh	11.2	0.0	3.7	6.8	0.7	1.4	7.7	0.0	4.2	7.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.8	0.5	1.4	1.6	0.4	0.0	4.1	3.5	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.9	0.0	25.1	32.7	19.8	20.9	34.0	0.0	23.2	28.1	0.0	10.7
LnGrp LOS	D		C	C	B	C	C		C	C		B
Approach Vol, veh/h		254			340			403			551	
Approach Delay, s/veh		25.7			21.6			23.8			19.5	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	19.3	6.0	14.7	5.5	28.5	4.9	15.8
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	16.0	22.3	5.9	18.0	5.9	32.4	5.9	18.0
Max Q Clear Time (g_c+I1), s	10.5	13.0	3.1	9.0	2.8	7.5	2.4	7.1
Green Ext Time (p_c), s	0.4	1.4	0.0	0.7	0.0	1.3	0.0	0.9

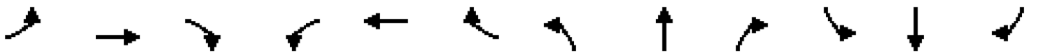
Intersection Summary	
HCM 7th Control Delay, s/veh	22.1
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	250	34	147	199	24	390	280	273
v/c Ratio	0.08	0.65	0.22	0.34	0.38	0.15	0.76	0.73	0.29
Control Delay (s/veh)	35.1	33.4	37.0	24.9	6.5	36.0	34.2	40.2	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.1	33.4	37.0	24.9	6.5	36.0	34.2	40.2	13.1
Queue Length 50th (ft)	5	90	14	51	0	9	133	107	43
Queue Length 95th (ft)	23	185	44	115	51	35	#312	#263	153
Internal Link Dist (ft)		2572		5227			2032		2578
Turn Bay Length (ft)									
Base Capacity (vph)	161	515	161	563	615	161	634	438	993
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.49	0.21	0.26	0.32	0.15	0.62	0.64	0.27

Intersection Summary

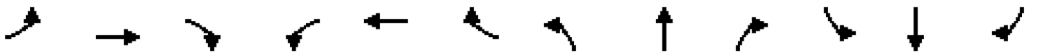
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	286	68	26	235	139	67	189	42	141	173	24
Future Volume (veh/h)	48	286	68	26	235	139	67	189	42	141	173	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	53	314	60	29	258	122	74	208	37	155	190	21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	98	438	371	61	398	338	123	326	277	201	408	346
Arrive On Green	0.06	0.24	0.24	0.03	0.21	0.21	0.07	0.18	0.18	0.11	0.22	0.22
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	53	314	60	29	258	122	74	208	37	155	190	21
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.2	6.3	1.2	0.7	5.1	2.7	1.6	4.2	0.8	3.4	3.6	0.4
Cycle Q Clear(g_c), s	1.2	6.3	1.2	0.7	5.1	2.7	1.6	4.2	0.8	3.4	3.6	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	438	371	61	398	338	123	326	277	201	408	346
V/C Ratio(X)	0.54	0.72	0.16	0.48	0.65	0.36	0.60	0.64	0.13	0.77	0.47	0.06
Avail Cap(c_a), veh/h	258	831	704	258	831	704	315	867	735	407	964	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	14.2	12.3	19.2	14.5	13.5	18.3	15.5	14.1	17.4	13.7	12.5
Incr Delay (d2), s/veh	4.6	2.2	0.2	5.7	1.8	0.7	4.6	2.1	0.2	6.2	0.8	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	0.3	0.3	1.7	0.7	0.7	1.6	0.2	1.5	1.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.2	16.4	12.5	24.9	16.3	14.2	22.9	17.5	14.3	23.6	14.5	12.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		427			409			319			366	
Approach Delay, s/veh		16.7			16.2			18.4			18.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	12.0	5.4	14.4	6.8	13.8	6.2	13.6
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.3	18.9	5.9	18.1	7.2	21.0	5.9	18.1
Max Q Clear Time (g_c+I1), s	5.4	6.2	2.7	8.3	3.6	5.6	3.2	7.1
Green Ext Time (p_c), s	0.1	0.9	0.0	1.2	0.0	0.8	0.0	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	17.3
HCM 7th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	53	314	75	29	258	153	74	208	46	155	190	26
v/c Ratio	0.24	0.56	0.13	0.13	0.52	0.28	0.30	0.48	0.10	0.49	0.33	0.04
Control Delay (s/veh)	30.3	22.5	0.5	29.2	23.5	5.7	29.7	24.8	0.4	32.0	19.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.3	22.5	0.5	29.2	23.5	5.7	29.7	24.8	0.4	32.0	19.6	0.1
Queue Length 50th (ft)	18	76	0	9	81	0	24	65	0	50	56	0
Queue Length 95th (ft)	54	197	2	35	160	39	67	131	0	#139	115	0
Internal Link Dist (ft)		2565			2492			2582			2590	
Turn Bay Length (ft)				155			100			150		150
Base Capacity (vph)	229	772	746	229	740	721	279	773	746	361	863	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.41	0.10	0.13	0.35	0.21	0.27	0.27	0.06	0.43	0.22	0.03

Intersection Summary

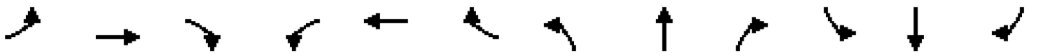
95th percentile volume exceeds capacity, queue may be longer.
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Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	257	23	15	287	28	13	44	17	12	32	46
Future Vol, veh/h	41	257	23	15	287	28	13	44	17	12	32	46
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	44	276	25	16	309	30	14	47	18	13	34	49
Number of Lanes	1	1	0	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay, s/veh	12.3	13.7	10	10.6
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	23%	0%	100%	0%	100%	0%	13%
Vol Thru, %	77%	0%	0%	92%	0%	91%	36%
Vol Right, %	0%	100%	0%	8%	0%	9%	51%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	17	41	280	15	315	90
LT Vol	13	0	41	0	15	0	12
Through Vol	44	0	0	257	0	287	32
RT Vol	0	17	0	23	0	28	46
Lane Flow Rate	61	18	44	301	16	339	97
Geometry Grp	5	5	5	5	5	5	4b
Degree of Util (X)	0.114	0.03	0.074	0.459	0.027	0.516	0.168
Departure Headway (Hd)	6.688	5.862	6.055	5.492	6.051	5.483	6.263
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	536	610	594	659	595	660	573
Service Time	4.427	3.6	3.763	3.2	3.758	3.191	4.303
HCM Lane V/C Ratio	0.114	0.03	0.074	0.457	0.027	0.514	0.169
HCM Control Delay, s/veh	10.3	8.8	9.2	12.8	8.9	13.9	10.6
HCM Lane LOS	B	A	A	B	A	B	B
HCM 95th-tile Q	0.4	0.1	0.2	2.4	0.1	3	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	495	139	37	770	138	416	330	36	182	411	95
Future Volume (veh/h)	45	495	139	37	770	138	416	330	36	182	411	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	521	117	39	811	123	438	347	31	192	433	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	74	1014	440	66	997	432	544	646	540	284	506	421
Arrive On Green	0.04	0.29	0.29	0.04	0.28	0.28	0.16	0.35	0.35	0.08	0.27	0.27
Sat Flow, veh/h	1767	3526	1529	1767	3526	1528	3428	1856	1551	3428	1856	1545
Grp Volume(v), veh/h	47	521	117	39	811	123	438	347	31	192	433	80
Grp Sat Flow(s),veh/h/ln	1767	1763	1529	1767	1763	1528	1714	1856	1551	1714	1856	1545
Q Serve(g_s), s	1.9	9.0	4.3	1.6	15.6	4.6	9.0	10.9	1.0	4.0	16.2	2.9
Cycle Q Clear(g_c), s	1.9	9.0	4.3	1.6	15.6	4.6	9.0	10.9	1.0	4.0	16.2	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	1014	440	66	997	432	544	646	540	284	506	421
V/C Ratio(X)	0.63	0.51	0.27	0.59	0.81	0.28	0.81	0.54	0.06	0.68	0.86	0.19
Avail Cap(c_a), veh/h	143	1169	507	153	1188	515	691	811	678	460	686	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	21.7	20.1	34.6	24.4	20.4	29.6	19.1	15.8	32.5	25.2	20.4
Incr Delay (d2), s/veh	8.5	0.4	0.3	8.1	3.8	0.4	5.5	0.7	0.0	2.8	7.9	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.3	1.4	0.8	6.2	1.5	3.8	4.2	0.3	1.6	7.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.9	22.1	20.4	42.7	28.2	20.8	35.1	19.8	15.9	35.3	33.1	20.6
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		685			973			816			705	
Approach Delay, s/veh		23.3			27.8			27.9			32.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	30.3	6.7	25.9	15.6	24.8	7.1	25.5
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.8	31.9	6.3	24.2	14.7	27.0	5.9	24.6
Max Q Clear Time (g_c+I1), s	6.0	12.9	3.6	11.0	11.0	18.2	3.9	17.6
Green Ext Time (p_c), s	0.2	1.8	0.0	2.8	0.6	1.7	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	27.8
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	47	521	146	39	811	145	438	347	38	192	433	100
v/c Ratio	0.35	0.52	0.27	0.28	0.81	0.27	0.73	0.54	0.06	0.49	0.81	0.18
Control Delay (s/veh)	47.2	27.6	4.6	44.5	35.2	4.5	41.4	25.4	0.2	40.3	40.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.2	27.6	4.6	44.5	35.2	4.5	41.4	25.4	0.2	40.3	40.9	1.3
Queue Length 50th (ft)	26	132	0	21	226	0	123	155	0	53	224	0
Queue Length 95th (ft)	61	185	34	54	#325	33	#192	240	0	88	#367	6
Internal Link Dist (ft)		5105			2589			2531			2112	
Turn Bay Length (ft)	150			135			140			85		
Base Capacity (vph)	136	1121	586	145	1140	593	661	778	707	440	658	647
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.46	0.25	0.27	0.71	0.24	0.66	0.45	0.05	0.44	0.66	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	207	576	8	92	469
Future Vol, veh/h	27	207	576	8	92	469
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, %	4	4	4	4	4	4
Mvmt Flow	29	225	626	9	100	510

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1340	630	0	0	635	0
Stage 1	630	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	167	478	-	-	939	-
Stage 1	527	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	142	478	-	-	939	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	412	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	21.12	0	1.52
HCM LOS	C		

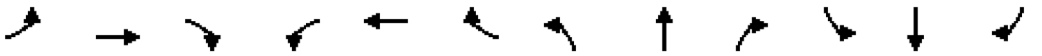
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	142	478	295	-
HCM Lane V/C Ratio	-	-	0.207	0.471	0.107	-
HCM Control Delay (s/veh)	-	-	36.9	19.1	9.3	0
HCM Lane LOS	-	-	E	C	A	A
HCM 95th %tile Q(veh)	-	-	0.7	2.5	0.4	-

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	280	29	23	205	26	70	26	21	45	33	90
Future Vol, veh/h	36	280	29	23	205	26	70	26	21	45	33	90
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	41	318	33	26	233	30	80	30	24	51	38	102
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay, s/veh	20.3	13.5	12.6	11.1
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	60%	10%	10%	0%	100%	0%
Vol Thru, %	22%	81%	90%	0%	0%	27%
Vol Right, %	18%	8%	0%	100%	0%	73%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	117	345	228	26	45	123
LT Vol	70	36	23	0	45	0
Through Vol	26	280	205	0	0	33
RT Vol	21	29	0	26	0	90
Lane Flow Rate	133	392	259	30	51	140
Geometry Grp	4b	4b	5	5	5	5
Degree of Util (X)	0.259	0.661	0.451	0.045	0.104	0.245
Departure Headway (Hd)	7.008	6.069	6.26	5.48	7.329	6.314
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	509	592	573	649	486	565
Service Time	5.1	4.132	4.029	3.248	5.115	4.099
HCM Lane V/C Ratio	0.261	0.662	0.452	0.046	0.105	0.248
HCM Control Delay, s/veh	12.6	20.3	14.1	8.5	11	11.2
HCM Lane LOS	B	C	B	A	B	B
HCM 95th-tile Q	1	4.9	2.3	0.1	0.3	1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	103	25	53	240	283	23	274	20	116	358	29
Future Volume (veh/h)	18	103	25	53	240	283	23	274	20	116	358	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	20	112	22	58	261	246	25	298	18	126	389	25
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
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	43	289	57	100	416	353	52	401	24	161	506	33
Arrive On Green	0.02	0.20	0.20	0.06	0.23	0.23	0.03	0.24	0.24	0.09	0.30	0.30
Sat Flow, veh/h	1725	1470	289	1725	1811	1535	1725	1691	102	1725	1683	108
Grp Volume(v), veh/h	20	0	134	58	261	246	25	0	316	126	0	414
Grp Sat Flow(s),veh/h/ln	1725	0	1759	1725	1811	1535	1725	0	1793	1725	0	1792
Q Serve(g_s), s	0.5	0.0	2.8	1.4	5.6	6.3	0.6	0.0	7.0	3.1	0.0	9.0
Cycle Q Clear(g_c), s	0.5	0.0	2.8	1.4	5.6	6.3	0.6	0.0	7.0	3.1	0.0	9.0
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	43	0	345	100	416	353	52	0	426	161	0	538
V/C Ratio(X)	0.47	0.00	0.39	0.58	0.63	0.70	0.48	0.00	0.74	0.78	0.00	0.77
Avail Cap(c_a), veh/h	237	0	738	241	764	648	237	0	844	322	0	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	15.0	19.7	14.9	15.2	20.5	0.0	15.1	19.0	0.0	13.6
Incr Delay (d2), s/veh	7.8	0.0	0.7	5.2	1.6	2.5	6.8	0.0	2.6	8.2	0.0	2.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.9	0.6	1.8	1.8	0.3	0.0	2.3	1.3	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.4	0.0	15.7	24.9	16.4	17.7	27.3	0.0	17.7	27.2	0.0	16.0
LnGrp LOS	C		B	C	B	B	C		B	C		B
Approach Vol, veh/h		154			565			341			540	
Approach Delay, s/veh		17.4			17.8			18.4			18.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	15.1	6.5	13.3	5.3	17.8	5.1	14.8
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	8.0	20.2	6.0	18.0	5.9	22.3	5.9	18.1
Max Q Clear Time (g_c+I1), s	5.1	9.0	3.4	4.8	2.6	11.0	2.5	8.3
Green Ext Time (p_c), s	0.1	1.2	0.0	0.4	0.0	1.7	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	18.2
HCM 7th LOS	B



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	20	139	58	261	308	25	320	126	421
v/c Ratio	0.09	0.35	0.27	0.50	0.47	0.12	0.60	0.46	0.58
Control Delay (s/veh)	28.8	21.5	30.6	21.5	5.5	29.0	23.5	33.2	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.8	21.5	30.6	21.5	5.5	29.0	23.5	33.2	19.1
Queue Length 50th (ft)	6	37	18	65	0	8	93	40	87
Queue Length 95th (ft)	28	86	58	168	55	32	197	#124	#286
Internal Link Dist (ft)		2572		5227			2032		2578
Turn Bay Length (ft)									
Base Capacity (vph)	219	694	223	734	806	219	785	297	905
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.26	0.36	0.38	0.11	0.41	0.42	0.47

Intersection Summary

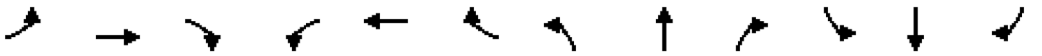
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	23.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	204	6	14	450	21	2	25	10	51	34	123
Future Vol, veh/h	44	204	6	14	450	21	2	25	10	51	34	123
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	6	6	6	6	2	6	2	6	2	2	2
Mvmt Flow	48	222	7	15	489	23	2	27	11	55	37	134
Number of Lanes	1	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	2
HCM Control Delay, s/veh	12.4	35	11.1	11.1
HCM LOS	B	D	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	100%	0%	3%	60%	0%
Vol Thru, %	68%	0%	97%	93%	40%	0%
Vol Right, %	27%	0%	3%	4%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	44	210	485	85	123
LT Vol	2	44	0	14	51	0
Through Vol	25	0	204	450	34	0
RT Vol	10	0	6	21	0	123
Lane Flow Rate	40	48	228	527	92	134
Geometry Grp	4b	5	5	4b	5	5
Degree of Util (X)	0.082	0.088	0.391	0.862	0.185	0.23
Departure Headway (Hd)	7.336	6.63	6.17	5.884	7.209	6.188
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	485	539	582	617	496	578
Service Time	5.424	4.384	3.925	3.926	4.972	3.951
HCM Lane V/C Ratio	0.082	0.089	0.392	0.854	0.185	0.232
HCM Control Delay, s/veh	11.1	10	12.9	35	11.6	10.8
HCM Lane LOS	B	A	B	D	B	B
HCM 95th-tile Q	0.3	0.3	1.8	9.7	0.7	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	191	46	52	354	246	52	268	44	175	196	41
Future Volume (veh/h)	44	191	46	52	354	246	52	268	44	175	196	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	48	208	40	57	385	214	57	291	38	190	213	36
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	85	474	402	96	485	411	96	387	328	239	537	455
Arrive On Green	0.05	0.26	0.26	0.05	0.26	0.26	0.05	0.21	0.21	0.14	0.29	0.29
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	48	208	40	57	385	214	57	291	38	190	213	36
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.4	4.8	1.0	1.6	9.9	6.0	1.6	7.6	1.0	5.3	4.7	0.9
Cycle Q Clear(g_c), s	1.4	4.8	1.0	1.6	9.9	6.0	1.6	7.6	1.0	5.3	4.7	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	474	402	96	485	411	96	387	328	239	537	455
V/C Ratio(X)	0.56	0.44	0.10	0.60	0.79	0.52	0.60	0.75	0.12	0.80	0.40	0.08
Avail Cap(c_a), veh/h	203	654	554	203	654	554	227	694	588	310	781	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	16.0	14.6	23.7	17.7	16.2	23.7	19.1	16.5	21.5	14.6	13.3
Incr Delay (d2), s/veh	5.7	0.6	0.1	5.8	4.8	1.0	5.8	3.0	0.2	10.4	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.7	0.3	0.7	3.9	1.8	0.8	3.1	0.3	2.6	1.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.6	16.7	14.7	29.5	22.5	17.2	29.5	22.1	16.6	31.9	15.1	13.3
LnGrp LOS	C	B	B	C	C	B	C	C	B	C	B	B
Approach Vol, veh/h		296			656			386			439	
Approach Delay, s/veh		18.5			21.4			22.6			22.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	15.6	6.8	18.0	6.8	19.8	6.5	18.3
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.0	19.2	5.9	18.1	6.6	21.6	5.9	18.1
Max Q Clear Time (g_c+I1), s	7.3	9.6	3.6	6.8	3.6	6.7	3.4	11.9
Green Ext Time (p_c), s	0.1	1.1	0.0	0.8	0.0	1.0	0.0	1.5

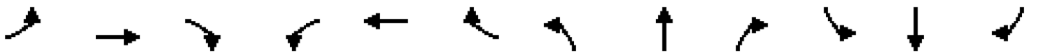
Intersection Summary	
HCM 7th Control Delay, s/veh	21.4
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	48	208	50	57	385	267	57	291	48	190	213	45
v/c Ratio	0.27	0.42	0.09	0.32	0.77	0.43	0.30	0.65	0.10	0.69	0.31	0.07
Control Delay (s/veh)	33.1	22.9	0.3	34.2	34.7	5.7	32.8	29.1	0.4	44.5	18.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.1	22.9	0.3	34.2	34.7	5.7	32.8	29.1	0.4	44.5	18.8	0.2
Queue Length 50th (ft)	19	69	0	22	142	0	22	108	0	76	71	0
Queue Length 95th (ft)	51	133	0	57	#289	52	56	181	0	#188	126	0
Internal Link Dist (ft)		2565			2492			2582			2590	
Turn Bay Length (ft)				155			100			150		150
Base Capacity (vph)	183	591	607	183	591	684	204	627	635	279	728	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.35	0.08	0.31	0.65	0.39	0.28	0.46	0.08	0.68	0.29	0.06

Intersection Summary

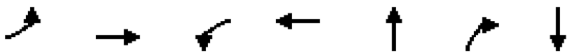
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	299	15	9	374	84	27	70	21	12	44	55
Future Volume (veh/h)	72	299	15	9	374	84	27	70	21	12	44	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	78	325	16	10	407	91	29	76	23	13	48	60
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	752	37	23	536	120	184	210	233	134	109	122
Arrive On Green	0.08	0.43	0.43	0.01	0.37	0.37	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1767	1754	86	1767	1468	328	322	1414	1572	106	731	823
Grp Volume(v), veh/h	78	0	341	10	0	498	105	0	23	121	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1840	1767	0	1796	1736	0	1572	1660	0	0
Q Serve(g_s), s	1.4	0.0	4.4	0.2	0.0	8.2	0.0	0.0	0.4	0.2	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	4.4	0.2	0.0	8.2	1.7	0.0	0.4	2.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.18	0.28		1.00	0.11		0.50
Lane Grp Cap(c), veh/h	136	0	789	23	0	656	394	0	233	365	0	0
V/C Ratio(X)	0.57	0.00	0.43	0.43	0.00	0.76	0.27	0.00	0.10	0.33	0.00	0.00
Avail Cap(c_a), veh/h	315	0	1152	315	0	1125	1084	0	892	1048	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.0	0.0	6.7	16.5	0.0	9.4	12.9	0.0	12.4	13.1	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.0	0.4	11.8	0.0	1.8	0.4	0.0	0.2	0.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.7	0.1	0.0	1.8	0.5	0.0	0.1	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.8	0.0	7.1	28.3	0.0	11.2	13.3	0.0	12.6	13.7	0.0	0.0
LnGrp LOS	B		A	C		B	B		B	B		
Approach Vol, veh/h		419			508			128			121	
Approach Delay, s/veh		9.3			11.6			13.2			13.7	
Approach LOS		A			B			B			B	

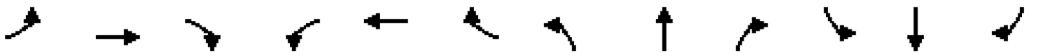
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.9	4.4	19.3		9.9	6.6	17.2				
Change Period (Y+Rc), s		4.9	4.0	4.9		4.9	4.0	4.9				
Max Green Setting (Gmax), s		19.1	6.0	21.1		19.1	6.0	21.1				
Max Q Clear Time (g_c+I1), s		3.7	2.2	6.4		4.2	3.4	10.2				
Green Ext Time (p_c), s		0.4	0.0	1.5		0.4	0.0	2.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	11.2
HCM 7th LOS	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	78	341	10	498	105	23	121
v/c Ratio	0.28	0.38	0.04	0.68	0.31	0.06	0.31
Control Delay (s/veh)	22.6	8.7	20.6	16.4	19.3	0.2	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.6	8.7	20.6	16.4	19.3	0.2	12.4
Queue Length 50th (ft)	19	35	2	100	25	0	14
Queue Length 95th (ft)	56	132	14	206	62	0	50
Internal Link Dist (ft)		2492		991	1889		750
Turn Bay Length (ft)	155		155				
Base Capacity (vph)	288	1186	288	1047	844	872	890
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.29	0.03	0.48	0.12	0.03	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	106	7	20	158	112	6	292	19	95	403	20
Future Volume (veh/h)	11	106	7	20	158	112	6	292	19	95	403	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	12	115	8	22	172	122	7	317	21	103	438	22
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
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	27	253	18	46	294	249	16	435	29	148	574	29
Arrive On Green	0.02	0.15	0.15	0.03	0.17	0.17	0.01	0.26	0.26	0.09	0.34	0.34
Sat Flow, veh/h	1697	1646	115	1697	1781	1510	1697	1652	109	1697	1682	84
Grp Volume(v), veh/h	12	0	123	22	172	122	7	0	338	103	0	460
Grp Sat Flow(s),veh/h/ln	1697	0	1761	1697	1781	1510	1697	0	1762	1697	0	1766
Q Serve(g_s), s	0.3	0.0	2.4	0.5	3.4	2.8	0.2	0.0	6.6	2.2	0.0	8.8
Cycle Q Clear(g_c), s	0.3	0.0	2.4	0.5	3.4	2.8	0.2	0.0	6.6	2.2	0.0	8.8
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.06	1.00		0.05
Lane Grp Cap(c), veh/h	27	0	270	46	294	249	16	0	464	148	0	603
V/C Ratio(X)	0.45	0.00	0.46	0.48	0.58	0.49	0.44	0.00	0.73	0.70	0.00	0.76
Avail Cap(c_a), veh/h	264	0	834	264	844	715	264	0	979	322	0	1042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	14.6	18.2	14.7	14.4	18.7	0.0	12.7	16.8	0.0	11.1
Incr Delay (d2), s/veh	11.5	0.0	1.2	7.4	1.8	1.5	18.0	0.0	2.2	5.8	0.0	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	0.2	1.1	0.8	0.1	0.0	2.0	0.9	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.1	0.0	15.8	25.6	16.5	15.9	36.7	0.0	15.0	22.6	0.0	13.2
LnGrp LOS	C		B	C	B	B	D		B	C		B
Approach Vol, veh/h		135			316			345			563	
Approach Delay, s/veh		17.1			16.9			15.4			14.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	14.9	5.0	10.7	4.4	17.9	4.6	11.2
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	7.2	21.1	5.9	18.0	5.9	22.4	5.9	18.0
Max Q Clear Time (g_c+I1), s	4.2	8.6	2.5	4.4	2.2	10.8	2.3	5.4
Green Ext Time (p_c), s	0.1	1.4	0.0	0.4	0.0	1.9	0.0	0.9

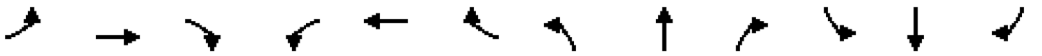
Intersection Summary	
HCM 7th Control Delay, s/veh	15.7
HCM 7th LOS	B



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	12	123	22	172	122	7	338	103	460
v/c Ratio	0.06	0.33	0.11	0.46	0.28	0.04	0.52	0.42	0.50
Control Delay (s/veh)	25.2	20.0	25.7	22.8	4.5	25.2	18.3	29.6	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.2	20.0	25.7	22.8	4.5	25.2	18.3	29.6	14.1
Queue Length 50th (ft)	3	25	5	38	0	2	71	24	59
Queue Length 95th (ft)	19	83	29	114	25	14	200	#102	#319
Internal Link Dist (ft)		3274		3339			2536		2501
Turn Bay Length (ft)									
Base Capacity (vph)	208	666	208	669	664	208	804	254	915
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.18	0.11	0.26	0.18	0.03	0.42	0.41	0.50

Intersection Summary

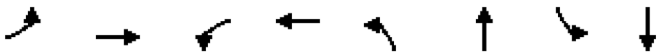
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	229	9	11	257	164	30	253	13	154	270	21
Future Volume (veh/h)	18	229	9	11	257	164	30	253	13	154	270	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	19	244	10	12	273	139	32	269	11	164	287	18
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	39	515	21	26	329	167	60	352	14	207	487	31
Arrive On Green	0.02	0.31	0.31	0.02	0.30	0.30	0.04	0.21	0.21	0.12	0.30	0.30
Sat Flow, veh/h	1682	1685	69	1682	1104	562	1682	1685	69	1682	1645	103
Grp Volume(v), veh/h	19	0	254	12	0	412	32	0	280	164	0	305
Grp Sat Flow(s),veh/h/ln	1682	0	1754	1682	0	1665	1682	0	1754	1682	0	1748
Q Serve(g_s), s	0.6	0.0	6.0	0.4	0.0	11.8	1.0	0.0	7.7	4.9	0.0	7.6
Cycle Q Clear(g_c), s	0.6	0.0	6.0	0.4	0.0	11.8	1.0	0.0	7.7	4.9	0.0	7.6
Prop In Lane	1.00		0.04	1.00		0.34	1.00		0.04	1.00		0.06
Lane Grp Cap(c), veh/h	39	0	536	26	0	496	60	0	366	207	0	517
V/C Ratio(X)	0.49	0.00	0.47	0.47	0.00	0.83	0.53	0.00	0.76	0.79	0.00	0.59
Avail Cap(c_a), veh/h	194	0	757	194	0	718	194	0	657	328	0	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	14.4	25.0	0.0	16.8	24.3	0.0	19.1	21.8	0.0	15.4
Incr Delay (d2), s/veh	9.2	0.0	0.7	12.5	0.0	5.5	7.1	0.0	3.4	6.7	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.9	0.2	0.0	4.1	0.5	0.0	3.0	2.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	0.0	15.1	37.5	0.0	22.3	31.4	0.0	22.4	28.6	0.0	16.5
LnGrp LOS	C		B	D		C	C		C	C		B
Approach Vol, veh/h		273			424			312			469	
Approach Delay, s/veh		16.4			22.7			23.4			20.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	15.6	4.8	20.6	5.8	20.1	5.2	20.2
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	10.0	19.2	5.9	22.1	5.9	23.3	5.9	22.1
Max Q Clear Time (g_c+I1), s	6.9	9.7	2.4	8.0	3.0	9.6	2.6	13.8
Green Ext Time (p_c), s	0.1	1.0	0.0	1.0	0.0	1.4	0.0	1.4

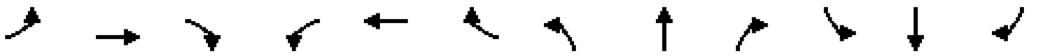
Intersection Summary	
HCM 7th Control Delay, s/veh	21.0
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	19	254	12	447	32	283	164	309
v/c Ratio	0.12	0.44	0.07	0.78	0.19	0.68	0.61	0.43
Control Delay (s/veh)	31.0	20.0	30.4	29.8	32.0	30.4	38.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.0	20.0	30.4	29.8	32.0	30.4	38.5	17.6
Queue Length 50th (ft)	7	67	4	123	11	93	57	66
Queue Length 95th (ft)	28	164	21	#344	40	195	#166	196
Internal Link Dist (ft)		2575		1275		2857		2524
Turn Bay Length (ft)								
Base Capacity (vph)	169	667	169	657	169	579	287	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.38	0.07	0.68	0.19	0.49	0.57	0.41

Intersection Summary

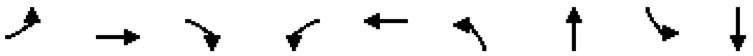
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	204	175	42	166	38	168	416	47	45	404	33
Future Volume (veh/h)	44	204	175	42	166	38	168	416	47	45	404	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	47	219	150	45	178	32	181	447	41	48	434	27
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	85	335	284	82	274	49	230	927	85	86	683	42
Arrive On Green	0.05	0.19	0.19	0.05	0.19	0.19	0.14	0.30	0.30	0.05	0.21	0.21
Sat Flow, veh/h	1697	1781	1510	1697	1470	264	1697	3136	287	1697	3237	201
Grp Volume(v), veh/h	47	219	150	45	0	210	181	240	248	48	226	235
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	0	1734	1697	1692	1730	1697	1692	1745
Q Serve(g_s), s	1.2	4.9	3.8	1.1	0.0	4.8	4.4	5.0	5.0	1.2	5.2	5.2
Cycle Q Clear(g_c), s	1.2	4.9	3.8	1.1	0.0	4.8	4.4	5.0	5.0	1.2	5.2	5.2
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.17	1.00		0.12
Lane Grp Cap(c), veh/h	85	335	284	82	0	323	230	500	512	86	357	368
V/C Ratio(X)	0.55	0.65	0.53	0.55	0.00	0.65	0.79	0.48	0.48	0.56	0.63	0.64
Avail Cap(c_a), veh/h	234	751	637	234	0	731	397	868	887	254	726	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	16.0	15.6	19.9	0.0	16.1	17.9	12.3	12.4	19.8	15.3	15.4
Incr Delay (d2), s/veh	5.5	2.2	1.5	5.6	0.0	2.2	5.9	0.7	0.7	5.5	1.9	1.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.7	1.1	0.5	0.0	1.6	1.7	1.4	1.4	0.5	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.3	18.2	17.1	25.4	0.0	18.3	23.7	13.1	13.1	25.3	17.2	17.2
LnGrp LOS	C	B	B	C		B	C	B	B	C	B	B
Approach Vol, veh/h		416			255			669			509	
Approach Delay, s/veh		18.6			19.5			15.9			18.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	17.5	6.1	12.9	9.8	13.9	6.1	12.9
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	6.4	21.9	5.9	18.0	10.0	18.3	5.9	18.0
Max Q Clear Time (g_c+I1), s	3.2	7.0	3.1	6.9	6.4	7.2	3.2	6.8
Green Ext Time (p_c), s	0.0	2.2	0.0	1.2	0.1	1.8	0.0	0.7

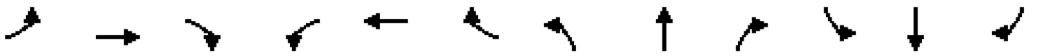
Intersection Summary	
HCM 7th Control Delay, s/veh	17.6
HCM 7th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	219	188	45	219	181	498	48	469
v/c Ratio	0.25	0.56	0.39	0.24	0.56	0.61	0.38	0.24	0.59
Control Delay (s/veh)	31.4	26.9	6.6	31.2	25.3	36.2	16.0	30.7	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.4	26.9	6.6	31.2	25.3	36.2	16.0	30.7	22.8
Queue Length 50th (ft)	16	71	0	15	66	62	75	16	78
Queue Length 95th (ft)	50	142	44	48	136	#171	128	50	133
Internal Link Dist (ft)		1253			1747		2419		2181
Turn Bay Length (ft)						195		205	
Base Capacity (vph)	191	613	643	191	606	323	1438	207	1178
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.36	0.29	0.24	0.36	0.56	0.35	0.23	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	626	342	30	410	145	272	336	68	222	364	67
Future Volume (veh/h)	86	626	342	30	410	145	272	336	68	222	364	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	673	295	32	441	125	292	361	58	239	391	57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	973	434	62	859	383	422	526	445	362	493	418
Arrive On Green	0.07	0.27	0.27	0.03	0.24	0.24	0.12	0.28	0.28	0.10	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	92	673	295	32	441	125	292	361	58	239	391	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	3.0	9.9	9.7	1.0	6.3	3.8	4.7	10.0	1.6	3.9	11.3	1.6
Cycle Q Clear(g_c), s	3.0	9.9	9.7	1.0	6.3	3.8	4.7	10.0	1.6	3.9	11.3	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	973	434	62	859	383	422	526	445	362	493	418
V/C Ratio(X)	0.77	0.69	0.68	0.52	0.51	0.33	0.69	0.69	0.13	0.66	0.79	0.14
Avail Cap(c_a), veh/h	315	1471	656	181	1203	536	712	993	841	671	970	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	18.9	18.9	27.6	19.1	18.2	24.5	18.6	15.6	25.1	20.0	16.4
Incr Delay (d2), s/veh	10.1	0.9	1.9	6.6	0.5	0.5	2.0	1.6	0.1	2.1	2.9	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.4	3.1	0.5	2.2	1.2	1.8	3.7	0.5	1.5	4.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.8	19.8	20.7	34.2	19.6	18.7	26.6	20.2	15.7	27.1	22.9	16.5
LnGrp LOS	D	B	C	C	B	B	C	C	B	C	C	B
Approach Vol, veh/h		1060			598			711			687	
Approach Delay, s/veh		21.5			20.2			22.5			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	21.3	6.0	20.8	11.1	20.2	7.9	19.0
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	11.3	30.9	5.9	24.1	12.0	30.2	10.3	19.7
Max Q Clear Time (g_c+I1), s	5.9	12.0	3.0	11.9	6.7	13.3	5.0	8.3
Green Ext Time (p_c), s	0.3	1.9	0.0	4.1	0.4	2.0	0.1	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	22.0
HCM 7th LOS	C

Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	92	673	368	32	441	156	292	361	73	239	391	72
v/c Ratio	0.43	0.60	0.49	0.21	0.56	0.32	0.57	0.65	0.12	0.50	0.73	0.13
Control Delay (s/veh)	40.9	25.7	5.6	41.2	30.5	6.4	36.6	29.6	0.4	36.3	33.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.9	25.7	5.6	41.2	30.5	6.4	36.6	29.6	0.4	36.3	33.5	0.4
Queue Length 50th (ft)	41	126	0	15	102	0	67	149	0	55	168	0
Queue Length 95th (ft)	98	244	65	47	167	42	124	254	0	104	282	0
Internal Link Dist (ft)		5105			2589			2531			2112	
Turn Bay Length (ft)	150			135			140			85		
Base Capacity (vph)	267	1297	813	153	1023	577	604	844	809	569	825	794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.52	0.45	0.21	0.43	0.27	0.48	0.43	0.09	0.42	0.47	0.09

Intersection Summary

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	106	576	30	132	588
Future Vol, veh/h	16	106	576	30	132	588
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	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	114	619	32	142	632

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1552	635	0	0	652	0
Stage 1	635	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	124	476	-	-	930	-
Stage 1	526	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	95	476	-	-	930	-
Mov Cap-2 Maneuver	95	-	-	-	-	-
Stage 1	526	-	-	-	-	-
Stage 2	297	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	19.66	0	1.75
HCM LOS	C		

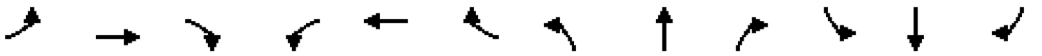
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	95	476	330	-
HCM Lane V/C Ratio	-	-	0.181	0.239	0.153	-
HCM Control Delay (s/veh)	-	-	51.1	14.9	9.6	0
HCM Lane LOS	-	-	F	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.9	0.5	-

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	86	115	84	30	59	31	46	38	33	26	27	48
Future Vol, veh/h	86	115	84	30	59	31	46	38	33	26	27	48
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, %	1	1	2	2	1	1	2	2	2	1	2	1
Mvmt Flow	93	125	91	33	64	34	50	41	36	28	29	52
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay, s/veh	12.5	9.1	10.3	9.1
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	39%	30%	34%	0%	100%	0%
Vol Thru, %	32%	40%	66%	0%	0%	36%
Vol Right, %	28%	29%	0%	100%	0%	64%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	117	285	89	31	26	75
LT Vol	46	86	30	0	26	0
Through Vol	38	115	59	0	0	27
RT Vol	33	84	0	31	0	48
Lane Flow Rate	127	310	97	34	28	82
Geometry Grp	4b	4b	5	5	5	5
Degree of Util (X)	0.203	0.449	0.153	0.045	0.05	0.122
Departure Headway (Hd)	5.745	5.223	5.685	4.791	6.329	5.388
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	618	685	625	739	561	658
Service Time	3.839	3.296	3.472	2.577	4.125	3.183
HCM Lane V/C Ratio	0.206	0.453	0.155	0.046	0.05	0.125
HCM Control Delay, s/veh	10.3	12.5	9.5	7.8	9.5	8.9
HCM Lane LOS	B	B	A	A	A	A
HCM 95th-tile Q	0.8	2.3	0.5	0.1	0.2	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	228	37	33	157	199	27	378	65	272	302	22
Future Volume (veh/h)	30	228	37	33	157	199	27	378	65	272	302	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	33	248	32	36	171	173	29	411	57	296	328	20
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
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	59	301	39	63	350	297	54	477	66	347	805	49
Arrive On Green	0.03	0.19	0.19	0.04	0.19	0.19	0.03	0.31	0.31	0.20	0.48	0.48
Sat Flow, veh/h	1725	1572	203	1725	1811	1535	1725	1556	216	1725	1690	103
Grp Volume(v), veh/h	33	0	280	36	171	173	29	0	468	296	0	348
Grp Sat Flow(s),veh/h/ln	1725	0	1775	1725	1811	1535	1725	0	1772	1725	0	1793
Q Serve(g_s), s	1.3	0.0	10.2	1.4	5.7	6.9	1.1	0.0	16.7	11.1	0.0	8.5
Cycle Q Clear(g_c), s	1.3	0.0	10.2	1.4	5.7	6.9	1.1	0.0	16.7	11.1	0.0	8.5
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.12	1.00		0.06
Lane Grp Cap(c), veh/h	59	0	339	63	350	297	54	0	543	347	0	854
V/C Ratio(X)	0.56	0.00	0.82	0.57	0.49	0.58	0.54	0.00	0.86	0.85	0.00	0.41
Avail Cap(c_a), veh/h	154	0	478	154	488	413	154	0	767	488	0	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.0	0.0	26.1	31.9	24.1	24.6	32.1	0.0	22.0	25.9	0.0	11.4
Incr Delay (d2), s/veh	8.0	0.0	8.0	8.0	1.1	1.8	8.2	0.0	7.2	10.1	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.5	0.7	2.2	2.3	0.5	0.0	6.9	5.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.0	0.0	34.1	39.9	25.2	26.4	40.3	0.0	29.1	36.0	0.0	11.7
LnGrp LOS	D		C	D	C	C	D		C	D		B
Approach Vol, veh/h		313			380			497			644	
Approach Delay, s/veh		34.7			27.2			29.8			22.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	25.5	6.4	17.8	6.1	36.9	6.3	17.9
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	19.0	29.1	6.0	18.1	6.0	42.1	6.0	18.1
Max Q Clear Time (g_c+I1), s	13.1	18.7	3.4	12.2	3.1	10.5	3.3	8.9
Green Ext Time (p_c), s	0.4	1.9	0.0	0.7	0.0	1.9	0.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	27.7
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	288	36	171	216	29	482	296	352
v/c Ratio	0.25	0.78	0.27	0.46	0.44	0.22	0.85	0.79	0.36
Control Delay (s/veh)	44.3	47.2	44.8	34.7	7.9	43.7	41.6	48.4	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.3	47.2	44.8	34.7	7.9	43.7	41.6	48.4	13.5
Queue Length 50th (ft)	18	153	20	87	0	16	248	162	96
Queue Length 95th (ft)	48	#284	50	149	57	44	#419	#297	196
Internal Link Dist (ft)		2572		5227			2032		2578
Turn Bay Length (ft)									
Base Capacity (vph)	137	432	137	435	534	137	690	434	1049
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.67	0.26	0.39	0.40	0.21	0.70	0.68	0.34

Intersection Summary

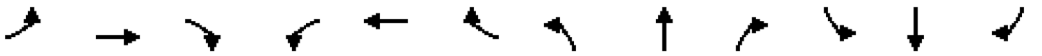
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	19.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	142	440	4	14	272	58	6	37	30	36	23	84
Future Vol, veh/h	142	440	4	14	272	58	6	37	30	36	23	84
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	154	478	4	15	296	63	7	40	33	39	25	91
Number of Lanes	1	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	2
HCM Control Delay, s/veh	13.3	19.4	11.8	11.2
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	8%	100%	0%	4%	61%	0%
Vol Thru, %	51%	0%	99%	79%	39%	0%
Vol Right, %	41%	0%	1%	17%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	142	444	344	59	84
LT Vol	6	142	0	14	36	0
Through Vol	37	0	440	272	23	0
RT Vol	30	0	4	58	0	84
Lane Flow Rate	79	154	483	374	64	91
Geometry Grp	4b	5	5	4b	5	5
Degree of Util (X)	0.161	0.274	0.788	0.636	0.137	0.168
Departure Headway (Hd)	7.325	6.389	5.876	6.128	7.663	6.633
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	486	562	613	587	466	538
Service Time	5.415	4.142	3.629	4.186	5.44	4.409
HCM Lane V/C Ratio	0.163	0.274	0.788	0.637	0.137	0.169
HCM Control Delay, s/veh	11.8	11.6	27.1	19.4	11.7	10.8
HCM Lane LOS	B	B	D	C	B	B
HCM 95th-tile Q	0.6	1.1	7.6	4.5	0.5	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	317	71	31	266	173	71	244	50	169	216	28
Future Volume (veh/h)	59	317	71	31	266	173	71	244	50	169	216	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	64	345	62	34	289	150	77	265	43	184	235	23
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	107	451	382	68	409	347	120	371	314	236	492	417
Arrive On Green	0.06	0.24	0.24	0.04	0.22	0.22	0.07	0.20	0.20	0.13	0.27	0.27
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	64	345	62	34	289	150	77	265	43	184	235	23
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.6	8.0	1.4	0.9	6.6	3.8	2.0	6.2	1.0	4.6	4.9	0.5
Cycle Q Clear(g_c), s	1.6	8.0	1.4	0.9	6.6	3.8	2.0	6.2	1.0	4.6	4.9	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	451	382	68	409	347	120	371	314	236	492	417
V/C Ratio(X)	0.60	0.77	0.16	0.50	0.71	0.43	0.64	0.71	0.14	0.78	0.48	0.06
Avail Cap(c_a), veh/h	226	724	613	226	724	613	283	736	624	383	840	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	16.3	13.8	21.8	16.6	15.5	21.0	17.2	15.2	19.3	14.3	12.6
Incr Delay (d2), s/veh	5.2	2.7	0.2	5.7	2.2	0.9	5.6	2.6	0.2	5.6	0.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.8	0.4	0.4	2.4	1.1	0.9	2.4	0.3	2.0	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.4	19.0	14.0	27.4	18.9	16.4	26.5	19.8	15.4	24.9	15.0	12.7
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		471			473			385			442	
Approach Delay, s/veh		19.3			18.7			20.7			19.0	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	14.1	5.8	16.1	7.1	17.1	6.8	15.1
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	10.0	18.3	5.9	18.0	7.4	20.9	5.9	18.0
Max Q Clear Time (g_c+I1), s	6.6	8.2	2.9	10.0	4.0	6.9	3.6	8.6
Green Ext Time (p_c), s	0.1	1.1	0.0	1.2	0.0	1.0	0.0	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	19.4
HCM 7th LOS	B

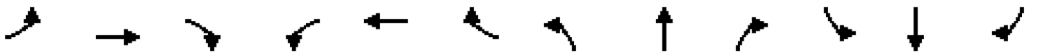
Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	345	77	34	289	188	77	265	54	184	235	30
v/c Ratio	0.34	0.65	0.14	0.18	0.62	0.35	0.36	0.62	0.11	0.62	0.34	0.04
Control Delay (s/veh)	34.2	27.3	0.7	31.3	27.4	5.9	32.5	28.3	0.5	37.8	19.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.2	27.3	0.7	31.3	27.4	5.9	32.5	28.3	0.5	37.8	19.2	0.1
Queue Length 50th (ft)	23	94	0	12	99	0	28	92	0	67	75	0
Queue Length 95th (ft)	62	#248	3	40	185	44	71	168	0	#170	140	0
Internal Link Dist (ft)		2565			2492			2582			2590	
Turn Bay Length (ft)				155			100			150		150
Base Capacity (vph)	190	652	654	190	612	646	239	622	631	323	738	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.53	0.12	0.18	0.47	0.29	0.32	0.43	0.09	0.57	0.32	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

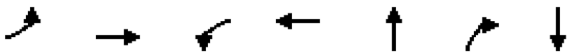


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	308	26	17	341	35	15	53	20	15	38	52
Future Volume (veh/h)	48	308	26	17	341	35	15	53	20	15	38	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	52	331	28	18	367	38	16	57	22	16	41	56
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	103	598	51	41	528	55	181	255	260	159	114	135
Arrive On Green	0.06	0.35	0.35	0.02	0.32	0.32	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1767	1687	143	1767	1654	171	218	1541	1572	141	691	817
Grp Volume(v), veh/h	52	0	359	18	0	405	73	0	22	113	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1830	1767	0	1825	1759	0	1572	1650	0	0
Q Serve(g_s), s	0.9	0.0	4.8	0.3	0.0	5.9	0.0	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	4.8	0.3	0.0	5.9	1.0	0.0	0.4	1.8	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.09	0.22		1.00	0.14		0.50
Lane Grp Cap(c), veh/h	103	0	649	41	0	583	436	0	260	409	0	0
V/C Ratio(X)	0.50	0.00	0.55	0.44	0.00	0.69	0.17	0.00	0.08	0.28	0.00	0.00
Avail Cap(c_a), veh/h	351	0	1314	351	0	1310	1192	0	963	1131	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.8	0.0	7.8	14.6	0.0	9.0	11.0	0.0	10.7	11.3	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.7	7.2	0.0	1.5	0.2	0.0	0.1	0.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.9	0.2	0.0	1.2	0.3	0.0	0.1	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.5	0.0	8.6	21.8	0.0	10.5	11.1	0.0	10.8	11.6	0.0	0.0
LnGrp LOS	B		A	C		B	B		B	B		
Approach Vol, veh/h		411			423			95			113	
Approach Delay, s/veh		9.7			11.0			11.1			11.6	
Approach LOS		A			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.9	4.7	15.6		9.9	5.8	14.6				
Change Period (Y+Rc), s		4.9	4.0	4.9		4.9	4.0	4.9				
Max Green Setting (Gmax), s		18.5	6.0	21.7		18.5	6.0	21.7				
Max Q Clear Time (g_c+I1), s		3.0	2.3	6.8		3.8	2.9	7.9				
Green Ext Time (p_c), s		0.3	0.0	1.6		0.4	0.0	1.8				

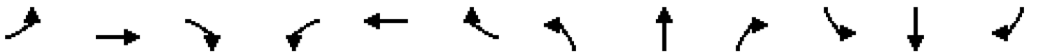
Intersection Summary	
HCM 7th Control Delay, s/veh	10.6
HCM 7th LOS	B

Queues



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	52	359	18	405	73	22	113
v/c Ratio	0.16	0.45	0.06	0.57	0.20	0.05	0.28
Control Delay (s/veh)	18.7	9.4	18.5	12.8	16.2	0.3	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.7	9.4	18.5	12.8	16.2	0.3	11.4
Queue Length 50th (ft)	7	33	2	39	9	0	7
Queue Length 95th (ft)	41	132	20	152	47	0	49
Internal Link Dist (ft)		2492		991	1889		750
Turn Bay Length (ft)	155		155				
Base Capacity (vph)	331	1287	331	1247	973	959	970
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.28	0.05	0.32	0.08	0.02	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	132	6	17	100	167	7	390	20	132	305	16
Future Volume (veh/h)	38	132	6	17	100	167	7	390	20	132	305	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	41	143	7	18	109	146	8	424	17	143	332	13
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
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	77	293	14	39	270	229	18	528	21	182	692	27
Arrive On Green	0.04	0.17	0.17	0.02	0.15	0.15	0.01	0.31	0.31	0.11	0.40	0.40
Sat Flow, veh/h	1725	1712	84	1725	1811	1535	1725	1729	69	1725	1731	68
Grp Volume(v), veh/h	41	0	150	18	109	146	8	0	441	143	0	345
Grp Sat Flow(s),veh/h/ln	1725	0	1796	1725	1811	1535	1725	0	1799	1725	0	1799
Q Serve(g_s), s	1.0	0.0	3.4	0.5	2.5	4.0	0.2	0.0	10.2	3.6	0.0	6.4
Cycle Q Clear(g_c), s	1.0	0.0	3.4	0.5	2.5	4.0	0.2	0.0	10.2	3.6	0.0	6.4
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.04	1.00		0.04
Lane Grp Cap(c), veh/h	77	0	308	39	270	229	18	0	549	182	0	720
V/C Ratio(X)	0.53	0.00	0.49	0.47	0.40	0.64	0.44	0.00	0.80	0.79	0.00	0.48
Avail Cap(c_a), veh/h	226	0	719	226	725	614	226	0	844	276	0	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	16.9	21.7	17.3	18.0	22.1	0.0	14.4	19.6	0.0	10.0
Incr Delay (d2), s/veh	5.6	0.0	1.2	8.5	1.0	2.9	15.7	0.0	3.2	8.3	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.2	0.2	0.9	1.3	0.1	0.0	3.4	1.6	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.7	0.0	18.0	30.2	18.3	20.9	37.8	0.0	17.6	27.9	0.0	10.5
LnGrp LOS	C		B	C	B	C	D		B	C		B
Approach Vol, veh/h		191			273			449			488	
Approach Delay, s/veh		19.9			20.5			18.0			15.6	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	18.6	5.0	12.6	4.5	22.9	6.0	11.6
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	7.2	21.1	5.9	18.0	5.9	22.4	5.9	18.0
Max Q Clear Time (g_c+I1), s	5.6	12.2	2.5	5.4	2.2	8.4	3.0	6.0
Green Ext Time (p_c), s	0.0	1.6	0.0	0.5	0.0	1.5	0.0	0.7

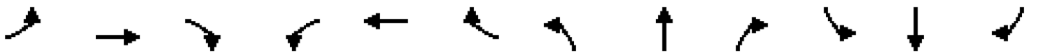
Intersection Summary	
HCM 7th Control Delay, s/veh	17.9
HCM 7th LOS	B



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	150	18	109	182	8	446	143	349
v/c Ratio	0.21	0.39	0.09	0.33	0.43	0.04	0.73	0.59	0.37
Control Delay (s/veh)	28.8	22.0	27.5	24.0	7.8	27.0	25.8	39.0	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.8	22.0	27.5	24.0	7.8	27.0	25.8	39.0	11.8
Queue Length 50th (ft)	12	40	5	29	0	2	100	42	40
Queue Length 95th (ft)	43	100	25	77	45	15	#305	#145	193
Internal Link Dist (ft)		3274		3339			2536		2501
Turn Bay Length (ft)									
Base Capacity (vph)	198	647	198	636	659	198	743	242	949
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.23	0.09	0.17	0.28	0.04	0.60	0.59	0.37

Intersection Summary

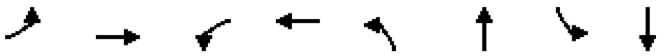
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	270	30	11	264	174	20	295	20	165	223	15
Future Volume (veh/h)	32	270	30	11	264	174	20	295	20	165	223	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	34	284	26	12	278	146	21	311	16	174	235	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	64	514	47	26	327	172	43	391	20	219	560	33
Arrive On Green	0.04	0.31	0.31	0.02	0.29	0.29	0.02	0.23	0.23	0.13	0.33	0.33
Sat Flow, veh/h	1739	1648	151	1739	1127	592	1739	1721	89	1739	1706	102
Grp Volume(v), veh/h	34	0	310	12	0	424	21	0	327	174	0	249
Grp Sat Flow(s),veh/h/ln	1739	0	1799	1739	0	1719	1739	0	1810	1739	0	1808
Q Serve(g_s), s	1.1	0.0	8.0	0.4	0.0	12.9	0.7	0.0	9.5	5.4	0.0	6.0
Cycle Q Clear(g_c), s	1.1	0.0	8.0	0.4	0.0	12.9	0.7	0.0	9.5	5.4	0.0	6.0
Prop In Lane	1.00		0.08	1.00		0.34	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	64	0	561	26	0	499	43	0	411	219	0	593
V/C Ratio(X)	0.53	0.00	0.55	0.45	0.00	0.85	0.48	0.00	0.80	0.79	0.00	0.42
Avail Cap(c_a), veh/h	185	0	683	185	0	652	185	0	658	313	0	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	15.9	27.1	0.0	18.6	26.8	0.0	20.3	23.6	0.0	14.6
Incr Delay (d2), s/veh	6.7	0.0	0.9	11.7	0.0	8.2	8.2	0.0	3.6	8.8	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.7	0.2	0.0	5.2	0.3	0.0	3.8	2.5	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.0	0.0	16.8	38.8	0.0	26.8	34.9	0.0	23.8	32.4	0.0	15.0
LnGrp LOS	C		B	D		C	C		C	C		B
Approach Vol, veh/h		344			436			348			423	
Approach Delay, s/veh		18.4			27.1			24.5			22.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	17.5	4.8	22.2	5.4	23.1	6.0	21.0
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	10.0	20.2	5.9	21.1	5.9	24.3	5.9	21.1
Max Q Clear Time (g_c+I1), s	7.4	11.5	2.4	10.0	2.7	8.0	3.1	14.9
Green Ext Time (p_c), s	0.1	1.1	0.0	1.2	0.0	1.1	0.0	1.2

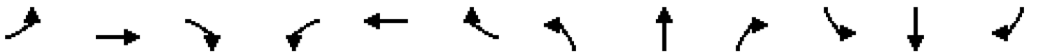
Intersection Summary	
HCM 7th Control Delay, s/veh	23.2
HCM 7th LOS	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	34	316	12	461	21	332	174	251
v/c Ratio	0.21	0.52	0.07	0.82	0.13	0.73	0.65	0.33
Control Delay (s/veh)	34.1	21.3	32.3	34.8	33.0	33.1	42.3	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.1	21.3	32.3	34.8	33.0	33.1	42.3	16.8
Queue Length 50th (ft)	12	88	4	133	7	109	61	50
Queue Length 95th (ft)	42	207	21	#362	30	#224	#175	152
Internal Link Dist (ft)		2575		1275		2857		2524
Turn Bay Length (ft)								
Base Capacity (vph)	166	671	166	619	166	598	283	775
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.47	0.07	0.74	0.13	0.56	0.61	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

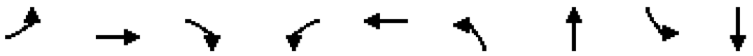


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	168	131	24	163	39	183	536	16	61	480	53
Future Volume (veh/h)	76	168	131	24	163	39	183	536	16	61	480	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	78	171	107	24	166	32	187	547	14	62	490	43
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	121	375	317	50	245	47	238	1056	27	105	738	65
Arrive On Green	0.07	0.21	0.21	0.03	0.16	0.16	0.14	0.31	0.31	0.06	0.23	0.23
Sat Flow, veh/h	1739	1826	1547	1739	1488	287	1739	3456	88	1739	3227	282
Grp Volume(v), veh/h	78	171	107	24	0	198	187	274	287	62	263	270
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	0	1774	1739	1735	1810	1739	1735	1775
Q Serve(g_s), s	1.9	3.7	2.6	0.6	0.0	4.7	4.6	5.8	5.8	1.5	6.1	6.2
Cycle Q Clear(g_c), s	1.9	3.7	2.6	0.6	0.0	4.7	4.6	5.8	5.8	1.5	6.1	6.2
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.05	1.00		0.16
Lane Grp Cap(c), veh/h	121	375	317	50	0	292	238	530	553	105	397	406
V/C Ratio(X)	0.65	0.46	0.34	0.48	0.00	0.68	0.78	0.52	0.52	0.59	0.66	0.67
Avail Cap(c_a), veh/h	231	739	626	231	0	718	391	835	871	270	714	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	15.5	15.1	21.3	0.0	17.5	18.5	12.7	12.7	20.4	15.6	15.6
Incr Delay (d2), s/veh	5.6	0.9	0.6	6.9	0.0	2.8	5.6	0.8	0.8	5.3	1.9	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	0.7	0.3	0.0	1.7	1.8	1.7	1.7	0.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.8	16.4	15.7	28.2	0.0	20.2	24.2	13.5	13.5	25.6	17.5	17.5
LnGrp LOS	C	B	B	C		C	C	B	B	C	B	B
Approach Vol, veh/h		356			222			748			595	
Approach Delay, s/veh		18.2			21.1			16.2			18.3	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	18.5	5.3	14.0	10.1	15.1	7.1	12.2
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	6.9	21.4	5.9	18.0	10.0	18.3	5.9	18.0
Max Q Clear Time (g_c+I1), s	3.5	7.8	2.6	5.7	6.6	8.2	3.9	6.7
Green Ext Time (p_c), s	0.0	2.4	0.0	0.9	0.1	2.0	0.0	0.7

Intersection Summary	
HCM 7th Control Delay, s/veh	17.8
HCM 7th LOS	B

Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	78	171	134	24	206	187	563	62	544
v/c Ratio	0.43	0.35	0.25	0.13	0.55	0.64	0.42	0.31	0.64
Control Delay (s/veh)	37.1	21.2	4.7	30.0	26.4	38.7	17.2	31.8	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.1	21.2	4.7	30.0	26.4	38.7	17.2	31.8	23.9
Queue Length 50th (ft)	27	42	0	8	62	64	88	21	90
Queue Length 95th (ft)	#84	112	31	31	126	#175	150	60	153
Internal Link Dist (ft)		1253			1747		2419		2181
Turn Bay Length (ft)						195		205	
Base Capacity (vph)	185	626	633	185	588	313	1401	216	1142
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.27	0.21	0.13	0.35	0.60	0.40	0.29	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.