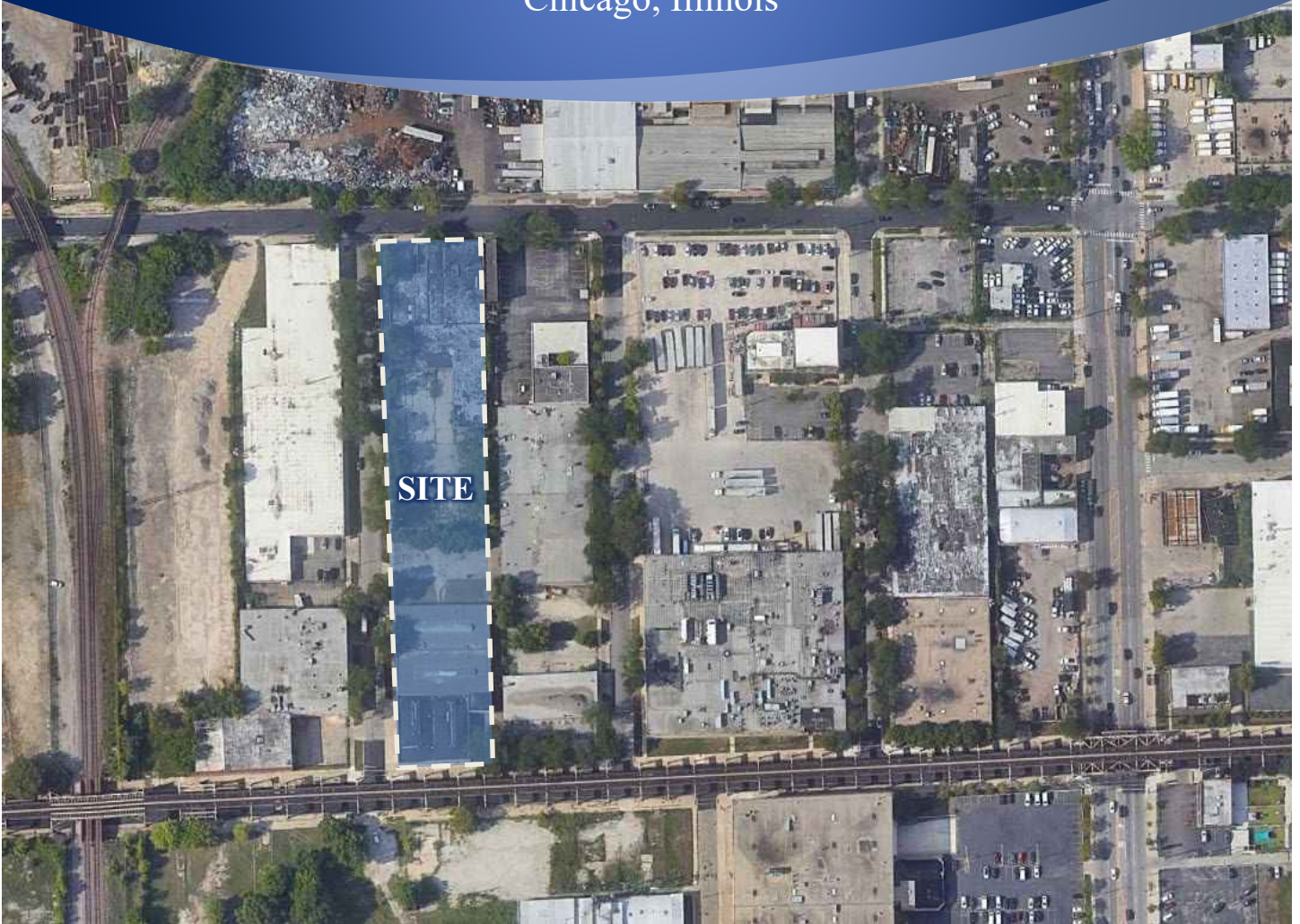


Traffic Impact Study 2519 W. Fulton Street

Chicago, Illinois



Prepared For:

RANGE
GROUP



March 26, 2025

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I. Executive Summary

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed multi-tenant industrial building to be located at 2519 W. Fulton Street in Chicago, Illinois. The objectives of the traffic study are as follows:

- Determine the existing vehicular, pedestrian, bicycle, and public transportation conditions in the study area to establish a base condition.
- Assess the impact that the proposed development will have on transportation conditions in the area.
- Determine any street, access, bicycle, and pedestrian modifications and/or improvements that will be necessary to effectively accommodate and mitigate future conditions.

Vehicle, pedestrian, and bicycle counts were conducted during the weekday morning and weekday evening peak periods at the intersections of Fulton Street with California Avenue, Maplewood Avenue, and Western Avenue and Lake Street with California Avenue, Maplewood Avenue, and Western Avenue in order to determine the general peak hour of traffic activity during these time periods.

As proposed, the site will be developed with two industrial buildings totaling approximately 68,802 square-feet. Each building will have three truck loading bays (one interior, two exterior). Employee parking will be accommodated within three surface parking lots totaling 63 spaces and six bike spaces. Access to the loading bays and parking lots will be provided via Maplewood Avenue.

Based on the preceding analyses and recommendations, the following conclusions have been made:

- Area intersections have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic control modifications are required.
- The proposed access system will be adequate in accommodating the traffic estimated to be generated by the development.
- The provision of multiple parking lots and multiple loading bays is necessary as the buildings will have multiple tenants.

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed multi-tenant industrial building to be located at 2519 W. Fulton Street in Chicago, Illinois. The site, which currently contains multiple small industrial buildings, is located on the east side of Maplewood Avenue between Fulton Street and Lake Street. As proposed, the site will be developed with two industrial buildings totaling approximately 68,802 square-feet. Each building will have three truck loading bays (one interior, two exterior). Employee parking will be accommodated within three surface parking lots totaling 63 spaces and six bike spaces. Access to the loading bays and parking lots will be provided via Maplewood Avenue.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any street or access improvements are necessary to accommodate the traffic generated by the proposed development.

Figure 1 shows the location of the site in relation to the area street system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing street conditions
- A description of the development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent street system

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Traffic Volumes – Analyze the capacity of the existing street system based on existing peak hour traffic volumes in the surrounding area.
2. Year 2030 No-Build Conditions – Analyze the capacity of the existing street system using the no-build traffic volumes that include the existing traffic volumes, ambient traffic growth, and the traffic estimated to be generated by other area developments.
3. Year 2030 Projected Conditions – Analyze the capacity of the future street system using the projected traffic volumes that include the no-build traffic volumes and the traffic estimated to be generated by the proposed development.



Site Location

Figure 1

2519 W. Fulton Street
Chicago, Illinois



Aerial View of Site
2519 W. Fulton Street
Chicago, Illinois

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area street system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

The site, which currently contains multiple small industrial buildings, is bounded by Fulton Street to the north, Lake Street to the south, Maplewood Avenue to the west, and industrial uses to the east. Land uses in the area are a mixture of residential and other industrial, manufacturing, and warehouse/distribution facilities.

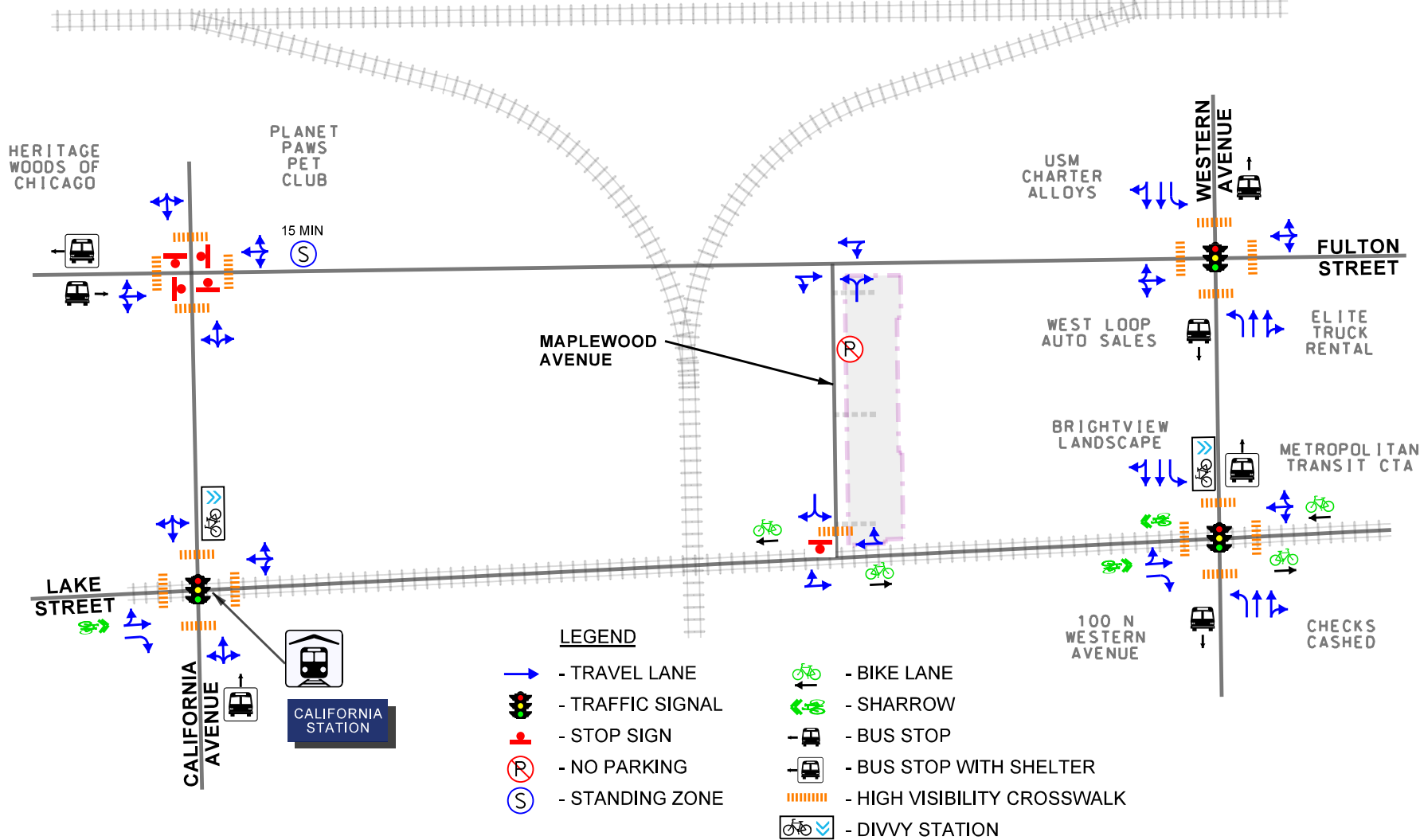
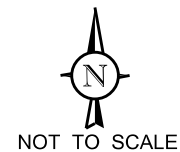
Existing Street System Characteristics

The characteristics of the existing streets near the site are described below and illustrated in **Figure 3**. All streets are under the jurisdiction of the Chicago Department of Transportation (CDOT) unless otherwise noted.

Maplewood Avenue is a north-south local street that provides one lane in each direction. At its unsignalized intersections with Fulton Street and Lake Street, Maplewood Avenue provides a shared left-turn lane/right-turn lane and is under stop sign control. In addition, crosswalks are provided on the Maplewood Avenue approaches at these intersections. Parking is generally permitted on both sides of the street.

Fulton Street is an east-west street that provides one lane in each direction and is designated as a major collector west of California Avenue. At its signalized intersection with Western Avenue, Fulton Street provides a shared left-turn/through/right-turn lane on both approaches and high-visibility crosswalks are provided on all approaches. At its all-way stop controlled intersection with California Avenue, Fulton Street provides a shared left-turn/through/right-turn lane on both approaches and high-visibility crosswalks are provided on all approaches. At its unsignalized intersection with Maplewood Avenue, Fulton Street provides a shared left-turn/through/right-turn lane on both approaches. Parking is generally permitted on both sides of the street. Fulton Street carries an AADT volume of 2,600 to 5,400 vehicles (IDOT 2022).

Lake Street is an east-west major collector that provides one travel lane in each direction, a barrier-protected bike lane along both curbs, and runs beneath the CTA Green Line. At its signalized intersection with California Avenue, Lake Street provides a shared left-turn/through/right-turn lane on both approaches and high-visibility crosswalks are provided on all approaches.



2519 W Fulton Street
Chicago, Illinois

Existing Roadway Characteristics



Job No: 24-238

Figure: 3

At its signalized intersection with Western Avenue, Lake Street provides a shared through/left-turn lane and an exclusive right-turn lane on the eastbound approach, a shared left-turn/through/right-turn lane on the westbound approach, and high-visibility crosswalks are provided on all approaches. At its unsignalized intersection with Maplewood Avenue, Lake Street provides one lane in each direction. Parking is generally permitted on both sides of the street. Lake Street carries an AADT volume of 10,450 vehicles (IDOT 2018).

Western Avenue is a north-south principal arterial that generally provides two lanes in each direction. At its signalized intersections with Fulton Street and Lake Street, Western Avenue provides an exclusive left-turn lane, a through lane, and shared through/right-turn lane on both approaches. In addition, high-visibility crosswalks with pedestrian signals are provided on all four legs of these intersections. Parking is generally permitted on both sides of the street. Western Avenue is under the jurisdiction of the Cook County Department of Transportation and Highways, (CCDOH), is designated as a Strategic Regional Arterial (SRA) route, and carries an Annual Average Daily Traffic (AADT) volume of 19,300 vehicles (IDOT 2018).

California Avenue is a north-south major collector street that provides one lane in each direction. At its signalized intersection with Lake Street, California Avenue provides a shared left-turn/through/right-turn lane on both approaches and high-visibility crosswalks with pedestrian signals are provided on all four legs of the intersections. Parking is generally permitted on both sides of the street. California Avenue carries an AADT volume of 11,300 vehicles (IDOT 2023).

Alternative Modes of Transportation

Accessibility to and from the area is enhanced by the various alternative modes of transportation serving the area as summarized below.

Public Transportation The area is served by the Chicago Transit Authority (CTA) rapid transit via the California Green Line station located approximately 1,750 feet west of the site. The CTA Green Line provides rapid transit rail service between Harlem in Forest Park, IL to 63rd Street on Chicago's South Side, through downtown via the Loop. Service is provided seven days a week and on holidays. In addition, the following bus routes serve the immediate area and have stops near the development:

- *Route 49 (Western)* runs along Western Avenue from Berwyn Street to 79th Street. It operates daily, including holidays, 24 hours a day.
- *Route 94 (California)* generally provides service along California Avenue from Belmont Avenue to 71st Street. Stops include Green Line, Pink Line, and Orange Line stations. It operates daily, including holidays, from approximately 4:00 A.M. to 11:30 P.M.

Pedestrian Facilities Sidewalks and high-visibility crosswalks are generally provided on the majority of the streets within the study area.

Bicycle Facilities Lake Street provides barrier protected bike lanes in both directions. According to the City of Chicago's *Streets for Cycling Plan 2020*, Lake Street is designated as a Spoke Route,

Existing Traffic Volumes

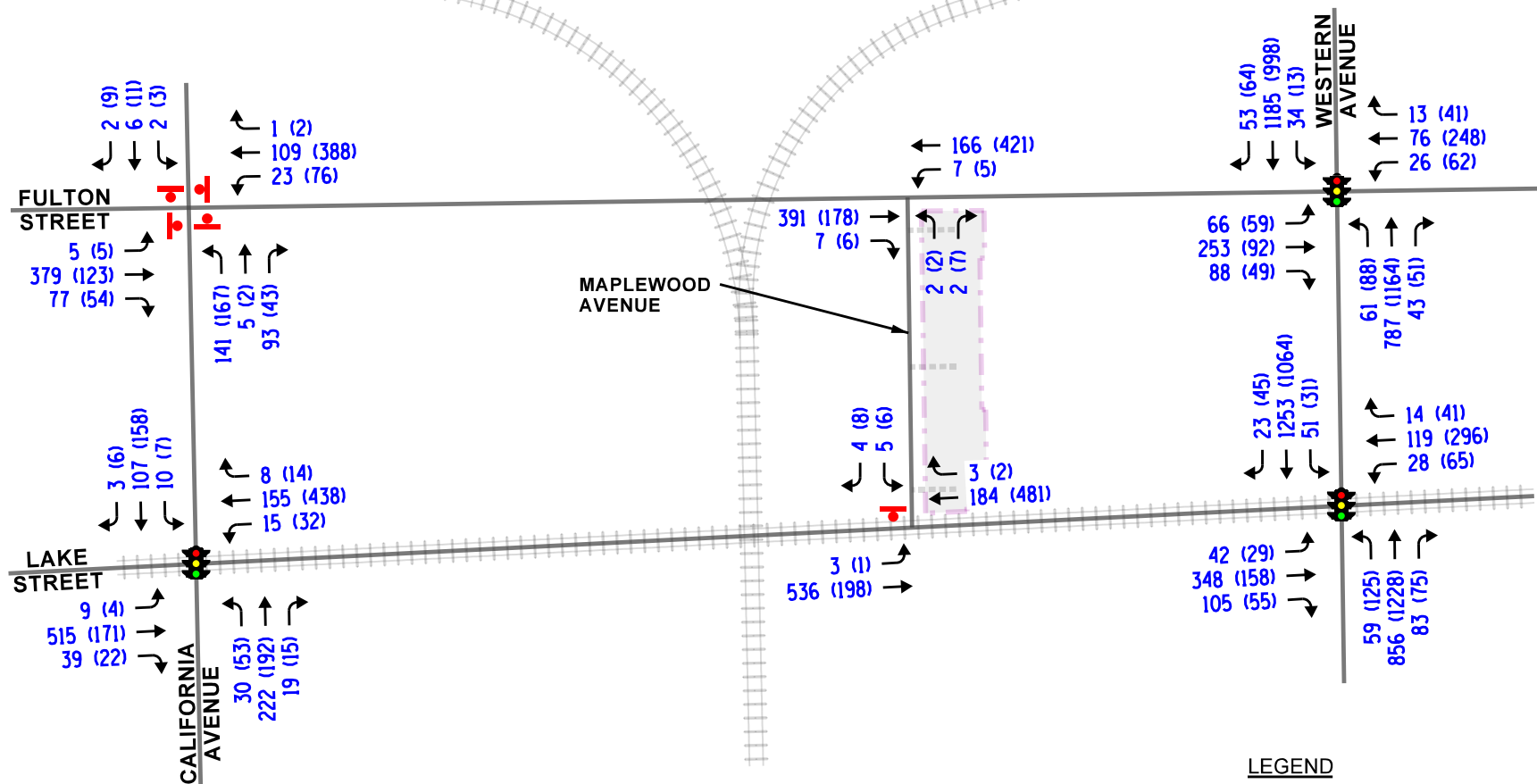
In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts using Miovision Scout Video Collection Units on Tuesday, March 7, 2023 during the weekday morning (6:00 A.M. to 9:00 A.M.) and weekday evening (3:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

- Western Avenue with Fulton Street
- Western Avenue with Lake Street
- California Avenue with Fulton Street
- California Avenue with Lake Street
- Maplewood Avenue with Fulton Street
- Maplewood Avenue with Lake Street

The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M. and the weekday evening peak hour of traffic occurs from 3:30 P.M. to 4:30 P.M. **Figure 4** illustrates the existing peak hour vehicle traffic volumes, inclusive of heavy vehicles. **Figure 5** illustrates the existing heavy vehicle peak hour traffic volumes. **Figure 6** illustrates the existing pedestrian and bicycle volumes, showing direction of travel.



NOT TO SCALE



LEGEND

00 - AM PEAK HOUR (7:30-8:30 AM)

(00) - PM PEAK HOUR (3:30-4:30 PM)

2519 W Fulton Street
Chicago, Illinois

Existing Traffic Volumes

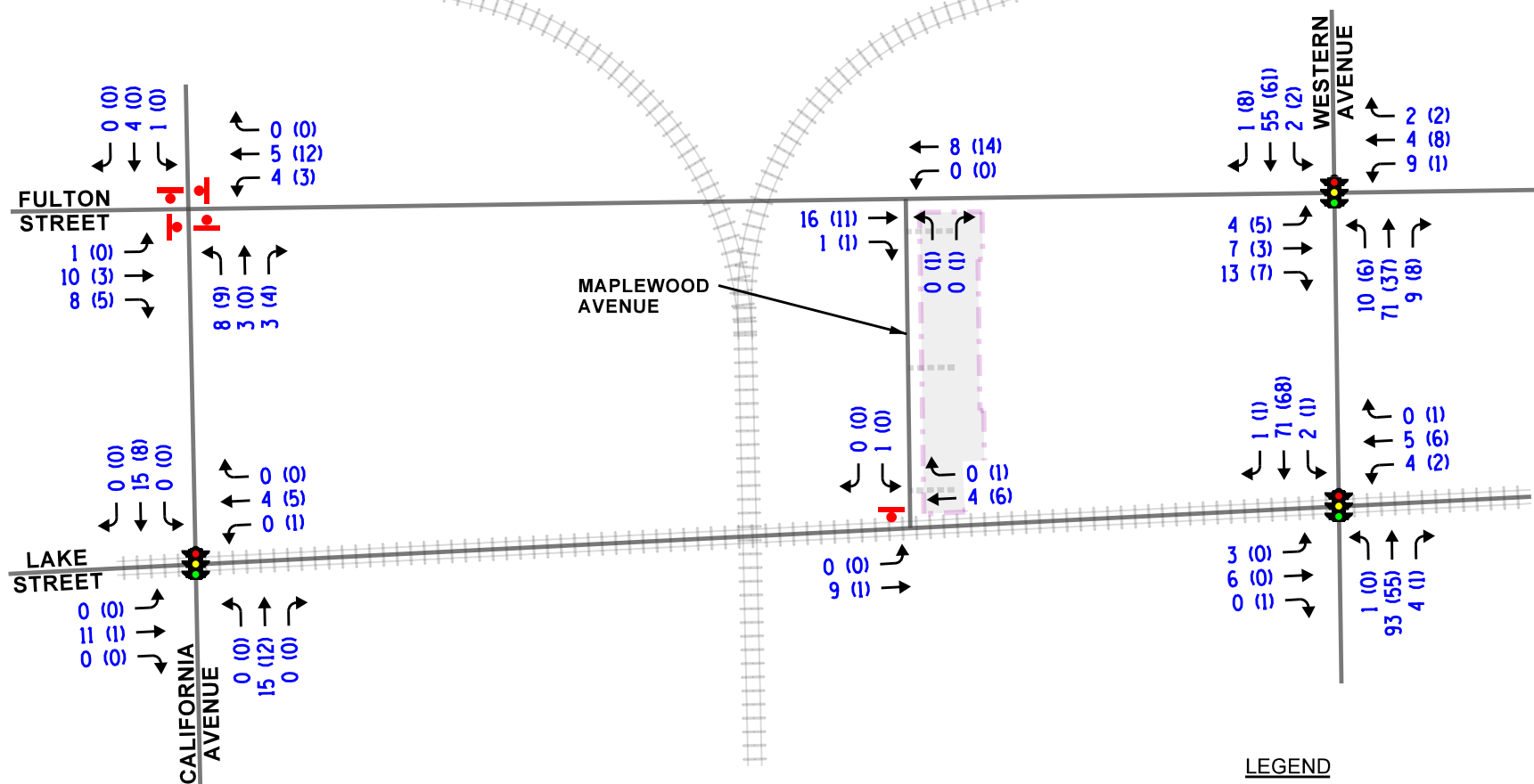


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Figure: 4



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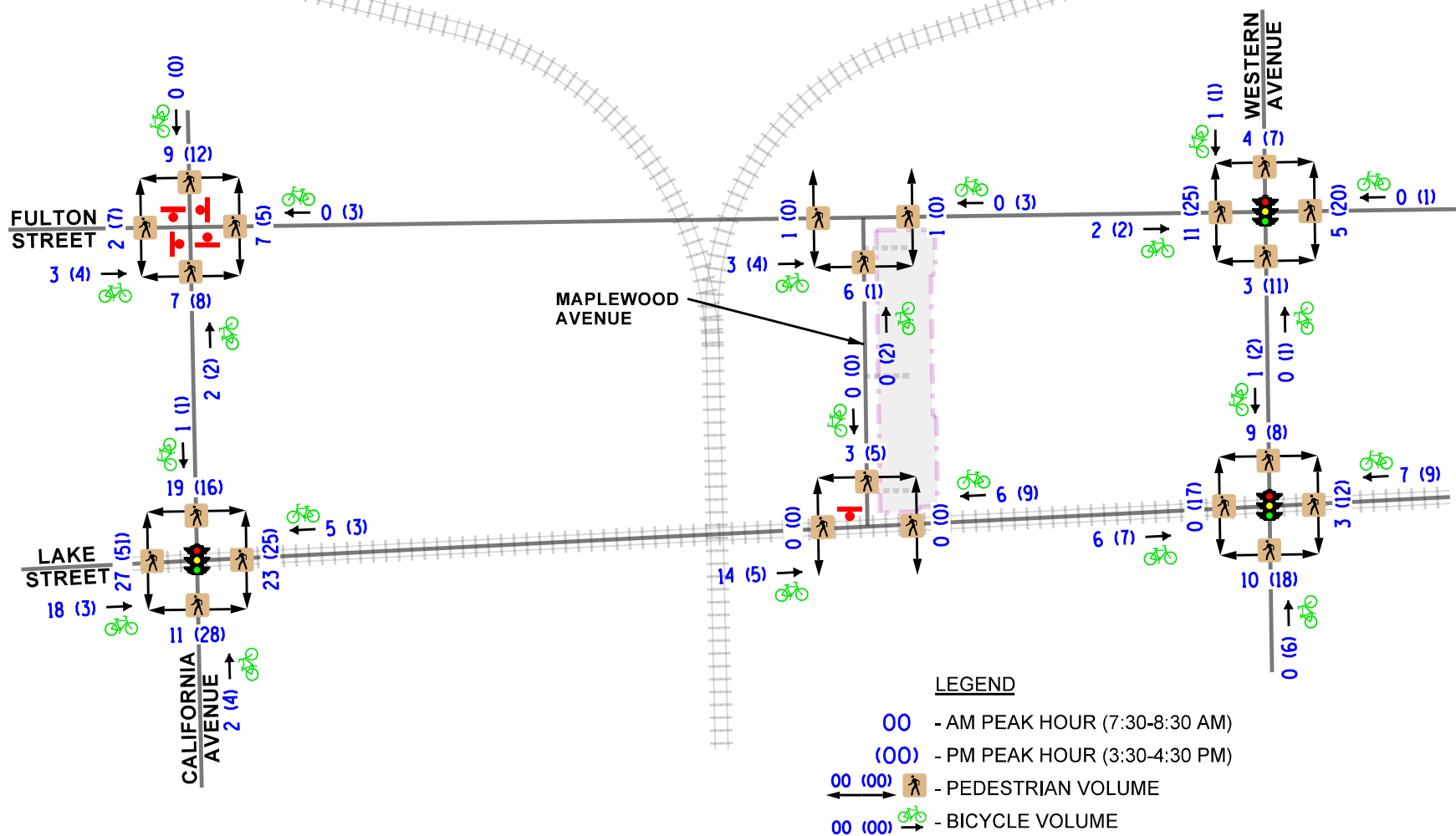
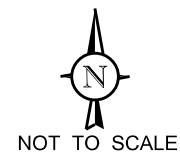
2519 W Fulton Street
Chicago, Illinois

Existing Traffic Volumes
Trucks



Job No: 24-238

Figure: 5



2519 W Fulton Street
Chicago, Illinois

Existing Pedestrian and Bicycle
Traffic Volumes



Job No: 24-238

Figure: 6

3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Development Plan

As proposed, the site will be developed with two industrial buildings totaling approximately 68,802 square-feet. Each building will have three truck loading bays (one interior, two exterior).

Employee parking will be accommodated within three surface parking lots totaling 63 spaces and six bike spaces. Employee parking will be accommodated within a proposed 29-space parking lot north of the proposed buildings, a proposed 25-space parking lot between the proposed buildings, and a nine-space parking lot south of the proposed buildings. In addition, six bike spaces will be provided throughout the site. Access to the parking lots is proposed to be provided as follows:

- A full movement access drive on the east side of Maplewood Avenue located approximately 60 feet south of Fulton Street. This access drive will provide one inbound lane and one outbound with outbound movements under stop sign control.
- A full movement access drive on the east side of Maplewood Avenue located approximately 60 feet south of Fulton Street. This access drive will provide one inbound lane and one outbound with outbound movements under stop sign control.
- A full movement access drive on the east side of Maplewood Avenue located approximately 70 feet north of Lake Street. This access drive will provide one inbound lane and one outbound with outbound movements under stop sign control.

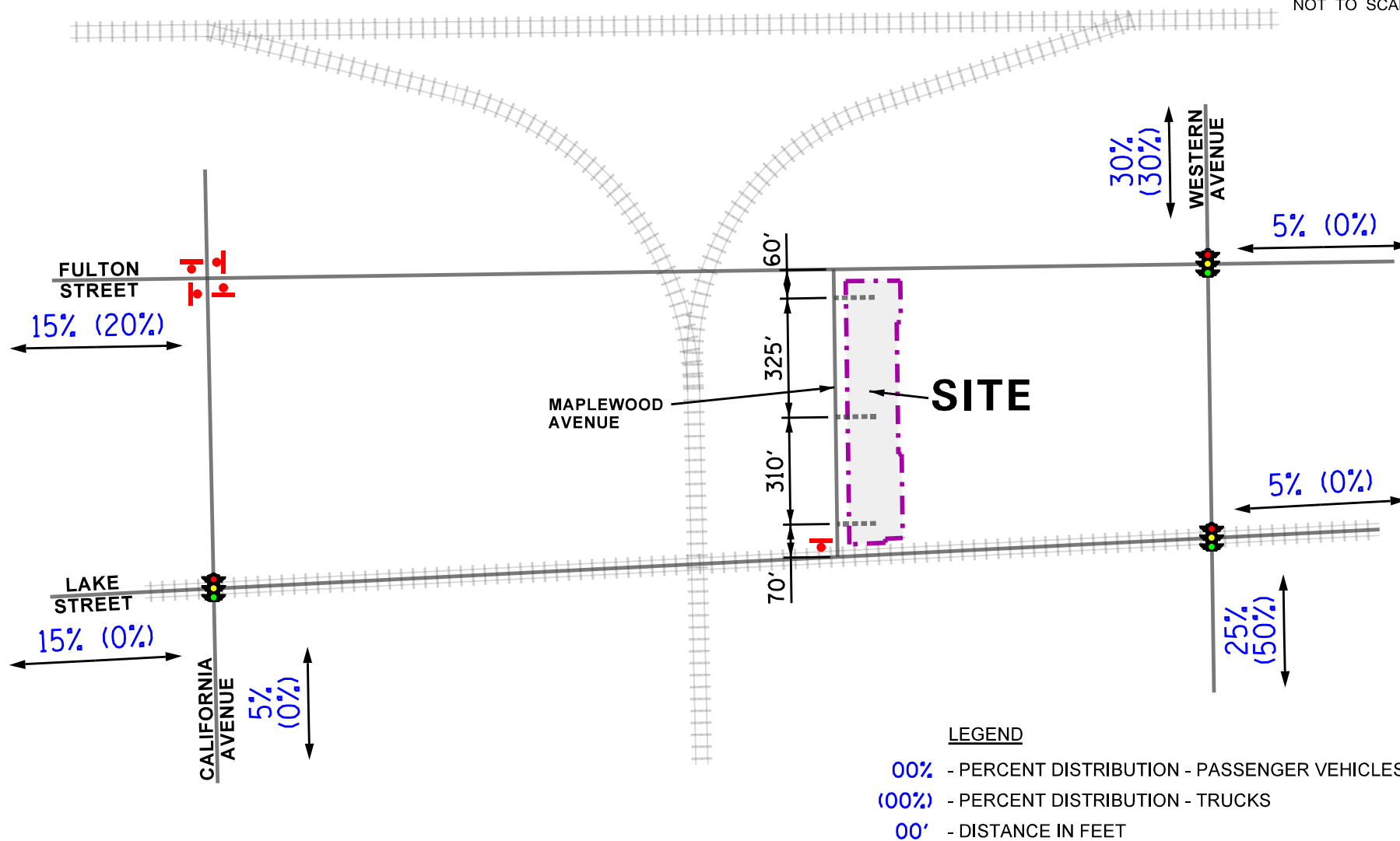
Access to the truck loading bays will be provided via individual driveways along Maplewood Avenue. A copy of the preliminary site plan is included in the appendix.

Directional Distribution

The directions from which traffic will approach and depart the site was estimated based on existing travel patterns, as determined from the traffic counts and the proposed access system of the development. **Figure 7** illustrates the directional distribution of traffic.



NOT TO SCALE



2519 W Fulton Street
Chicago, Illinois

Directional Distribution



Job No: 24-238

Figure: 7

Development-Generated Traffic Volumes

The total number of on-site employee and truck trips estimated to be generated by the proposed development was based on General Light Industrial (Land-Use Code 110) vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). Copies of the ITE trip generation rates are included in the Appendix

It should be noted that given the location of the site within an urban area and the proximity of the site to public transportation and alternative modes of transportation, the number of trips generated by warehouse employees will be reduced. However, to provide a conservative analysis, no reduction was applied.

Table 1 summarizes the trips projected to be generated by the development during the peak hours and on a daily basis. **Table 2** summarizes the trips projected to be generated by the development throughout the day.

Table 1

ESTIMATED DAILY AND PEAK HOUR SITE GENERATED TRAFFIC

ITE Land- Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
110	General Light Industrial (68,802 s.f.)	45	6	51	6	40	46	155	155	310
	<i>Trucks</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>2</i>	<i>9</i>	<i>9</i>	<i>18</i>
	<i>Passenger Vehicles</i>	<i>44</i>	<i>6</i>	<i>50</i>	<i>5</i>	<i>39</i>	<i>44</i>	<i>146</i>	<i>146</i>	<i>292</i>

Table 2
ESTIMATED 24-HOUR SITE GENERATED TRAFFIC

Hour	General Light Industrial (68,802 s.f.)								
	Trucks			Employees			Total		
	In	Out	Total	In	Out	Total	In	Out	Total
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	1	0	1	1	0	1
5:00	0	0	0	7	0	7	7	0	7
6:00	0	0	0	10	1	11	10	1	11
7:00	1	0	1	44	6	50	45	6	51
8:00	1	1	2	14	5	19	15	6	21
9:00	1	2	3	9	7	16	10	9	19
10:00	1	2	3	9	8	17	10	10	20
11:00	1	0	1	8	11	19	9	11	20
12:00	1	1	2	11	13	24	12	14	26
13:00	1	1	2	11	8	19	12	9	21
14:00	1	1	2	9	10	19	10	11	21
15:00	1	1	2	5	39	44	6	40	46
16:00	0	0	0	6	14	20	6	14	20
17:00	0	0	0	2	21	23	2	21	23
18:00	0	0	0	0	3	3	0	3	3
19:00	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	9	9	18	146	146	292	155	155	310

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed development.

Development Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the street system in accordance with the previously described directional distribution (Figure 7). **Figure 8** illustrates the traffic assignment of the new employee trips for the development. **Figure 9** illustrates the traffic assignment of the new truck trips for the development.

Ambient Traffic Growth

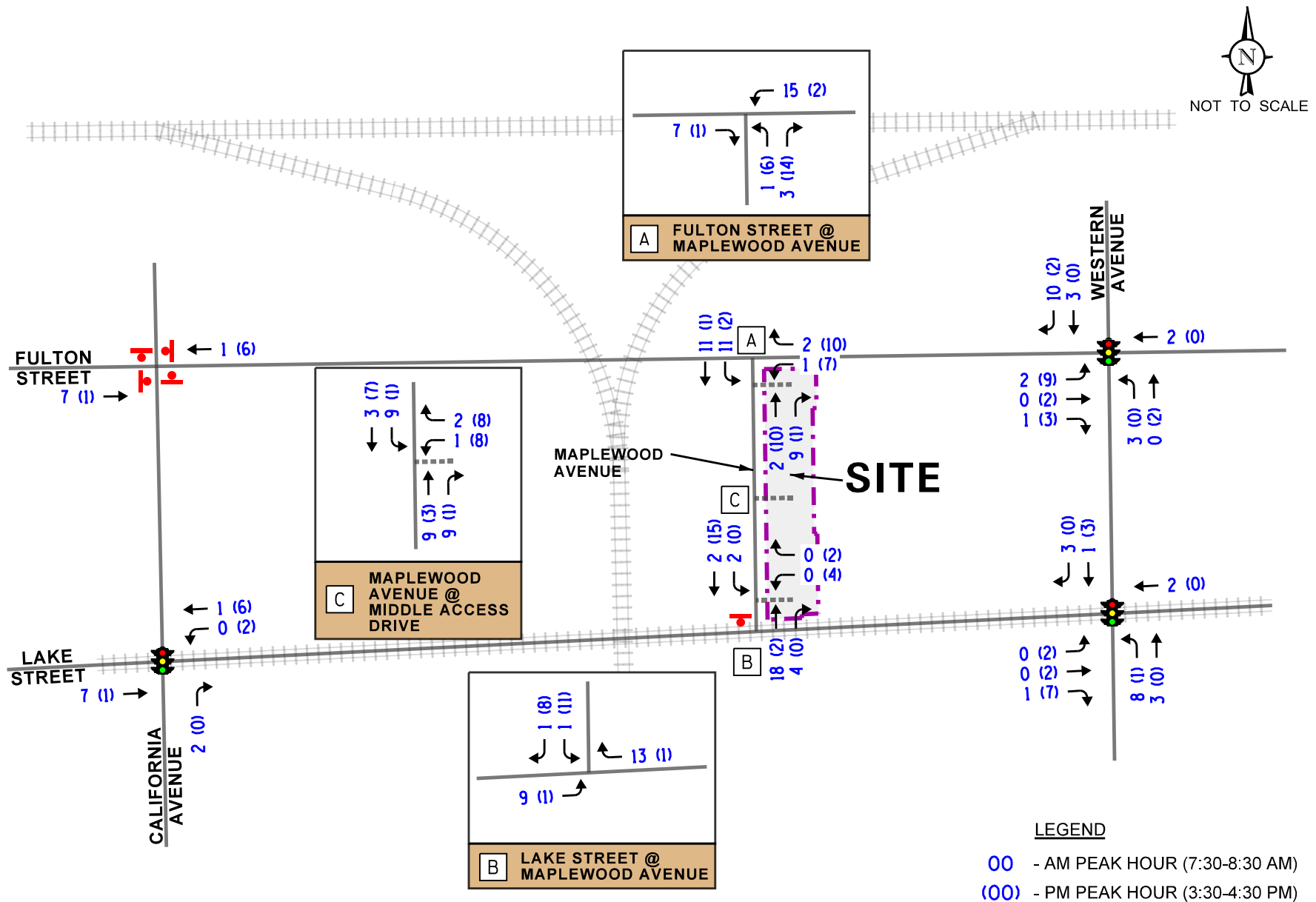
To account for any additional increase in traffic due to other factors or developments not previously discussed, an ambient growth factor of 0.5 percent per year was also applied to the study area over a six-year period to represent Year 2030 conditions. Furthermore, in order to account for the increase in population in the study area, bicycle and pedestrian volumes were increased by 10 percent at each intersection.

In addition, the traffic that is projected to be generated by the proposed 179,404 square-foot warehouse/distribution building to be located at 221. N. Washtenaw Avenue was included added to the street system.

Figure 10 illustrates the Year 2030 no build volumes which include the existing traffic volumes increased by the ambient growth factor and the traffic projected to be generated by the other area developments.

Total Projected Traffic Volumes

The Year 2030 no build traffic volumes were combined with the new peak hour traffic volumes generated by the proposed development to determine the Year 2030 total traffic volumes, shown in **Figure 11**.



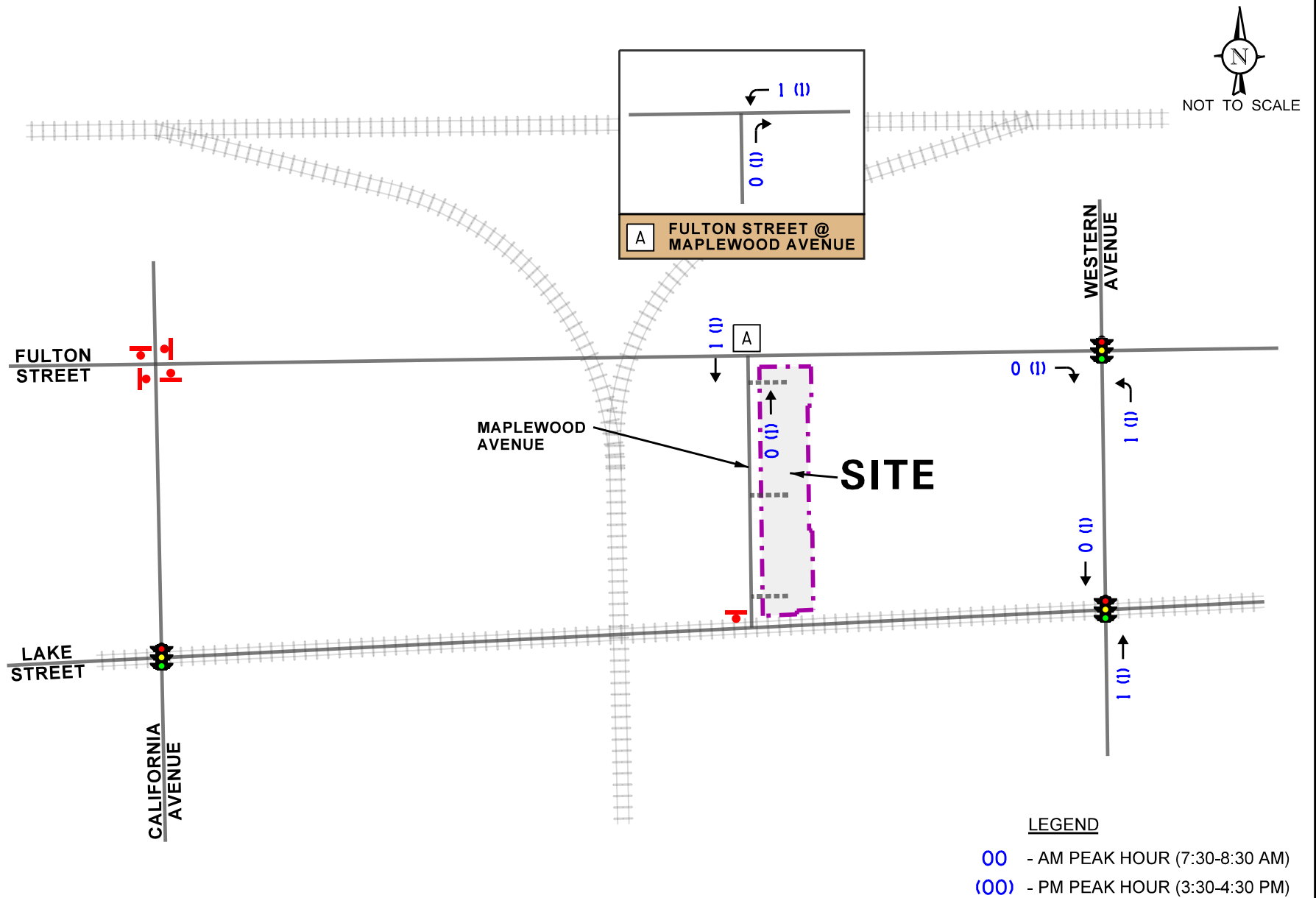
2519 W Fulton Street
Chicago, Illinois

Site-Generated Traffic Volumes
Passenger Vehicles

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

Job No: 24-238

Figure: 8



2519 W Fulton Street
Chicago, Illinois

Site-Generated Traffic Volumes
Trucks

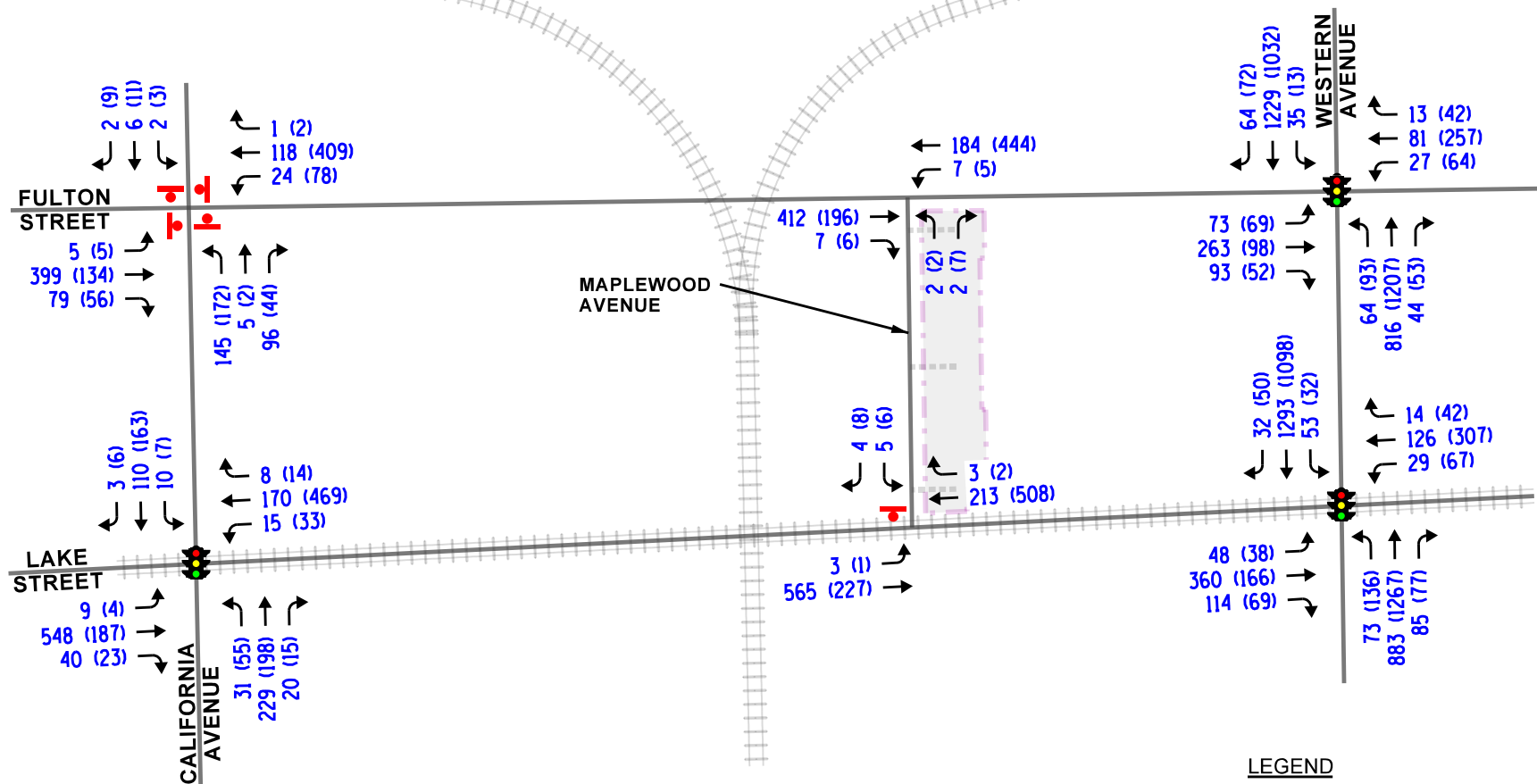


Job No: 24-238

Figure: 9



NOT TO SCALE



LEGEND

00 - AM PEAK HOUR (7:30-8:30 AM)

(00) - PM PEAK HOUR (3:30-4:30 PM)

2519 W Fulton Street
Chicago, Illinois

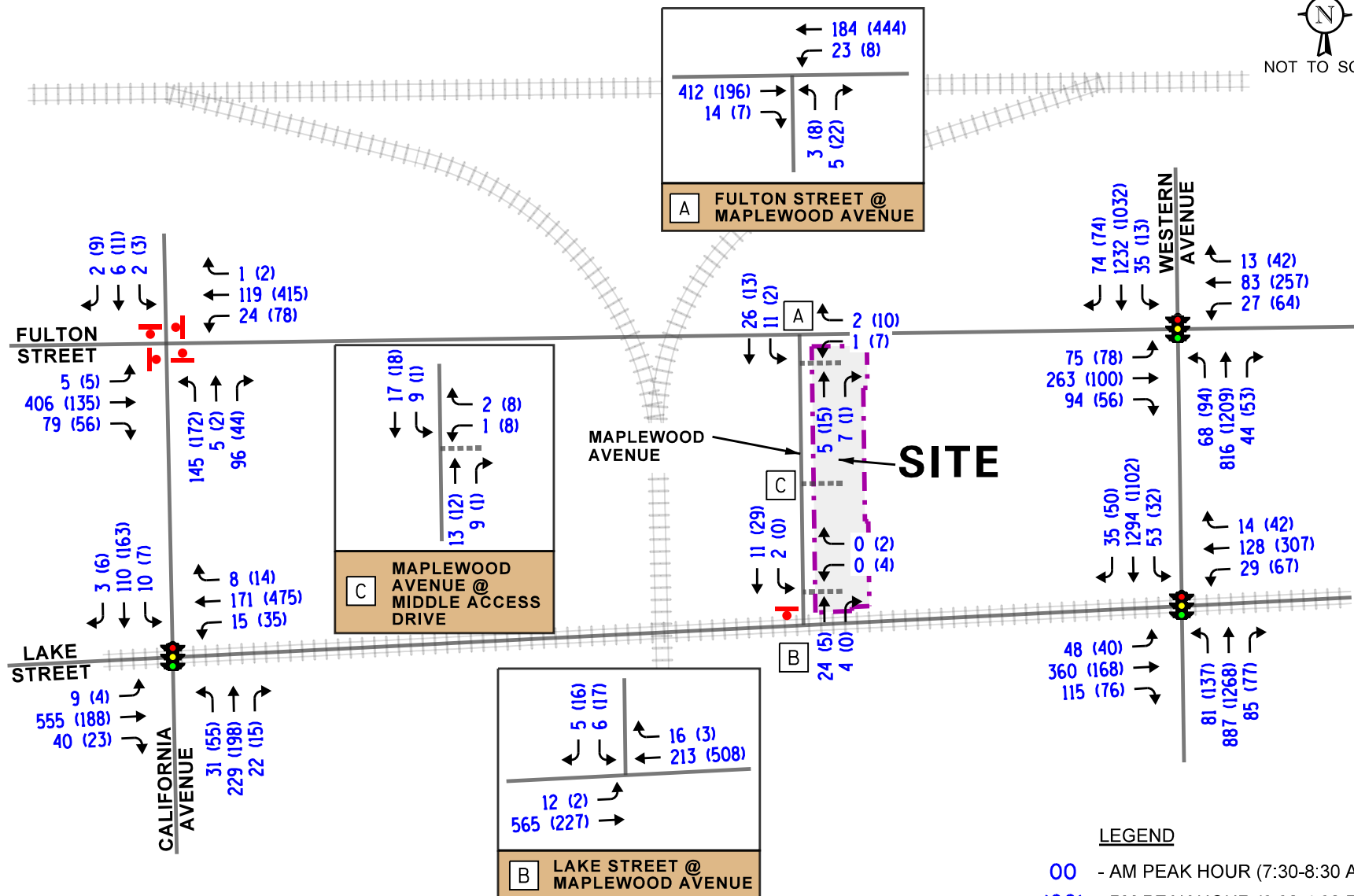
Year 2030 No-Build Traffic Volumes



Job No: 24-238 Figure: 10



NOT TO SCALE



LEGEND

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (3:30-4:30 PM)

2519 W Fulton Street
Chicago, Illinois

Year 2030 Total Traffic Volumes



Job No: 24-238

Figure: 11

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the street system and access drives are projected to operate and whether any street improvements or modifications are required.

Traffic Analyses

Intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing, Year 2030 no-build, and Year 2030 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the signalized intersections were conducted utilizing actual cycle lengths, phasings, and offsets.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, Year 2030 no-build and Year 2030 total projected conditions are presented in **Tables 3** through **8**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3

CAPACITY ANALYSIS RESULTS – WESTERN AVENUE WIH FULTON STREET– SIGNALIZED

Existing Traffic Volumes	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall	
		L	T	R	L	T	R	L	T	R	L	T	R		
	Weekday Morning	E 58.5			C 29.1			C 29.1	C 31.4		B 13.9	C 21.3		C 30.5	
								C – 31.2			C – 21.1				
	Weekday Evening	C 34.7			D 44.0			B 11.1	A 7.5		B 14.3	B 18.5		B 17.8	
								A – 7.7			B – 18.4				
	No-Build Traffic Volumes	Weekday Morning	E 68.4			C 29.7			C 31.3	C 31.6		B 14.1	C 22.5		C 32.7
									C – 31.5			C – 22.2			
		Weekday Evening	D 39.5			D 46.8			B 13.6	A 7.8		B 14.6	B 19.0		B 19.0
									A – 8.2			B – 19.0			
Total Projected Traffic Volumes	Weekday Morning	E 71.7			C 29.7			C 34.1	C 31.5		B 14.2	C 22.8		C 33.4	
								C – 31.7			C – 22.6				
	Weekday Evening	D 44.9			D 47.3			B 14.8	A 7.9		B 14.7	B 19.0		B 19.6	
								A – 8.3			B – 19.0				
Letter denotes Level of Service Delay is measured in seconds.		L – Left-Turns T – Through			R – Right-Turns										

Table 4

CAPACITY ANALYSIS RESULTS – WESTERN AVENUE WITH LAKE STREET – SIGNALIZED

Existing Traffic Volumes	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall	
		L	T	R	L	T	R	L	T	R	L	T	R		
	Weekday Morning	D 46.0		B 16.8	C 31.6		A 0.1	B 13.3	B 18.9		A 4.4	C 21.7		C 23.4	
		D – 39.6			C – 28.7			B – 18.6			C – 21.0				
	Weekday Evening	D 36.7		A 9.8	D 52.7		A 6.6	B 15.1	B 19.2		A 6.2	B 10.1		C 20.2	
		C – 30.6			D – 48.0			B – 18.8			A – 10.0				
	No-Build Traffic Volumes	Weekday Morning	D 46.1		B 16.7	C 32.7		A 0.1	B 16.8	B 19.3		A 4.5	C 22.2		C 24.2
			D – 39.7			C – 30.0			B – 19.1			C – 21.5			
		Weekday Evening	D 42.6		B 12.2	E 61.4		A 6.7	B 18.4	B 19.8		A 6.3	B 10.2		C 22.0
			C – 35.0			E – 55.9			B – 19.6			B – 10.1			
Total Projected Traffic Volumes	Weekday Morning	D 46.1		B 16.8	C 33.6		A 0.1	B 18.4	B 19.4		A 4.4	C 22.0		C 24.3	
		D – 39.7			C – 31.2			B – 19.3			C – 21.4				
	Weekday Evening	D 48.8		B 13.1	E 75.3		A 5.8	B 18.9	C 20.0		A 6.4	B 10.3		C 24.2	
		D – 39.3			E – 69.0			B – 19.9			B – 10.2				
Letter denotes Level of Service Delay is measured in seconds.		L – Left-Turns			R – Right-Turns										
		T – Through													

Table 5

CAPACITY ANALYSIS RESULTS – CALIFORNIA AVENUE WITH LAKE STREET – SIGNALIZED

Existing Traffic Volumes	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
	Weekday Morning	C 23.9			B 12.2			B 14.8			B 12.3			B 18.7
	Weekday Evening	B 12.0			C 21.6			B 15.6			B 13.1			B 17.2
No-Build Traffic Volumes	Weekday Morning	C 26.9			B 12.5			B 15.0			B 12.3			C 20.3
	Weekday Evening	B 12.4			C 24.1			B 15.8			B 13.2			B 18.4
Total Projected Traffic Volumes	Weekday Morning	C 27.7			B 12.4			B 15.0			B 12.3			C 20.7
	Weekday Evening	B 12.4			C 24.9			B 15.9			B 13.2			B 18.8
Letter denotes Level of Service Delay is measured in seconds.														
L – Left-Turns T – Through														
R – Right-Turns														

Table 6

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
California Avenue with Fulton Street¹				
• Overall	C	17.8	C	15.8
• Eastbound Approach	C	22.5	B	10.4
• Westbound Approach	B	10.7	C	19.7
• Northbound Approach	B	12.9	B	12.4
• Southbound Approach	B	10.3	A	9.3
Fulton Street with Maplewood Avenue²				
• Westbound Left Turn	A	8.3	A	7.8
• Northbound Approach	B	12.4	B	10.7
Lake Street with Maplewood Avenue²				
• Eastbound Left Turn	A	7.6	A	8.4
• Southbound Approach	B	13.2	B	12.8
LOS = Level of Service Delay is measured in seconds.		1 – All-way stop control 2 – Two-way stop control		

Table 6

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
California Avenue with Fulton Street¹				
• Overall	C	20.0	C	17.4
• Eastbound Approach	D	26.1	B	10.8
• Westbound Approach	B	11.1	C	22.5
• Northbound Approach	B	13.5	B	12.9
• Southbound Approach	B	10.5	A	9.5
Fulton Street with Maplewood Avenue²				
• Westbound Left Turn	A	8.4	A	7.7
• Northbound Approach	B	12.8	B	11.0
Lake Street with Maplewood Avenue²				
• Eastbound Left Turn	A	7.7	A	8.5
• Southbound Approach	B	13.9	B	13.2
LOS = Level of Service Delay is measured in seconds.		1 – All-way stop control 2 – Two-way stop control		

Table 8

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
California Avenue with Fulton Street¹				
• Overall	C	20.7	C	17.8
• Eastbound Approach	D	27.2	B	10.8
• Westbound Approach	B	11.2	C	23.1
• Northbound Approach	B	13.6	B	12.9
• Southbound Approach	B	10.5	A	9.5
Fulton Street with Maplewood Avenue²				
• Eastbound Left Turn	A	8.5	A	7.7
• Southbound Approach	B	12.8	B	11.6
Lake Street with Maplewood Avenue²				
• Eastbound Left Turn	A	7.8	A	8.5
• Southbound Approach	B	14.1	B	14.0
Maplewood Avenue with North Access Drive²				
• Westbound Approach	A	8.5	A	8.6
• Southbound Left Turn	A	7.2	A	7.2
Maplewood Avenue with the Middle Access Drive²				
• Westbound Approach	A	8.5	A	8.6
• Southbound Left Turn	A	7.3	A	7.2
Maplewood Avenue with South Access Drive²				
• Westbound Approach	--	--	A	8.6
• Southbound Left Turn	A	7.3	--	--
LOS = Level of Service Delay is measured in seconds.		1 – All-way stop control 2 – Two-way stop control		

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any street and traffic control improvements necessary to accommodate the development-generated traffic.

Western Avenue with Fulton Street

The results of the capacity analyses indicate that this intersection currently operates at LOS C during the weekday morning peak hour and LOS B during the weekday evening peak hour. It is important to note that all northbound and southbound movements on Western Avenue operate at LOS C or better during both peak hours. The eastbound approach operates at LOS E during the weekday morning peak hour; however, this is typical and expected as Western Avenue is an SRA route and receives a majority of the green time. Under Year 2030 no-build conditions, this intersection is projected to continue to operate at the same LOS during both peak hours.

Under Year 2030 total projected conditions, this intersection is projected to continue to operate at the same LOS during both peak hours with increases in delay of less than one second over no-build conditions. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or signal modifications will be required.

Western Avenue with Lake Street

The results of the capacity analyses indicate that this intersection currently operates at LOS C during the weekday morning and weekday evening peak hours. It is important to note that all northbound and southbound movements on Western Avenue operate at LOS C or better during both peak hours. The eastbound and westbound movements operate at up to LOS D during the peak hours; however, this is typical and expected as Western Avenue is an SRA route and receives a majority of the green time. Under Year 2030 no-build conditions, this intersection is projected to continue to operate at the same LOS during both peak hours.

Under Year 2030 total projected conditions, this intersection is projected to continue to operate at the same LOS during both peak hours with increases in delay approximately two seconds or less over no-build conditions. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or signal modifications will be required.

California Avenue with Lake Street

The results of the capacity analyses indicate that this intersection currently operates at LOS B during the weekday morning and weekday evening peak hours. Further, all movements operate at LOS C or better during both peak hours. Under Year 2030 no-build conditions, this intersection is projected to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour.

Under Year 2030 total projected conditions, this intersection is projected to continue to operate at the same LOS during both peak hours with increases in delay of less than one second over no-build conditions. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or signal modifications will be required.

California Avenue with Fulton Street

The results of the capacity analyses indicate that this intersection currently operates at LOS C during the weekday morning and weekday evening peak hours. Further, all movements operate at LOS C or better during both peak hours. Under Year 2030 no-build conditions, this intersection is projected to continue to operate at the same LOS during both peak hours.

Under Year 2030 total projected conditions, this intersection is projected to continue to operate at LOS C during the peak hours with increases in delay of less than one second over no-build conditions. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or signal modifications will be required.

Maplewood Avenue with Fulton Street and Maplewood Avenue with Lake Street

The results of the capacity analyses indicate that all critical movements at these intersections currently operate at LOS B or better during the weekday morning and weekday evening peak hours. Under Year 2030 no-build and total projected conditions, all critical movements are projected to continue to operate at the same LOS with increases in delay of less than one second. As such, these intersection have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Maplewood Avenue and the Site Access System

As proposed, three full movement access drives serving the proposed parking lots will be provided on Maplewood Avenue. Further, access to the truck loading bays will be provided along Maplewood Avenue. The access system will adequately accommodate site-generated traffic given the following:

- Turning movements to and from the proposed access drives are projected to operate at LOS A during the peak hours.
- Maplewood Avenue is projected to carry less than 40 total vehicles during the peak hours and carries minimal pedestrian traffic. Maplewood Avenue only extends from Fulton Street to Lake Street and generally only serves local traffic.
- The proposed development will have multiple tenants. As a result, arrival and departure of employees will be staggered as different tenants have different start/end times or shift changes.

- While truck traffic is expected to avoid Lake Street, trucks approaching or departing the development from the east or west can utilize Fulton Street to access the development.
- The location of the north and south access drives is acceptable and these drives should be provided given the following:
 - These access drives will only carry passenger vehicle traffic.
 - The small employee parking lots will generate a limited volume of traffic.
 - 95th percentile queues on Maplewood Avenue at its intersections with Fulton Street and Lake Street are not projected to exceed one to two vehicles and will not significantly impact access drive operations.
 - As previously mentioned, Maplewood Avenue generally serves a limited volume of local traffic. Given this and the low volume of traffic that will turn to/from these access drives, turning movements at these access drives will not impact traffic flow in the area.
 - The provision of multiple parking lots is necessary as the buildings will have multiple tenants.
- The proposed truck loading bays on Maplewood Avenue will operate acceptably and should be provided given the following:
 - The development is projected to generate less than 20 total truck trips on a typical day.
 - Interior or recessed truck courts will be provided for both buildings allowing a 40 foot truck to be fully enclosed within either building without blocking the sidewalk or Maplewood Avenue.
 - As previously mentioned, Maplewood Avenue generally serves a limited volume of local traffic. As such, trucks turning in and out of the bays will not impact traffic flow in the area.
 - The provision of loading bays on Maplewood Avenue is consistent with the existing uses on the west side of the street which have four loading bays along Maplewood Avenue.
 - The provision of multiple loading bays is necessary as the buildings will have multiple tenants.

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- As proposed the site will be developed with an approximately 68,802 square-foot multi-tenant industrial building.
- Area intersections have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic control modifications are required.
- The proposed access system will be adequate in accommodating the traffic estimated to be generated by the development.
 - Maplewood Avenue generally serves a limited volume of local traffic.
 - The proposed development will have multiple tenants resulting in staggered arrival and departure of employees.
 - Truck loading along Maplewood Avenue will have a limited impact on street operations and is consistent with existing uses.
 - Trucks approaching or departing the development from the east or west can utilize Fulton Street to access the development.
- The provision of multiple parking lots and multiple loading bays is necessary as the buildings will have multiple tenants.

Appendix

Traffic Count Summary Sheets

Site Plan

Level of Service Criteria

Capacity Analysis Summary Sheets

Traffic Count Summary Sheets



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Count Name: California Avenue with Fulton
Street TMC
Site Code:
Start Date: 10/08/2024
Page No: 1

Turning Movement Data

Start Time	Fulton Street Eastbound						Fulton Street Westbound						California Avenue Northbound						California Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	1	1	20	6	1	28	0	2	6	0	0	8	0	21	1	10	0	32	0	0	0	2	0	2	70
6:15 AM	0	0	28	10	1	38	0	0	8	0	1	8	0	12	4	12	0	28	0	0	0	0	1	0	74
6:30 AM	0	0	36	13	0	49	0	1	11	0	1	12	0	21	0	10	0	31	0	0	0	0	1	0	92
6:45 AM	0	1	65	7	0	73	0	1	10	0	0	11	0	20	2	21	1	43	0	0	0	1	1	1	128
Hourly Total	1	2	149	36	2	188	0	4	35	0	2	39	0	74	7	53	1	134	0	0	0	3	3	3	364
7:00 AM	0	1	67	4	1	72	0	3	20	0	0	23	0	25	4	21	3	50	0	0	1	2	1	3	148
7:15 AM	0	1	74	13	0	88	0	1	16	1	0	18	1	27	2	31	0	61	0	1	0	0	1	1	168
7:30 AM	0	2	86	18	0	106	0	1	23	0	0	24	0	36	2	22	1	60	0	1	1	0	0	2	192
7:45 AM	0	2	103	20	1	125	0	5	37	0	3	42	0	38	0	30	1	68	0	1	1	0	1	2	237
Hourly Total	0	6	330	55	2	391	0	10	96	1	3	107	1	126	8	104	5	239	0	3	3	2	3	8	745
8:00 AM	0	1	97	18	0	116	0	8	30	1	1	39	0	39	1	13	3	53	0	0	2	1	3	3	211
8:15 AM	0	0	95	22	1	117	0	9	19	0	3	28	0	29	2	29	2	60	0	0	2	1	5	3	208
8:30 AM	0	0	88	12	2	100	0	7	24	1	0	32	0	32	6	21	3	59	0	0	2	4	4	6	197
8:45 AM	0	0	89	13	0	102	0	9	27	0	0	36	0	29	4	20	5	53	0	2	1	1	0	4	195
Hourly Total	0	1	369	65	3	435	0	33	100	2	4	135	0	129	13	83	13	225	0	2	7	7	12	16	811
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	1	27	19	3	47	0	13	59	0	0	72	0	47	2	14	5	63	0	2	2	1	0	5	187
3:15 PM	1	0	28	21	2	50	0	10	61	1	0	72	1	47	1	18	0	67	1	1	4	1	3	7	196
3:30 PM	0	2	35	11	2	48	1	30	92	0	2	123	0	50	1	11	2	62	0	1	5	3	3	9	242
3:45 PM	0	3	28	14	0	45	0	10	84	1	0	95	0	50	0	14	2	64	0	0	4	5	2	9	213
Hourly Total	1	6	118	65	7	190	1	63	296	2	2	362	1	194	4	57	9	256	1	4	15	10	8	30	838
4:00 PM	0	0	41	15	5	56	0	19	94	0	1	113	0	29	1	8	3	38	0	0	2	1	4	3	210
4:15 PM	0	0	23	14	0	37	0	17	120	1	2	138	1	39	0	10	1	50	0	2	0	0	3	2	227
4:30 PM	0	0	28	15	1	43	0	21	82	0	0	103	0	44	2	17	1	63	0	0	3	1	1	4	213
4:45 PM	0	0	26	12	0	38	0	17	79	0	0	96	0	30	0	12	2	42	0	0	0	1	1	1	177
Hourly Total	0	0	118	56	6	174	0	74	375	1	3	450	1	142	3	47	7	193	0	2	5	3	9	10	827
5:00 PM	0	0	22	11	1	33	0	32	90	1	2	123	0	31	1	13	2	45	0	0	0	2	1	2	203
5:15 PM	0	0	22	12	2	34	0	17	109	0	0	126	0	45	0	6	1	51	0	0	1	1	0	2	213
5:30 PM	0	0	18	12	4	30	0	13	80	2	0	95	0	44	1	13	2	58	0	1	0	1	0	2	185
5:45 PM	0	2	14	11	1	27	0	6	58	1	0	65	0	42	1	17	1	60	0	2	0	0	0	2	154
Hourly Total	0	2	76	46	8	124	0	68	337	4	2	409	0	162	3	49	6	214	0	3	1	4	1	8	755
Grand Total	2	17	1160	323	28	1502	1	252	1239	10	16	1502	3	827	38	393	41	1261	1	14	31	29	36	75	4340
Approach %	0.1	1.1	77.2	21.5	-	-	0.1	16.8	82.5	0.7	-	-	0.2	65.6	3.0	31.2	-	-	1.3	18.7	41.3	38.7	-	-	-
Total %	0.0	0.4	26.7	7.4	-	34.6	0.0	5.8	28.5	0.2	-	34.6	0.1	19.1	0.9	9.1	-	29.1	0.0	0.3	0.7	0.7	-	1.7	-
Lights	2	16	1106	285	-	1409	1	237	1187	10	-	1435	3	771	30	368	-	1172	1	13	25	29	-	68	4084

% Lights	100.0	94.1	95.3	88.2	-	93.8	100.0	94.0	95.8	100.0	-	95.5	100.0	93.2	78.9	93.6	-	92.9	100.0	92.9	80.6	100.0	-	90.7	94.1
Buses	0	0	2	30	-	32	0	1	2	0	-	3	0	33	0	1	-	34	0	0	0	0	-	0	69
% Buses	0.0	0.0	0.2	9.3	-	2.1	0.0	0.4	0.2	0.0	-	0.2	0.0	4.0	0.0	0.3	-	2.7	0.0	0.0	0.0	0.0	-	0.0	1.6
Single-Unit Trucks	0	1	35	4	-	40	0	8	29	0	-	37	0	14	2	15	-	31	0	1	1	0	-	2	110
% Single-Unit Trucks	0.0	5.9	3.0	1.2	-	2.7	0.0	3.2	2.3	0.0	-	2.5	0.0	1.7	5.3	3.8	-	2.5	0.0	7.1	3.2	0.0	-	2.7	2.5
Articulated Trucks	0	0	5	3	-	8	0	3	5	0	-	8	0	4	5	3	-	12	0	0	5	0	-	5	33
% Articulated Trucks	0.0	0.0	0.4	0.9	-	0.5	0.0	1.2	0.4	0.0	-	0.5	0.0	0.5	13.2	0.8	-	1.0	0.0	0.0	16.1	0.0	-	6.7	0.8
Bicycles on Road	0	0	12	1	-	13	0	3	16	0	-	19	0	5	1	6	-	12	0	0	0	0	-	0	44
% Bicycles on Road	0.0	0.0	1.0	0.3	-	0.9	0.0	1.2	1.3	0.0	-	1.3	0.0	0.6	2.6	1.5	-	1.0	0.0	0.0	0.0	0.0	-	0.0	1.0
Pedestrians	-	-	-	-	28	-	-	-	-	-	16	-	-	-	-	-	41	-	-	-	-	-	36	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: California Avenue with Fulton
Street TMC
Site Code:
Start Date: 10/08/2024
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Fulton Street Eastbound						Fulton Street Westbound						California Avenue Northbound						California Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	2	86	18	0	106	0	1	23	0	0	24	0	36	2	22	1	60	0	1	1	0	0	2	192
7:45 AM	0	2	103	20	1	125	0	5	37	0	3	42	0	38	0	30	1	68	0	1	1	0	1	2	237
8:00 AM	0	1	97	18	0	116	0	8	30	1	1	39	0	39	1	13	3	53	0	0	2	1	3	3	211
8:15 AM	0	0	95	22	1	117	0	9	19	0	3	28	0	29	2	29	2	60	0	0	2	1	5	3	208
Total	0	5	381	78	2	464	0	23	109	1	7	133	0	142	5	94	7	241	0	2	6	2	9	10	848
Approach %	0.0	1.1	82.1	16.8	-	-	0.0	17.3	82.0	0.8	-	-	0.0	58.9	2.1	39.0	-	-	0.0	20.0	60.0	20.0	-	-	-
Total %	0.0	0.6	44.9	9.2	-	54.7	0.0	2.7	12.9	0.1	-	15.7	0.0	16.7	0.6	11.1	-	28.4	0.0	0.2	0.7	0.2	-	1.2	-
PHF	0.000	0.625	0.925	0.886	-	0.928	0.000	0.639	0.736	0.250	-	0.792	0.000	0.910	0.625	0.783	-	0.886	0.000	0.500	0.750	0.500	-	0.833	0.895
Lights	0	4	369	69	-	442	0	19	104	1	-	124	0	133	2	90	-	225	0	1	2	2	-	5	796
% Lights	-	80.0	96.9	88.5	-	95.3	-	82.6	95.4	100.0	-	93.2	-	93.7	40.0	95.7	-	93.4	-	50.0	33.3	100.0	-	50.0	93.9
Buses	0	0	0	7	-	7	0	0	0	0	-	0	0	5	0	0	-	5	0	0	0	0	-	0	12
% Buses	-	0.0	0.0	9.0	-	1.5	-	0.0	0.0	0.0	-	0.0	-	3.5	0.0	0.0	-	2.1	-	0.0	0.0	0.0	-	0.0	1.4
Single-Unit Trucks	0	1	9	1	-	11	0	4	5	0	-	9	0	3	1	3	-	7	0	1	1	0	-	2	29
% Single-Unit Trucks	-	20.0	2.4	1.3	-	2.4	-	17.4	4.6	0.0	-	6.8	-	2.1	20.0	3.2	-	2.9	-	50.0	16.7	0.0	-	20.0	3.4
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	3	0	-	3	6
% Articulated Trucks	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	40.0	0.0	-	0.8	-	0.0	50.0	0.0	-	30.0	0.7
Bicycles on Road	0	0	2	1	-	3	0	0	0	0	-	0	0	1	0	1	-	2	0	0	0	0	-	0	5
% Bicycles on Road	-	0.0	0.5	1.3	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.7	0.0	1.1	-	0.8	-	0.0	0.0	0.0	-	0.0	0.6
Pedestrians	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	7	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: California Avenue with Fulton
Street TMC
Site Code:
Start Date: 10/08/2024
Page No: 4

Turning Movement Peak Hour Data (3:30 PM)

Start Time	Fulton Street Eastbound						Fulton Street Westbound						California Avenue Northbound						California Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
3:30 PM	0	2	35	11	2	48	1	30	92	0	2	123	0	50	1	11	2	62	0	1	5	3	3	9	242
3:45 PM	0	3	28	14	0	45	0	10	84	1	0	95	0	50	0	14	2	64	0	0	4	5	2	9	213
4:00 PM	0	0	41	15	5	56	0	19	94	0	1	113	0	29	1	8	3	38	0	0	2	1	4	3	210
4:15 PM	0	0	23	14	0	37	0	17	120	1	2	138	1	39	0	10	1	50	0	2	0	0	3	2	227
Total	0	5	127	54	7	186	1	76	390	2	5	469	1	168	2	43	8	214	0	3	11	9	12	23	892
Approach %	0.0	2.7	68.3	29.0	-	-	0.2	16.2	83.2	0.4	-	-	0.5	78.5	0.9	20.1	-	-	0.0	13.0	47.8	39.1	-	-	-
Total %	0.0	0.6	14.2	6.1	-	20.9	0.1	8.5	43.7	0.2	-	52.6	0.1	18.8	0.2	4.8	-	24.0	0.0	0.3	1.2	1.0	-	2.6	-
PHF	0.000	0.417	0.774	0.900	-	0.830	0.250	0.633	0.813	0.500	-	0.850	0.250	0.840	0.500	0.768	-	0.836	0.000	0.375	0.550	0.450	-	0.639	0.921
Lights	0	5	120	49	-	174	1	72	376	2	-	451	1	157	2	39	-	199	0	3	11	9	-	23	847
% Lights	-	100.0	94.5	90.7	-	93.5	100.0	94.7	96.4	100.0	-	96.2	100.0	93.5	100.0	90.7	-	93.0	-	100.0	100.0	100.0	-	100.0	95.0
Buses	0	0	0	4	-	4	0	0	1	0	-	1	0	6	0	0	-	6	0	0	0	0	-	0	11
% Buses	-	0.0	0.0	7.4	-	2.2	0.0	0.0	0.3	0.0	-	0.2	0.0	3.6	0.0	0.0	-	2.8	-	0.0	0.0	0.0	-	0.0	1.2
Single-Unit Trucks	0	0	3	1	-	4	0	1	9	0	-	10	0	2	0	3	-	5	0	0	0	0	-	0	19
% Single-Unit Trucks	-	0.0	2.4	1.9	-	2.2	0.0	1.3	2.3	0.0	-	2.1	0.0	1.2	0.0	7.0	-	2.3	-	0.0	0.0	0.0	-	0.0	2.1
Articulated Trucks	0	0	0	0	-	0	0	2	2	0	-	4	0	1	0	1	-	2	0	0	0	0	-	0	6
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	2.6	0.5	0.0	-	0.9	0.0	0.6	0.0	2.3	-	0.9	-	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	0	4	0	-	4	0	1	2	0	-	3	0	2	0	0	-	2	0	0	0	0	-	0	9
% Bicycles on Road	-	0.0	3.1	0.0	-	2.2	0.0	1.3	0.5	0.0	-	0.6	0.0	1.2	0.0	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	1.0
Pedestrians	-	-	-	-	7	-	-	-	-	-	5	-	-	-	-	-	8	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: California Avenue with Lake Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 1

Turning Movement Data

Start Time	Lake Street Eastbound						Lake Street Westbound						California Avenue Northbound						California Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	2	14	3	5	19	0	2	5	0	0	7	0	3	30	6	0	39	0	0	17	1	0	18	83
6:15 AM	0	0	25	2	2	27	0	2	11	0	0	13	0	2	25	3	0	30	0	1	9	0	1	10	80
6:30 AM	0	0	35	5	1	40	0	2	16	1	0	19	0	5	32	5	1	42	0	1	15	0	1	16	117
6:45 AM	0	0	60	5	0	65	0	4	21	0	4	25	0	4	42	2	8	48	0	0	11	0	4	11	149
Hourly Total	0	2	134	15	8	151	0	10	53	1	4	64	0	14	129	16	9	159	0	2	52	1	6	55	429
7:00 AM	0	3	72	8	2	83	0	1	30	0	4	31	0	6	48	6	4	60	0	2	13	0	0	15	189
7:15 AM	0	3	119	7	9	129	0	1	36	7	4	44	0	14	57	9	7	80	0	2	18	1	8	21	274
7:30 AM	0	2	153	10	2	165	0	1	27	3	4	31	0	11	53	5	2	69	0	3	23	0	1	26	291
7:45 AM	0	1	122	18	7	141	0	4	32	3	8	39	0	7	62	6	1	75	0	1	24	1	5	26	281
Hourly Total	0	9	466	43	20	518	0	7	125	13	20	145	0	38	220	26	14	284	0	8	78	2	14	88	1035
8:00 AM	0	3	110	6	8	119	0	5	50	3	7	58	0	4	53	4	5	61	0	1	29	0	7	30	268
8:15 AM	0	3	144	9	10	156	0	6	49	0	4	55	0	8	56	4	3	68	0	5	32	2	6	39	318
8:30 AM	0	1	140	9	3	150	0	3	36	1	6	40	0	9	58	7	5	74	0	5	15	2	4	22	286
8:45 AM	0	4	104	7	3	115	0	5	34	3	8	42	0	5	46	8	6	59	0	1	25	4	7	30	246
Hourly Total	0	11	498	31	24	540	0	19	169	7	25	195	0	26	213	23	19	262	0	12	101	8	24	121	1118
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	45	4	10	49	0	7	83	3	4	93	0	16	51	6	5	73	0	0	30	1	2	31	246
3:15 PM	0	0	42	4	4	46	0	6	96	2	4	104	0	15	65	6	3	86	0	0	38	1	0	39	275
3:30 PM	0	4	49	6	10	59	0	10	106	5	8	121	0	12	52	1	5	65	0	3	42	1	4	46	291
3:45 PM	0	0	43	6	18	49	0	6	104	5	6	115	0	10	56	7	7	73	0	2	37	1	3	40	277
Hourly Total	0	4	179	20	42	203	0	29	389	15	22	433	0	53	224	20	20	297	0	5	147	4	9	156	1089
4:00 PM	0	0	46	6	10	52	0	5	112	4	5	121	0	10	37	5	8	52	0	1	41	2	5	44	269
4:15 PM	0	0	35	5	13	40	0	11	118	1	6	130	0	22	50	2	8	74	0	1	39	2	4	42	286
4:30 PM	0	1	30	3	15	34	0	10	102	3	6	115	0	20	53	7	7	80	0	0	36	2	5	38	267
4:45 PM	0	1	28	6	16	35	0	3	108	3	6	114	0	17	39	7	5	63	0	2	37	1	1	40	252
Hourly Total	0	2	139	20	54	161	0	29	440	11	23	480	0	69	179	21	28	269	0	4	153	7	15	164	1074
5:00 PM	0	0	36	2	20	38	0	11	104	2	7	117	0	22	42	6	9	70	0	2	49	1	5	52	277
5:15 PM	0	0	18	5	10	23	0	8	96	2	7	106	0	17	55	4	5	76	0	2	31	2	2	35	240
5:30 PM	0	1	28	4	13	33	0	6	94	1	8	101	0	16	50	3	5	69	0	2	36	1	8	39	242
5:45 PM	0	1	30	2	8	33	0	7	86	4	1	97	0	19	50	3	9	72	0	1	19	2	1	22	224
Hourly Total	0	2	112	13	51	127	0	32	380	9	23	421	0	74	197	16	28	287	0	7	135	6	16	148	983
Grand Total	0	30	1528	142	199	1700	0	126	1556	56	117	1738	0	274	1162	122	118	1558	0	38	666	28	84	732	5728
Approach %	0.0	1.8	89.9	8.4	-	-	0.0	7.2	89.5	3.2	-	-	0.0	17.6	74.6	7.8	-	-	0.0	5.2	91.0	3.8	-	-	-
Total %	0.0	0.5	26.7	2.5	-	29.7	0.0	2.2	27.2	1.0	-	30.3	0.0	4.8	20.3	2.1	-	27.2	0.0	0.7	11.6	0.5	-	12.8	-
Lights	0	30	1475	133	-	1638	0	124	1525	53	-	1702	0	269	1071	120	-	1460	0	38	606	27	-	671	5471

% Lights	-	100.0	96.5	93.7	-	96.4	-	98.4	98.0	94.6	-	97.9	-	98.2	92.2	98.4	-	93.7	-	100.0	91.0	96.4	-	91.7	95.5
Buses	0	0	1	0	-	1	0	0	2	0	-	2	0	1	33	0	-	34	0	0	32	0	-	32	69
% Buses	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.4	2.8	0.0	-	2.2	-	0.0	4.8	0.0	-	4.4	1.2
Single-Unit Trucks	0	0	22	1	-	23	0	1	14	0	-	15	0	2	28	1	-	31	0	0	10	0	-	10	79
% Single-Unit Trucks	-	0.0	1.4	0.7	-	1.4	-	0.8	0.9	0.0	-	0.9	-	0.7	2.4	0.8	-	2.0	-	0.0	1.5	0.0	-	1.4	1.4
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	15	0	-	15	0	0	12	0	-	12	29
% Articulated Trucks	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	1.3	0.0	-	1.0	-	0.0	1.8	0.0	-	1.6	0.5
Bicycles on Road	0	0	29	8	-	37	0	1	14	3	-	18	0	2	15	1	-	18	0	0	6	1	-	7	80
% Bicycles on Road	-	0.0	1.9	5.6	-	2.2	-	0.8	0.9	5.4	-	1.0	-	0.7	1.3	0.8	-	1.2	-	0.0	0.9	3.6	-	1.0	1.4
Pedestrians	-	-	-	-	199	-	-	-	-	-	117	-	-	-	-	-	118	-	-	-	-	-	84	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: California Avenue with Lake Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Lake Street Eastbound						Lake Street Westbound						California Avenue Northbound						California Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	2	153	10	2	165	0	1	27	3	4	31	0	11	53	5	2	69	0	3	23	0	1	26	291
7:45 AM	0	1	122	18	7	141	0	4	32	3	8	39	0	7	62	6	1	75	0	1	24	1	5	26	281
8:00 AM	0	3	110	6	8	119	0	5	50	3	7	58	0	4	53	4	5	61	0	1	29	0	7	30	268
8:15 AM	0	3	144	9	10	156	0	6	49	0	4	55	0	8	56	4	3	68	0	5	32	2	6	39	318
Total	0	9	529	43	27	581	0	16	158	9	23	183	0	30	224	19	11	273	0	10	108	3	19	121	1158
Approach %	0.0	1.5	91.0	7.4	-	-	0.0	8.7	86.3	4.9	-	-	0.0	11.0	82.1	7.0	-	-	0.0	8.3	89.3	2.5	-	-	-
Total %	0.0	0.8	45.7	3.7	-	50.2	0.0	1.4	13.6	0.8	-	15.8	0.0	2.6	19.3	1.6	-	23.6	0.0	0.9	9.3	0.3	-	10.4	-
PHF	0.000	0.750	0.864	0.597	-	0.880	0.000	0.667	0.790	0.750	-	0.789	0.000	0.682	0.903	0.792	-	0.910	0.000	0.500	0.844	0.375	-	0.776	0.910
Lights	0	9	504	39	-	552	0	15	151	8	-	174	0	30	207	19	-	256	0	10	92	3	-	105	1087
% Lights	-	100.0	95.3	90.7	-	95.0	-	93.8	95.6	88.9	-	95.1	-	100.0	92.4	100.0	-	93.8	-	100.0	85.2	100.0	-	86.8	93.9
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	5	0	-	5	0	0	7	0	-	7	13
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	2.2	0.0	-	1.8	-	0.0	6.5	0.0	-	5.8	1.1
Single-Unit Trucks	0	0	10	0	-	10	0	0	3	0	-	3	0	0	8	0	-	8	0	0	6	0	-	6	27
% Single-Unit Trucks	-	0.0	1.9	0.0	-	1.7	-	0.0	1.9	0.0	-	1.6	-	0.0	3.6	0.0	-	2.9	-	0.0	5.6	0.0	-	5.0	2.3
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	2	0	-	2	5
% Articulated Trucks	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.9	0.0	-	0.7	-	0.0	1.9	0.0	-	1.7	0.4
Bicycles on Road	0	0	14	4	-	18	0	1	3	1	-	5	0	0	2	0	-	2	0	0	1	0	-	1	26
% Bicycles on Road	-	0.0	2.6	9.3	-	3.1	-	6.3	1.9	11.1	-	2.7	-	0.0	0.9	0.0	-	0.7	-	0.0	0.9	0.0	-	0.8	2.2
Pedestrians	-	-	-	-	27	-	-	-	-	-	23	-	-	-	-	-	11	-	-	-	-	-	19	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: California Avenue with Lake Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 4

Turning Movement Peak Hour Data (3:30 PM)

Start Time	Lake Street Eastbound						Lake Street Westbound						California Avenue Northbound						California Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
3:30 PM	0	4	49	6	10	59	0	10	106	5	8	121	0	12	52	1	5	65	0	3	42	1	4	46	291
3:45 PM	0	0	43	6	18	49	0	6	104	5	6	115	0	10	56	7	7	73	0	2	37	1	3	40	277
4:00 PM	0	0	46	6	10	52	0	5	112	4	5	121	0	10	37	5	8	52	0	1	41	2	5	44	269
4:15 PM	0	0	35	5	13	40	0	11	118	1	6	130	0	22	50	2	8	74	0	1	39	2	4	42	286
Total	0	4	173	23	51	200	0	32	440	15	25	487	0	54	195	15	28	264	0	7	159	6	16	172	1123
Approach %	0.0	2.0	86.5	11.5	-	-	0.0	6.6	90.3	3.1	-	-	0.0	20.5	73.9	5.7	-	-	0.0	4.1	92.4	3.5	-	-	-
Total %	0.0	0.4	15.4	2.0	-	17.8	0.0	2.8	39.2	1.3	-	43.4	0.0	4.8	17.4	1.3	-	23.5	0.0	0.6	14.2	0.5	-	15.3	-
PHF	0.000	0.250	0.883	0.958	-	0.847	0.000	0.727	0.932	0.750	-	0.937	0.000	0.614	0.871	0.536	-	0.892	0.000	0.583	0.946	0.750	-	0.935	0.965
Lights	0	4	170	22	-	196	0	31	433	14	-	478	0	53	180	15	-	248	0	7	150	6	-	163	1085
% Lights	-	100.0	98.3	95.7	-	98.0	-	96.9	98.4	93.3	-	98.2	-	98.1	92.3	100.0	-	93.9	-	100.0	94.3	100.0	-	94.8	96.6
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	5	0	-	5	0	0	3	0	-	3	9
% Buses	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	2.6	0.0	-	1.9	-	0.0	1.9	0.0	-	1.7	0.8
Single-Unit Trucks	0	0	0	0	-	0	0	1	4	0	-	5	0	0	5	0	-	5	0	0	2	0	-	2	12
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	3.1	0.9	0.0	-	1.0	-	0.0	2.6	0.0	-	1.9	-	0.0	1.3	0.0	-	1.2	1.1
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	0	-	2	0	0	3	0	-	3	6
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	1.0	0.0	-	0.8	-	0.0	1.9	0.0	-	1.7	0.5
Bicycles on Road	0	0	2	1	-	3	0	0	2	1	-	3	0	1	3	0	-	4	0	0	1	0	-	1	11
% Bicycles on Road	-	0.0	1.2	4.3	-	1.5	-	0.0	0.5	6.7	-	0.6	-	1.9	1.5	0.0	-	1.5	-	0.0	0.6	0.0	-	0.6	1.0
Pedestrians	-	-	-	-	51	-	-	-	-	-	25	-	-	-	-	-	28	-	-	-	-	-	16	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Maplewood Avenue with Fulton
Street TMC
Site Code:
Start Date: 10/08/2024
Page No: 1

Turning Movement Data

Start Time	Fulton Street Eastbound					Fulton Street Westbound					Maplewood Avenue Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
6:00 AM	0	32	1	0	33	0	0	12	0	12	0	0	0	0	0	45
6:15 AM	0	38	1	0	39	0	0	11	1	11	1	0	0	0	1	51
6:30 AM	0	37	0	0	37	0	1	18	0	19	0	0	0	1	0	56
6:45 AM	0	68	1	0	69	0	0	11	0	11	0	1	0	0	1	81
Hourly Total	0	175	3	0	178	0	1	52	1	53	1	1	0	1	2	233
7:00 AM	0	77	2	0	79	0	1	34	0	35	0	0	0	2	0	114
7:15 AM	1	90	0	0	91	0	1	24	0	25	0	0	0	0	0	116
7:30 AM	0	91	1	1	92	0	0	30	0	30	0	0	1	0	1	123
7:45 AM	0	117	3	0	120	0	2	46	0	48	0	0	1	4	1	169
Hourly Total	1	375	6	1	382	0	4	134	0	138	0	0	2	6	2	522
8:00 AM	0	87	2	0	89	0	2	47	1	49	0	0	0	0	0	138
8:15 AM	0	98	2	0	100	0	3	43	0	46	0	2	0	2	2	148
8:30 AM	0	94	5	0	99	0	0	41	0	41	0	1	5	1	6	146
8:45 AM	1	96	9	0	106	0	3	39	0	42	0	2	1	4	3	151
Hourly Total	1	375	18	0	394	0	8	170	1	178	0	5	6	7	11	583
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	47	0	0	47	0	0	59	0	59	0	3	1	4	4	110
3:15 PM	1	44	1	0	46	0	1	64	0	65	0	1	0	8	1	112
3:30 PM	0	55	2	0	57	1	1	105	0	107	0	1	1	0	2	166
3:45 PM	0	37	2	0	39	0	0	95	0	95	0	0	2	0	2	136
Hourly Total	1	183	5	0	189	1	2	323	0	326	0	5	4	12	9	524
4:00 PM	0	51	2	0	53	0	0	102	0	102	0	1	2	0	3	158
4:15 PM	0	39	0	0	39	0	3	122	0	125	0	1	3	1	4	168
4:30 PM	0	45	0	0	45	0	1	95	0	96	0	2	0	1	2	143
4:45 PM	0	41	0	0	41	0	0	83	0	83	0	2	3	0	5	129
Hourly Total	0	176	2	0	178	0	4	402	0	406	0	6	8	2	14	598
5:00 PM	0	51	2	0	53	0	1	89	0	90	0	0	2	0	2	145
5:15 PM	0	37	0	0	37	0	2	121	0	123	0	0	3	1	3	163
5:30 PM	0	35	0	0	35	0	1	94	0	95	0	0	0	1	0	130
5:45 PM	0	32	0	0	32	0	0	67	0	67	0	1	1	0	2	101
Hourly Total	0	155	2	0	157	0	4	371	0	375	0	1	6	2	7	539
Grand Total	3	1439	36	1	1478	1	23	1452	2	1476	1	18	26	30	45	2999
Approach %	0.2	97.4	2.4	-	-	0.1	1.6	98.4	-	-	2.2	40.0	57.8	-	-	-
Total %	0.1	48.0	1.2	-	49.3	0.0	0.8	48.4	-	49.2	0.0	0.6	0.9	-	1.5	-
Lights	3	1336	29	-	1368	1	23	1376	-	1400	1	15	23	-	39	2807
% Lights	100.0	92.8	80.6	-	92.6	100.0	100.0	94.8	-	94.9	100.0	83.3	88.5	-	86.7	93.6

Buses	0	28	2	-	30	0	0	7	-	7	0	0	0	-	0	37
% Buses	0.0	1.9	5.6	-	2.0	0.0	0.0	0.5	-	0.5	0.0	0.0	0.0	-	0.0	1.2
Single-Unit Trucks	0	49	4	-	53	0	0	37	-	37	0	1	1	-	2	92
% Single-Unit Trucks	0.0	3.4	11.1	-	3.6	0.0	0.0	2.5	-	2.5	0.0	5.6	3.8	-	4.4	3.1
Articulated Trucks	0	9	0	-	9	0	0	12	-	12	0	0	0	-	0	21
% Articulated Trucks	0.0	0.6	0.0	-	0.6	0.0	0.0	0.8	-	0.8	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	17	1	-	18	0	0	20	-	20	0	2	2	-	4	42
% Bicycles on Road	0.0	1.2	2.8	-	1.2	0.0	0.0	1.4	-	1.4	0.0	11.1	7.7	-	8.9	1.4
Pedestrians	-	-	-	1	-	-	-	-	2	-	-	-	-	30	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Count Name: Maplewood Avenue with Fulton
Street TMC
Site Code:
Start Date: 10/08/2024
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Turning Movement Peak Hour Data (7:30 AM)

Start Time	Fulton Street Eastbound					Fulton Street Westbound					Maplewood Avenue Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:30 AM	0	91	1	1	92	0	0	30	0	30	0	0	1	0	1	123
7:45 AM	0	117	3	0	120	0	2	46	0	48	0	0	1	4	1	169
8:00 AM	0	87	2	0	89	0	2	47	1	49	0	0	0	0	0	138
8:15 AM	0	98	2	0	100	0	3	43	0	46	0	2	0	2	2	148
Total	0	393	8	1	401	0	7	166	1	173	0	2	2	6	4	578
Approach %	0.0	98.0	2.0	-	-	0.0	4.0	96.0	-	-	0.0	50.0	50.0	-	-	-
Total %	0.0	68.0	1.4	-	69.4	0.0	1.2	28.7	-	29.9	0.0	0.3	0.3	-	0.7	-
PHF	0.000	0.840	0.667	-	0.835	0.000	0.583	0.883	-	0.883	0.000	0.250	0.500	-	0.500	0.855
Lights	0	375	6	-	381	0	7	158	-	165	0	2	2	-	4	550
% Lights	-	95.4	75.0	-	95.0	-	100.0	95.2	-	95.4	-	100.0	100.0	-	100.0	95.2
Buses	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Buses	-	0.3	0.0	-	0.2	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	14	1	-	15	0	0	8	-	8	0	0	0	-	0	23
% Single-Unit Trucks	-	3.6	12.5	-	3.7	-	0.0	4.8	-	4.6	-	0.0	0.0	-	0.0	4.0
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	-	0.3	0.0	-	0.2	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	2	1	-	3	0	0	0	-	0	0	0	0	-	0	3
% Bicycles on Road	-	0.5	12.5	-	0.7	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.5
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	6	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Turning Movement Peak Hour Data (3:30 PM)

Start Time	Fulton Street Eastbound					Fulton Street Westbound					Maplewood Avenue Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
3:30 PM	0	55	2	0	57	1	1	105	0	107	0	1	1	0	2	166
3:45 PM	0	37	2	0	39	0	0	95	0	95	0	0	2	0	2	136
4:00 PM	0	51	2	0	53	0	0	102	0	102	0	1	2	0	3	158
4:15 PM	0	39	0	0	39	0	3	122	0	125	0	1	3	1	4	168
Total	0	182	6	0	188	1	4	424	0	429	0	3	8	1	11	628
Approach %	0.0	96.8	3.2	-	-	0.2	0.9	98.8	-	-	0.0	27.3	72.7	-	-	-
Total %	0.0	29.0	1.0	-	29.9	0.2	0.6	67.5	-	68.3	0.0	0.5	1.3	-	1.8	-
PHF	0.000	0.827	0.750	-	0.825	0.250	0.333	0.869	-	0.858	0.000	0.750	0.667	-	0.688	0.935
Lights	0	167	5	-	172	1	4	407	-	412	0	1	6	-	7	591
% Lights	-	91.8	83.3	-	91.5	100.0	100.0	96.0	-	96.0	-	33.3	75.0	-	63.6	94.1
Buses	0	5	0	-	5	0	0	1	-	1	0	0	0	-	0	6
% Buses	-	2.7	0.0	-	2.7	0.0	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	1.0
Single-Unit Trucks	0	5	1	-	6	0	0	7	-	7	0	1	1	-	2	15
% Single-Unit Trucks	-	2.7	16.7	-	3.2	0.0	0.0	1.7	-	1.6	-	33.3	12.5	-	18.2	2.4
Articulated Trucks	0	1	0	-	1	0	0	6	-	6	0	0	0	-	0	7
% Articulated Trucks	-	0.5	0.0	-	0.5	0.0	0.0	1.4	-	1.4	-	0.0	0.0	-	0.0	1.1
Bicycles on Road	0	4	0	-	4	0	0	3	-	3	0	1	1	-	2	9
% Bicycles on Road	-	2.2	0.0	-	2.1	0.0	0.0	0.7	-	0.7	-	33.3	12.5	-	18.2	1.4
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Site Code:
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Turning Movement Data

Start Time	Lake Street Eastbound					Lake Street Westbound					Maplewood Avenue Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
6:00 AM	0	0	19	0	19	0	5	0	0	5	0	1	0	1	1	25
6:15 AM	0	1	27	0	28	0	10	0	0	10	0	1	0	1	1	39
6:30 AM	0	1	38	0	39	0	17	0	0	17	0	1	0	1	1	57
6:45 AM	0	1	67	0	68	0	22	0	0	22	0	0	0	0	0	90
Hourly Total	0	3	151	0	154	0	54	0	0	54	0	3	0	3	3	211
7:00 AM	0	1	88	0	89	0	33	0	0	33	0	0	1	2	1	123
7:15 AM	0	1	133	0	134	0	41	1	0	42	0	0	2	1	2	178
7:30 AM	0	1	156	0	157	0	33	2	0	35	0	2	0	0	2	194
7:45 AM	0	0	130	0	130	0	47	0	0	47	0	0	1	0	1	178
Hourly Total	0	3	507	0	510	0	154	3	0	157	0	2	4	3	6	673
8:00 AM	0	1	112	0	113	0	59	1	0	60	0	2	1	1	3	176
8:15 AM	0	1	152	0	153	0	51	0	0	51	0	1	2	2	3	207
8:30 AM	0	6	142	0	148	0	38	1	0	39	0	1	1	1	2	189
8:45 AM	0	5	123	0	128	0	38	4	1	42	0	6	3	1	9	179
Hourly Total	0	13	529	0	542	0	186	6	1	192	0	10	7	5	17	751
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	54	1	54	0	88	1	0	89	0	0	0	0	0	143
3:15 PM	0	0	54	0	54	0	104	0	0	104	0	2	2	1	4	162
3:30 PM	0	1	62	0	63	0	117	0	0	117	0	2	3	1	5	185
3:45 PM	0	0	54	0	54	0	123	0	0	123	0	0	1	0	1	178
Hourly Total	0	1	224	1	225	0	432	1	0	433	0	4	6	2	10	668
4:00 PM	0	0	52	0	52	0	123	1	0	124	0	2	1	2	3	179
4:15 PM	0	0	35	0	35	0	127	1	0	128	0	2	3	2	5	168
4:30 PM	0	0	39	0	39	0	103	0	0	103	0	3	3	1	6	148
4:45 PM	0	1	42	0	43	0	121	1	0	122	0	2	0	0	2	167
Hourly Total	0	1	168	0	169	0	474	3	0	477	0	9	7	5	16	662
5:00 PM	0	0	46	0	46	0	105	0	0	105	0	0	1	2	1	152
5:15 PM	0	0	28	0	28	0	102	2	0	104	0	0	2	0	2	134
5:30 PM	0	0	35	0	35	0	105	0	0	105	0	1	2	0	3	143
5:45 PM	0	0	34	0	34	0	92	1	0	93	0	1	1	1	2	129
Hourly Total	0	0	143	0	143	0	404	3	0	407	0	2	6	3	8	558
Grand Total	0	21	1722	1	1743	0	1704	16	1	1720	0	30	30	21	60	3523
Approach %	0.0	1.2	98.8	-	-	0.0	99.1	0.9	-	-	0.0	50.0	50.0	-	-	-
Total %	0.0	0.6	48.9	-	49.5	0.0	48.4	0.5	-	48.8	0.0	0.9	0.9	-	1.7	-
Lights	0	21	1664	-	1685	0	1652	15	-	1667	0	27	30	-	57	3409
% Lights	-	100.0	96.6	-	96.7	-	96.9	93.8	-	96.9	-	90.0	100.0	-	95.0	96.8

Buses	0	0	1	-	1	0	2	0	-	2	0	2	0	-	2	5
% Buses	-	0.0	0.1	-	0.1	-	0.1	0.0	-	0.1	-	6.7	0.0	-	3.3	0.1
Single-Unit Trucks	0	0	25	-	25	0	14	1	-	15	0	1	0	-	1	41
% Single-Unit Trucks	-	0.0	1.5	-	1.4	-	0.8	6.3	-	0.9	-	3.3	0.0	-	1.7	1.2
Articulated Trucks	0	0	1	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.1	-	0.1	-	0.1	0.0	-	0.1	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	31	-	31	0	35	0	-	35	0	0	0	-	0	66
% Bicycles on Road	-	0.0	1.8	-	1.8	-	2.1	0.0	-	2.0	-	0.0	0.0	-	0.0	1.9
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	21	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Turning Movement Peak Hour Data (7:30 AM)

Start Time	Lake Street Eastbound					Lake Street Westbound					Maplewood Avenue Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:30 AM	0	1	156	0	157	0	33	2	0	35	0	2	0	0	2	194
7:45 AM	0	0	130	0	130	0	47	0	0	47	0	0	1	0	1	178
8:00 AM	0	1	112	0	113	0	59	1	0	60	0	2	1	1	3	176
8:15 AM	0	1	152	0	153	0	51	0	0	51	0	1	2	2	3	207
Total	0	3	550	0	553	0	190	3	0	193	0	5	4	3	9	755
Approach %	0.0	0.5	99.5	-	-	0.0	98.4	1.6	-	-	0.0	55.6	44.4	-	-	-
Total %	0.0	0.4	72.8	-	73.2	0.0	25.2	0.4	-	25.6	0.0	0.7	0.5	-	1.2	-
PHF	0.000	0.750	0.881	-	0.881	0.000	0.805	0.375	-	0.804	0.000	0.625	0.500	-	0.750	0.912
Lights	0	3	527	-	530	0	180	3	-	183	0	4	4	-	8	721
% Lights	-	100.0	95.8	-	95.8	-	94.7	100.0	-	94.8	-	80.0	100.0	-	88.9	95.5
Buses	0	0	0	-	0	0	2	0	-	2	0	0	0	-	0	2
% Buses	-	0.0	0.0	-	0.0	-	1.1	0.0	-	1.0	-	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	8	-	8	0	2	0	-	2	0	1	0	-	1	11
% Single-Unit Trucks	-	0.0	1.5	-	1.4	-	1.1	0.0	-	1.0	-	20.0	0.0	-	11.1	1.5
Articulated Trucks	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	14	-	14	0	6	0	-	6	0	0	0	-	0	20
% Bicycles on Road	-	0.0	2.5	-	2.5	-	3.2	0.0	-	3.1	-	0.0	0.0	-	0.0	2.6
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Turning Movement Peak Hour Data (3:30 PM)

Start Time	Lake Street Eastbound					Lake Street Westbound					Maplewood Avenue Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
3:30 PM	0	1	62	0	63	0	117	0	0	117	0	2	3	1	5	185
3:45 PM	0	0	54	0	54	0	123	0	0	123	0	0	1	0	1	178
4:00 PM	0	0	52	0	52	0	123	1	0	124	0	2	1	2	3	179
4:15 PM	0	0	35	0	35	0	127	1	0	128	0	2	3	2	5	168
Total	0	1	203	0	204	0	490	2	0	492	0	6	8	5	14	710
Approach %	0.0	0.5	99.5	-	-	0.0	99.6	0.4	-	-	0.0	42.9	57.1	-	-	-
Total %	0.0	0.1	28.6	-	28.7	0.0	69.0	0.3	-	69.3	0.0	0.8	1.1	-	2.0	-
PHF	0.000	0.250	0.819	-	0.810	0.000	0.965	0.500	-	0.961	0.000	0.750	0.667	-	0.700	0.959
Lights	0	1	197	-	198	0	475	1	-	476	0	6	8	-	14	688
% Lights	-	100.0	97.0	-	97.1	-	96.9	50.0	-	96.7	-	100.0	100.0	-	100.0	96.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	-	1	0	5	1	-	6	0	0	0	-	0	7
% Single-Unit Trucks	-	0.0	0.5	-	0.5	-	1.0	50.0	-	1.2	-	0.0	0.0	-	0.0	1.0
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.2	0.0	-	0.2	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	5	-	5	0	9	0	-	9	0	0	0	-	0	14
% Bicycles on Road	-	0.0	2.5	-	2.5	-	1.8	0.0	-	1.8	-	0.0	0.0	-	0.0	2.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Western Avenue with Fulton Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 1

Turning Movement Data

Start Time	Fulton Street Eastbound						Fulton Street Westbound						Western Avenue Northbound						Western Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	7	9	17	0	33	0	3	2	0	1	5	0	12	86	9	0	107	0	4	117	7	0	128	273
6:15 AM	0	9	12	11	0	32	0	5	4	2	0	11	0	5	122	10	0	137	0	3	184	5	0	192	372
6:30 AM	0	10	13	9	4	32	0	4	7	0	0	11	0	11	161	9	3	181	0	3	238	5	1	246	470
6:45 AM	0	14	31	11	1	56	0	5	4	3	0	12	0	5	165	20	0	190	0	8	258	7	0	273	531
Hourly Total	0	40	65	48	5	153	0	17	17	5	1	39	0	33	534	48	3	615	0	18	797	24	1	839	1646
7:00 AM	0	20	21	19	4	60	0	8	10	1	3	19	0	15	212	15	1	242	0	2	255	7	3	264	585
7:15 AM	0	23	42	17	2	82	0	4	17	4	1	25	0	8	203	8	1	219	0	8	308	3	1	319	645
7:30 AM	0	17	61	14	2	92	0	3	12	6	0	21	0	13	216	12	0	241	0	13	346	7	1	366	720
7:45 AM	0	20	76	34	3	130	0	3	24	2	1	29	0	14	179	15	1	208	0	4	267	13	1	284	651
Hourly Total	0	80	200	84	11	364	0	18	63	13	5	94	0	50	810	50	3	910	0	27	1176	30	6	1233	2601
8:00 AM	0	11	54	18	4	83	0	12	22	3	2	37	0	15	198	12	0	225	0	8	335	22	0	365	710
8:15 AM	0	18	64	22	2	104	0	8	18	2	2	28	0	19	194	4	2	217	0	9	238	11	2	258	607
8:30 AM	0	14	51	19	2	84	0	5	13	5	3	23	1	10	179	9	0	199	0	12	223	21	1	256	562
8:45 AM	0	27	60	24	0	111	0	5	19	2	2	26	0	10	163	10	5	183	0	28	205	24	1	257	577
Hourly Total	0	70	229	83	8	382	0	30	72	12	9	114	1	54	734	35	7	824	0	57	1001	78	4	1136	2456
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	16	21	14	6	51	0	11	31	13	5	55	0	10	294	6	1	310	0	5	255	17	2	277	693
3:15 PM	0	19	22	12	9	53	0	21	41	14	0	76	0	11	326	2	2	339	0	1	209	12	3	222	690
3:30 PM	0	16	25	11	7	52	0	13	57	9	4	79	0	14	312	7	2	333	0	1	277	21	1	299	763
3:45 PM	0	13	25	6	13	44	0	12	48	11	2	71	0	22	292	12	0	326	0	3	254	20	1	277	718
Hourly Total	0	64	93	43	35	200	0	57	177	47	11	281	0	57	1224	27	5	1308	0	10	995	70	7	1075	2864
4:00 PM	0	21	22	15	2	58	0	21	67	10	4	98	0	19	285	12	4	316	0	3	221	11	3	235	707
4:15 PM	0	9	22	17	3	48	0	16	76	12	10	104	0	33	276	20	5	329	0	6	247	12	2	265	746
4:30 PM	0	25	18	20	3	63	0	15	56	15	1	86	0	22	320	20	3	362	0	3	261	13	1	277	788
4:45 PM	0	17	17	11	4	45	0	15	47	12	3	74	0	19	286	9	0	314	0	2	262	10	0	274	707
Hourly Total	0	72	79	63	12	214	0	67	246	49	18	362	0	93	1167	61	12	1321	0	14	991	46	6	1051	2948
5:00 PM	0	19	48	22	7	89	0	14	51	21	2	86	0	16	339	8	0	363	0	3	222	8	0	233	771
5:15 PM	0	12	21	6	1	39	0	9	70	15	4	94	0	22	360	6	1	388	0	3	272	11	1	286	807
5:30 PM	0	19	15	4	1	38	0	4	58	7	3	69	0	16	344	4	0	364	0	2	259	14	2	275	746
5:45 PM	0	12	15	6	5	33	0	4	33	5	2	42	0	22	366	10	0	398	0	3	247	4	0	254	727
Hourly Total	0	62	99	38	14	199	0	31	212	48	11	291	0	76	1409	28	1	1513	0	11	1000	37	3	1048	3051
Grand Total	0	388	765	359	85	1512	0	220	787	174	55	1181	1	363	5878	249	31	6491	0	137	5960	285	27	6382	15566
Approach %	0.0	25.7	50.6	23.7	-	-	0.0	18.6	66.6	14.7	-	-	0.0	5.6	90.6	3.8	-	-	0.0	2.1	93.4	4.5	-	-	-
Total %	0.0	2.5	4.9	2.3	-	9.7	0.0	1.4	5.1	1.1	-	7.6	0.0	2.3	37.8	1.6	-	41.7	0.0	0.9	38.3	1.8	-	41.0	-
Lights	0	359	732	288	-	1379	0	187	753	159	-	1099	1	323	5592	212	-	6128	0	130	5677	259	-	6066	14672

% Lights	-	92.5	95.7	80.2	-	91.2	-	85.0	95.7	91.4	-	93.1	100.0	89.0	95.1	85.1	-	94.4	-	94.9	95.3	90.9	-	95.0	94.3
Buses	0	9	1	19	-	29	0	0	1	0	-	1	0	4	100	0	-	104	0	0	116	2	-	118	252
% Buses	-	2.3	0.1	5.3	-	1.9	-	0.0	0.1	0.0	-	0.1	0.0	1.1	1.7	0.0	-	1.6	-	0.0	1.9	0.7	-	1.8	1.6
Single-Unit Trucks	0	12	23	21	-	56	0	25	19	12	-	56	0	12	126	32	-	170	0	3	121	13	-	137	419
% Single-Unit Trucks	-	3.1	3.0	5.8	-	3.7	-	11.4	2.4	6.9	-	4.7	0.0	3.3	2.1	12.9	-	2.6	-	2.2	2.0	4.6	-	2.1	2.7
Articulated Trucks	0	8	0	29	-	37	0	8	5	1	-	14	0	24	53	4	-	81	0	3	40	11	-	54	186
% Articulated Trucks	-	2.1	0.0	8.1	-	2.4	-	3.6	0.6	0.6	-	1.2	0.0	6.6	0.9	1.6	-	1.2	-	2.2	0.7	3.9	-	0.8	1.2
Bicycles on Road	0	0	9	2	-	11	0	0	9	2	-	11	0	0	7	1	-	8	0	1	6	0	-	7	37
% Bicycles on Road	-	0.0	1.2	0.6	-	0.7	-	0.0	1.1	1.1	-	0.9	0.0	0.0	0.1	0.4	-	0.1	-	0.7	0.1	0.0	-	0.1	0.2
Pedestrians	-	-	-	-	85	-	-	-	-	-	55	-	-	-	-	-	31	-	-	-	-	-	27	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Western Avenue with Fulton Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Fulton Street Eastbound						Fulton Street Westbound						Western Avenue Northbound						Western Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	17	61	14	2	92	0	3	12	6	0	21	0	13	216	12	0	241	0	13	346	7	1	366	720
7:45 AM	0	20	76	34	3	130	0	3	24	2	1	29	0	14	179	15	1	208	0	4	267	13	1	284	651
8:00 AM	0	11	54	18	4	83	0	12	22	3	2	37	0	15	198	12	0	225	0	8	335	22	0	365	710
8:15 AM	0	18	64	22	2	104	0	8	18	2	2	28	0	19	194	4	2	217	0	9	238	11	2	258	607
Total	0	66	255	88	11	409	0	26	76	13	5	115	0	61	787	43	3	891	0	34	1186	53	4	1273	2688
Approach %	0.0	16.1	62.3	21.5	-	-	0.0	22.6	66.1	11.3	-	-	0.0	6.8	88.3	4.8	-	-	0.0	2.7	93.2	4.2	-	-	-
Total %	0.0	2.5	9.5	3.3	-	15.2	0.0	1.0	2.8	0.5	-	4.3	0.0	2.3	29.3	1.6	-	33.1	0.0	1.3	44.1	2.0	-	47.4	-
PHF	0.000	0.825	0.839	0.647	-	0.787	0.000	0.542	0.792	0.542	-	0.777	0.000	0.803	0.911	0.717	-	0.924	0.000	0.654	0.857	0.602	-	0.870	0.933
Lights	0	62	246	75	-	383	0	17	72	11	-	100	0	51	716	34	-	801	0	32	1130	52	-	1214	2498
% Lights	-	93.9	96.5	85.2	-	93.6	-	65.4	94.7	84.6	-	87.0	-	83.6	91.0	79.1	-	89.9	-	94.1	95.3	98.1	-	95.4	92.9
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	0	16	0	-	16	0	0	25	0	-	25	42
% Buses	-	1.5	0.0	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	2.0	0.0	-	1.8	-	0.0	2.1	0.0	-	2.0	1.6
Single-Unit Trucks	0	2	7	10	-	19	0	5	4	2	-	11	0	3	42	7	-	52	0	1	18	1	-	20	102
% Single-Unit Trucks	-	3.0	2.7	11.4	-	4.6	-	19.2	5.3	15.4	-	9.6	-	4.9	5.3	16.3	-	5.8	-	2.9	1.5	1.9	-	1.6	3.8
Articulated Trucks	0	1	0	3	-	4	0	4	0	0	-	4	0	7	13	2	-	22	0	1	12	0	-	13	43
% Articulated Trucks	-	1.5	0.0	3.4	-	1.0	-	15.4	0.0	0.0	-	3.5	-	11.5	1.7	4.7	-	2.5	-	2.9	1.0	0.0	-	1.0	1.6
Bicycles on Road	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	3
% Bicycles on Road	-	0.0	0.8	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.1
Pedestrians	-	-	-	-	11	-	-	-	-	-	5	-	-	-	-	-	3	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Western Avenue with Fulton Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 4

Turning Movement Peak Hour Data (3:30 PM)

Start Time	Fulton Street Eastbound						Fulton Street Westbound						Western Avenue Northbound						Western Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
3:30 PM	0	16	25	11	7	52	0	13	57	9	4	79	0	14	312	7	2	333	0	1	277	21	1	299	763
3:45 PM	0	13	25	6	13	44	0	12	48	11	2	71	0	22	292	12	0	326	0	3	254	20	1	277	718
4:00 PM	0	21	22	15	2	58	0	21	67	10	4	98	0	19	285	12	4	316	0	3	221	11	3	235	707
4:15 PM	0	9	22	17	3	48	0	16	76	12	10	104	0	33	276	20	5	329	0	6	247	12	2	265	746
Total	0	59	94	49	25	202	0	62	248	42	20	352	0	88	1165	51	11	1304	0	13	999	64	7	1076	2934
Approach %	0.0	29.2	46.5	24.3	-	-	0.0	17.6	70.5	11.9	-	-	0.0	6.7	89.3	3.9	-	-	0.0	1.2	92.8	5.9	-	-	-
Total %	0.0	2.0	3.2	1.7	-	6.9	0.0	2.1	8.5	1.4	-	12.0	0.0	3.0	39.7	1.7	-	44.4	0.0	0.4	34.0	2.2	-	36.7	-
PHF	0.000	0.702	0.940	0.721	-	0.871	0.000	0.738	0.816	0.875	-	0.846	0.000	0.667	0.933	0.638	-	0.979	0.000	0.542	0.902	0.762	-	0.900	0.961
Lights	0	54	89	42	-	185	0	61	240	39	-	340	0	82	1127	43	-	1252	0	11	937	56	-	1004	2781
% Lights	-	91.5	94.7	85.7	-	91.6	-	98.4	96.8	92.9	-	96.6	-	93.2	96.7	84.3	-	96.0	-	84.6	93.8	87.5	-	93.3	94.8
Buses	0	3	0	2	-	5	0	0	1	0	-	1	0	0	17	0	-	17	0	0	24	0	-	24	47
% Buses	-	5.1	0.0	4.1	-	2.5	-	0.0	0.4	0.0	-	0.3	-	0.0	1.5	0.0	-	1.3	-	0.0	2.4	0.0	-	2.2	1.6
Single-Unit Trucks	0	1	3	1	-	5	0	0	5	2	-	7	0	1	15	8	-	24	0	1	33	1	-	35	71
% Single-Unit Trucks	-	1.7	3.2	2.0	-	2.5	-	0.0	2.0	4.8	-	2.0	-	1.1	1.3	15.7	-	1.8	-	7.7	3.3	1.6	-	3.3	2.4
Articulated Trucks	0	1	0	4	-	5	0	1	2	0	-	3	0	5	5	0	-	10	0	1	4	7	-	12	30
% Articulated Trucks	-	1.7	0.0	8.2	-	2.5	-	1.6	0.8	0.0	-	0.9	-	5.7	0.4	0.0	-	0.8	-	7.7	0.4	10.9	-	1.1	1.0
Bicycles on Road	0	0	2	0	-	2	0	0	0	1	-	1	0	0	1	0	-	1	0	0	1	0	-	1	5
% Bicycles on Road	-	0.0	2.1	0.0	-	1.0	-	0.0	0.0	2.4	-	0.3	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	0.2
Pedestrians	-	-	-	-	25	-	-	-	-	-	20	-	-	-	-	-	11	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Western Avenue with Lake Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 1

Turning Movement Data

Start Time	Lake Street Eastbound						Lake Street Westbound						Western Avenue Northbound						Western Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	4	8	8	0	20	0	5	5	1	3	11	0	8	103	14	2	125	0	0	135	2	3	137	293
6:15 AM	0	7	17	7	0	31	0	6	6	1	1	13	0	4	123	9	2	136	0	10	161	3	1	174	354
6:30 AM	0	9	27	14	1	50	0	6	10	1	0	17	0	9	173	13	0	195	0	2	246	2	1	250	512
6:45 AM	0	6	31	24	0	61	0	6	7	1	0	14	0	10	196	8	2	214	0	12	249	5	1	266	555
Hourly Total	0	26	83	53	1	162	0	23	28	4	4	55	0	31	595	44	6	670	0	24	791	12	6	827	1714
7:00 AM	0	8	52	26	1	86	0	4	22	5	1	31	0	6	216	11	1	233	0	6	248	4	3	258	608
7:15 AM	0	5	76	40	1	121	0	8	26	0	1	34	0	15	246	19	1	280	0	8	313	5	0	326	761
7:30 AM	0	14	89	29	0	132	0	6	22	7	0	35	0	12	224	13	3	249	0	11	348	4	0	363	779
7:45 AM	0	8	91	31	0	130	0	5	24	3	0	32	0	22	218	38	5	278	0	15	313	4	6	332	772
Hourly Total	0	35	308	126	2	469	0	23	94	15	2	132	0	55	904	81	10	1040	0	40	1222	17	9	1279	2920
8:00 AM	0	12	86	19	0	117	0	7	41	1	3	49	0	12	205	17	1	234	0	13	331	9	1	353	753
8:15 AM	0	8	88	26	0	122	0	10	39	3	0	52	0	13	209	15	1	237	0	12	262	6	2	280	691
8:30 AM	0	12	93	19	0	124	0	7	26	3	4	36	0	13	204	20	0	237	0	3	238	5	4	246	643
8:45 AM	0	4	107	29	0	140	0	11	25	3	0	39	0	19	171	20	1	210	0	5	219	9	0	233	622
Hourly Total	0	36	374	93	0	503	0	35	131	10	7	176	0	57	789	72	3	918	0	33	1050	29	7	1112	2709
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	10	45	12	0	67	0	22	60	10	1	92	0	21	297	7	0	325	0	6	255	7	0	268	752
3:15 PM	0	10	36	13	1	59	0	18	68	11	1	97	0	29	323	15	7	367	0	6	238	10	0	254	777
3:30 PM	0	12	41	14	4	67	1	18	66	11	2	96	0	37	327	12	6	376	0	10	277	12	2	299	838
3:45 PM	0	6	42	16	9	64	0	19	74	13	2	106	0	33	295	31	8	359	0	6	254	10	1	270	799
Hourly Total	0	38	164	55	14	257	1	77	268	45	6	391	0	120	1242	65	21	1427	0	28	1024	39	3	1091	3166
4:00 PM	0	3	46	15	4	64	0	14	69	9	4	92	0	30	304	28	4	362	0	5	262	15	3	282	800
4:15 PM	0	8	36	10	0	54	0	13	95	9	4	117	0	25	306	6	0	337	0	11	272	8	2	291	799
4:30 PM	0	11	28	12	1	51	0	17	81	11	1	109	0	18	340	10	5	368	0	14	274	7	2	295	823
4:45 PM	0	14	29	10	5	53	0	11	86	8	2	105	0	20	303	14	1	337	0	9	256	10	2	275	770
Hourly Total	0	36	139	47	10	222	0	55	331	37	11	423	0	93	1253	58	10	1404	0	39	1064	40	9	1143	3192
5:00 PM	0	11	38	18	0	67	0	17	80	13	0	110	0	23	340	13	1	376	0	12	254	6	0	272	825
5:15 PM	0	12	23	2	0	37	0	9	75	15	1	99	0	23	352	13	0	388	0	12	293	3	0	308	832
5:30 PM	0	2	25	11	5	38	0	10	75	22	0	107	0	18	353	10	0	381	0	4	263	9	2	276	802
5:45 PM	0	10	29	8	4	47	0	16	64	18	2	98	0	15	381	9	7	405	0	3	260	5	2	268	818
Hourly Total	0	35	115	39	9	189	0	52	294	68	3	414	0	79	1426	45	8	1550	0	31	1070	23	4	1124	3277
Grand Total	0	206	1183	413	36	1802	1	265	1146	179	33	1591	0	435	6209	365	58	7009	0	195	6221	160	38	6576	16978
Approach %	0.0	11.4	65.6	22.9	-	-	0.1	16.7	72.0	11.3	-	-	0.0	6.2	88.6	5.2	-	-	0.0	3.0	94.6	2.4	-	-	-
Total %	0.0	1.2	7.0	2.4	-	10.6	0.0	1.6	6.7	1.1	-	9.4	0.0	2.6	36.6	2.1	-	41.3	0.0	1.1	36.6	0.9	-	38.7	-
Lights	0	198	1129	404	-	1731	1	254	1096	173	-	1524	0	426	5824	350	-	6600	0	187	5828	155	-	6170	16025

% Lights	-	96.1	95.4	97.8	-	96.1	100.0	95.8	95.6	96.6	-	95.8	-	97.9	93.8	95.9	-	94.2	-	95.9	93.7	96.9	-	93.8	94.4
Buses	0	0	2	1	-	3	0	2	3	0	-	5	0	1	102	0	-	103	0	3	132	0	-	135	246
% Buses	-	0.0	0.2	0.2	-	0.2	0.0	0.8	0.3	0.0	-	0.3	-	0.2	1.6	0.0	-	1.5	-	1.5	2.1	0.0	-	2.1	1.4
Single-Unit Trucks	0	5	20	5	-	30	0	5	13	3	-	21	0	5	182	8	-	195	0	1	181	3	-	185	431
% Single-Unit Trucks	-	2.4	1.7	1.2	-	1.7	0.0	1.9	1.1	1.7	-	1.3	-	1.1	2.9	2.2	-	2.8	-	0.5	2.9	1.9	-	2.8	2.5
Articulated Trucks	0	3	2	3	-	8	0	3	1	0	-	4	0	3	90	2	-	95	0	2	76	2	-	80	187
% Articulated Trucks	-	1.5	0.2	0.7	-	0.4	0.0	1.1	0.1	0.0	-	0.3	-	0.7	1.4	0.5	-	1.4	-	1.0	1.2	1.3	-	1.2	1.1
Bicycles on Road	0	0	30	0	-	30	0	1	33	3	-	37	0	0	11	5	-	16	0	2	4	0	-	6	89
% Bicycles on Road	-	0.0	2.5	0.0	-	1.7	0.0	0.4	2.9	1.7	-	2.3	-	0.0	0.2	1.4	-	0.2	-	1.0	0.1	0.0	-	0.1	0.5
Pedestrians	-	-	-	-	36	-	-	-	-	-	33	-	-	-	-	-	58	-	-	-	-	-	38	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Western Avenue with Lake Street
TMC
Site Code:
Start Date: 10/08/2024
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Lake Street Eastbound						Lake Street Westbound						Western Avenue Northbound						Western Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	14	89	29	0	132	0	6	22	7	0	35	0	12	224	13	3	249	0	11	348	4	0	363	779
7:45 AM	0	8	91	31	0	130	0	5	24	3	0	32	0	22	218	38	5	278	0	15	313	4	6	332	772
8:00 AM	0	12	86	19	0	117	0	7	41	1	3	49	0	12	205	17	1	234	0	13	331	9	1	353	753
8:15 AM	0	8	88	26	0	122	0	10	39	3	0	52	0	13	209	15	1	237	0	12	262	6	2	280	691
Total	0	42	354	105	0	501	0	28	126	14	3	168	0	59	856	83	10	998	0	51	1254	23	9	1328	2995
Approach %	0.0	8.4	70.7	21.0	-	-	0.0	16.7	75.0	8.3	-	-	0.0	5.9	85.8	8.3	-	-	0.0	3.8	94.4	1.7	-	-	-
Total %	0.0	1.4	11.8	3.5	-	16.7	0.0	0.9	4.2	0.5	-	5.6	0.0	2.0	28.6	2.8	-	33.3	0.0	1.7	41.9	0.8	-	44.3	-
PHF	0.000	0.750	0.973	0.847	-	0.949	0.000	0.700	0.768	0.500	-	0.808	0.000	0.670	0.955	0.546	-	0.897	0.000	0.850	0.901	0.639	-	0.915	0.961
Lights	0	39	342	105	-	486	0	24	114	14	-	152	0	58	763	79	-	900	0	49	1182	22	-	1253	2791
% Lights	-	92.9	96.6	100.0	-	97.0	-	85.7	90.5	100.0	-	90.5	-	98.3	89.1	95.2	-	90.2	-	96.1	94.3	95.7	-	94.4	93.2
Buses	0	0	0	0	-	0	0	1	2	0	-	3	0	0	17	0	-	17	0	2	22	0	-	24	44
% Buses	-	0.0	0.0	0.0	-	0.0	-	3.6	1.6	0.0	-	1.8	-	0.0	2.0	0.0	-	1.7	-	3.9	1.8	0.0	-	1.8	1.5
Single-Unit Trucks	0	3	5	0	-	8	0	2	3	0	-	5	0	1	50	4	-	55	0	0	32	1	-	33	101
% Single-Unit Trucks	-	7.1	1.4	0.0	-	1.6	-	7.1	2.4	0.0	-	3.0	-	1.7	5.8	4.8	-	5.5	-	0.0	2.6	4.3	-	2.5	3.4
Articulated Trucks	0	0	1	0	-	1	0	1	0	0	-	1	0	0	26	0	-	26	0	0	17	0	-	17	45
% Articulated Trucks	-	0.0	0.3	0.0	-	0.2	-	3.6	0.0	0.0	-	0.6	-	0.0	3.0	0.0	-	2.6	-	0.0	1.4	0.0	-	1.3	1.5
Bicycles on Road	0	0	6	0	-	6	0	0	7	0	-	7	0	0	0	0	-	0	0	0	1	0	-	1	14
% Bicycles on Road	-	0.0	1.7	0.0	-	1.2	-	0.0	5.6	0.0	-	4.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.5
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	10	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Site Code:
Start Date: 10/08/2024
Page No: 4

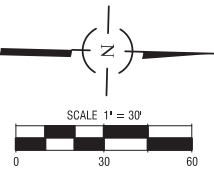
Turning Movement Peak Hour Data (3:30 PM)

Start Time	Lake Street Eastbound						Lake Street Westbound						Western Avenue Northbound						Western Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
3:30 PM	0	12	41	14	4	67	1	18	66	11	2	96	0	37	327	12	6	376	0	10	277	12	2	299	838
3:45 PM	0	6	42	16	9	64	0	19	74	13	2	106	0	33	295	31	8	359	0	6	254	10	1	270	799
4:00 PM	0	3	46	15	4	64	0	14	69	9	4	92	0	30	304	28	4	362	0	5	262	15	3	282	800
4:15 PM	0	8	36	10	0	54	0	13	95	9	4	117	0	25	306	6	0	337	0	11	272	8	2	291	799
Total	0	29	165	55	17	249	1	64	304	42	12	411	0	125	1232	77	18	1434	0	32	1065	45	8	1142	3236
Approach %	0.0	11.6	66.3	22.1	-	-	0.2	15.6	74.0	10.2	-	-	0.0	8.7	85.9	5.4	-	-	0.0	2.8	93.3	3.9	-	-	-
Total %	0.0	0.9	5.1	1.7	-	7.7	0.0	2.0	9.4	1.3	-	12.7	0.0	3.9	38.1	2.4	-	44.3	0.0	1.0	32.9	1.4	-	35.3	-
PHF	0.000	0.604	0.897	0.859	-	0.929	0.250	0.842	0.800	0.808	-	0.878	0.000	0.845	0.942	0.621	-	0.953	0.000	0.727	0.961	0.750	-	0.955	0.965
Lights	0	29	158	54	-	241	1	62	290	40	-	393	0	125	1173	74	-	1372	0	30	996	44	-	1070	3076
% Lights	-	100.0	95.8	98.2	-	96.8	100.0	96.9	95.4	95.2	-	95.6	-	100.0	95.2	96.1	-	95.7	-	93.8	93.5	97.8	-	93.7	95.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	17	0	-	17	0	0	28	0	-	28	45
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	1.4	0.0	-	1.2	-	0.0	2.6	0.0	-	2.5	1.4
Single-Unit Trucks	0	0	0	1	-	1	0	1	5	1	-	7	0	0	25	1	-	26	0	0	33	0	-	33	67
% Single-Unit Trucks	-	0.0	0.0	1.8	-	0.4	0.0	1.6	1.6	2.4	-	1.7	-	0.0	2.0	1.3	-	1.8	-	0.0	3.1	0.0	-	2.9	2.1
Articulated Trucks	0	0	0	0	-	0	0	1	1	0	-	2	0	0	13	0	-	13	0	1	7	1	-	9	24
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	1.6	0.3	0.0	-	0.5	-	0.0	1.1	0.0	-	0.9	-	3.1	0.7	2.2	-	0.8	0.7
Bicycles on Road	0	0	7	0	-	7	0	0	8	1	-	9	0	0	4	2	-	6	0	1	1	0	-	2	24
% Bicycles on Road	-	0.0	4.2	0.0	-	2.8	0.0	0.0	2.6	2.4	-	2.2	-	0.0	0.3	2.6	-	0.4	-	3.1	0.1	0.0	-	0.2	0.7
Pedestrians	-	-	-	-	17	-	-	-	-	-	12	-	-	-	-	-	18	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

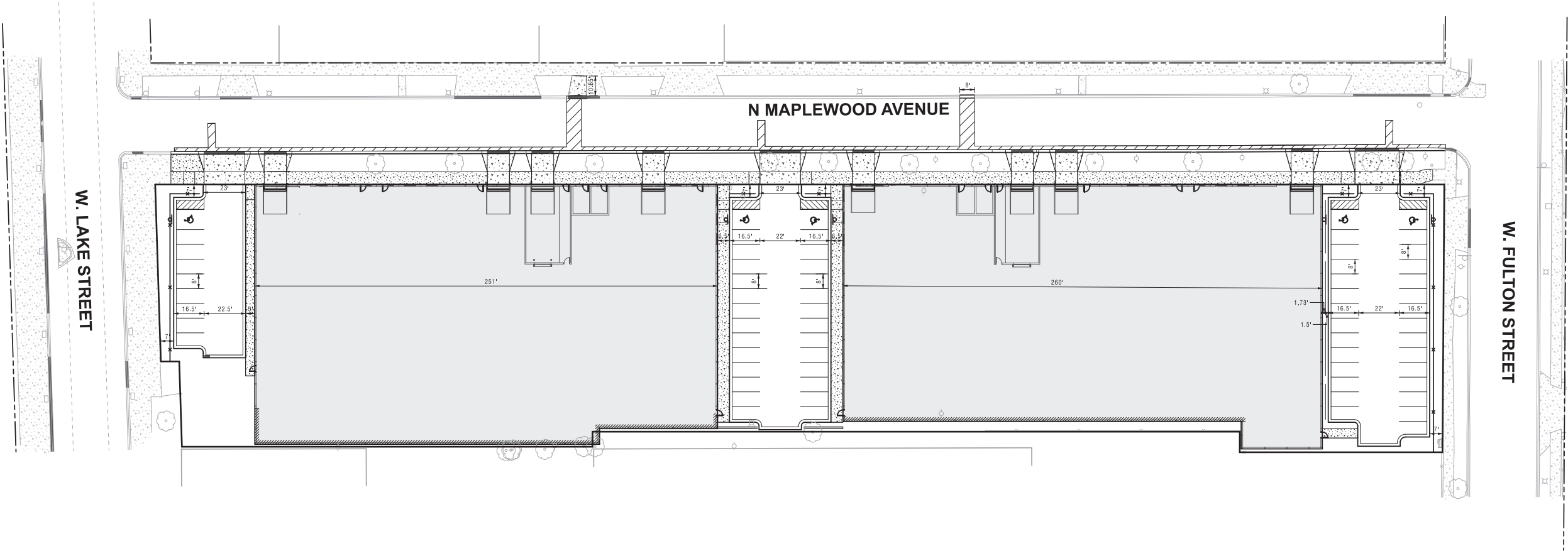
Site Plan

- LEGEND
- ASPHALT PAVEMENT
 - CITY PAVEMENT - FULL DEPTH
 - CONCRETE PAVEMENT OR APRON
 - CONCRETE SIDEWALK
 - CONCRETE SIDEWALK
HC RAMP (5' WIDE UNLESS NOTED)
 - REVERSE PITCH CURB
 - DEPRESSED CURB & GUTTER

- NOTES:
- ALL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
 - ALL CURBS AND GUTTERS ARE STANDARD PITCH UNLESS OTHERWISE NOTED.
 - SEE SHEET C1.00 FOR PAVEMENT SECTION DETAILS.
 - ALL ON-SITE PAVEMENT MARKINGS SHALL BE PAINT.
 - ALL ACCESSIBLE PARKING SPACE SIGNAGE SHALL CONFORM TO ILLINOIS ACCESSIBILITY CODE.
 - SEE ARCHITECTURAL DRAWINGS FOR DESIGN AND DETAILS OF THE BUILDINGS.



SITE PLAN OPTION 2 - 03/19/25



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CIVIL
SPACECO, INC.
5875 W. Hubbard Rd.
Suite 100
Rosemont, IL 60018
(847) 696-4060

PROJECT
MODERN CITY INDUSTRIAL
203 N Maplewood Ave & 235 N Maplewood Ave
Chicago, IL 60612

JOB NO: 13617
PA:
ISSUE DATE: 01.30.2025

#	DESCRIPTION	DATE
1	PERMIT	01.30.2025
2	90% DD	03.07.2025

GEOMETRIC PLAN

SHEET NUMBER
C3.00

1 OF 1

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 6th Edition.

Capacity Analysis Summary Sheets
Existing Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	253	88	26	76	13	61	787	43	34	1185	53
Future Volume (vph)	66	253	88	26	76	13	61	787	43	34	1185	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.971			0.985			0.992			0.994	
Flt Protected		0.992			0.989		0.950			0.950		
Satd. Flow (prot)	0	1662	0	0	1582	0	1504	3152	0	1646	3300	0
Flt Permitted		0.928			0.824		0.104			0.300		
Satd. Flow (perm)	0	1553	0	0	1317	0	165	3152	0	518	3300	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			6			10			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		987			190			737			290	
Travel Time (s)		22.4			4.3			16.8			6.6	
Confl. Peds. (#/hr)	4		3	3		4	11		5	5		11
Confl. Bikes (#/hr)			1									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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	3%	15%	35%	5%	15%	16%	9%	21%	6%	5%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	438	0	0	124	0	66	892	0	37	1331	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		5.0	16.0		16.0	16.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		8.0	23.0		23.0	23.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	68.0		60.0	60.0	
Total Split (%)	35.2%	35.2%		35.2%	35.2%		7.6%	64.8%		57.1%	57.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		3.0	4.0		4.0	4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	Max	Max		Max	Max		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		32.0			32.0		65.0	64.0		57.6	57.6	
Actuated g/C Ratio		0.30			0.30		0.62	0.61		0.55	0.55	

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.91			0.31		0.40	0.46		0.13	0.73	
Control Delay		58.5			29.1		29.1	31.4		13.9	21.3	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		58.5			29.1		29.1	31.4		13.9	21.3	
LOS		E			C		C	C		B	C	
Approach Delay		58.5			29.1			31.2			21.1	
Approach LOS		E			C			C			C	
Queue Length 50th (ft)		274			60		37	321		12	348	
Queue Length 95th (ft)		#465			111		m65	386		31	437	
Internal Link Dist (ft)		907			110			657			210	
Turn Bay Length (ft)							95			100		
Base Capacity (vph)		483			405		165	1925		284	1813	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.91			0.31		0.40	0.46		0.13	0.73	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 18 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 30.5

Intersection LOS: C

Intersection Capacity Utilization 76.8%

ICU Level of Service D

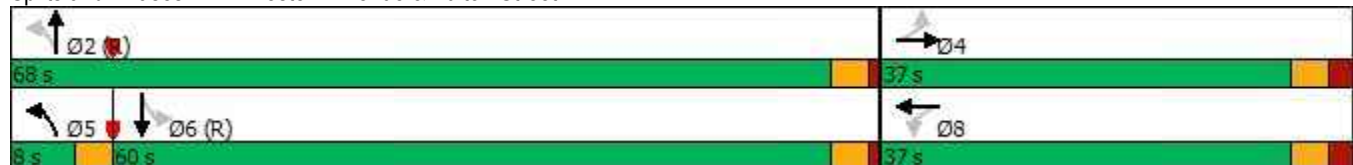
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Western Avenue & Fulton Street



Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	348	105	28	119	14	59	856	83	51	1253	23
Future Volume (vph)	42	348	105	28	119	14	59	856	83	51	1253	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		50	100		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00		1.00	1.00	
Frt			0.850			0.850		0.987			0.997	
Flt Protected		0.995			0.991		0.950			0.950		
Satd. Flow (prot)	0	1782	1561	0	1719	1561	1711	3110	0	1678	3282	0
Flt Permitted		0.951			0.735		0.106			0.213		
Satd. Flow (perm)	0	1702	1517	0	1274	1518	191	3110	0	376	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			52			52		14			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1022			219			330			737	
Travel Time (s)		23.2			5.0			7.5			16.8	
Confl. Peds. (#/hr)	9		10	10		9			3	3		
Confl. Bikes (#/hr)			6			7						1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	2%	0%	14%	4%	0%	2%	11%	5%	4%	6%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	407	109	0	153	15	61	978	0	53	1329	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	24.0	24.0	24.0	24.0	24.0	24.0	5.0	21.0		5.0	21.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	8.0	26.0		8.0	26.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	8.0	59.0		8.0	59.0	
Total Split (%)	36.2%	36.2%	36.2%	36.2%	36.2%	36.2%	7.6%	56.2%		7.6%	56.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0		3.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	None	C-Max		None	C-Max	
Act Effect Green (s)		33.0	33.0		33.0	33.0	61.6	55.6		61.6	55.6	
Actuated g/C Ratio		0.31	0.31		0.31	0.31	0.59	0.53		0.59	0.53	

Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.76	0.21		0.38	0.03	0.33	0.59		0.19	0.76	
Control Delay		43.3	15.8		31.6	0.1	13.3	18.9		4.4	21.7	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		43.3	15.8		31.6	0.1	13.3	18.9		4.4	21.7	
LOS		D	B		C	A	B	B		A	C	
Approach Delay		37.5			28.7			18.6			21.0	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		245	27		80	0	15	231		9	481	
Queue Length 95th (ft)		#370	69		139	0	32	296		m10	m554	
Internal Link Dist (ft)		942			139			250			657	
Turn Bay Length (ft)			50			50	100			100		
Base Capacity (vph)		534	512		400	512	184	1653		282	1739	
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		0.76	0.21		0.38	0.03	0.33	0.59		0.19	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 57 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 23.4

Intersection LOS: C

Intersection Capacity Utilization 91.2%

ICU Level of Service F

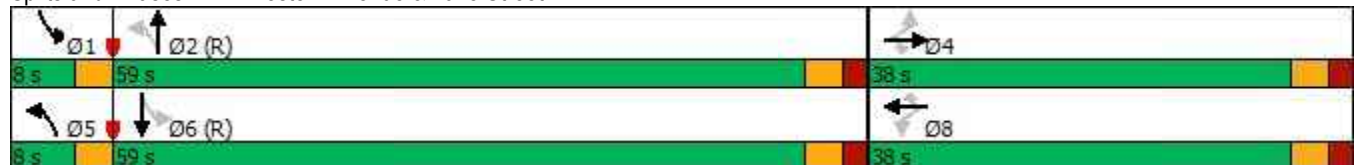
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Western Avenue & Lake Street



Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	515	39	15	155	8	30	222	19	10	107	3
Future Volume (vph)	9	515	39	15	155	8	30	222	19	10	107	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.99			1.00	
Frt		0.991			0.994			0.990			0.997	
Flt Protected		0.999			0.996			0.994			0.996	
Satd. Flow (prot)	0	1779	0	0	1767	0	0	1703	0	0	1619	0
Flt Permitted		0.996			0.947			0.963			0.972	
Satd. Flow (perm)	0	1773	0	0	1679	0	0	1644	0	0	1577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			5			7			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		706			1669			873			833	
Travel Time (s)		16.0			37.9			19.8			18.9	
Confl. Peds. (#/hr)	19		11	11		19	27		23	23		27
Confl. Bikes (#/hr)			18			5			2			1
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	3%	0%	0%	7%	0%	0%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	619	0	0	195	0	0	298	0	0	132	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	29.0	29.0		29.0	29.0		28.0	28.0		28.0	28.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effect Green (s)		29.0			29.0			28.0			28.0	
Actuated g/C Ratio		0.45			0.45			0.43			0.43	

Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.78			0.26			0.42			0.19	
Control Delay		23.9			12.2			14.8			12.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.9			12.2			14.8			12.3	
LOS		C			B			B			B	
Approach Delay		23.9			12.2			14.8			12.3	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		195			45			76			31	
Queue Length 95th (ft)		#368			84			134			62	
Internal Link Dist (ft)		626			1589			793			753	
Turn Bay Length (ft)												
Base Capacity (vph)		794			751			712			680	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.78			0.26			0.42			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 18.7

Intersection LOS: B

Intersection Capacity Utilization 61.6%

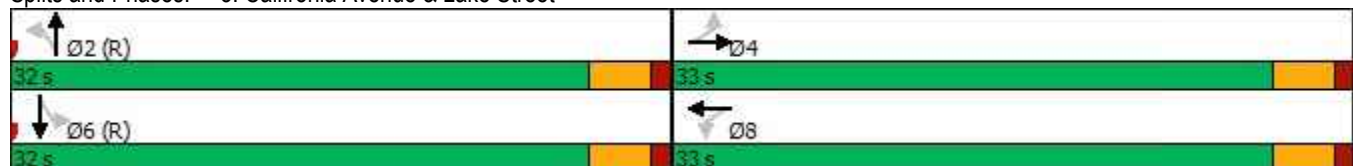
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: California Avenue & Lake Street



HCM 6th AWSC
4: California Avenue & Fulton Street

10/24/2024

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	379	77	23	109	1	141	5	93	2	6	2
Future Vol, veh/h	5	379	77	23	109	1	141	5	93	2	6	2
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, %	20	3	10	17	5	0	6	60	3	50	67	0
Mvmt Flow	6	426	87	26	122	1	158	6	104	2	7	2
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	22.5	10.7	12.9	10.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	1%	17%	20%
Vol Thru, %	2%	82%	82%	60%
Vol Right, %	39%	17%	1%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	239	461	133	10
LT Vol	141	5	23	2
Through Vol	5	379	109	6
RT Vol	93	77	1	2
Lane Flow Rate	269	518	149	11
Geometry Grp	1	1	1	1
Degree of Util (X)	0.425	0.753	0.242	0.022
Departure Headway (Hd)	5.703	5.236	5.833	7.065
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	631	694	616	505
Service Time	3.742	3.265	3.875	5.125
HCM Lane V/C Ratio	0.426	0.746	0.242	0.022
HCM Control Delay	12.9	22.5	10.7	10.3
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	2.1	6.9	0.9	0.1

HCM 6th TWSC

5: Maplewood Avenue & Fulton Street

10/24/2024

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	391	7	7	166	2	2
Future Vol, veh/h	391	7	7	166	2	2
Conflicting Peds, #/hr	0	6	6	0	1	1
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	86	86	86	86	86	86
Heavy Vehicles, %	4	14	0	5	0	0
Mvmt Flow	455	8	8	193	2	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	469	0	675	466
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1103	-	422	601
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	830	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1097	-	416	597
Mov Cap-2 Maneuver	-	-	-	-	416	-
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	823	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		12.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	490	-	-	1097	-	
HCM Lane V/C Ratio	0.009	-	-	0.007	-	
HCM Control Delay (s)	12.4	-	-	8.3	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 6th TWSC
6: Lake Street & Maplewood Avenue

10/24/2024

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	536	184	3	5	4
Future Vol, veh/h	3	536	184	3	5	4
Conflicting Peds, #/hr	3	0	0	3	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	91	91	91	91	91	91
Heavy Vehicles, %	0	2	2	0	20	0
Mvmt Flow	3	589	202	3	5	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	208	0	0 802 207
Stage 1	-	-	- 207 -
Stage 2	-	-	- 595 -
Critical Hdwy	4.1	-	- 6.6 6.2
Critical Hdwy Stg 1	-	-	- 5.6 -
Critical Hdwy Stg 2	-	-	- 5.6 -
Follow-up Hdwy	2.2	-	- 3.68 3.3
Pot Cap-1 Maneuver	1375	-	- 329 839
Stage 1	-	-	- 787 -
Stage 2	-	-	- 517 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1371	-	- 326 837
Mov Cap-2 Maneuver	-	-	- 326 -
Stage 1	-	-	- 782 -
Stage 2	-	-	- 515 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1371	-	-	-	447
HCM Lane V/C Ratio	0.002	-	-	-	0.022
HCM Control Delay (s)	7.6	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	92	49	62	248	41	88	1164	51	13	998	64
Future Volume (vph)	59	92	49	62	248	41	88	1164	51	13	998	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			1.00			1.00		0.99	0.99	
Frt		0.967			0.984			0.994			0.991	
Flt Protected		0.986			0.991		0.950			0.950		
Satd. Flow (prot)	0	1623	0	0	1734	0	1631	3338	0	1517	3230	0
Flt Permitted		0.727			0.899		0.163			0.169		
Satd. Flow (perm)	0	1196	0	0	1570	0	280	3338	0	268	3230	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			7			8			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		987			190			737			290	
Travel Time (s)		22.4			4.3			16.8			6.6	
Confl. Peds. (#/hr)	7		11	11		7	25		20	20		25
Confl. Bikes (#/hr)			2			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	3%	14%	2%	3%	5%	7%	3%	16%	15%	6%	13%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	208	0	0	366	0	92	1266	0	14	1107	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		5.0	16.0		16.0	16.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		8.0	23.0		23.0	23.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	68.0		60.0	60.0	
Total Split (%)	35.2%	35.2%		35.2%	35.2%		7.6%	64.8%		57.1%	57.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		3.0	4.0		4.0	4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	Ped	Ped		Max	Max		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		32.0			32.0		65.0	64.0		57.6	57.6	
Actuated g/C Ratio		0.30			0.30		0.62	0.61		0.55	0.55	

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.55			0.76		0.39	0.62		0.10	0.62	
Control Delay		34.7			44.0		11.1	7.5		14.3	18.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		34.7			44.0		11.1	7.5		14.3	18.5	
LOS		C			D		B	A		B	B	
Approach Delay		34.7			44.0			7.7			18.4	
Approach LOS		C			D			A			B	
Queue Length 50th (ft)		107			217		11	86		4	262	
Queue Length 95th (ft)		185			#352		m19	125		16	332	
Internal Link Dist (ft)		907			110			657			210	
Turn Bay Length (ft)							95			100		
Base Capacity (vph)		375			483		237	2037		146	1776	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.55			0.76		0.39	0.62		0.10	0.62	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 61 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 17.8

Intersection LOS: B

Intersection Capacity Utilization 80.1%

ICU Level of Service D

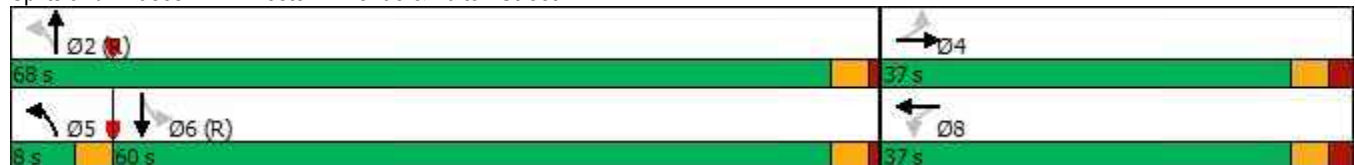
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Western Avenue & Fulton Street



Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	158	55	65	296	41	125	1228	75	31	1064	45
Future Volume (vph)	29	158	55	65	296	41	125	1228	75	31	1064	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		50	100		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00	0.96		1.00	0.97	1.00	1.00			1.00	
Frt			0.850			0.850		0.991			0.994	
Flt Protected		0.992			0.991		0.950			0.950		
Satd. Flow (prot)	0	1822	1531	0	1781	1531	1745	3321	0	1694	3269	0
Flt Permitted		0.732			0.874		0.160			0.122		
Satd. Flow (perm)	0	1344	1471	0	1567	1487	292	3321	0	218	3269	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			52			52		9			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1022			219			330			737	
Travel Time (s)		23.2			5.0			7.5			16.8	
Confl. Peds. (#/hr)	8		18	18		8	17		12	12		17
Confl. Bikes (#/hr)			7			9			6			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	3%	2%	2%	0%	4%	1%	3%	6%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	193	57	0	372	42	129	1343	0	32	1143	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	24.0	24.0	24.0	24.0	24.0	24.0	5.0	21.0		5.0	21.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	8.0	26.0		8.0	26.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	8.0	62.0		8.0	62.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	7.6%	59.0%		7.6%	59.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0		3.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	None	C-Max		None	C-Max	
Act Effect Green (s)		30.0	30.0		30.0	30.0	65.2	60.2		64.0	57.0	
Actuated g/C Ratio		0.29	0.29		0.29	0.29	0.62	0.57		0.61	0.54	

Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.50	0.12		0.83	0.09	0.52	0.70		0.16	0.64	
Control Delay		36.7	9.8		52.7	6.6	15.1	19.1		6.2	10.1	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		36.7	9.8		52.7	6.6	15.1	19.1		6.2	10.1	
LOS		D	A		D	A	B	B		A	B	
Approach Delay		30.6			48.0			18.8			10.0	
Approach LOS		C			D			B			A	
Queue Length 50th (ft)		108	2		234	0	31	343		5	111	
Queue Length 95th (ft)		180	33		#390	21	54	430		m7	128	
Internal Link Dist (ft)		942			139			250			657	
Turn Bay Length (ft)			50			50	100			100		
Base Capacity (vph)		384	457		447	462	250	1907		203	1777	
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		0.50	0.12		0.83	0.09	0.52	0.70		0.16	0.64	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 20.2

Intersection LOS: C

Intersection Capacity Utilization 99.7%

ICU Level of Service F

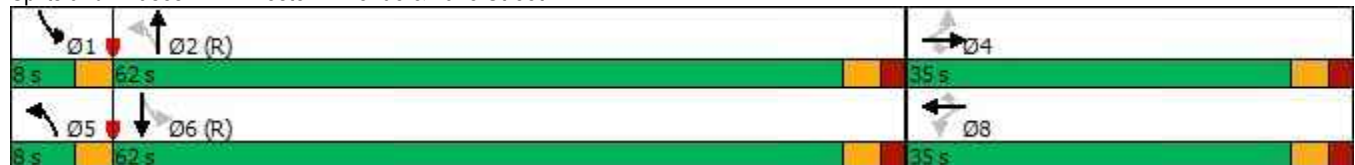
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Western Avenue & Lake Street



Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	171	22	32	438	14	53	192	15	7	158	6
Future Volume (vph)	4	171	22	32	438	14	53	192	15	7	158	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			0.99			1.00	
Frt		0.985			0.996			0.992			0.995	
Flt Protected		0.999			0.997			0.990			0.998	
Satd. Flow (prot)	0	1599	0	0	1621	0	0	1549	0	0	1555	0
Flt Permitted		0.993			0.973			0.915			0.989	
Satd. Flow (perm)	0	1589	0	0	1578	0	0	1416	0	0	1540	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			3			6			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		706			1669			873			833	
Travel Time (s)		16.0			37.9			19.8			18.9	
Confl. Peds. (#/hr)	16		28	28		16	51		25	25		51
Confl. Bikes (#/hr)			3			3			4			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	3%	1%	0%	0%	6%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	5	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	1	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	205	0	0	504	0	0	271	0	0	178	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	29.0	29.0		29.0	29.0		28.0	28.0		28.0	28.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effect Green (s)		29.0			29.0			28.0			28.0	
Actuated g/C Ratio		0.45			0.45			0.43			0.43	

Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.29			0.71			0.44			0.27	
Control Delay		12.0			21.6			15.6			13.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.0			21.6			15.6			13.1	
LOS		B			C			B			B	
Approach Delay		12.0			21.6			15.6			13.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		46			153			70			43	
Queue Length 95th (ft)		87			262			129			82	
Internal Link Dist (ft)		626			1589			793			753	
Turn Bay Length (ft)												
Base Capacity (vph)		716			705			613			665	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.29			0.71			0.44			0.27	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 17.2

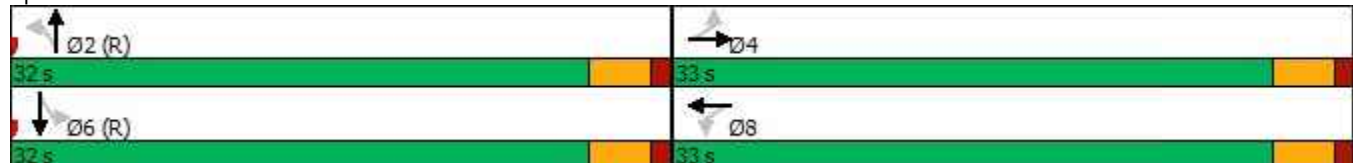
Intersection LOS: B

Intersection Capacity Utilization 81.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 3: California Avenue & Lake Street



HCM 6th TWSC
5: Maplewood Avenue & Fulton Street

10/24/2024

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	178	6	5	421	2	7
Future Vol, veh/h	178	6	5	421	2	7
Conflicting Peds, #/hr	0	1	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	93	93	93	93	93	93
Heavy Vehicles, %	6	17	0	3	50	14
Mvmt Flow	191	6	5	453	2	8

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	198
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1387
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1386
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	637	-	-	1386	-
HCM Lane V/C Ratio	0.015	-	-	0.004	-
HCM Control Delay (s)	10.7	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
6: Lake Street & Maplewood Avenue

10/24/2024

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	198	481	2	6	8
Future Vol, veh/h	1	198	481	2	6	8
Conflicting Peds, #/hr	5	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	1	1	50	0	0
Mvmt Flow	1	206	501	2	6	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	508	0	0 715 507
Stage 1	-	-	- 507 -
Stage 2	-	-	- 208 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1067	-	- 400 570
Stage 1	-	-	- 609 -
Stage 2	-	-	- 832 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1062	-	- 396 568
Mov Cap-2 Maneuver	-	-	- 396 -
Stage 1	-	-	- 606 -
Stage 2	-	-	- 829 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1062	-	-	-	479
HCM Lane V/C Ratio	0.001	-	-	-	0.03
HCM Control Delay (s)	8.4	0	-	-	12.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th AWSC
4: California Avenue & Fulton Street

10/24/2024

Intersection	
Intersection Delay, s/veh	15.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	123	54	76	388	2	167	2	43	3	11	9
Future Vol, veh/h	5	123	54	76	388	2	167	2	43	3	11	9
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, %	0	2	9	4	3	0	5	0	9	0	0	0
Mvmt Flow	5	134	59	83	422	2	182	2	47	3	12	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	10.4	19.7	12.4	9.3
HCM LOS	B	C	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	79%	3%	16%	13%
Vol Thru, %	1%	68%	83%	48%
Vol Right, %	20%	30%	0%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	212	182	466	23
LT Vol	167	5	76	3
Through Vol	2	123	388	11
RT Vol	43	54	2	9
Lane Flow Rate	230	198	507	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.375	0.287	0.713	0.042
Departure Headway (Hd)	5.865	5.226	5.071	6
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	613	686	714	595
Service Time	3.903	3.266	3.101	4.055
HCM Lane V/C Ratio	0.375	0.289	0.71	0.042
HCM Control Delay	12.4	10.4	19.7	9.3
HCM Lane LOS	B	B	C	A
HCM 95th-tile Q	1.7	1.2	6	0.1

Capacity Analysis Summary Sheets
Year 2030 No-Build Weekday Morning Peak Hour

Lanes, Volumes, Timings
1: Western Avenue & Fulton Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	263	93	27	81	13	64	816	44	35	1229	64
Future Volume (vph)	73	263	93	27	81	13	64	816	44	35	1229	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.971			0.985			0.992			0.993	
Flt Protected		0.992			0.989		0.950			0.950		
Satd. Flow (prot)	0	1661	0	0	1584	0	1504	3152	0	1646	3296	0
Flt Permitted		0.924			0.809		0.091			0.286		
Satd. Flow (perm)	0	1546	0	0	1295	0	144	3152	0	494	3296	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			6			9			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		987			190			737			290	
Travel Time (s)		22.4			4.3			16.8			6.6	
Confl. Peds. (#/hr)	4		3	3		4	11		5	5		11
Confl. Bikes (#/hr)			1									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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	3%	15%	35%	5%	15%	16%	9%	21%	6%	5%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	461	0	0	130	0	69	924	0	38	1391	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		5.0	16.0		16.0	16.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		8.0	23.0		23.0	23.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	68.0		60.0	60.0	
Total Split (%)	35.2%	35.2%		35.2%	35.2%		7.6%	64.8%		57.1%	57.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		3.0	4.0		4.0	4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	Max	Max		Max	Max		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		32.0			32.0		65.0	64.0		57.6	57.6	
Actuated g/C Ratio		0.30			0.30		0.62	0.61		0.55	0.55	

Lanes, Volumes, Timings
1: Western Avenue & Fulton Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.96			0.33		0.45	0.48		0.14	0.77	
Control Delay (s/veh)		68.4			29.7		31.3	31.6		14.1	22.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		68.4			29.7		31.3	31.6		14.1	22.5	
LOS		E			C		C	C		B	C	
Approach Delay (s/veh)		68.4			29.7			31.5			22.2	
Approach LOS		E			C			C			C	
Queue Length 50th (ft)		296			64		39	332		12	376	
Queue Length 95th (ft)		#502			117		m66	397		32	471	
Internal Link Dist (ft)		907			110			657			210	
Turn Bay Length (ft)							95			100		
Base Capacity (vph)		480			398		153	1924		271	1811	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.96			0.33		0.45	0.48		0.14	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 18 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 32.7

Intersection LOS: C

Intersection Capacity Utilization 80.3%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Western Avenue & Fulton Street



Lanes, Volumes, Timings
2: Western Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	360	114	29	126	14	73	883	85	53	1293	32
Future Volume (vph)	48	360	114	29	126	14	73	883	85	53	1293	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		50	100		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00		1.00	1.00	
Frt			0.850			0.850		0.987			0.996	
Flt Protected		0.994			0.991		0.950			0.950		
Satd. Flow (prot)	0	1780	1561	0	1719	1561	1711	3110	0	1678	3279	0
Flt Permitted		0.944			0.696		0.093			0.202		
Satd. Flow (perm)	0	1688	1517	0	1207	1518	167	3110	0	356	3279	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			52			52		14			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1022			219			330			737	
Travel Time (s)		23.2			5.0			7.5			16.8	
Confl. Peds. (#/hr)	9		10	10		9			3	3		
Confl. Bikes (#/hr)			6			7						1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	2%	0%	14%	4%	0%	2%	11%	5%	4%	6%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	425	119	0	161	15	76	1009	0	55	1380	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	24.0	24.0	24.0	24.0	24.0	24.0	5.0	21.0		5.0	21.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	8.0	26.0		8.0	26.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	8.0	59.0		8.0	59.0	
Total Split (%)	36.2%	36.2%	36.2%	36.2%	36.2%	36.2%	7.6%	56.2%		7.6%	56.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0		3.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	None	C-Max		None	C-Max	
Act Effect Green (s)		33.0	33.0		33.0	33.0	61.6	55.6		61.6	55.6	
Actuated g/C Ratio		0.31	0.31		0.31	0.31	0.59	0.53		0.59	0.53	

Lanes, Volumes, Timings
2: Western Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.80	0.23		0.42	0.03	0.44	0.61		0.20	0.79	
Control Delay (s/veh)		46.1	16.7		32.7	0.1	16.8	19.3		4.5	22.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		46.1	16.7		32.7	0.1	16.8	19.3		4.5	22.2	
LOS		D	B		C	A	B	B		A	C	
Approach Delay (s/veh)		39.7			30.0			19.1			21.5	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		261	32		85	0	19	242		9	501	
Queue Length 95th (ft)		#416	77		148	0	38	310		m10	m573	
Internal Link Dist (ft)		942			139			250			657	
Turn Bay Length (ft)			50			50	100			100		
Base Capacity (vph)		530	512		379	512	171	1653		271	1737	
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		0.80	0.23		0.42	0.03	0.44	0.61		0.20	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 57 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 24.2

Intersection LOS: C

Intersection Capacity Utilization 100.1%

ICU Level of Service G

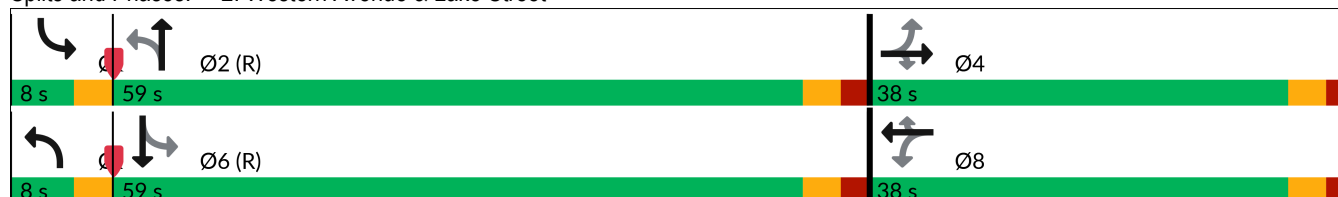
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Western Avenue & Lake Street



Lanes, Volumes, Timings
3: California Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	548	40	15	170	8	31	229	20	10	110	3
Future Volume (vph)	9	548	40	15	170	8	31	229	20	10	110	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.99			1.00	
Frt		0.991			0.994			0.990			0.997	
Flt Protected		0.999			0.996			0.995			0.996	
Satd. Flow (prot)	0	1779	0	0	1767	0	0	1704	0	0	1618	0
Flt Permitted		0.996			0.948			0.963			0.972	
Satd. Flow (perm)	0	1773	0	0	1681	0	0	1644	0	0	1577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			4			7			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		706			1669			873			833	
Travel Time (s)		16.0			37.9			19.8			18.9	
Confl. Peds. (#/hr)	19		11	11		19	27		23	23		27
Confl. Bikes (#/hr)			18			5			2			1
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	3%	0%	0%	7%	0%	0%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	656	0	0	212	0	0	308	0	0	135	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	29.0	29.0		29.0	29.0		28.0	28.0		28.0	28.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effect Green (s)		29.0			29.0			28.0			28.0	
Actuated g/C Ratio		0.45			0.45			0.43			0.43	

Lanes, Volumes, Timings
3: California Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.83			0.28			0.43			0.20	
Control Delay (s/veh)		26.9			12.5			15.0			12.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		26.9			12.5			15.0			12.3	
LOS		C			B			B			B	
Approach Delay (s/veh)		26.9			12.5			15.0			12.3	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		214			50			79			31	
Queue Length 95th (ft)		#404			91			140			63	
Internal Link Dist (ft)		626			1589			793			753	
Turn Bay Length (ft)												
Base Capacity (vph)		794			752			712			680	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.83			0.28			0.43			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.83

Intersection Signal Delay (s/veh): 20.3

Intersection LOS: C

Intersection Capacity Utilization 63.6%

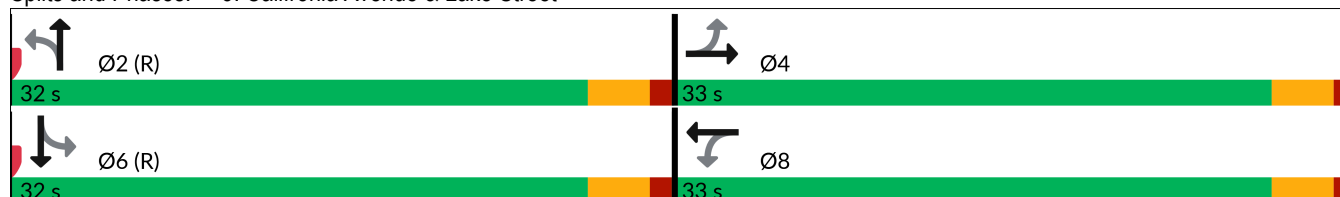
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: California Avenue & Lake Street



Intersection

Intersection Delay, s/veh

20

Intersection LOS

C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	399	79	24	118	1	145	5	96	2	6	2
Future Vol, veh/h	5	399	79	24	118	1	145	5	96	2	6	2
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, %	20	3	10	17	5	0	6	60	3	50	67	0
Mvmt Flow	6	448	89	27	133	1	163	6	108	2	7	2
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	26.1	11.1	13.5	10.5
HCM LOS	D	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	1%	17%	20%
Vol Thru, %	2%	83%	83%	60%
Vol Right, %	39%	16%	1%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	483	143	10
LT Vol	145	5	24	2
Through Vol	5	399	118	6
RT Vol	96	79	1	2
Lane Flow Rate	276	543	161	11
Geometry Grp	1	1	1	1
Degree of μ til (I)	0.446	0.799	0.264	0.023
Departure Headway (Hd)	5.814	5.303	5.926	7.227
Convergence, μ /N	les	les	les	les
Cap	619	684	606	494
Service Time	3.858	3.335	3.973	5.295
HCM Lane V/C Ratio	0.446	0.794	0.266	0.022
HCM Control Delay, s/veh	13.5	26.1	11.1	10.5
HCM Lane LOS	B	D	B	B
HCM 95th-tile Q	2.3	8.1	1.1	0.1

Intersection

Int Delay, s/veh 0.2

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 412 7 7 184 2 2

Future Vol, veh/h 412 7 7 184 2 2

Conflicting Peds, #/hr 0 6 6 0 1 1

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 86 86 86 86 86 86

Heavy Vehicles, % 4 14 0 5 0 0

Mvmt Flow 479 8 8 214 2 2

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 493 0 720 490

Stage 1 - - - - 489 -

Stage 2 - - - - 231 -

Critical Hdwy - - 4.1 - 6.4 6.2

Critical Hdwy Stg 1 - - - - 5.4 -

Critical Hdwy Stg 2 - - - - 5.4 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1081 - 398 582

Stage 1 - - - - 621 -

Stage 2 - - - - 812 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1075 - 392 578

Mov Cap-2 Maneuver - - - - 392 -

Stage 1 - - - - 618 -

Stage 2 - - - - 805 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0.3 12.8

HCM LOS B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 467 - - 1075 -

HCM Lane V/C Ratio 0.01 - - 0.008 -

HCM Ctrl Dly (s/v) 12.8 - - 8.4 0

HCM Lane LOS B - - A A

HCM 95th %tile Q (veh) 0 - - 0 -

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	565	213	3	5	4
Future Vol, veh/h	3	565	213	3	5	4
Conflicting Peds, #/hr	3	0	0	3	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	91	91	91	91	91	91
Heavy Vehicles, %	0	2	2	0	20	0
Mvmt Flow	3	621	234	3	5	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	240	0	-	0	866	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	627	-
Critical Hdwy	4.1	-	-	-	6.6	6.2
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	2.2	-	-	-	3.68	3.3
Pot Cap-1 Maneuver	1339	-	-	-	301	805
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1335	-	-	-	298	803
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	499	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		13.9		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1335	-	-	-	414	
HCM Lane V/C Ratio	0.002	-	-	-	0.024	
HCM Ctrl Dly (s/v)	7.7	0	-	-	13.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q (veh)	0	-	-	-	0.1	

Capacity Analysis Summary Sheets
Year 2030 No-Build Weekday Evening Peak Hour

Lanes, Volumes, Timings
1: Western Avenue & Fulton Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	98	52	64	257	42	93	1207	53	13	1032	72
Future Volume (vph)	69	98	52	64	257	42	93	1207	53	13	1032	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			1.00			1.00		0.99	0.99	
Frt		0.968			0.984			0.994			0.990	
Flt Protected		0.984			0.991		0.950			0.950		
Satd. Flow (prot)	0	1622	0	0	1734	0	1631	3338	0	1517	3224	0
Flt Permitted		0.680			0.889		0.151			0.156		
Satd. Flow (perm)	0	1119	0	0	1553	0	259	3338	0	248	3224	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			6			8			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		987			190			737			290	
Travel Time (s)		22.4			4.3			16.8			6.6	
Confl. Peds. (#/hr)	7		11	11		7	25		20	20		25
Confl. Bikes (#/hr)			2			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	3%	14%	2%	3%	5%	7%	3%	16%	15%	6%	13%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	228	0	0	379	0	97	1312	0	14	1150	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		5.0	16.0		16.0	16.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		8.0	23.0		23.0	23.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	68.0		60.0	60.0	
Total Split (%)	35.2%	35.2%		35.2%	35.2%		7.6%	64.8%		57.1%	57.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		3.0	4.0		4.0	4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	Ped	Ped		Max	Max		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		32.0			32.0		65.0	64.0		57.6	57.6	
Actuated g/C Ratio		0.30			0.30		0.62	0.61		0.55	0.55	

Lanes, Volumes, Timings
1: Western Avenue & Fulton Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.65			0.79		0.43	0.64		0.10	0.65	
Control Delay (s/veh)		39.5			46.8		13.6	7.8		14.6	19.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		39.5			46.8		13.6	7.8		14.6	19.0	
LOS		D			D		B	A		B	B	
Approach Delay (s/veh)		39.5			46.8			8.2			19.0	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)		124			229		12	92		4	278	
Queue Length 95th (ft)		213			#379		m22	143		16	352	
Internal Link Dist (ft)		907			110			657			210	
Turn Bay Length (ft)							95			100		
Base Capacity (vph)		351			477		225	2037		136	1773	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.65			0.79		0.43	0.64		0.10	0.65	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 61 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay (s/veh): 19.0

Intersection LOS: B

Intersection Capacity Utilization 81.7%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Western Avenue & Fulton Street



Lanes, Volumes, Timings
2: Western Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	166	69	67	307	42	136	1267	77	32	1098	50
Future Volume (vph)	38	166	69	67	307	42	136	1267	77	32	1098	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		50	100		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00	0.96		1.00	0.97	1.00	1.00			1.00	
Frt			0.850			0.850		0.991			0.993	
Flt Protected		0.991			0.991		0.950			0.950		
Satd. Flow (prot)	0	1820	1531	0	1781	1531	1745	3321	0	1694	3265	0
Flt Permitted		0.634			0.838		0.148			0.112		
Satd. Flow (perm)	0	1164	1471	0	1502	1487	271	3321	0	200	3265	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			52			52		9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1022			219			330			737	
Travel Time (s)		23.2			5.0			7.5			16.8	
Confl. Peds. (#/hr)	8		18	18		8	17		12	12		17
Confl. Bikes (#/hr)			7			9			6			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	3%	2%	2%	0%	4%	1%	3%	6%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	210	71	0	385	43	140	1385	0	33	1184	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	24.0	24.0	24.0	24.0	24.0	24.0	5.0	21.0		5.0	21.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	8.0	26.0		8.0	26.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	8.0	62.0		8.0	62.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	7.6%	59.0%		7.6%	59.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0		3.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	None	C-Max		None	C-Max	
Act Effect Green (s)		30.0	30.0		30.0	30.0	65.2	60.2		64.0	57.0	
Actuated g/C Ratio		0.29	0.29		0.29	0.29	0.62	0.57		0.61	0.54	

Lanes, Volumes, Timings
2: Western Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.63	0.16		0.90	0.09	0.59	0.73		0.17	0.67	
Control Delay (s/veh)		42.6	12.2		61.4	6.7	18.4	19.8		6.3	10.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		42.6	12.2		61.4	6.7	18.4	19.8		6.3	10.2	
LOS		D	B		E	A	B	B		A	B	
Approach Delay (s/veh)		35.0			55.9			19.6			10.1	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)		123	9		248	0	34	362		5	115	
Queue Length 95th (ft)		207	43		#425	21	59	453		m6	134	
Internal Link Dist (ft)		942			139			250			657	
Turn Bay Length (ft)			50			50	100			100		
Base Capacity (vph)		332	457		429	462	238	1907		193	1775	
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		0.63	0.16		0.90	0.09	0.59	0.73		0.17	0.67	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 22.0

Intersection LOS: C

Intersection Capacity Utilization 100.9%

ICU Level of Service G

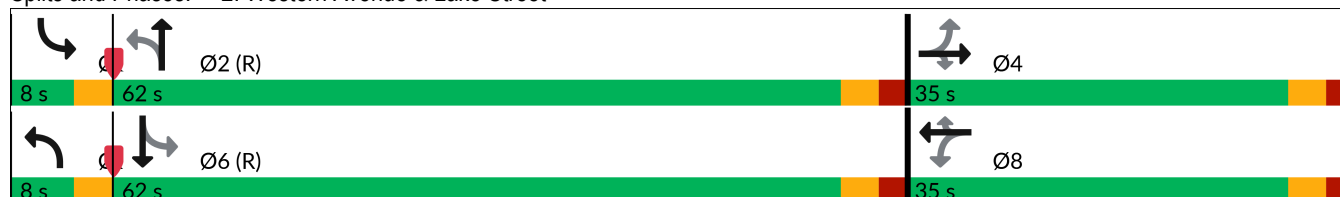
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Western Avenue & Lake Street



Lanes, Volumes, Timings
3: California Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	187	23	33	469	14	55	198	15	7	163	6
Future Volume (vph)	4	187	23	33	469	14	55	198	15	7	163	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			0.99			1.00	
Frt		0.985			0.996			0.992			0.996	
Flt Protected		0.999			0.997			0.990			0.998	
Satd. Flow (prot)	0	1599	0	0	1621	0	0	1549	0	0	1557	0
Flt Permitted		0.993			0.973			0.913			0.989	
Satd. Flow (perm)	0	1590	0	0	1579	0	0	1413	0	0	1541	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			6			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		706			1669			873			833	
Travel Time (s)		16.0			37.9			19.8			18.9	
Confl. Peds. (#/hr)	16		28	28		16	51		25	25		51
Confl. Bikes (#/hr)			3			3			4			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	3%	1%	0%	0%	6%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	5	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	1	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	223	0	0	538	0	0	279	0	0	183	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	29.0	29.0		29.0	29.0		28.0	28.0		28.0	28.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effect Green (s)		29.0			29.0			28.0			28.0	
Actuated g/C Ratio		0.45			0.45			0.43			0.43	

Lanes, Volumes, Timings
3: California Avenue & Lake Street

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.76			0.46			0.28	
Control Delay (s/veh)		12.4			24.1			15.8			13.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		12.4			24.1			15.8			13.2	
LOS		B			C			B			B	
Approach Delay (s/veh)		12.4			24.1			15.8			13.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		51			169			73			44	
Queue Length 95th (ft)		95			#328			133			84	
Internal Link Dist (ft)		626			1589			793			753	
Turn Bay Length (ft)												
Base Capacity (vph)		716			706			612			665	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.76			0.46			0.28	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 18.4

Intersection LOS: B

Intersection Capacity Utilization 85.7%

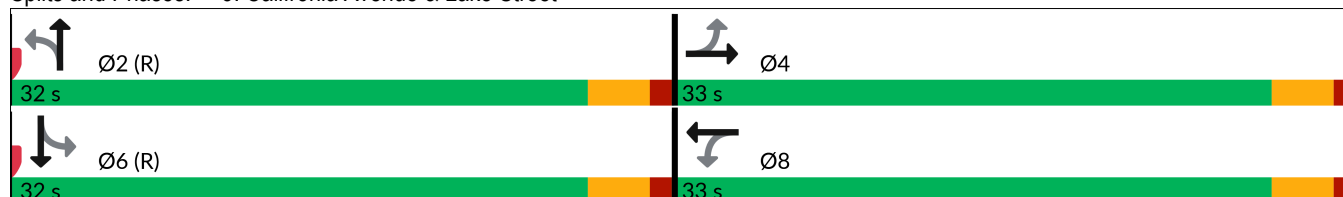
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: California Avenue & Lake Street



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	5	134	56	78	409	2	172	2	44	3	11	9
Future Vol, veh/h	5	134	56	78	409	2	172	2	44	3	11	9
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, %	0	2	9	4	3	0	5	0	9	0	0	0
Mvmt Flow	5	146	61	85	445	2	187	2	48	3	12	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	10.8	22.5	12.9	9.5
HCM LOS	B	C	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	79%	3%	16%	13%
Vol Thru, %	1%	69%	84%	48%
Vol Right, %	20%	29%	0%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	195	489	23
LT Vol	172	5	78	3
Through Vol	2	134	409	11
RT Vol	44	56	2	9
Lane Flow Rate	237	212	532	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.393	0.313	0.758	0.043
Departure Headway (Hd)	5.978	5.316	5.133	6.155
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	602	674	707	579
Service Time	4.025	3.361	3.167	4.222
HCM Lane V/C Ratio	0.394	0.315	0.752	0.043
HCM Control Delay, s/veh	12.9	10.8	22.5	9.5
HCM Lane LOS	B	B	C	A
HCM 95th-tile Q	1.9	1.3	7	0.1

Intersection

Int Delay, s/veh 0.2

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 196 6 5 444 2 7

Future Vol, veh/h 196 6 5 444 2 7

Conflicting Peds, #/hr 0 1 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 93 93 93 93 93 93

Heavy Vehicles, % 6 17 0 3 50 14

Mvmt Flow 211 6 5 477 2 8

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 218 0 702 215

Stage 1 - - - - 215 -

Stage 2 - - - - 487 -

Critical Hdwy - - 4.1 - 6.9 6.34

Critical Hdwy Stg 1 - - - - 5.9 -

Critical Hdwy Stg 2 - - - - 5.9 -

Follow-up Hdwy - - 2.2 - 3.95 3.426

Pot Cap-1 Maneuver - - 1364 - 340 796

Stage 1 - - - - 719 -

Stage 2 - - - - 530 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1363 - 338 795

Mov Cap-2 Maneuver - - - - 338 -

Stage 1 - - - - 718 -

Stage 2 - - - - 527 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0.1 11

HCM LOS B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 611 - - 1363 -

HCM Lane V/C Ratio 0.016 - - 0.004 -

HCM Ctrl Dly (s/v) 11 - - 7.7 0

HCM Lane LOS B - - A A

HCM 95th %tile Q (veh) 0 - - 0 -

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	227	508	2	6	8
Future Vol, veh/h	1	227	508	2	6	8
Conflicting Peds, #/hr	5	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	1	1	50	0	0
Mvmt Flow	1	236	529	2	6	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	536	0	0 773 535
Stage 1	-	-	- 535 -
Stage 2	-	-	- 238 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1042	-	- 370 549
Stage 1	-	-	- 591 -
Stage 2	-	-	- 806 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1037	-	- 367 547
Mov Cap-2 Maneuver	-	-	- 367 -
Stage 1	-	-	- 588 -
Stage 2	-	-	- 803 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1037	-	-	-	452
HCM Lane V/C Ratio	0.001	-	-	-	0.032
HCM Ctrl Dly (s/v)	8.5	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Capacity Analysis Summary Sheets
Year 2030 Total Projected Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	263	94	27	83	13	68	816	44	35	1232	74
Future Volume (vph)	75	263	94	27	83	13	68	816	44	35	1232	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.971			0.986			0.992			0.991	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1653	0	0	1593	0	1479	3153	0	1646	3286	0
Flt Permitted		0.920			0.810		0.088			0.286		
Satd. Flow (perm)	0	1534	0	0	1305	0	137	3153	0	493	3286	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			6			9			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		987			190			737			290	
Travel Time (s)		22.4			4.3			16.8			6.6	
Confl. Peds. (#/hr)	4		3	3		4	12		6	6		12
Confl. Bikes (#/hr)			1									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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	3%	16%	33%	5%	15%	18%	9%	20%	6%	5%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	465	0	0	132	0	73	924	0	38	1405	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		5.0	16.0		16.0	16.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		8.0	23.0		23.0	23.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	68.0		60.0	60.0	
Total Split (%)	35.2%	35.2%		35.2%	35.2%		7.6%	64.8%		57.1%	57.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		3.0	4.0		4.0	4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	Max	Max		Max	Max		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		32.0			32.0		65.0	64.0		57.6	57.6	
Actuated g/C Ratio		0.30			0.30		0.62	0.61		0.55	0.55	

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.97			0.33		0.49	0.48		0.14	0.78	
Control Delay		71.7			29.7		34.1	31.5		14.2	22.8	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		71.7			29.7		34.1	31.5		14.2	22.8	
LOS		E			C		C	C		B	C	
Approach Delay		71.7			29.7			31.7			22.6	
Approach LOS		E			C			C			C	
Queue Length 50th (ft)		300			65		42	332		12	383	
Queue Length 95th (ft)		#512			119		m70	398		32	481	
Internal Link Dist (ft)		907			110			657			210	
Turn Bay Length (ft)							95			100		
Base Capacity (vph)		477			401		148	1925		270	1806	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.97			0.33		0.49	0.48		0.14	0.78	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 18 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 33.4

Intersection LOS: C

Intersection Capacity Utilization 81.2%

ICU Level of Service D

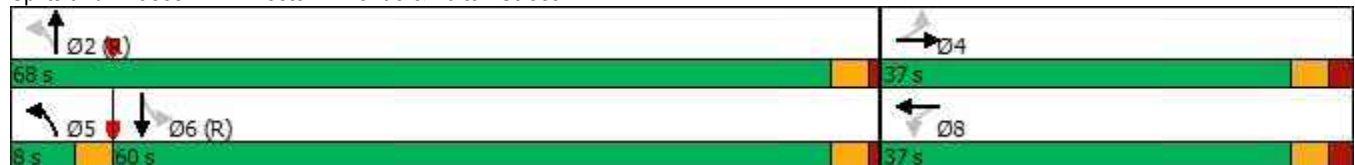
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Western Avenue & Fulton Street



Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	360	115	29	128	14	81	887	85	53	1294	35
Future Volume (vph)	48	360	115	29	128	14	81	887	85	53	1294	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		50	100		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00		1.00	1.00	
Frt			0.850		0.998	0.850		0.987			0.996	
Flt Protected		0.994			0.991		0.950			0.950		
Satd. Flow (prot)	0	1782	1561	0	1631	1483	1728	3110	0	1678	3280	0
Flt Permitted		0.942			0.698		0.092			0.200		
Satd. Flow (perm)	0	1687	1514	0	1148	1439	167	3110	0	353	3280	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			52		1	52		14			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1022			219			330			737	
Travel Time (s)		23.2			5.0			7.5			16.8	
Confl. Peds. (#/hr)	10		11	11		10			3	3		
Confl. Bikes (#/hr)			7			8						1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	0%	14%	4%	0%	1%	11%	5%	4%	6%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)						10%						
Lane Group Flow (vph)	0	425	120	0	165	13	84	1013	0	55	1384	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	24.0	24.0	24.0	24.0	24.0	24.0	5.0	21.0		5.0	21.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	8.0	26.0		8.0	26.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	8.0	59.0		8.0	59.0	
Total Split (%)	36.2%	36.2%	36.2%	36.2%	36.2%	36.2%	7.6%	56.2%		7.6%	56.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0		3.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	None	C-Max		None	C-Max	
Act Effect Green (s)		33.0	33.0		33.0	33.0	61.6	55.6		61.6	55.6	
Actuated g/C Ratio		0.31	0.31		0.31	0.31	0.59	0.53		0.59	0.53	

Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.80	0.23		0.46	0.03	0.49	0.61		0.20	0.80	
Control Delay		46.1	16.8		33.6	0.1	18.4	19.4		4.4	22.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		46.1	16.8		33.6	0.1	18.4	19.4		4.4	22.0	
LOS		D	B		C	A	B	B		A	C	
Approach Delay		39.7			31.2			19.3			21.4	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		261	33		92	0	21	243		9	502	
Queue Length 95th (ft)		#417	77		162	0	41	312		m9	m573	
Internal Link Dist (ft)		942			139			250			657	
Turn Bay Length (ft)			50			50	100			100		
Base Capacity (vph)		530	511		361	487	172	1653		270	1738	
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		0.80	0.23		0.46	0.03	0.49	0.61		0.20	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 57 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 24.3

Intersection LOS: C

Intersection Capacity Utilization 100.5%

ICU Level of Service G

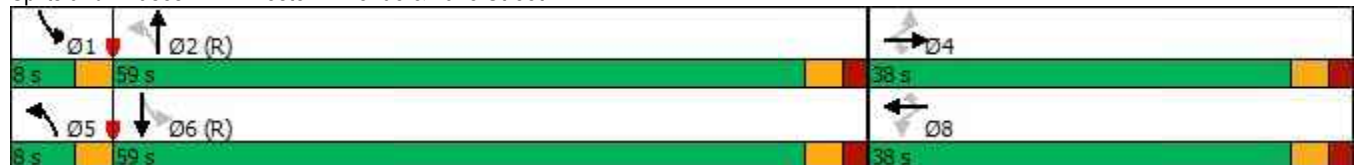
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Western Avenue & Lake Street



Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	555	40	15	171	8	31	229	22	10	110	3
Future Volume (vph)	9	555	40	15	171	8	31	229	22	10	110	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.99			1.00	
Frt		0.991			0.994			0.990			0.997	
Flt Protected		0.999			0.996			0.995			0.996	
Satd. Flow (prot)	0	1779	0	0	1782	0	0	1704	0	0	1618	0
Flt Permitted		0.996			0.947			0.963			0.972	
Satd. Flow (perm)	0	1773	0	0	1694	0	0	1643	0	0	1577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			4			8			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		706			1669			873			833	
Travel Time (s)		16.0			37.9			19.8			18.9	
Confl. Peds. (#/hr)	21		12	12		21	30		25	25		30
Confl. Bikes (#/hr)			20			6			2			1
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	7%	0%	0%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	664	0	0	213	0	0	310	0	0	135	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	29.0	29.0		29.0	29.0		28.0	28.0		28.0	28.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effect Green (s)		29.0			29.0			28.0			28.0	
Actuated g/C Ratio		0.45			0.45			0.43			0.43	

Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.84			0.28			0.44			0.20	
Control Delay		27.7			12.4			15.0			12.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		27.7			12.4			15.0			12.3	
LOS		C			B			B			B	
Approach Delay		27.7			12.4			15.0			12.3	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		218			50			80			31	
Queue Length 95th (ft)		#411			92			140			63	
Internal Link Dist (ft)		626			1589			793			753	
Turn Bay Length (ft)												
Base Capacity (vph)		794			758			712			680	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.84			0.28			0.44			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 20.7

Intersection LOS: C

Intersection Capacity Utilization 63.9%

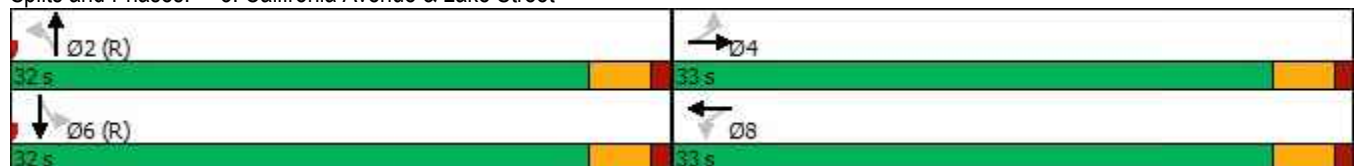
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: California Avenue & Lake Street



HCM 6th TWSC

5: Maplewood Avenue & Fulton Street

10/29/2024

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	412	14	23	184	3	5
Future Vol, veh/h	412	14	23	184	3	5
Conflicting Peds, #/hr	0	7	7	0	1	1
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	86	86	86	86	86	86
Heavy Vehicles, %	5	7	4	5	0	0
Mvmt Flow	479	16	27	214	3	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	502
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1052
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1046
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	471	-	-	1046	-
HCM Lane V/C Ratio	0.02	-	-	0.026	-
HCM Control Delay (s)	12.8	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

HCM 6th TWSC
6: Lake Street & Maplewood Avenue

10/29/2024

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	565	213	16	6	5
Future Vol, veh/h	12	565	213	16	6	5
Conflicting Peds, #/hr	3	0	0	3	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	91	91	91	91	91	91
Heavy Vehicles, %	0	2	2	0	17	0
Mvmt Flow	13	621	234	18	7	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	255	0	0 893 246
Stage 1	-	-	- 246 -
Stage 2	-	-	- 647 -
Critical Hdwy	4.1	-	- 6.57 6.2
Critical Hdwy Stg 1	-	-	- 5.57 -
Critical Hdwy Stg 2	-	-	- 5.57 -
Follow-up Hdwy	2.2	-	- 3.653 3.3
Pot Cap-1 Maneuver	1322	-	- 294 798
Stage 1	-	-	- 761 -
Stage 2	-	-	- 494 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1319	-	- 288 796
Mov Cap-2 Maneuver	-	-	- 288 -
Stage 1	-	-	- 747 -
Stage 2	-	-	- 493 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	406
HCM Lane V/C Ratio	0.01	-	-	-	0.03
HCM Control Delay (s)	7.8	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC
7: Maplewood Avenue & North Access Drive

10/29/2024

Intersection

Int Delay, s/veh 1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	6	9	11	26
Future Vol, veh/h	1	2	6	9	11	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	1	2	6	9	12	27

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	62	11	0
Stage 1	11	-	-
Stage 2	51	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	949	1076	-
Stage 1	1017	-	-
Stage 2	977	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	941	1076	-
Mov Cap-2 Maneuver	941	-	-
Stage 1	1017	-	-
Stage 2	969	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1027	1616
HCM Lane V/C Ratio	-	-	0.003	0.007
HCM Control Delay (s)	-	-	8.5	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
8: Maplewood Avenue & Middle Access Drive

10/29/2024

Intersection

Int Delay, s/veh 1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	13	9	9	17
Future Vol, veh/h	1	2	13	9	9	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	9
Mvmt Flow	1	2	14	9	9	18

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	55	19	0
Stage 1	19	-	-
Stage 2	36	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	958	1065	-
Stage 1	1009	-	-
Stage 2	992	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	952	1065	-
Mov Cap-2 Maneuver	952	-	-
Stage 1	1009	-	-
Stage 2	986	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1024	1605
HCM Lane V/C Ratio	-	-	0.003	0.006
HCM Control Delay (s)	-	-	8.5	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
9: Maplewood Avenue & South Access Drive

10/29/2024

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	24	4	2	11
Future Vol, veh/h	0	0	24	4	2	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	6
Mvmt Flow	0	0	25	4	2	12

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	43	27	0
Stage 1	27	-	-
Stage 2	16	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	973	1054	-
Stage 1	1001	-	-
Stage 2	1012	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	972	1054	-
Mov Cap-2 Maneuver	972	-	-
Stage 1	1001	-	-
Stage 2	1011	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1597
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	0	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th AWSC
4: California Avenue & Fulton Street

10/24/2024

Intersection	
Intersection Delay, s/veh	20.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	406	79	24	119	1	145	5	96	2	6	2
Future Vol, veh/h	5	406	79	24	119	1	145	5	96	2	6	2
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, %	20	2	10	17	5	0	6	60	3	50	67	0
Mvmt Flow	6	456	89	27	134	1	163	6	108	2	7	2
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	27.2	11.2	13.6	10.5
HCM LOS	D	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	1%	17%	20%
Vol Thru, %	2%	83%	83%	60%
Vol Right, %	39%	16%	1%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	490	144	10
LT Vol	145	5	24	2
Through Vol	5	406	119	6
RT Vol	96	79	1	2
Lane Flow Rate	276	551	162	11
Geometry Grp	1	1	1	1
Degree of Util (X)	0.448	0.812	0.267	0.023
Departure Headway (Hd)	5.838	5.309	5.941	7.258
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	616	683	604	491
Service Time	3.885	3.344	3.991	5.331
HCM Lane V/C Ratio	0.448	0.807	0.268	0.022
HCM Control Delay	13.6	27.2	11.2	10.5
HCM Lane LOS	B	D	B	B
HCM 95th-tile Q	2.3	8.4	1.1	0.1

Capacity Analysis Summary Sheets
Year 2030 Total Projected Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	100	56	64	257	42	94	1209	53	13	1032	74
Future Volume (vph)	78	100	56	64	257	42	94	1209	53	13	1032	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			1.00			1.00		0.99	0.99	
Frt		0.968			0.984			0.994			0.990	
Flt Protected		0.984			0.991		0.950			0.950		
Satd. Flow (prot)	0	1605	0	0	1733	0	1586	3339	0	1517	3223	0
Flt Permitted		0.652			0.883		0.150			0.156		
Satd. Flow (perm)	0	1062	0	0	1542	0	250	3339	0	247	3223	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			6			8			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		987			190			737			290	
Travel Time (s)		22.4			4.3			16.8			6.6	
Confl. Peds. (#/hr)	8		12	12		8	28		22	22		28
Confl. Bikes (#/hr)			2			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	3%	18%	2%	3%	5%	10%	3%	15%	15%	6%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	243	0	0	379	0	98	1314	0	14	1152	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		5.0	16.0		16.0	16.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		8.0	23.0		23.0	23.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	68.0		60.0	60.0	
Total Split (%)	35.2%	35.2%		35.2%	35.2%		7.6%	64.8%		57.1%	57.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		3.0	4.0		4.0	4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	Ped	Ped		Max	Max		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		32.0			32.0		65.0	64.0		57.6	57.6	
Actuated g/C Ratio		0.30			0.30		0.62	0.61		0.55	0.55	

Lanes, Volumes, Timings

1: Western Avenue & Fulton Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.73			0.80		0.45	0.64		0.10	0.65	
Control Delay		44.9			47.3		14.8	7.9		14.7	19.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		44.9			47.3		14.8	7.9		14.7	19.0	
LOS		D			D		B	A		B	B	
Approach Delay		44.9			47.3			8.3			19.0	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)		137			230		12	92		4	278	
Queue Length 95th (ft)		#255			#381		m23	147		16	353	
Internal Link Dist (ft)		907			110			657			210	
Turn Bay Length (ft)							95			100		
Base Capacity (vph)		334			474		218	2038		135	1773	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.73			0.80		0.45	0.64		0.10	0.65	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 61 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 19.6

Intersection LOS: B

Intersection Capacity Utilization 82.7%

ICU Level of Service E

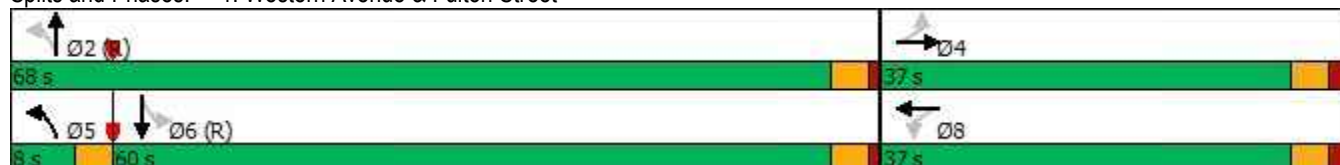
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Western Avenue & Fulton Street



Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	168	76	67	307	42	137	1268	77	32	1102	50
Future Volume (vph)	40	168	76	67	307	42	137	1268	77	32	1102	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		50	100		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00	0.96		1.00	0.97	1.00	1.00			1.00	
Frt			0.850		0.998	0.850		0.991			0.993	
Flt Protected		0.991			0.991		0.950			0.950		
Satd. Flow (prot)	0	1820	1546	0	1688	1454	1745	3290	0	1694	3236	0
Flt Permitted		0.571			0.832		0.147			0.111		
Satd. Flow (perm)	0	1048	1481	0	1413	1410	269	3290	0	198	3236	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			52			52		9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1022			219			330			737	
Travel Time (s)		23.2			5.0			7.5			16.8	
Confl. Peds. (#/hr)	9		20	20		9	19		13	13		19
Confl. Bikes (#/hr)			8			10			7			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	3%	2%	2%	0%	5%	1%	3%	7%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)						10%						
Lane Group Flow (vph)	0	214	78	0	389	39	141	1386	0	33	1188	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	24.0	24.0	24.0	24.0	24.0	24.0	5.0	21.0		5.0	21.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	8.0	26.0		8.0	26.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	8.0	62.0		8.0	62.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	7.6%	59.0%		7.6%	59.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0		3.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	None	C-Max		None	C-Max	
Act Effect Green (s)		30.0	30.0		30.0	30.0	65.2	60.2		64.0	57.0	
Actuated g/C Ratio		0.29	0.29		0.29	0.29	0.62	0.57		0.61	0.54	

Lanes, Volumes, Timings

2: Western Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.72	0.17		0.97	0.09	0.59	0.73		0.17	0.68	
Control Delay		48.8	13.1		75.3	5.8	18.9	20.0		6.4	10.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		48.8	13.1		75.3	5.8	18.9	20.0		6.4	10.3	
LOS		D	B		E	A	B	C		A	B	
Approach Delay		39.3			69.0			19.9			10.2	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)		129	13		270	0	34	365		5	117	
Queue Length 95th (ft)		#239	49		#471	18	59	459		m7	135	
Internal Link Dist (ft)		942			139			250			657	
Turn Bay Length (ft)			50			50	100			100		
Base Capacity (vph)		299	460		403	440	237	1890		191	1759	
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		0.72	0.17		0.97	0.09	0.59	0.73		0.17	0.68	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 24.2

Intersection LOS: C

Intersection Capacity Utilization 100.9%

ICU Level of Service G

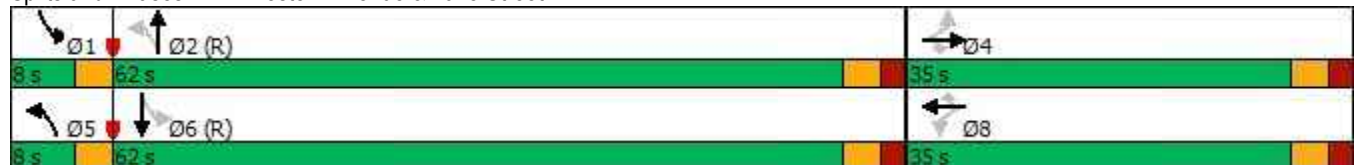
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Western Avenue & Lake Street



Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	188	23	35	475	14	55	198	15	7	163	6
Future Volume (vph)	4	188	23	35	475	14	55	198	15	7	163	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			0.98			1.00	
Frt		0.986			0.996			0.992			0.996	
Flt Protected		0.999			0.997			0.990			0.998	
Satd. Flow (prot)	0	1600	0	0	1621	0	0	1549	0	0	1556	0
Flt Permitted		0.993			0.971			0.913			0.989	
Satd. Flow (perm)	0	1590	0	0	1575	0	0	1411	0	0	1541	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			6			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		706			1669			873			833	
Travel Time (s)		16.0			37.9			19.8			18.9	
Confl. Peds. (#/hr)	18		31	31		18	56		28	28		56
Confl. Bikes (#/hr)			3			3			4			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	3%	1%	0%	0%	6%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	5	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	1	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	224	0	0	546	0	0	279	0	0	183	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	29.0	29.0		29.0	29.0		28.0	28.0		28.0	28.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effect Green (s)		29.0			29.0			28.0			28.0	
Actuated g/C Ratio		0.45			0.45			0.43			0.43	

Lanes, Volumes, Timings

3: California Avenue & Lake Street

10/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.78			0.46			0.28	
Control Delay		12.4			24.9			15.9			13.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.4			24.9			15.9			13.2	
LOS		B			C			B			B	
Approach Delay		12.4			24.9			15.9			13.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		51			173			73			44	
Queue Length 95th (ft)		95			#337			133			84	
Internal Link Dist (ft)		626			1589			793			753	
Turn Bay Length (ft)												
Base Capacity (vph)		716			704			611			665	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.78			0.46			0.28	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 18.8

Intersection LOS: B

Intersection Capacity Utilization 87.2%

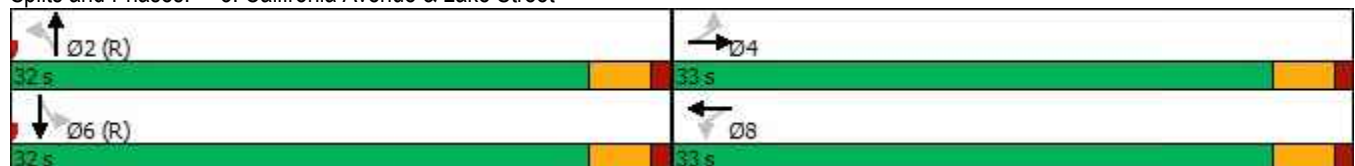
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: California Avenue & Lake Street



HCM 6th TWSC
5: Maplewood Avenue & Fulton Street

10/29/2024

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	196	7	8	444	8	22
Future Vol, veh/h	196	7	8	444	8	22
Conflicting Peds, #/hr	0	1	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	93	93	93	93	93	93
Heavy Vehicles, %	6	17	0	3	50	14
Mvmt Flow	211	8	9	477	9	24

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	220	0	711	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	495	-
Critical Hdwy	-	-	4.1	-	6.9	6.34
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.2	-	3.95	3.426
Pot Cap-1 Maneuver	-	-	1361	-	336	795
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1360	-	333	794
Mov Cap-2 Maneuver	-	-	-	-	333	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	520	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	580	-	-	1360	-
HCM Lane V/C Ratio	0.056	-	-	0.006	-
HCM Control Delay (s)	11.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
6: Lake Street & Maplewood Avenue

10/29/2024

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	227	508	3	17	16
Future Vol, veh/h	2	227	508	3	17	16
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	1	33	0	0
Mvmt Flow	2	236	529	3	18	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	538	0	0 777 537
Stage 1	-	-	- 537 -
Stage 2	-	-	- 240 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1040	-	- 368 548
Stage 1	-	-	- 590 -
Stage 2	-	-	- 805 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1035	-	- 364 545
Mov Cap-2 Maneuver	-	-	- 364 -
Stage 1	-	-	- 586 -
Stage 2	-	-	- 801 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1035	-	-	-	434
HCM Lane V/C Ratio	0.002	-	-	-	0.079
HCM Control Delay (s)	8.5	0	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 6th TWSC
7: Maplewood Avenue & North Access Drive

10/29/2024

Intersection

Int Delay, s/veh 3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	10	20	1	2	13
Future Vol, veh/h	7	10	20	1	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	15	0	0	15
Mvmt Flow	7	11	21	1	2	14

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	40	22	0
Stage 1	22	-	-
Stage 2	18	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	977	1061	-
Stage 1	1006	-	-
Stage 2	1010	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	976	1061	-
Mov Cap-2 Maneuver	976	-	-
Stage 1	1006	-	-
Stage 2	1009	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1024	1607
HCM Lane V/C Ratio	-	-	0.017	0.001
HCM Control Delay (s)	-	-	8.6	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection

Int Delay, s/veh 3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	8	12	1	1	18
Future Vol, veh/h	8	8	12	1	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	17	0	0	6
Mvmt Flow	8	8	13	1	1	19

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	35	14	0
Stage 1	14	-	-
Stage 2	21	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	983	1072	-
Stage 1	1014	-	-
Stage 2	1007	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	982	1072	-
Mov Cap-2 Maneuver	982	-	-
Stage 1	1014	-	-
Stage 2	1006	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1025	1617
HCM Lane V/C Ratio	-	-	0.016	0.001
HCM Control Delay (s)	-	-	8.6	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC
9: Maplewood Avenue & South Access Drive

10/29/2024

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	2	5	0	0	29
Future Vol, veh/h	4	2	5	0	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	20	0	0	0
Mvmt Flow	4	2	5	0	0	31
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	36	5	0	0	5	0
Stage 1	5	-	-	-	-	-
Stage 2	31	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	982	1084	-	-	1630	-
Stage 1	1023	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	982	1084	-	-	1630	-
Mov Cap-2 Maneuver	982	-	-	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.6	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 1014		1630	-	
HCM Lane V/C Ratio	-	- 0.006		-	-	
HCM Control Delay (s)	-	- 8.6		0	-	
HCM Lane LOS	-	- A		A	-	
HCM 95th %tile Q(veh)	-	- 0		0	-	

HCM 6th AWSC
4: California Avenue & Fulton Street

10/24/2024

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	135	56	78	415	2	172	2	44	3	11	9
Future Vol, veh/h	5	135	56	78	415	2	172	2	44	3	11	9
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, %	0	3	9	4	3	0	5	0	9	0	0	0
Mvmt Flow	5	147	61	85	451	2	187	2	48	3	12	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	10.8	23.1	12.9	9.5
HCM LOS	B	C	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	79%	3%	16%	13%
Vol Thru, %	1%	69%	84%	48%
Vol Right, %	20%	29%	0%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	196	495	23
LT Vol	172	5	78	3
Through Vol	2	135	415	11
RT Vol	44	56	2	9
Lane Flow Rate	237	213	538	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.395	0.315	0.768	0.043
Departure Headway (Hd)	5.997	5.328	5.136	6.179
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	599	673	705	577
Service Time	4.046	3.377	3.173	4.249
HCM Lane V/C Ratio	0.396	0.316	0.763	0.043
HCM Control Delay	12.9	10.8	23.1	9.5
HCM Lane LOS	B	B	C	A
HCM 95th-tile Q	1.9	1.3	7.3	0.1