

SCHEDULE 3

Traffic Impact Study Proposed Car Wash

Oak Park, Illinois



Prepared For:

Driven
CAR WASH

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

September 13, 2023

1. Introduction

This report presents the methodologies, findings, and recommendations of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed car wash to be located in Oak Park, Illinois. The site, which contains a vacant US Bank building, is located in the northwest quadrant of the intersection of Roosevelt Road with Austin Boulevard. As proposed, the site will be redeveloped to contain a tunnel car wash with 25 vacuum stalls, one handicapped parking space, and two employee parking spaces. Access to the proposed car wash will be provided via a full-movement access drive located on the north side of Roosevelt Road (IL 38) at the location of the existing access drive serving the vacant bank site.

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

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

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed car wash
- Directional distribution of the car wash traffic
- Vehicle trip generation for the car wash
- Future traffic conditions including access to the car wash
- Traffic analyses for the weekday morning, weekday evening, and Saturday midday peak hours
- Operation and stacking of the car wash
- Recommendations with respect to adequacy of the site access and adjacent roadway system

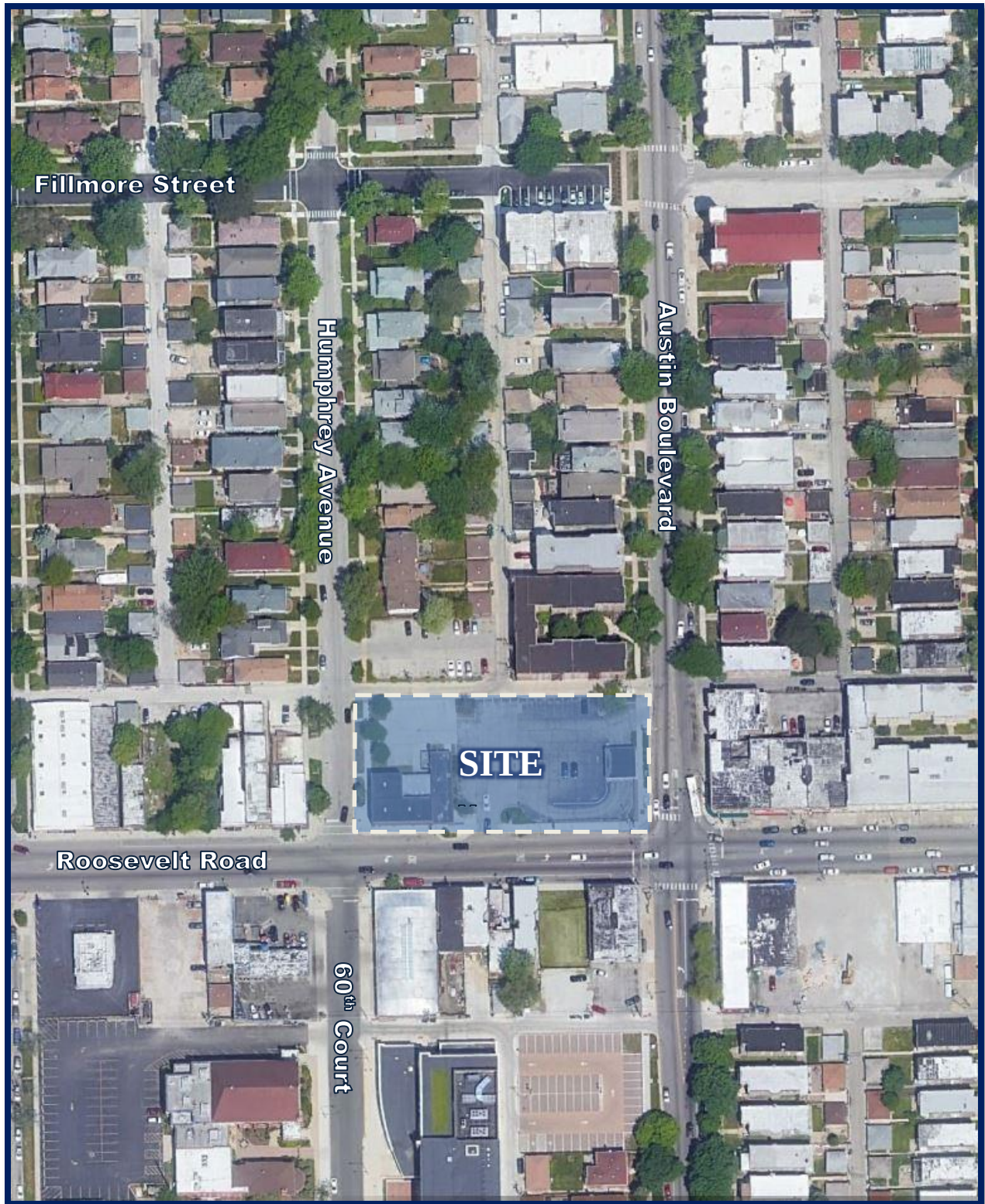
Traffic capacity analyses were conducted for the weekday morning, weekday evening, and Saturday midday peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using Year 2023 base peak hour traffic volumes in the surrounding area.
2. No-Build Conditions – Analyzes the capacity of the existing roadway system using the base traffic volumes, ambient area growth not attributable to any particular development, and any additional developments not associated with the proposed car wash.
3. Projected Conditions – Analyzes the capacity of the future roadway system using the traffic volumes that include the Year 2023 base traffic volumes, ambient area growth not attributable to any particular car wash, and the traffic estimated to be generated by the proposed car wash.



Site Location

Figure 1



Aerial View of Site

Figure 2

2. Existing Conditions

Existing transportation conditions 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 roadway system including lane usage and traffic control devices, and Year 2023 base peak hour traffic volumes.

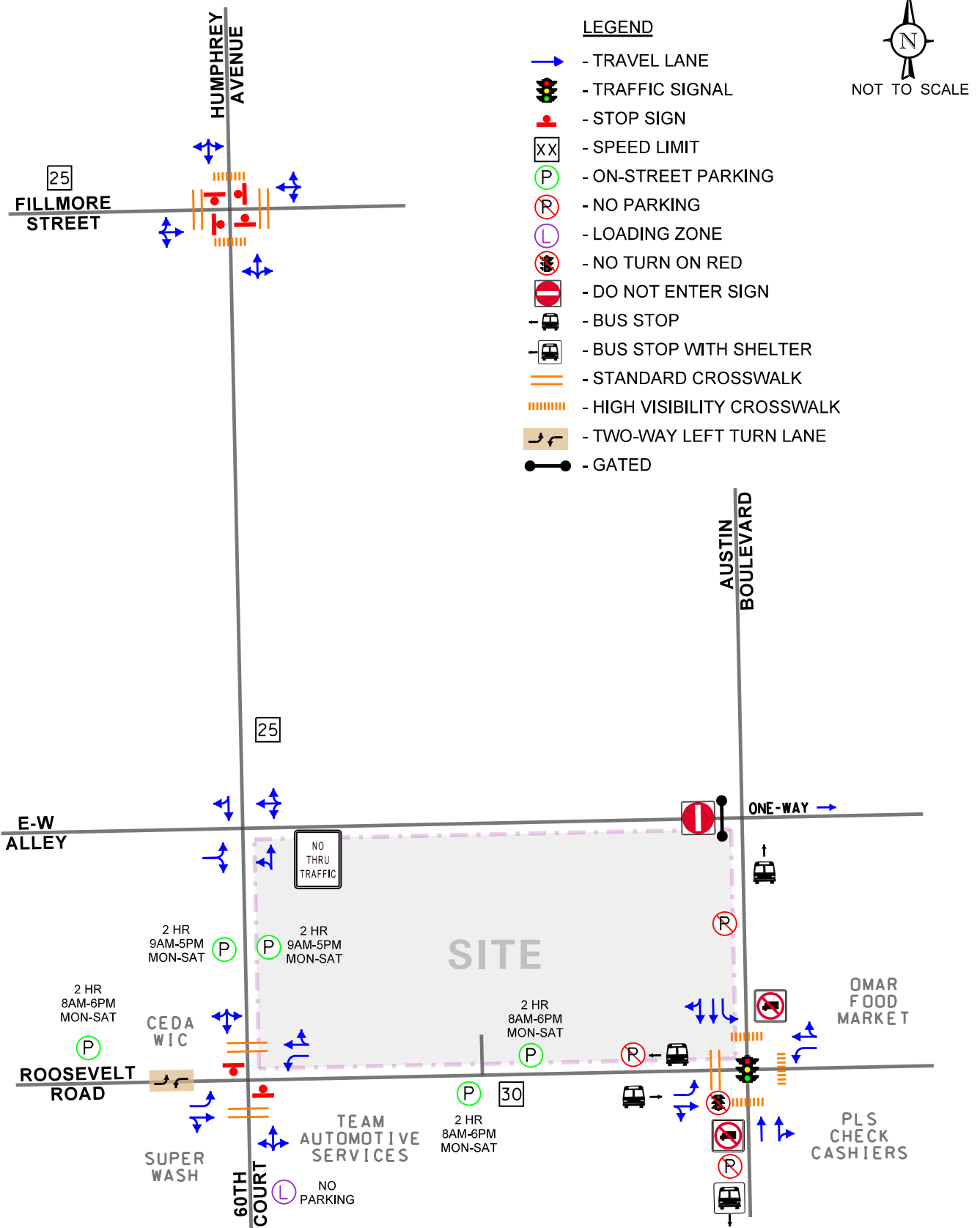
Site Location

The site, which currently contains a vacant US Bank building, is bounded by an east-west alley to the north, Austin Boulevard to the east, Roosevelt Road to the south, and Humphrey Avenue to the west. Land uses in the vicinity of the site are primarily residential with multi-family and single-family homes located north and south of the site. Multiple commercial developments are located east and west of the site along Roosevelt Road.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the site are described below and illustrated in **Figure 3**.

Roosevelt Road (IL 38) is an east-west, principal arterial roadway that provides one through lane in each direction generally divided by a two-way, left-turn lane west of Austin Boulevard and one lane in each direction east of Austin Boulevard. Parking is generally permitted on both sides of the road. At its signalized intersection with Austin Boulevard, Roosevelt Road provides an exclusive left-turn lane and a shared through/right-turn lane on both approaches. Crosswalks and pedestrian signals are provided on all four legs of this intersection. At its unsignalized intersection with Humphrey Avenue/60th Court, Roosevelt Road provides a two-way left-turn lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane and a shared through/right-turn lane on the westbound approach. Standard style crosswalks are provided on the north and south legs of this intersection. Roosevelt Road is under the jurisdiction of the Illinois Department of Transportation (IDOT), has a posted speed limit of 30 miles per hour, is not designated as a Strategic Regional Arterial (SRA) route, and carries an annual average daily traffic (AADT) volume of 16,200 vehicles east of Austin Boulevard and 18,200 vehicles west of Austin Boulevard (IDOT 2022).



Proposed Car Wash
Oak Park, Illinois

Existing Roadway Characteristics



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Figure: 3

Austin Boulevard is a north-south, minor arterial roadway that provides one through lane in each direction widening to two southbound lanes at its intersection with Roosevelt Road. Parking is generally permitted on both sides of the road. At its signalized intersection with Roosevelt Road, Austin Boulevard provides an exclusive left-turn lane and a shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, a through lane, and a shared through-right-turn lane on the southbound approach. At its unsignalized intersection with the east-west alley, Austin Boulevard provides a shared through/right-turn lane on the northbound approach and a shared left-turn/through lane on the southbound approach. Austin Boulevard is under the jurisdiction of the Village of Oak Park and the City of Chicago, has a posted speed limit of 30 miles per hour, is not designated as an SRA route, and carries an AADT volume of 18,800 vehicles north of Roosevelt Road and 15,600 vehicles south of Roosevelt Road (IDOT 2022).

Humphrey Avenue is a north-south, local roadway that provides one lane in each direction and extends north from Roosevelt Road where it is aligned opposite 60th Court. Parking is generally permitted on both sides of the road. At its all-way stop-sign controlled intersection with Fillmore Street, Humphrey Avenue provides a shared through/left-turn/right-turn lane on both approaches. At its unsignalized intersection with Roosevelt Road, Humphrey Avenue provides a shared through/left-turn/right-turn lane on the southbound approach that is under stop sign control. At its unsignalized intersection with the east-west alley, Humphrey Avenue provides one lane in each direction. Humphrey Avenue is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 miles per hour.

60th Court is a north-south, local roadway that provides one lane in each direction and extends south from Roosevelt Road where it is aligned opposite Humphrey Avenue. Parking is generally permitted on both sides of the road. At its unsignalized intersection with Roosevelt Road, 60th Court provides a shared through/left-turn/right-turn lane on the southbound approach that is under stop sign control. 60th Court is under the jurisdiction of the Town of Cicero and has a posted speed limit of 20 miles per hour.

Fillmore Street is an east-west, local roadway that provides one lane in each direction with parking generally permitted on both sides of the road. At its all-way stop-sign controlled intersection with Humphrey Avenue, Fillmore Street provides a shared through/left-turn/right-turn lane on both approaches. Crosswalks are provided on all four legs of this intersection. Fillmore Street terminates just west of Austin Boulevard. Fillmore Street continues from the east side of Austin Boulevard as a one-way eastbound only roadway. Fillmore Street is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 miles per hour.

The *East-West Alley* extends along the site's north border. At its unsignalized intersection with Austin Boulevard, the west leg is gated and signed for no entry. The east leg is one-way eastbound. At its unsignalized intersection with Humphrey Avenue, the alley provides one inbound lane.

Existing Traffic Volumes

Per the direction of the Village of Oak Park, previous traffic counts performed at the following intersections were used for the traffic study:

- Roosevelt Road with Austin Boulevard
- Roosevelt Road with Humphrey Avenue/60th Street
- Austin Boulevard with the east-west alley
- Humphrey Avenue with Fillmore Street
- Humphrey Avenue with the east-west alley

The traffic counts were performed on Tuesday, February 11, 2020 during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (3:00 to 7:00 P.M.) peak periods. In addition, traffic counts were also performed on Saturday, March 7th, 2020 during the midday peak period (12:00 P.M. to 2:00 P.M.) at the intersections of Roosevelt Road with Austin Boulevard, Roosevelt Road with Humphrey Avenue/60th Street, and Humphrey Avenue with Fillmore.

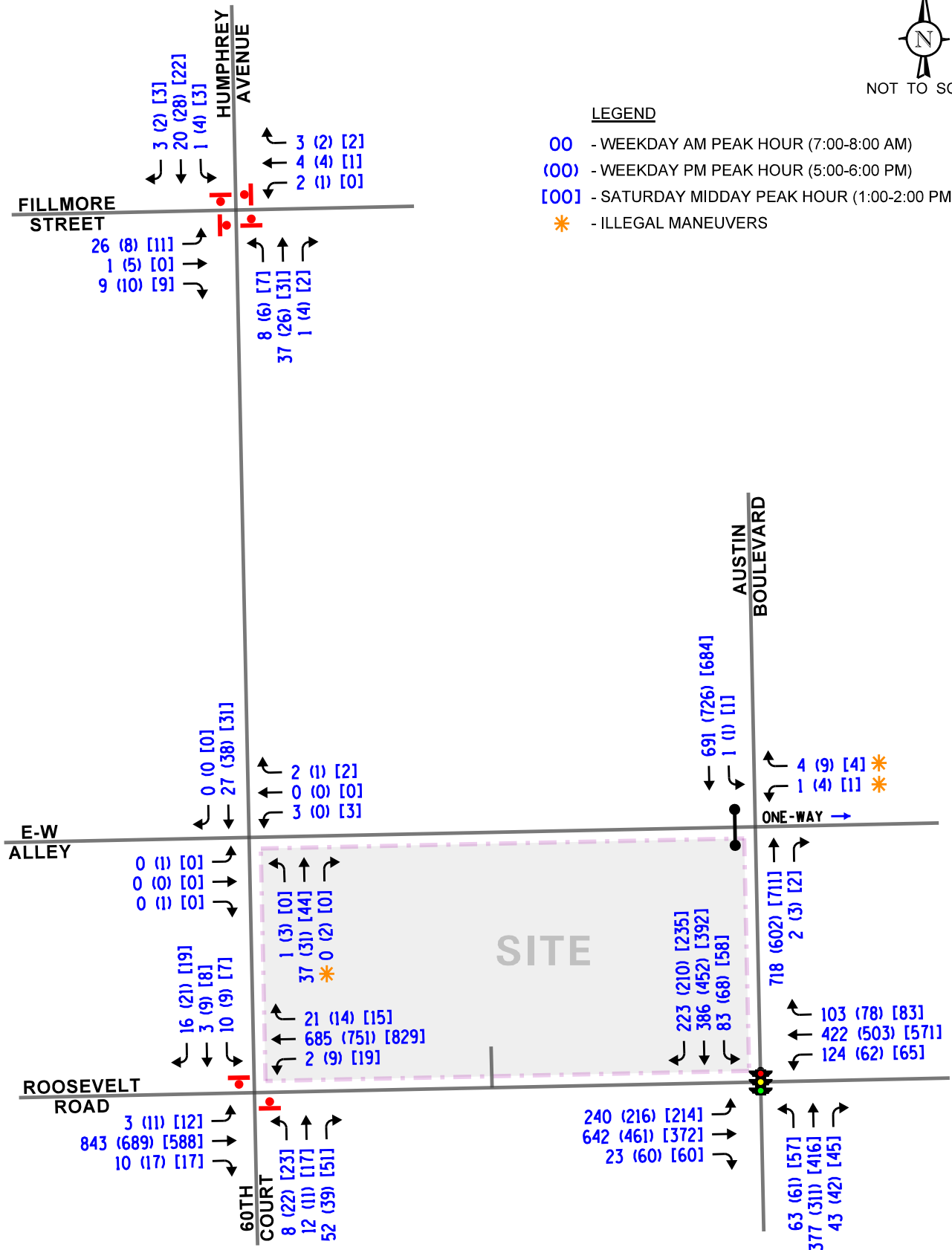
The results of the traffic counts show that the weekday morning peak hour of traffic generally occurred between 7:00 and 8:00 A.M., the weekday evening peak hour of traffic occurred between 5:00 and 6:00 P.M., and the Saturday midday peak hour of traffic occurred between 1:00 P.M. and 2:00 P.M. It should be noted that in order to represent the existing traffic volume conditions in the study area, the counts were increased by an ambient growth factor discussed later to represent the Year 2023 base traffic conditions. Copies of the traffic count summary sheets are included in the Appendix. **Figure 4** illustrates Year 2023 base peak hour vehicle traffic volumes.



NOT TO SCALE

LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)
- * - ILLEGAL MANEUVERS



Proposed Car Wash
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Year 2023 Base Traffic Volumes



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Figure: 4

Crash Analysis

KLOA, Inc. obtained crash data¹ for the most recent available past five years (2018 to 2022) for the intersections of Roosevelt Road with Austin Boulevard, Roosevelt Road with Humphrey Avenue/60th Street, and Humphrey Avenue with Fillmore Street. A review of the crash data indicated that no accident occurred at the intersection of Humphrey Avenue with Fillmore Street during the review period. Further, no fatalities were reported at any of the studied intersections during the five-year period. **Tables 1** and **2** show a summary of the crash data for the remaining intersections.

Table 1

ROOSEVELT ROAD WITH AUSTIN BOULEVARD– CRASH SUMMARY

Year	Type of Crash Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2018	1	1	1	1	4	0	8
2019	0	0	1	2	4	0	7
2020	0	0	5	1	1	2	9
2021	2	0	3	0	4	1	10
2022	<u>0</u>	<u>1</u>	<u>5</u>	<u>1</u>	<u>3</u>	<u>0</u>	<u>10</u>
Total	3	2	15	5	16	3	44
Average	<1.0	<1.0	3.0	1.0	3.2	<1.0	8.8

Table 2

ROOSEVELT ROAD WITH HUMPHREY AVENUE/60TH COURT – CRASH SUMMARY

Year	Type of Crash Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2018	3	0	0	0	1	0	4
2019	3	0	0	0	1	0	4
2020	1	0	1	0	1	0	3
2021	1	0	0	0	1	0	2
2022	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>2</u>
Total	9	0	1	0	5	0	15
Average	1.8	--	<1.0	--	1.0	--	3.0

¹ IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.

3. Traffic Characteristics of the Proposed Facility

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

Proposed Car Wash Plan

As proposed, the car wash is to contain an automatic car wash tunnel with 25 vacuum stalls, two employee parking spaces, and one handicapped parking space. Access to the proposed car wash will be provided via a full movement access drive located on the north side of Roosevelt Road approximately 195 feet west of Austin Boulevard at the location of the existing access drive serving the vacant bank site. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control. An emergency access drive, which will be gated, is proposed to be located on the west side of Austin Boulevard at the north end of the site.

A copy of the preliminary site plan is included in the Appendix.

Car Wash Operations and Circulation

The car wash tunnel building will be located on the north side of the site, oriented in an east-west direction with the vacuum stalls and employee parking located directly south of the car wash tunnel. Circulation to the vacuum positions and employee parking spaces will be provided via a two-way, east-west drive aisle with access provided to the vacuum positions before or after a car wash. Access to the car wash building entrance will be provided via three one-way, counterclockwise approach lanes that will extend along the eastern half of the south side of the site and the west side of the site. Upon entering the site from Roosevelt Road, customers will proceed to the car wash via the three one-way, approach lanes or to the vacuum positions.

Three pay stations will be located at the northeast corner of the site. Immediately after the pay stations, the three approach lanes will narrow to one lane along the north side of the site that leads to the entrance of the car wash tunnel. Each of the three approach lanes will be individually gated with a separate automatic pay station. The gates will meter the traffic flow proceeding to the car wash building entrance and will open in sequence based on the order of vehicle arrival. Once the gate is lifted for the respective lane, the individual vehicle will proceed north, and then west to the entrance to the car wash tunnel.

As proposed, the single-lane automatic car wash building will be an exterior-only car wash system and will provide one-way, counter-clockwise circulation. At the entrance to the car wash building, the driver will remain in the vehicle and the car wash will automatically pull the vehicle through the building. Manual and automated controls will increase, decrease, or stop vehicle flow through the car wash. After exiting the building, the vehicles will circulate through the vacuum positions and employee parking to one of the vacuum stations or to the Roosevelt Road access drive.

Car Wash Stacking

According to the site plan, there will be stacking for approximately 21 vehicles to queue before the three pay stations. In addition, there will be stacking for approximately three vehicles between the pay stations and the entrance to the tunnel. As such, the plan provides stacking for a total of approximately 24 vehicles from the drive aisle to the entrance to the tunnel. Additionally, there will be additional space for approximately six vehicles inside of the tunnel car wash. The operator has indicated that their Hickory Hills car wash can accommodate approximately 25 to 26 queued vehicles and that their Arlington Heights car wash can accommodate 29 to 30 vehicles. As such, the stacking to be provided by the proposed car wash is similar to the other car washes.

Car Wash Wayfinding and Traffic Control Signage

The following wayfinding and traffic control signage is recommended:

- Wayfinding signage should be posted to guide vehicles to the car wash stacking area to minimize vehicle turning movements within the internal site circulation area.
- Wayfinding signage should be posted at the exit of the car wash tunnel to direct vehicles exiting the car wash to either the vacuum stalls or the access drive to exit the site.
- A “Do Not Enter” sign should be posted at the exit of the car wash tunnel to deter opposing traffic from entering the car wash tunnel from the one-way exit direction.

Vacuum Stalls

The 25 vacuum stalls will be located on the south side of the car wash tunnel. Circulation to the vacuum station will be provided via two-way, east-west drive aisle, allowing flexibility for vehicles to access the vacuum stalls before or after the car wash.

Peak Day Operations

Typical of any car wash, its peak operations (design day) typically occur after a weather event such as a snowfall or a rain event. Based on historical data from other car washes, this typically occurs 12 to 15 times per year. When this peak demand occurs, the following operational procedures should be implemented:

- Increase the service rate of the tunnel to the maximum it can process.
- Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include at the pay stations and at the exit of the car wash.
- To minimize turning conflicts and improve the flow of traffic through the site, access to the vacuum positions before a car wash may be prohibited.

- To reduce the outbound queueing/stacking at the access drive, outbound left-turn movements may need to be prohibited during the peak day operations, requiring all vehicles to travel westbound on Roosevelt Road when exiting the site. Temporary signage can be used to restrict the left-turn movement.

Directional Distribution

The directions from which traffic will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts and the operation of the roadway system. **Figure 5** illustrates the directional distribution of vehicles to/from the proposed car wash.

Facility-Generated Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed car wash was based on “Automated Car Wash” (Land-Use Code 948) vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). It should be noted that the ITE Manual does not provide data for the morning peak hour for an automated car wash. For the purposes of the evaluation, it was assumed that the traffic to be generated by the car wash during the morning peak hour was approximately one-third of the weekday evening peak hour trip generation.

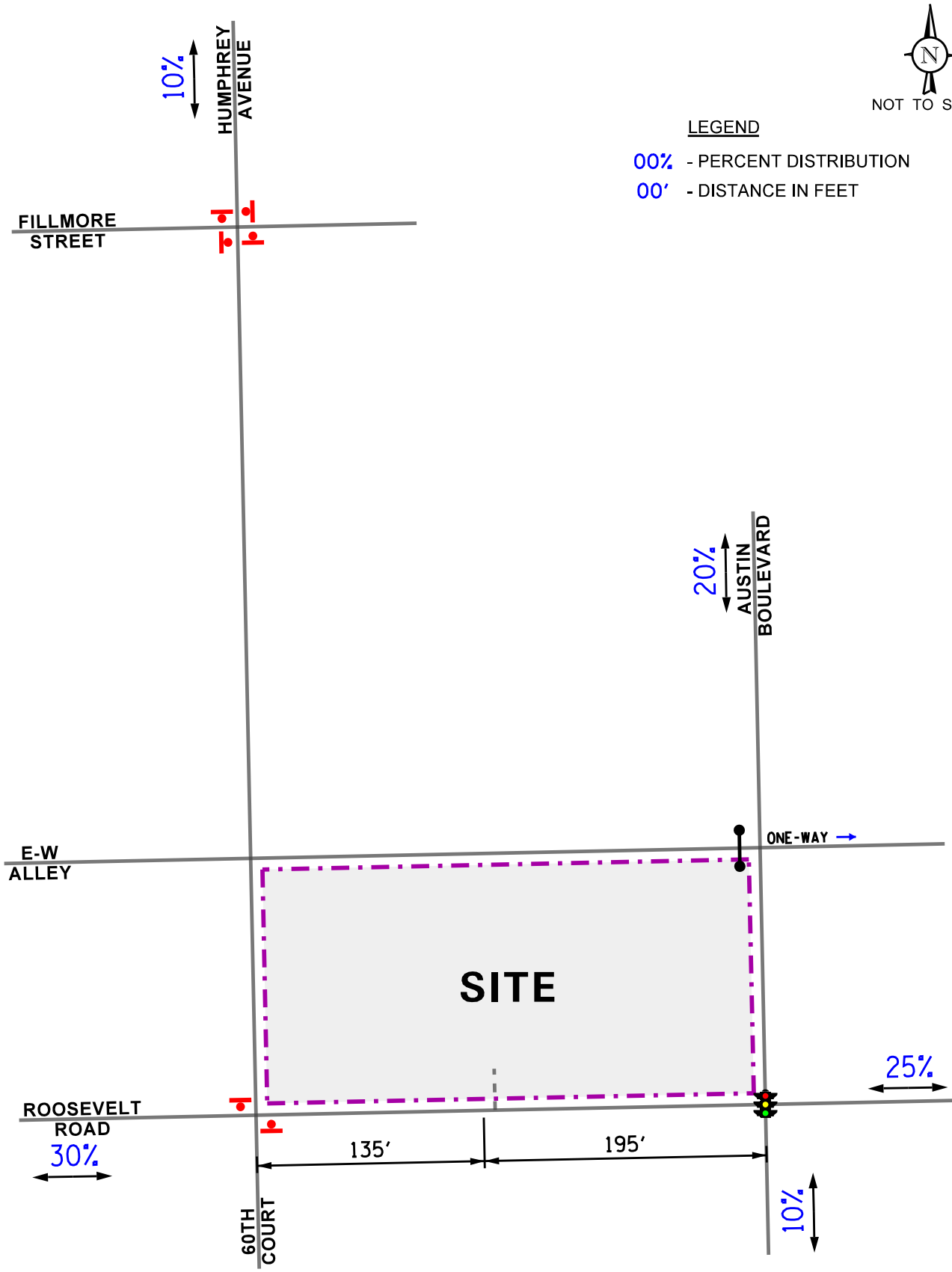
Further, it is important to note that surveys conducted by ITE have shown that a considerable number of trips made to car washes are diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. However, in order to present a worst-case scenario, no reduction in the site-generated traffic was assumed.

Table 3 summarizes the estimated peak hour trips. A copy of the ITE trip generation sheets is included in the Appendix.

Table 3

CAR WASH ESTIMATED PEAK HOUR TRAFFIC VOLUMES

ITE Land-Use Code	Type	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
948	Car Wash (1 tunnel)	13	13	26	39	39	78	19	22	41



Proposed Car Wash
Oak Park, Illinois

Directional Distribution



Job No: 23-205

Figure: 5

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 car wash.

Car Wash Traffic Assignment

The estimated weekday morning, weekday evening, and Saturday midday peak hour traffic volumes that will be generated by the proposed car wash were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5) which is illustrated in **Figure 6**.

Background (No-Build) Traffic Conditions

Year 2023 base traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned facility). Based on Year 2050 projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated August 10, 2023, an increase of 0.39 percent per year over six years (buildout year plus five years) for a total of 2.0 percent was applied to the Year 2023 base traffic volumes to determine the projected Year 2029 no-build traffic volumes. **Figure 7** illustrates the Year 2029 no-build traffic volumes. A copy of the CMAP 2050 projections letter is included in the Appendix.

Year 2029 Total Projected Traffic Volumes

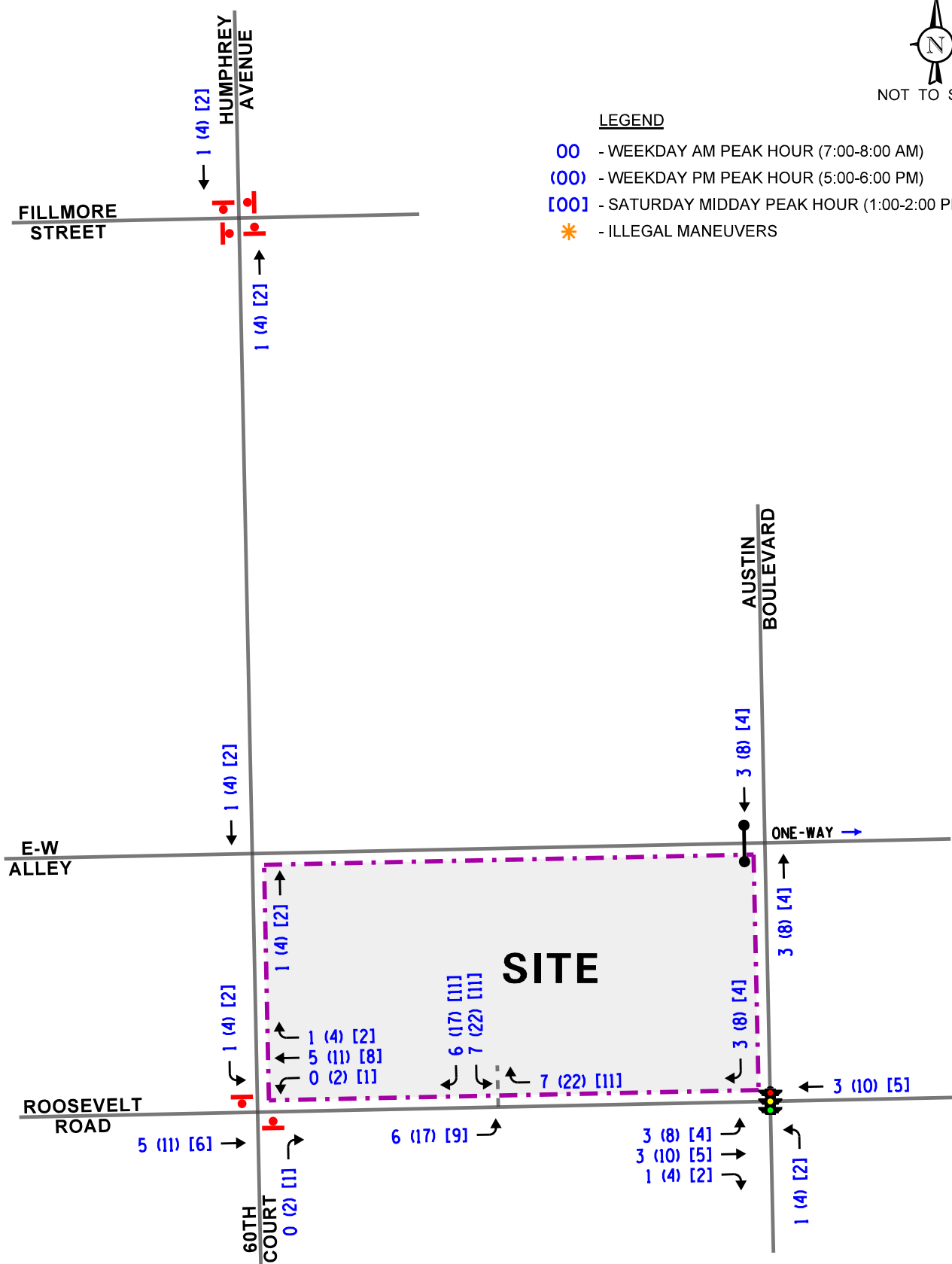
The Year 2029 total projected traffic volumes include the no-build traffic volumes (Figure 7) and the traffic estimated to be generated by the proposed car wash (Figure 6). **Figure 8** shows the Year 2029 total projected traffic volumes.



NOT TO SCALE

LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)
- * - ILLEGAL MANEUVERS



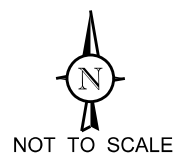
Proposed Car Wash
Oak Park, Illinois

Site-Generated Traffic Volumes
New Trips



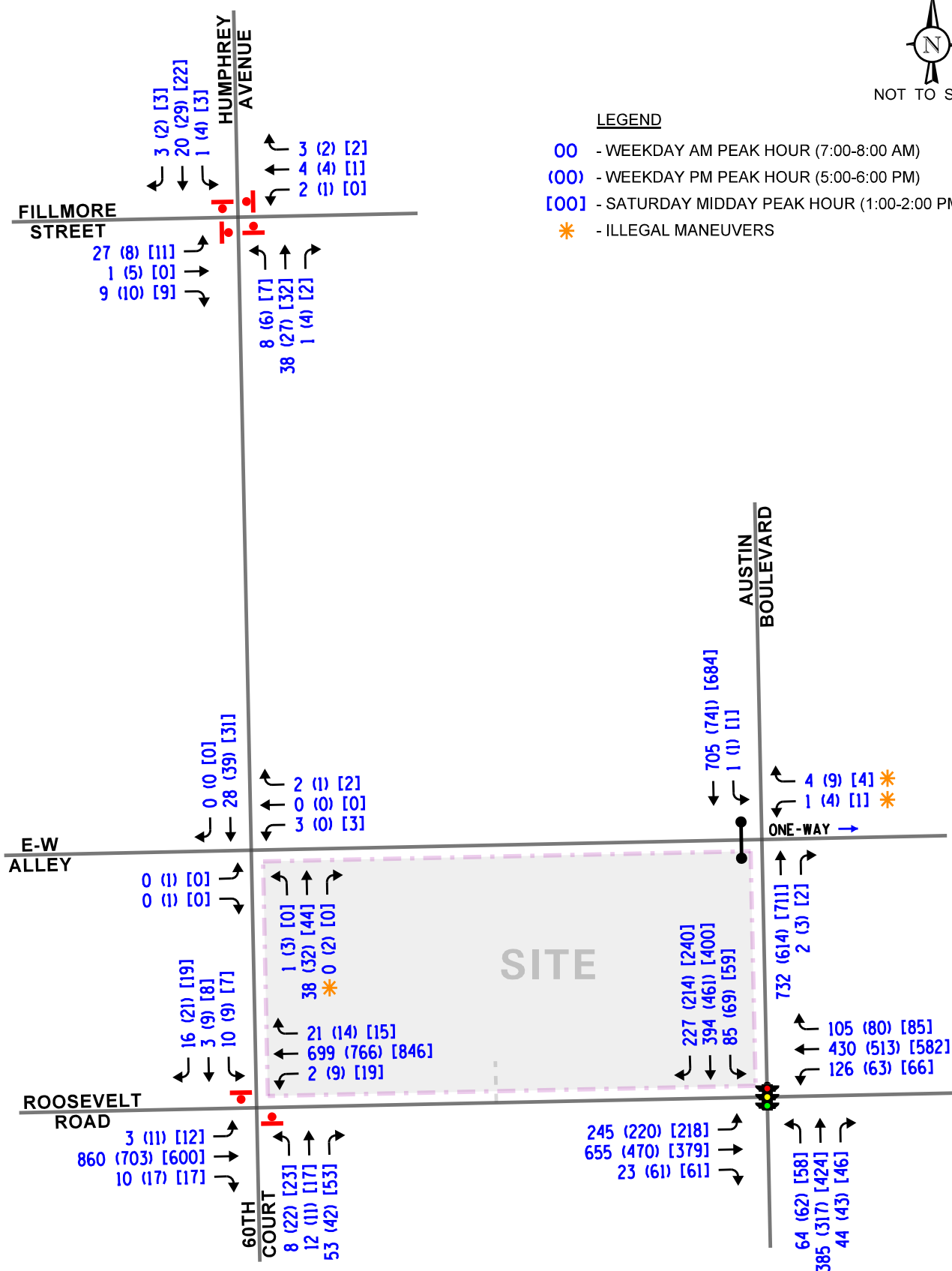
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Figure: 6



LEGEND

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- (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)
- * - ILLEGAL MANEUVERS



Proposed Car Wash
Oak Park, Illinois

Year 2029 No-Build Traffic Volumes



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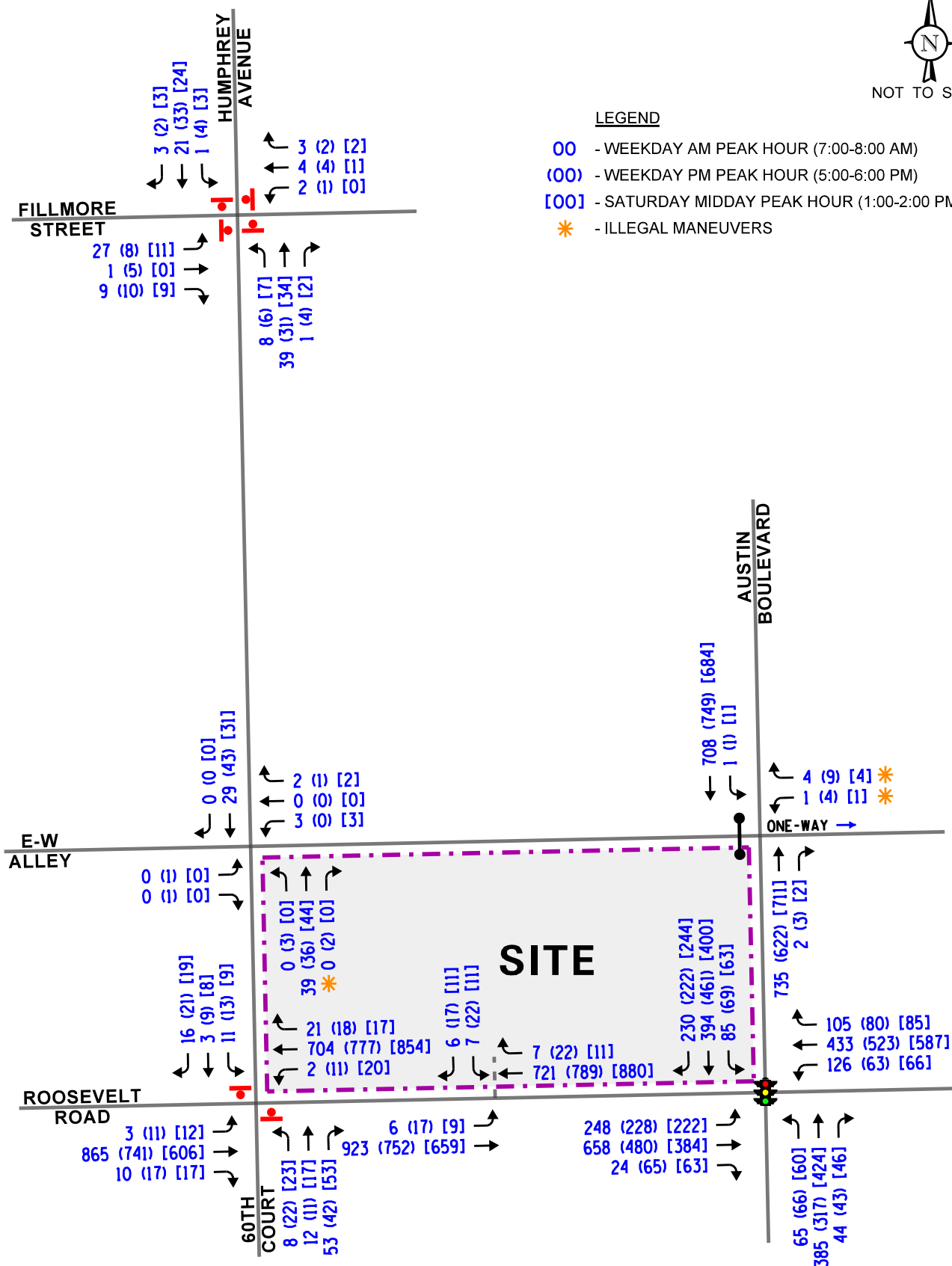
Figure: 7



NOT TO SCALE

LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)
- * - ILLEGAL MANEUVERS



Proposed Car Wash
Oak Park, Illinois

Year 2029 Total Traffic Volumes



Job No: 23-205

Figure: 8

5. Traffic Analysis and Recommendations

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

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning, weekday evening, and Saturday midday peak hours for Year 2023 base, Year 2029 no-build traffic volumes, and Year 2023 total traffic conditions.

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 traffic-signal controlled intersections was accomplished using actual phasings to determine the average overall vehicle delay and levels of service.

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 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 Year 2023 base conditions, Year 2029 no-build conditions, and Year 2029 total conditions are presented in **Tables 4** through **8**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Per the request of the Village of Oak Park, the volume of traffic at the intersection of Roosevelt Road with Austin Boulevard was increased by the following percentages to account for the observed unmet traffic demand at this intersection:

- Northbound and southbound through traffic volumes were increased by ten vehicles during the weekday morning and weekday evening peak hours.
- The eastbound through traffic volumes were increased by five percent during the weekday morning peak hour.

As such, capacity analyses were performed at the Roosevelt Road/Austin Boulevard intersection for both the observed traffic volumes (Table 4) and the increased (unmet demand) traffic volumes (Table 5).

Table 4

CAPACITY ANALYSIS RESULTS – ROOSEVELT ROAD WITH AUSTIN BOULEVARD

Existing Conditions	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
	Weekday Morning	B 18.4	D 40.8	B 17.3	D 38.3	C 27.1	E 74.8	C 31.3	D 47.1	D 43.3
		C – 34.9		C – 34.3		E – 68.5		D – 45.2		
	Weekday Evening	C 20.6	C 28.3	B 12.8	D 38.2	C 27.1	E 58.2	C 26.9	D 51.9	D 39.9
		C – 26.0		D – 35.8		D – 53.6		D – 49.6		
Saturday Midday	E 63.2	C 27.8	B 13.0	E 55.1	C 23.1	E 66.6	C 25.0	D 40.7	D 47.3	
	D – 39.5		D – 51.3		E – 61.9		D – 39.4			
No-Build Conditions	Weekday Morning	B 19.7	D 43.7	B 18.7	D 40.1	C 27.1	E 75.0	C 26.9	D 52.3	D 40.7
		D – 37.4		D – 36.0		E – 68.7		D – 50.0		
	Weekday Evening	C 22.5	C 29.0	B 13.0	D 39.9	C 27.2	E 58.7	C 27.0	D 52.2	D 40.6
		C – 27.0		D – 37.3		D – 54.1		D – 49.9		
	Saturday Midday	E 77.8	C 28.4	B 13.1	E 61.4	C 23.2	E 66.6	C 25.1	D 40.5	D 50.2
		D – 44.8		E – 57.1		E – 61.9		D – 39.2		
Projected Conditions	Weekday Morning	C 20.1	D 44.3	B 19.0	D 40.5	C 27.3	E 75.0	C 31.4	D 47.1	D 44.8
		D – 37.9		D – 36.4		E – 68.6		D – 45.2		
	Weekday Evening	C 25.4	C 29.7	B 13.1	D 41.5	C 27.7	E 58.1	C 26.8	D 53.2	D 41.5
		C – 28.5		D – 38.8		D – 53.4		D – 50.7		
	Saturday Midday	F 83.4	C 28.7	B 13.2	E 63.0	C 23.3	E 67.1	C 25.6	D 40.7	D 51.2
D – 46.9		E – 58.6		E – 62.1		D – 39.4				

Letter denotes Level of Service; Delay is measured in seconds.

L – Left Turn; T – Through; R – Right Turn

Table 5

CAPACITY ANALYSIS RESULTS – ROOSEVELT ROAD WITH AUSTIN BOULEVARD (INCREASED VOLUMES)

Existing Conditions	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall	
		L	T/R	L	T/R	L	T/R	L	T/R		
	Weekday Morning	B 18.9	D 46.8	C 20.0	D 39.1	C 27.0	E 74.6	C 31.2	D 46.6	D 45.1	
		D – 39.6		D – 35.4		E – 68.4		D – 44.8			
	Weekday Evening	C 20.8	C 28.5	B 12.9	D 38.5	C 27.1	E 59.6	C 27.0	D 52.1	D 40.3	
		C – 26.2		D – 36.0		D – 54.9		D – 49.8			
	No-Build Conditions	Weekday Morning	C 20.3	D 50.9	C 23.7	D 41.0	C 27.1	F 74.8	C 31.4	D 46.5	D 46.8
			D – 43.0		D – 37.7		E – 68.7		D – 44.7		
		Weekday Evening	C 22.7	C 29.1	B 13.0	D 40.1	C 27.3	E 60.5	C 27.1	D 52.9	D 41.4
			C – 27.2		D – 37.5		E – 55.7		D – 50.6		
Projected Conditions	Weekday Morning	C 20.8	D 51.7	C 24.6	D 41.4	C 27.2	E 74.8	C 31.4	D 46.6	D 47.1	
		D – 43.7		D – 38.3		E – 68.7		D – 44.8			
	Weekday Evening	C 26.2	C 29.9	B 13.1	D 42.0	C 27.7	E 59.2	C 27.0	D 53.2	D 42.0	
		C – 28.8		D – 39.3		D – 54.4		D – 50.8			
Letter denotes Level of Service L – Left Turn R – Right Turn Delay is measured in seconds. T – Through											

Table 6

CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Humphrey Avenue with Filmore Street¹						
• Overall	A	7.3	A	7.2	A	7.1
• Eastbound Approach	A	7.4	A	7.1	A	7.0
• Westbound Approach	A	7.1	A	7.0	A	6.7
• Northbound Approach	A	7.4	A	7.2	A	7.2
• Southbound Approach	A	7.2	A	7.2	A	7.1
Roosevelt Road with Humphrey Avenue/60th Court²						
• Northbound Approach	C	22.5	C	22.5	C	24.7
• Southbound Approach	C	20.9	C	20.3	C	22.2
• Eastbound Left Turn	A	9.2	A	9.4	A	9.9
• Westbound Left Turn	B	11.3	A	9.2	A	9.1
Humphrey Avenue with E-W Alley²						
• Eastbound Approach	A	0.1	A	8.9	N/A	N/A
• Westbound Approach	A	9.0	A	8.5	N/A	N/A
• Northbound Left Turn	A	7.3	A	7.3	N/A	N/A
• Southbound Left Turn	A	0.1	A	0.1	N/A	N/A
Austin Boulevard with E-W Alley²						
• Westbound Approach	D	26.8	C	21.8	N/A	N/A
• Southbound Left Turn	A	9.3	A	8.9	N/A	N/A
LOS = Level of Service Delay is measured in seconds.						
1- All-way stop control. 2- Two-way stop control.						

Table 7

CAPACITY ANALYSIS RESULTS – YEAR 2029 NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Humphrey Avenue with Filmore Street¹						
• Overall	A	7.3	A	7.2	A	7.1
• Eastbound Approach	A	7.4	A	7.1	A	7.0
• Westbound Approach	A	7.1	A	7.0	A	6.7
• Northbound Approach	A	7.4	A	7.2	A	7.2
• Southbound Approach	A	7.2	A	7.2	A	7.1
Roosevelt Road with Humphrey Avenue/60th Court²						
• Northbound Approach	C	23.2	C	23.0	D	25.5
• Southbound Approach	C	21.4	C	20.8	C	22.8
• Eastbound Left Turn	A	9.2	A	9.5	B	10.0
• Westbound Left Turn	B	11.4	A	9.3	A	9.1
Humphrey Avenue with E-W Alley²						
• Eastbound Approach	A	0.1	A	8.9	N/A	N/A
• Westbound Approach	A	9.0	A	8.5	N/A	N/A
• Northbound Left Turn	A	7.3	A	7.3	N/A	N/A
• Southbound Left Turn	A	0.1	A	0.1	N/A	N/A
Austin Boulevard with E-W Alley²						
• Westbound Approach	D	27.7	C	22.5	N/A	N/A
• Southbound Left Turn	A	9.3	A	9.0	N/A	N/A
LOS = Level of Service Delay is measured in seconds.						
1- All-way stop control. 2- Two-way stop control.						

Table 8

CAPACITY ANALYSIS RESULTS – YEAR 2029 PROJECTED CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Humphrey Avenue with Filmore Street¹						
• Overall	A	7.3	A	7.2	A	7.2
• Eastbound Approach	A	7.4	A	7.1	A	7.0
• Westbound Approach	A	7.1	A	7.1	A	6.7
• Northbound Approach	A	7.4	A	7.3	A	7.3
• Southbound Approach	A	7.2	A	7.3	A	7.1
Roosevelt Road with Humphrey Avenue/60th Court²						
• Northbound Approach	C	23.3	C	23.6	D	25.9
• Southbound Approach	C	22.0	C	22.4	C	24.0
• Eastbound Left Turn	A	9.3	A	9.6	B	10.1
• Westbound Left Turn	B	11.4	A	9.3	A	9.2
Humphrey Avenue with E-W Alley²						
• Eastbound Approach	A	0.1	A	8.9	N/A	N/A
• Westbound Approach	A	9.0	A	8.5	N/A	N/A
• Northbound Left Turn	A	0.1	A	7.3	N/A	N/A
• Southbound Left Turn	A	0.1	A	0.1	N/A	N/A
Austin Boulevard with E-W Alley²						
• Westbound Approach	D	28.0	C	22.9	N/A	N/A
• Southbound Left Turn	A	9.3	A	9.0	N/A	N/A
Roosevelt Road with Proposed Access Drive						
• Southbound Approach	D	32.0	E	37.2	D	30.5
• Eastbound Left Turn	A	9.2	A	9.6	A	9.9
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 roadway and traffic control improvements necessary to accommodate the facility-generated traffic.

Roosevelt Road with Austin Boulevard

The results of the capacity analysis assuming both the observed volumes and the volumes with the unmet demand indicate that this intersection currently operates at an overall Level of Service (LOS) D during the weekday morning, weekday evening, and Saturday midday peak hours. All of the movements operate at LOS D or better except the northbound through/right-turn lane which operates at LOS E. It should be noted that the capacity analyses assumed a single lane for the northbound through/right-turn lane even though field observations have revealed that the northbound approach often operates as a northbound through lane and a separate right-turn lane. As such, the northbound through/right-turn lane often operates better than the capacity analyses would indicate. Further, the eastbound and westbound approaches of Roosevelt Road often experience long queues during the peak hours, and it often takes vehicles at the end of the queue two cycles to clear the intersection during the peak hours.

Under Year 2029 no-build conditions assuming both the observed volumes and the volumes with the unmet demand, this intersection is projected to continue to operate at LOS D during all three peak hours. Further, all of the approaches are projected to operate at LOS E or better during the peak hours.

Under Year 2029 total projected conditions assuming both the observed volumes and the volumes with the unmet demand, this intersection is projected to continue to operate at LOS D during the weekday morning, weekday evening, and Saturday midday peak hours. In addition, all movements are projected to continue to operate at the same levels of service as Year 2029 no-build conditions. As is the case under existing conditions, eastbound and westbound approaches of Roosevelt Road are projected to continue to experience long queues during the peak hours and may take vehicles at the end of the queue two cycles to clear the intersection during the peak hours. It is important to note that the car wash traffic is projected to represent a maximum of 1.5 percent of the Year 2029 total traffic at this intersection during the peak hours. As such, the car wash traffic is projected to have a limited impact on the operation of this intersection.

Roosevelt Road with Humphrey Avenue/60th Court

The results of the capacity analysis indicate that the northbound and southbound approaches currently operate at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours. The eastbound and westbound left-turn movements operate at LOS B or better during the peak hours. It should be noted that the eastbound queue from the Austin Boulevard traffic signal often extends past this intersection during the peak periods. Field observations reveal that traffic is able to exit the Humphrey Avenue/60th Court approaches once the queues clear or via courtesy gaps.

Under Year 2029 no-build and total projected conditions, the northbound and southbound approaches are projected to continue to operate at LOS C during all three peak hours. The eastbound and westbound left-turn movements are projected to continue to operate at LOS B or better during all three peak hours. In addition, 95th percentile queues for the left-turn movements are not projected to exceed one vehicle, which can be accommodated by the proposed left-turn lane or two-way, center left-turn lane. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed facility and no roadway improvements or traffic control modifications will be required.

Humphrey Avenue with Fillmore Street

The results of the capacity analysis indicate that this intersection currently operates at an overall LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. Furthermore, all of the approaches currently operate at LOS A during the peak hours.

Under Year 2029 no-build conditions and total projected conditions, this intersection is projected to continue operating at LOS A during the peak hours. Additionally, all of the approaches are projected to continue to operate at LOS A during the peak hours. It is important to note that the limited traffic assigned to this intersection is anticipated to be local traffic from within the neighborhood. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed facility and no roadway improvements or traffic control modifications will be required.

Humphrey Avenue with the East-West Alley

The results of the capacity analysis indicate that all critical movements at this intersection currently operate at LOS A during the weekday morning and weekday evening peak hour.

Under Year 2029 no-build and total projected conditions, all critical movements are projected to continue to operate at LOS A during the weekday morning and weekday evening peak hours with increases in delay of less than one second over existing conditions. As with the intersection of Humphrey Avenue and Fillmore Street, the limited volume of traffic projected to traverse this intersection is anticipated to be local traffic from within the neighborhood. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed facility and no roadway improvements or traffic control modifications will be required.

Austin Boulevard with the East-West Alley

The results of the capacity analysis indicate that all critical movements at this intersection currently operate at LOS D or better during the weekday morning and weekday evening peak hour.

Under Year 2029 no-build and total projected conditions, all critical movements at this intersection are projected to continue to operate the same LOS during both peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed facility and no roadway improvements or traffic control modifications will be required.

Roosevelt Road with the Proposed Site Access Drive

As proposed, a full movement access drive serving the car wash will be located on the north side of Roosevelt Road located approximately 195 feet west of Austin Boulevard and 135 feet east of Humphrey Avenue at the location of the existing access drive serving the vacant bank site. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. As part of the facility, it is recommended that the existing westbound left-turn lane on Roosevelt Road serving 60th Court be restriped to provide a two-way, left-turn lane serving 60th Court and the access drive.

Under Year 2029 total projected conditions, the outbound movements from this access drive are projected to operate at LOS D during the weekday morning and Saturday midday peak hours and LOS E during the weekday midday peak hour. It should be noted that the traffic will be able to exit onto Roosevelt Road. However, during the peak periods, may experience some additional delay which is common for stop sign controlled access drives along arterial roadways such as Roosevelt Road. Further, it should be noted that the eastbound queue from the Austin Boulevard traffic signal often extends past this access drive during the peak periods. However, similar to Humphrey Avenue/60th Court approaches, traffic will be able to exit the access drive once the queues clear or via courtesy gaps. Nevertheless, this access drive should be monitored in the future to determine how the access drive is operating and if left-turn movements from the access drive need to be prohibited during certain time periods.

The eastbound left-turn movement is projected to operate at a LOS A during all three peak hours. Further, the eastbound 95th percentile left-turn queues are projected to be one to two vehicles, which can be accommodated by the proposed two-way left-turn lane on Roosevelt Road. As such, the projected eastbound left-turn queues will not conflict with the existing westbound left-turn movements at the intersection of Roosevelt Road with 60th Court which will also utilize the two-way left-turn lane.

6. Conclusion

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

- Access to the car wash will be provided via a full movement access drive located on the north side of Roosevelt Road approximately 195 feet west of Austin Boulevard and 135 feet east of Humphrey Avenue at the location of the existing access drive serving the vacant bank. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control.
- As part of the facility, it is recommended that the existing westbound left-turn lane on Roosevelt Road serving 60th Court be restriped to provide a two-way, left-turn lane serving 60th Court and the access drive. In addition, this access drive should be monitored in the future to determine how the access drive is operating and if left-turn movements from the access drive need to be prohibited during certain time periods.
- The results of the capacity analysis indicated that the existing roadway system generally has sufficient reserve capacity to accommodate the traffic that will be generated by the proposed car wash and no additional roadway improvements or traffic control modifications are required.
- In order to enhance the flow of traffic through the car wash site on peak days, the operator should consider implementing the following recommendations:
 - Increase the service rate of the tunnel to the maximum it can process.
 - Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include at the pay stations and at the exit of the car wash.
 - To minimize turning conflicts and improve the flow of traffic through the site, access to the vacuum positions before a car wash may be prohibited.
 - To reduce the outbound queueing/stacking at the access drive, outbound left-turn movements may need to be prohibited during peak days, requiring all vehicles to travel westbound on Rosevelt Road when exiting the site. Temporary signage can be used to restrict the left-turn movement.

Appendix

Traffic Count Summary Sheets

Site Plan

ITE Trip Generation Summary Sheets

CMAP 2050 Projections Letter

Level of Service Criteria

Capacity Analysis Summary Sheets

Traffic Count Summary Sheets



Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Austin
Boulevard
Site Code:
Start Date: 02/11/2020
Page No: 1

Turning Movement Data

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						Austin Boulevard Northbound						Austin Boulevard Southbound						
	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	Int. Total
7:00 AM	0	68	158	7	1	233	0	21	120	24	4	165	0	17	90	7	1	114	0	20	84	56	0	160	672
7:15 AM	0	69	170	4	2	243	0	24	96	25	10	145	0	14	94	12	4	120	0	19	90	52	0	161	669
7:30 AM	0	40	158	6	3	204	0	48	107	26	2	181	0	19	97	10	3	126	0	17	90	56	1	163	674
7:45 AM	0	56	150	6	2	212	0	30	95	27	1	152	0	12	90	14	2	116	0	26	88	57	1	171	651
Hourly Total	0	233	636	23	8	892	0	123	418	102	17	643	0	62	371	43	10	476	0	82	352	221	2	655	2666
8:00 AM	0	53	155	9	5	217	0	17	92	27	3	136	0	11	78	20	7	109	0	24	91	58	6	173	635
8:15 AM	0	38	138	8	2	184	0	19	97	25	7	141	0	19	72	13	4	104	0	27	72	51	7	150	579
8:30 AM	0	17	74	2	3	93	0	30	56	48	11	134	0	21	58	22	6	101	0	30	59	21	8	110	438
8:45 AM	0	48	134	17	4	199	0	9	91	20	3	120	0	10	88	15	3	113	0	23	71	50	6	144	576
Hourly Total	0	156	501	36	14	693	0	75	336	120	24	531	0	61	296	70	20	427	0	104	293	180	27	577	2228
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	0	49	72	8	0	129	0	12	84	25	6	121	0	8	78	11	0	97	0	10	82	36	4	128	475
11:45 AM	0	37	89	7	3	133	0	15	120	24	10	159	0	11	78	11	3	100	0	13	86	56	7	155	547
Hourly Total	0	86	161	15	3	262	0	27	204	49	16	280	0	19	156	22	3	197	0	23	168	92	11	283	1022
12:00 PM	0	54	86	15	2	155	0	16	93	21	5	130	0	15	81	13	5	109	0	9	97	66	5	172	566
12:15 PM	0	59	95	10	1	164	0	8	97	19	7	124	0	16	71	13	5	100	0	7	74	52	6	133	521
12:30 PM	0	43	109	6	5	158	0	13	84	24	7	121	0	7	78	7	6	92	0	13	69	43	5	125	496
12:45 PM	0	51	104	10	2	165	0	10	95	20	10	125	0	12	73	7	3	92	0	9	72	44	1	125	507
Hourly Total	0	207	394	41	10	642	0	47	369	84	29	500	0	50	303	40	19	393	0	38	312	205	17	555	2090
1:00 PM	0	46	94	11	6	151	0	8	93	21	10	122	0	18	88	7	10	113	0	15	86	47	5	148	534
1:15 PM	0	53	120	11	7	184	0	14	95	20	6	129	0	15	99	14	4	128	0	18	94	52	7	164	605
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	99	214	22	13	335	0	22	188	41	16	251	0	33	187	21	14	241	0	33	180	99	12	312	1139
4:00 PM	0	52	107	11	0	170	0	14	124	18	3	156	0	10	91	12	0	113	0	19	113	53	6	185	624
4:15 PM	0	48	85	14	1	147	0	19	119	20	11	158	0	17	80	7	13	104	0	17	124	56	5	197	606
4:30 PM	0	35	100	17	1	152	0	10	125	23	7	158	0	19	91	12	8	122	0	19	116	54	8	189	621
4:45 PM	0	43	98	10	0	151	0	14	118	22	12	154	0	16	75	11	5	102	0	10	113	67	10	190	597
Hourly Total	0	178	390	52	2	620	0	57	486	83	33	626	0	62	337	42	26	441	0	65	466	230	29	761	2448
5:00 PM	0	50	108	18	4	176	0	14	120	19	7	153	0	15	70	11	4	96	0	17	114	46	5	177	602
5:15 PM	0	63	114	18	3	195	0	17	111	20	14	148	0	12	82	9	1	103	0	18	116	52	6	186	632
5:30 PM	0	45	114	11	2	170	0	17	127	21	11	165	0	14	78	14	3	106	0	20	99	51	5	170	611
5:45 PM	0	56	120	12	5	188	0	13	119	17	16	149	0	19	78	8	13	105	0	12	93	59	10	164	606
Hourly Total	0	214	456	59	14	729	0	61	477	77	48	615	0	60	308	42	21	410	0	67	422	208	26	697	2451
Grand Total	0	1173	2752	248	64	4173	0	412	2478	556	183	3446	0	347	1958	280	113	2585	0	412	2193	1235	124	3840	14044
Approach %	0.0	28.1	65.9	5.9	-	-	0.0	12.0	71.9	16.1	-	-	0.0	13.4	75.7	10.8	-	-	0.0	10.7	57.1	32.2	-	-	-

Total %	0.0	8.4	19.6	1.8	-	29.7	0.0	2.9	17.6	4.0	-	24.5	0.0	2.5	13.9	2.0	-	18.4	0.0	2.9	15.6	8.8	-	27.3	-
Lights	0	1164	2631	243	-	4038	0	401	2368	514	-	3283	0	343	1935	273	-	2551	0	401	2151	1209	-	3761	13633
% Lights	-	99.2	95.6	98.0	-	96.8	-	97.3	95.6	92.4	-	95.3	-	98.8	98.8	97.5	-	98.7	-	97.3	98.1	97.9	-	97.9	97.1
Buses	0	1	28	2	-	31	0	4	19	34	-	57	0	2	17	0	-	19	0	3	11	6	-	20	127
% Buses	-	0.1	1.0	0.8	-	0.7	-	1.0	0.8	6.1	-	1.7	-	0.6	0.9	0.0	-	0.7	-	0.7	0.5	0.5	-	0.5	0.9
Single-Unit Trucks	0	8	68	3	-	79	0	6	68	8	-	82	0	1	6	6	-	13	0	4	27	20	-	51	225
% Single-Unit Trucks	-	0.7	2.5	1.2	-	1.9	-	1.5	2.7	1.4	-	2.4	-	0.3	0.3	2.1	-	0.5	-	1.0	1.2	1.6	-	1.3	1.6
Articulated Trucks	0	0	25	0	-	25	0	1	23	0	-	24	0	1	0	1	-	2	0	4	4	0	-	8	59
% Articulated Trucks	-	0.0	0.9	0.0	-	0.6	-	0.2	0.9	0.0	-	0.7	-	0.3	0.0	0.4	-	0.1	-	1.0	0.2	0.0	-	0.2	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	64	-	-	-	-	-	183	-	-	-	-	-	113	-	-	-	-	-	124	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Roosevelt Road with Austin
Boulevard
Site Code:
Start Date: 02/11/2020
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							Austin Boulevard Northbound							Austin Boulevard Southbound						
	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	Int. Total
7:00 AM	0	68	158	7	1	233		0	21	120	24	4	165		0	17	90	7	1	114		0	20	84	56	0	160	672
7:15 AM	0	69	170	4	2	243		0	24	96	25	10	145		0	14	94	12	4	120		0	19	90	52	0	161	669
7:30 AM	0	40	158	6	3	204		0	48	107	26	2	181		0	19	97	10	3	126		0	17	90	56	1	163	674
7:45 AM	0	56	150	6	2	212		0	30	95	27	1	152		0	12	90	14	2	116		0	26	88	57	1	171	651
Total	0	233	636	23	8	892		0	123	418	102	17	643		0	62	371	43	10	476		0	82	352	221	2	655	2666
Approach %	0.0	26.1	71.3	2.6	-	-		0.0	19.1	65.0	15.9	-	-		0.0	13.0	77.9	9.0	-	-		0.0	12.5	53.7	33.7	-	-	-
Total %	0.0	8.7	23.9	0.9	-	33.5		0.0	4.6	15.7	3.8	-	24.1		0.0	2.3	13.9	1.6	-	17.9		0.0	3.1	13.2	8.3	-	24.6	-
PHF	0.000	0.844	0.935	0.821	-	0.918		0.000	0.641	0.871	0.944	-	0.888		0.000	0.816	0.956	0.768	-	0.944		0.000	0.788	0.978	0.969	-	0.958	0.989
Lights	0	232	606	23	-	861		0	122	401	96	-	619		0	61	366	42	-	469		0	80	345	215	-	640	2589
% Lights	-	99.6	95.3	100.0	-	96.5		-	99.2	95.9	94.1	-	96.3		-	98.4	98.7	97.7	-	98.5		-	97.6	98.0	97.3	-	97.7	97.1
Buses	0	0	7	0	-	7		0	1	1	5	-	7		0	1	3	0	-	4		0	1	3	3	-	7	25
% Buses	-	0.0	1.1	0.0	-	0.8		-	0.8	0.2	4.9	-	1.1		-	1.6	0.8	0.0	-	0.8		-	1.2	0.9	1.4	-	1.1	0.9
Single-Unit Trucks	0	1	18	0	-	19		0	0	11	1	-	12		0	0	2	1	-	3		0	0	3	3	-	6	40
% Single-Unit Trucks	-	0.4	2.8	0.0	-	2.1		-	0.0	2.6	1.0	-	1.9		-	0.0	0.5	2.3	-	0.6		-	0.0	0.9	1.4	-	0.9	1.5
Articulated Trucks	0	0	5	0	-	5		0	0	5	0	-	5		0	0	0	0	-	0		0	1	1	0	-	2	12
% Articulated Trucks	-	0.0	0.8	0.0	-	0.6		-	0.0	1.2	0.0	-	0.8		-	0.0	0.0	0.0	-	0.0		-	1.2	0.3	0.0	-	0.3	0.5
Bicycles on Road	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	8	-		-	-	-	-	17	-		-	-	-	-	-	10		-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	-	100.0		-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Austin
Boulevard
Site Code:
Start Date: 02/11/2020
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Turning Movement Peak Hour Data (11:45 AM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							Austin Boulevard Northbound							Austin Boulevard Southbound						
	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	Int. Total
11:45 AM	0	37	89	7	3	133		0	15	120	24	10	159		0	11	78	11	3	100		0	13	86	56	7	155	547
12:00 PM	0	54	86	15	2	155		0	16	93	21	5	130		0	15	81	13	5	109		0	9	97	66	5	172	566
12:15 PM	0	59	95	10	1	164		0	8	97	19	7	124		0	16	71	13	5	100		0	7	74	52	6	133	521
12:30 PM	0	43	109	6	5	158		0	13	84	24	7	121		0	7	78	7	6	92		0	13	69	43	5	125	496
Total	0	193	379	38	11	610		0	52	394	88	29	534		0	49	308	44	19	401		0	42	326	217	23	585	2130
Approach %	0.0	31.6	62.1	6.2	-	-		0.0	9.7	73.8	16.5	-	-		0.0	12.2	76.8	11.0	-	-		0.0	7.2	55.7	37.1	-	-	-
Total %	0.0	9.1	17.8	1.8	-	28.6		0.0	2.4	18.5	4.1	-	25.1		0.0	2.3	14.5	2.1	-	18.8		0.0	2.0	15.3	10.2	-	27.5	-
PHF	0.000	0.818	0.869	0.633	-	0.930		0.000	0.813	0.821	0.917	-	0.840		0.000	0.766	0.951	0.846	-	0.920		0.000	0.808	0.840	0.822	-	0.850	0.941
Lights	0	190	360	37	-	587		0	50	371	82	-	503		0	49	305	42	-	396		0	40	318	210	-	568	2054
% Lights	-	98.4	95.0	97.4	-	96.2		-	96.2	94.2	93.2	-	94.2		-	100.0	99.0	95.5	-	98.8		-	95.2	97.5	96.8	-	97.1	96.4
Buses	0	0	5	1	-	6		0	0	4	6	-	10		0	0	2	0	-	2		0	0	1	2	-	3	21
% Buses	-	0.0	1.3	2.6	-	1.0		-	0.0	1.0	6.8	-	1.9		-	0.0	0.6	0.0	-	0.5		-	0.0	0.3	0.9	-	0.5	1.0
Single-Unit Trucks	0	3	13	0	-	16		0	2	15	0	-	17		0	0	1	2	-	3		0	1	7	5	-	13	49
% Single-Unit Trucks	-	1.6	3.4	0.0	-	2.6		-	3.8	3.8	0.0	-	3.2		-	0.0	0.3	4.5	-	0.7		-	2.4	2.1	2.3	-	2.2	2.3
Articulated Trucks	0	0	1	0	-	1		0	0	4	0	-	4		0	0	0	0	-	0		0	1	0	0	-	1	6
% Articulated Trucks	-	0.0	0.3	0.0	-	0.2		-	0.0	1.0	0.0	-	0.7		-	0.0	0.0	0.0	-	0.0		-	2.4	0.0	0.0	-	0.2	0.3
Bicycles on Road	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	11	-		-	-	-	-	29	-		-	-	-	-	-	19		-	-	-	-	-	23	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	-	100.0		-	-	-	-	-	100.0	-



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Roosevelt Road with Austin
Boulevard
Site Code:
Start Date: 02/11/2020
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							Austin Boulevard Northbound							Austin Boulevard Southbound						
	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	Int. Total
5:00 PM	0	50	108	18	4	176		0	14	120	19	7	153		0	15	70	11	4	96		0	17	114	46	5	177	602
5:15 PM	0	63	114	18	3	195		0	17	111	20	14	148		0	12	82	9	1	103		0	18	116	52	6	186	632
5:30 PM	0	45	114	11	2	170		0	17	127	21	11	165		0	14	78	14	3	106		0	20	99	51	5	170	611
5:45 PM	0	56	120	12	5	188		0	13	119	17	16	149		0	19	78	8	13	105		0	12	93	59	10	164	606
Total	0	214	456	59	14	729		0	61	477	77	48	615		0	60	308	42	21	410		0	67	422	208	26	697	2451
Approach %	0.0	29.4	62.6	8.1	-	-		0.0	9.9	77.6	12.5	-	-		0.0	14.6	75.1	10.2	-	-		0.0	9.6	60.5	29.8	-	-	-
Total %	0.0	8.7	18.6	2.4	-	29.7		0.0	2.5	19.5	3.1	-	25.1		0.0	2.4	12.6	1.7	-	16.7		0.0	2.7	17.2	8.5	-	28.4	-
PHF	0.000	0.849	0.950	0.819	-	0.935		0.000	0.897	0.939	0.917	-	0.932		0.000	0.789	0.939	0.750	-	0.967		0.000	0.838	0.909	0.881	-	0.937	0.970
Lights	0	214	447	59	-	720		0	61	465	70	-	596		0	60	305	41	-	406		0	66	419	208	-	693	2415
% Lights	-	100.0	98.0	100.0	-	98.8		-	100.0	97.5	90.9	-	96.9		-	100.0	99.0	97.6	-	99.0		-	98.5	99.3	100.0	-	99.4	98.5
Buses	0	0	3	0	-	3		0	0	5	6	-	11		0	0	3	0	-	3		0	1	1	0	-	2	19
% Buses	-	0.0	0.7	0.0	-	0.4		-	0.0	1.0	7.8	-	1.8		-	0.0	1.0	0.0	-	0.7		-	1.5	0.2	0.0	-	0.3	0.8
Single-Unit Trucks	0	0	3	0	-	3		0	0	3	1	-	4		0	0	0	0	-	0		0	0	1	0	-	1	8
% Single-Unit Trucks	-	0.0	0.7	0.0	-	0.4		-	0.0	0.6	1.3	-	0.7		-	0.0	0.0	0.0	-	0.0		-	0.0	0.2	0.0	-	0.1	0.3
Articulated Trucks	0	0	3	0	-	3		0	0	4	0	-	4		0	0	0	1	-	1		0	0	1	0	-	1	9
% Articulated Trucks	-	0.0	0.7	0.0	-	0.4		-	0.0	0.8	0.0	-	0.7		-	0.0	0.0	2.4	-	0.2		-	0.0	0.2	0.0	-	0.1	0.4
Bicycles on Road	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	14	-		-	-	-	-	48	-		-	-	-	-	-	21		-	-	-	-	-	26	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	-	100.0		-	-	-	-	-	100.0	-



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Count Name: Roosevelt Road with Humphrey
Avenue/60th Court
Site Code:
Start Date: 02/11/2020
Page No: 1

Turning Movement Data

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						60th Court Northbound						Humphrey Avenue Southbound						
	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	Int. Total
7:00 AM	0	2	212	1	0	215	0	0	182	3	0	185	0	2	4	14	0	20	0	1	0	7	0	8	428
7:15 AM	1	0	207	2	0	210	0	1	155	6	0	162	0	3	4	14	2	21	0	0	2	3	0	5	398
7:30 AM	0	1	185	5	0	191	0	1	172	7	0	180	0	1	2	12	2	15	0	3	1	3	0	7	393
7:45 AM	0	3	189	2	1	194	0	0	164	5	0	169	0	2	2	11	3	15	0	6	0	3	2	9	387
Hourly Total	1	6	793	10	1	810	0	2	673	21	0	696	0	8	12	51	7	71	0	10	3	16	2	29	1606
8:00 AM	0	1	208	7	0	216	0	4	155	1	3	160	0	4	4	15	7	23	0	3	1	3	2	7	406
8:15 AM	0	3	172	10	0	185	0	16	145	1	3	162	0	1	0	4	10	5	0	4	0	3	3	7	359
8:30 AM	0	68	85	18	4	171	0	7	94	2	6	103	0	1	1	4	6	6	0	0	0	3	7	3	283
8:45 AM	0	2	174	3	1	179	0	3	144	6	4	153	0	5	5	17	2	27	0	2	0	2	1	4	363
Hourly Total	0	74	639	38	5	751	0	30	538	10	16	578	0	11	10	40	25	61	0	9	1	11	13	21	1411
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	1	2	117	8	0	128	0	2	121	5	0	128	0	3	1	8	2	12	0	1	2	4	6	7	275
11:45 AM	1	4	130	5	1	140	0	3	183	3	1	189	0	4	1	3	5	8	0	1	0	3	1	4	341
Hourly Total	2	6	247	13	1	268	0	5	304	8	1	317	0	7	2	11	7	20	0	2	2	7	7	11	616
12:00 PM	0	3	145	3	0	151	1	3	163	5	0	172	0	0	1	17	3	18	0	1	0	2	0	3	344
12:15 PM	0	2	145	3	3	150	0	2	155	4	1	161	0	6	2	13	10	21	0	1	1	5	2	7	339
12:30 PM	0	6	147	2	1	155	0	5	131	3	0	139	0	2	1	10	9	13	0	3	0	3	4	6	313
12:45 PM	0	2	154	1	1	157	0	2	146	4	0	152	0	4	2	8	4	14	0	1	0	8	4	9	332
Hourly Total	0	13	591	9	5	613	1	12	595	16	1	624	0	12	6	48	26	66	0	6	1	18	10	25	1328
1:00 PM	0	2	142	2	0	146	0	3	156	2	0	161	0	3	1	4	7	8	0	3	0	4	2	7	322
1:15 PM	0	2	134	5	0	141	0	1	162	2	0	165	0	4	1	9	7	14	0	0	3	4	2	7	327
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	4	276	7	0	287	0	4	318	4	0	326	0	7	2	13	14	22	0	3	3	8	4	14	649
4:00 PM	0	4	161	11	0	176	0	2	177	2	0	181	0	1	4	6	3	11	0	0	2	8	5	10	378
4:15 PM	0	2	146	3	1	151	0	1	182	6	0	189	0	1	2	7	5	10	0	3	2	6	9	11	361
4:30 PM	0	3	154	3	2	160	0	2	187	6	1	195	0	4	0	10	8	14	0	0	1	7	1	8	377
4:45 PM	0	5	136	10	0	151	0	2	192	3	0	197	0	2	2	13	1	17	0	2	0	4	3	6	371
Hourly Total	0	14	597	27	3	638	0	7	738	17	1	762	0	8	8	36	17	52	0	5	5	25	18	35	1487
5:00 PM	0	1	158	6	0	165	0	0	181	4	0	185	0	4	3	9	4	16	0	1	1	4	1	6	372
5:15 PM	0	4	183	5	0	192	0	4	175	4	0	183	0	12	4	10	3	26	0	2	3	9	4	14	415
5:30 PM	0	4	157	4	0	165	0	3	191	3	0	197	0	3	2	12	4	17	0	0	2	5	1	7	386
5:45 PM	0	2	181	2	0	185	0	2	197	3	0	202	0	3	0	8	3	11	0	6	1	3	0	10	408
Hourly Total	0	11	679	17	0	707	0	9	744	14	0	767	0	22	9	39	14	70	0	9	7	21	6	37	1581
Grand Total	3	128	3822	121	15	4074	1	69	3910	90	19	4070	0	75	49	238	110	362	0	44	22	106	60	172	8678
Approach %	0.1	3.1	93.8	3.0	-	-	0.0	1.7	96.1	2.2	-	-	0.0	20.7	13.5	65.7	-	-	0.0	25.6	12.8	61.6	-	-	-

Total %	0.0	1.5	44.0	1.4	-	46.9	0.0	0.8	45.1	1.0	-	46.9	0.0	0.9	0.6	2.7	-	4.2	0.0	0.5	0.3	1.2	-	2.0	-
Lights	3	123	3693	120	-	3939	1	67	3772	87	-	3927	0	72	48	228	-	348	0	42	21	104	-	167	8381
% Lights	100.0	96.1	96.6	99.2	-	96.7	100.0	97.1	96.5	96.7	-	96.5	-	96.0	98.0	95.8	-	96.1	-	95.5	95.5	98.1	-	97.1	96.6
Buses	0	1	25	0	-	26	0	1	27	0	-	28	0	2	0	7	-	9	0	0	0	0	-	0	63
% Buses	0.0	0.8	0.7	0.0	-	0.6	0.0	1.4	0.7	0.0	-	0.7	-	2.7	0.0	2.9	-	2.5	-	0.0	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	2	77	1	-	80	0	1	84	2	-	87	0	0	1	2	-	3	0	2	0	2	-	4	174
% Single-Unit Trucks	0.0	1.6	2.0	0.8	-	2.0	0.0	1.4	2.1	2.2	-	2.1	-	0.0	2.0	0.8	-	0.8	-	4.5	0.0	1.9	-	2.3	2.0
Articulated Trucks	0	2	26	0	-	28	0	0	27	0	-	27	0	0	0	0	-	0	0	0	0	0	-	0	55
% Articulated Trucks	0.0	1.6	0.7	0.0	-	0.7	0.0	0.0	0.7	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6
Bicycles on Road	0	0	1	0	-	1	0	0	0	1	-	1	0	1	0	1	-	2	0	0	1	0	-	1	5
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	1.1	-	0.0	-	1.3	0.0	0.4	-	0.6	-	0.0	4.5	0.0	-	0.6	0.1
Pedestrians	-	-	-	-	15	-	-	-	-	-	19	-	-	-	-	-	110	-	-	-	-	-	60	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Roosevelt Road with Humphrey
Avenue/60th Court
Site Code:
Start Date: 02/11/2020
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						60th Court Northbound						Humphrey Avenue Southbound						
	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	Int. Total
7:00 AM	0	2	212	1	0	215	0	0	182	3	0	185	0	2	4	14	0	20	0	1	0	7	0	8	428
7:15 AM	1	0	207	2	0	210	0	1	155	6	0	162	0	3	4	14	2	21	0	0	2	3	0	5	398
7:30 AM	0	1	185	5	0	191	0	1	172	7	0	180	0	1	2	12	2	15	0	3	1	3	0	7	393
7:45 AM	0	3	189	2	1	194	0	0	164	5	0	169	0	2	2	11	3	15	0	6	0	3	2	9	387
Total	1	6	793	10	1	810	0	2	673	21	0	696	0	8	12	51	7	71	0	10	3	16	2	29	1606
Approach %	0.1	0.7	97.9	1.2	-	-	0.0	0.3	96.7	3.0	-	-	0.0	11.3	16.9	71.8	-	-	0.0	34.5	10.3	55.2	-	-	-
Total %	0.1	0.4	49.4	0.6	-	50.4	0.0	0.1	41.9	1.3	-	43.3	0.0	0.5	0.7	3.2	-	4.4	0.0	0.6	0.2	1.0	-	1.8	-
PHF	0.250	0.500	0.935	0.500	-	0.942	0.000	0.500	0.924	0.750	-	0.941	0.000	0.667	0.750	0.911	-	0.845	0.000	0.417	0.375	0.571	-	0.806	0.938
Lights	1	6	762	10	-	779	0	1	649	20	-	670	0	8	11	50	-	69	0	10	3	15	-	28	1546
% Lights	100.0	100.0	96.1	100.0	-	96.2	-	50.0	96.4	95.2	-	96.3	-	100.0	91.7	98.0	-	97.2	-	100.0	100.0	93.8	-	96.6	96.3
Buses	0	0	8	0	-	8	0	1	5	0	-	6	0	0	0	1	-	1	0	0	0	0	-	0	15
% Buses	0.0	0.0	1.0	0.0	-	1.0	-	50.0	0.7	0.0	-	0.9	-	0.0	0.0	2.0	-	1.4	-	0.0	0.0	0.0	-	0.0	0.9
Single-Unit Trucks	0	0	18	0	-	18	0	0	13	1	-	14	0	0	1	0	-	1	0	0	0	1	-	1	34
% Single-Unit Trucks	0.0	0.0	2.3	0.0	-	2.2	-	0.0	1.9	4.8	-	2.0	-	0.0	8.3	0.0	-	1.4	-	0.0	0.0	6.3	-	3.4	2.1
Articulated Trucks	0	0	5	0	-	5	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	11
% Articulated Trucks	0.0	0.0	0.6	0.0	-	0.6	-	0.0	0.9	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Humphrey
Avenue/60th Court
Site Code:
Start Date: 02/11/2020
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Turning Movement Peak Hour Data (11:45 AM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							60th Court Northbound							Humphrey Avenue Southbound						
	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	Int. Total
11:45 AM	1	4	130	5	1	140		0	3	183	3	1	189		0	4	1	3	5	8		0	1	0	3	1	4	341
12:00 PM	0	3	145	3	0	151		1	3	163	5	0	172		0	0	1	17	3	18		0	1	0	2	0	3	344
12:15 PM	0	2	145	3	3	150		0	2	155	4	1	161		0	6	2	13	10	21		0	1	1	5	2	7	339
12:30 PM	0	6	147	2	1	155		0	5	131	3	0	139		0	2	1	10	9	13		0	3	0	3	4	6	313
Total	1	15	567	13	5	596		1	13	632	15	2	661		0	12	5	43	27	60		0	6	1	13	7	20	1337
Approach %	0.2	2.5	95.1	2.2	-	-		0.2	2.0	95.6	2.3	-	-		0.0	20.0	8.3	71.7	-	-		0.0	30.0	5.0	65.0	-	-	-
Total %	0.1	1.1	42.4	1.0	-	44.6		0.1	1.0	47.3	1.1	-	49.4		0.0	0.9	0.4	3.2	-	4.5		0.0	0.4	0.1	1.0	-	1.5	-
PHF	0.250	0.625	0.964	0.650	-	0.961		0.250	0.650	0.863	0.750	-	0.874		0.000	0.500	0.625	0.632	-	0.714		0.000	0.500	0.250	0.650	-	0.714	0.972
% Lights	1	14	551	12	-	578		1	13	607	14	-	635		0	11	5	38	-	54		0	4	1	13	-	18	1285
% Buses	0	0	2	0	-	2		0	0	5	0	-	5		0	0	0	3	-	3		0	0	0	0	-	0	10
% Buses	0.0	0.0	0.4	0.0	-	0.3		0.0	0.0	0.8	0.0	-	0.8		-	0.0	0.0	7.0	-	5.0		-	0.0	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	1	12	1	-	14		0	0	15	1	-	16		0	0	0	2	-	2		0	2	0	0	-	2	34
% Single-Unit Trucks	0.0	6.7	2.1	7.7	-	2.3		0.0	0.0	2.4	6.7	-	2.4		-	0.0	0.0	4.7	-	3.3		-	33.3	0.0	0.0	-	10.0	2.5
Articulated Trucks	0	0	1	0	-	1		0	0	5	0	-	5		0	0	0	0	-	0		0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2		0.0	0.0	0.8	0.0	-	0.8		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	1	0	-	1		0	0	0	0	-	0		0	1	0	0	-	1		0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.0	0.2	0.0	-	0.2		0.0	0.0	0.0	0.0	-	0.0		-	8.3	0.0	0.0	-	1.7		-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	5	-		-	-	-	-	2	-		-	-	-	-	27	-		-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-	-



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Count Name: Roosevelt Road with Humphrey
Avenue/60th Court
Site Code:
Start Date: 02/11/2020
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						60th Court Northbound						Humphrey Avenue Southbound						
	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	Int. Total
5:00 PM	0	1	158	6	0	165	0	0	181	4	0	185	0	4	3	9	4	16	0	1	1	4	1	6	372
5:15 PM	0	4	183	5	0	192	0	4	175	4	0	183	0	12	4	10	3	26	0	2	3	9	4	14	415
5:30 PM	0	4	157	4	0	165	0	3	191	3	0	197	0	3	2	12	4	17	0	0	2	5	1	7	386
5:45 PM	0	2	181	2	0	185	0	2	197	3	0	202	0	3	0	8	3	11	0	6	1	3	0	10	408
Total	0	11	679	17	0	707	0	9	744	14	0	767	0	22	9	39	14	70	0	9	7	21	6	37	1581
Approach %	0.0	1.6	96.0	2.4	-	-	0.0	1.2	97.0	1.8	-	-	0.0	31.4	12.9	55.7	-	-	0.0	24.3	18.9	56.8	-	-	-
Total %	0.0	0.7	42.9	1.1	-	44.7	0.0	0.6	47.1	0.9	-	48.5	0.0	1.4	0.6	2.5	-	4.4	0.0	0.6	0.4	1.3	-	2.3	-
PHF	0.000	0.688	0.928	0.708	-	0.921	0.000	0.563	0.944	0.875	-	0.949	0.000	0.458	0.563	0.813	-	0.673	0.000	0.375	0.583	0.583	-	0.661	0.952
Lights	0	11	670	17	-	698	0	9	732	14	-	755	0	22	9	37	-	68	0	9	6	21	-	36	1557
% Lights	-	100.0	98.7	100.0	-	98.7	-	100.0	98.4	100.0	-	98.4	-	100.0	100.0	94.9	-	97.1	-	100.0	85.7	100.0	-	97.3	98.5
Buses	0	0	2	0	-	2	0	0	5	0	-	5	0	0	0	1	-	1	0	0	0	0	-	0	8
% Buses	-	0.0	0.3	0.0	-	0.3	-	0.0	0.7	0.0	-	0.7	-	0.0	0.0	2.6	-	1.4	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	4	0	-	4	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	7
% Single-Unit Trucks	-	0.0	0.6	0.0	-	0.6	-	0.0	0.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	3	0	-	3	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	7
% Articulated Trucks	-	0.0	0.4	0.0	-	0.4	-	0.0	0.5	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	0	0	1	0	-	1	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.6	-	1.4	-	0.0	14.3	0.0	-	2.7	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	14	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Austin Boulevard with Public Alley
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Start Date: 02/11/2020
Page No: 1

Turning Movement Data

Start Time	Public Alley Eastbound						Public Alley Westbound						Austin Boulevard Northbound						Austin Boulevard Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total					
7:00 AM	0	0	0	0	1	0	0	1	0	1	5	2	0	0	187	0	1	187	356					
7:15 AM	0	0	0	0	2	0	0	0	0	1	7	1	0	0	189	0	3	189	363					
7:30 AM	0	0	0	0	4	0	0	0	2	2	2	2	0	0	162	0	0	162	323					
7:45 AM	0	0	0	0	3	0	0	0	0	0	4	0	0	0	173	2	0	175	361					
Hourly Total	0	0	0	0	10	0	0	1	0	4	18	5	0	0	711	2	4	713	1403					
8:00 AM	0	0	0	0	8	0	0	1	0	1	5	2	0	0	151	0	0	151	315					
8:15 AM	0	0	0	0	6	0	0	0	0	0	8	0	0	0	134	0	0	134	281					
8:30 AM	0	0	0	0	4	0	0	1	0	2	12	3	0	0	130	1	0	131	245					
8:45 AM	0	0	0	0	5	0	0	0	0	1	6	1	0	0	148	1	0	149	284					
Hourly Total	0	0	0	0	23	0	0	2	0	4	31	6	0	0	563	2	0	565	1125					
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
11:30 AM	0	0	0	0	4	0	0	0	0	1	4	1	0	0	154	1	1	155	287					
11:45 AM	0	0	0	0	3	0	0	0	0	1	9	1	0	0	134	0	1	134	291					
Hourly Total	0	0	0	0	7	0	0	0	0	2	13	2	0	0	288	1	2	289	578					
12:00 PM	0	0	0	0	2	0	0	0	0	0	7	0	0	0	156	2	0	158	318					
12:15 PM	0	0	0	0	4	0	0	0	0	0	7	0	0	0	150	2	0	152	293					
12:30 PM	0	0	0	0	3	0	0	0	0	1	7	1	0	0	140	2	1	142	274					
12:45 PM	0	0	0	1	5	1	0	0	0	1	8	1	0	0	146	1	0	147	281					
Hourly Total	0	0	0	1	14	1	0	0	0	2	29	2	0	0	592	7	1	599	1166					
1:00 PM	0	1	0	0	3	1	0	0	0	0	12	0	0	0	150	0	1	150	298					
1:15 PM	0	0	0	0	6	0	0	0	0	0	6	0	0	0	163	0	0	163	310					
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Hourly Total	0	1	0	0	9	1	0	0	0	0	18	0	0	0	313	0	1	313	608					
4:00 PM	0	0	0	0	3	0	0	0	0	1	7	1	0	0	164	0	0	164	346					
4:15 PM	0	0	0	0	7	0	0	0	0	1	4	1	0	0	146	0	0	146	328					
4:30 PM	0	0	0	0	6	0	0	0	0	0	2	0	0	0	147	0	0	147	326					
4:45 PM	0	0	0	0	6	0	0	0	0	0	9	0	0	0	145	1	1	146	337					
Hourly Total	0	0	0	0	22	0	0	0	0	2	22	2	0	0	602	1	1	603	1337					
5:00 PM	0	0	0	0	5	0	0	1	0	4	4	5	0	0	140	1	1	141	339					
5:15 PM	0	0	0	0	11	0	0	1	0	2	6	3	0	0	168	0	0	168	359					
5:30 PM	0	0	0	0	3	0	0	1	0	2	7	3	0	0	142	1	0	143	318					
5:45 PM	0	0	0	0	6	0	0	1	0	1	11	2	0	0	144	1	0	145	314					
Hourly Total	0	0	0	0	25	0	0	4	0	9	28	13	0	0	594	3	1	597	1330					
Grand Total	0	1	0	1	110	2	0	7	0	23	159	30	0	0	3663	16	10	3679	7547					
Approach %	0.0	50.0	0.0	50.0	-	-	0.0	23.3	0.0	76.7	-	-	0.0	0.0	99.6	0.4	-	-	-					

Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	-	0.4	0.0	0.0	48.5	0.2	-	48.7	0.0	0.0	50.8	0.0	-	50.8	-
Lights	0	1	0	1	-	2	6	0	22	-	28	0	0	3590	16	-	3606	1	2	3757	0	-	3760	7396
% Lights	-	100.0	-	100.0	-	100.0	-	85.7	-	95.7	-	93.3	-	98.0	100.0	-	98.0	100.0	100.0	98.0	-	-	98.0	98.0
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	48	0	-	48	0	0	25	0	-	25	73
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	1.3	0.0	-	1.3	0.0	0.0	0.7	-	-	0.7	1.0
Single-Unit Trucks	0	0	0	0	-	0	1	0	1	-	2	0	0	24	0	-	24	0	0	46	0	-	46	72
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	14.3	-	4.3	-	6.7	-	0.7	0.0	-	0.7	0.0	0.0	1.2	-	-	1.2	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	1	0	-	1	0	0	5	0	-	5	6
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.1	-	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	-	110	-	-	-	-	-	159	-	-	-	-	10	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Count Name: Austin Boulevard with Public Alley
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Start Date: 02/11/2020
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Turning Movement Peak Hour Data (7:00 AM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Austin Boulevard Northbound						Austin Boulevard Southbound							
	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	Int. Total	
7:00 AM	0	0	0	0	1	0	0	1	0	1	5	2	0	0	187	0	0	1	187	0	0	167	0	0	167	356
7:15 AM	0	0	0	0	2	0	0	0	0	1	7	1	0	0	189	0	0	3	189	0	0	173	0	1	173	363
7:30 AM	0	0	0	0	4	0	0	0	0	2	2	2	0	0	162	0	0	0	162	0	0	159	0	0	159	323
7:45 AM	0	0	0	0	3	0	0	0	0	0	4	0	0	0	173	2	0	0	175	0	1	185	0	0	186	361
Total	0	0	0	0	10	0	0	1	0	4	18	5	0	0	711	2	4	713	0	1	684	0	1	685	1403	
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	20.0	0.0	80.0	-	-	-	0.0	0.0	99.7	0.3	-	-	0.0	0.1	99.9	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	0.1	0.0	0.3	-	0.4	0.4	0.0	0.0	50.7	0.1	-	50.8	0.0	0.1	48.8	0.0	-	48.8	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.250	0.000	0.500	-	0.625	0.625	0.000	0.000	0.940	0.250	-	0.943	0.000	0.250	0.924	0.000	-	0.921	0.966
Lights	0	0	0	0	-	0	0	0	0	4	-	4	4	0	0	697	2	-	699	0	1	670	0	-	671	1374
% Lights	-	-	-	-	-	-	-	0.0	-	100.0	-	80.0	80.0	-	-	98.0	100.0	-	98.0	-	100.0	98.0	-	-	98.0	97.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	9	0	-	9	0	0	8	0	-	8	17
% Buses	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.0	-	-	1.3	0.0	-	1.3	-	0.0	1.2	-	-	1.2	1.2
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	1	0	0	5	0	-	5	0	0	5	0	-	5	11
% Single-Unit Trucks	-	-	-	-	-	-	-	100.0	-	0.0	-	20.0	20.0	-	-	0.7	0.0	-	0.7	-	0.0	0.7	-	-	0.7	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	1	0	-	1	1	
% Articulated Trucks	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.1	-	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	-	0	0	
% Bicycles on Road	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	-	10	-	-	-	-	-	18	-	-	-	-	-	-	4	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Austin Boulevard with Public Alley
Site Code:
Start Date: 02/11/2020
Page No: 4

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Austin Boulevard Northbound						Austin Boulevard 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	
11:45 AM	0	0	0	0	3	0	0	0	0	1	9	1	0	0	134	0	1	134	0	0	156	0	1	156	291
12:00 PM	0	0	0	0	2	0	0	0	0	0	7	0	0	0	156	2	0	158	0	0	160	0	1	160	318
12:15 PM	0	0	0	0	4	0	0	0	0	0	7	0	0	0	150	2	0	152	0	0	141	0	0	141	293
12:30 PM	0	0	0	0	3	0	0	0	0	1	7	1	0	0	140	2	1	142	0	0	131	0	1	131	274
Total	0	0	0	0	12	0	0	0	0	2	30	2	0	0	580	6	2	586	0	0	588	0	3	588	1176
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	100.0	-	-	0.0	0.0	99.0	1.0	-	-	0.0	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.2	-	0.2	0.0	0.0	49.3	0.5	-	49.8	0.0	0.0	50.0	0.0	-	-	50.0
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.500	-	0.500	0.000	0.000	0.929	0.750	-	0.927	0.000	0.000	0.919	0.000	-	-	0.919
Lights	0	0	0	0	-	0	0	0	0	1	-	1	0	0	567	6	-	573	0	0	574	0	-	-	574
% Lights	-	-	-	-	-	-	-	-	-	50.0	-	50.0	-	-	97.8	100.0	-	97.8	-	-	97.6	-	-	-	97.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	7	0	-	7	0	0	3	0	-	3	10
% Buses	-	-	-	-	-	-	-	-	-	0.0	-	0.0	-	-	1.2	0.0	-	1.2	-	-	0.5	-	-	-	0.5
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	6	0	-	6	0	0	10	0	-	10	17
% Single-Unit Trucks	-	-	-	-	-	-	-	-	-	50.0	-	50.0	-	-	1.0	0.0	-	1.0	-	-	1.7	-	-	-	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Articulated Trucks	-	-	-	-	-	-	-	-	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.2	-	-	-	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	-	-	-	-	-	-	-	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	0.0
Pedestrians	-	-	-	-	12	-	-	-	-	-	30	-	-	-	-	-	-	2	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Austin Boulevard with Public Alley
Site Code:
Start Date: 02/11/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Austin Boulevard Northbound						Austin Boulevard 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		
5:00 PM	0	0	0	0	5	0	0	1	0	4	4	5	0	0	140	1	1	141	1	0	192	0	0	193	339	
5:15 PM	0	0	0	0	11	0	0	1	0	2	6	3	0	0	168	0	0	168	0	0	188	0	0	188	359	
5:30 PM	0	0	0	0	3	0	0	1	0	2	7	3	0	0	142	1	0	143	0	0	172	0	1	172	318	
5:45 PM	0	0	0	0	6	0	0	1	0	1	11	2	0	0	144	1	0	145	0	0	167	0	0	167	314	
Total	0	0	0	0	25	0	0	4	0	9	28	13	0	0	594	3	1	597	1	0	719	0	1	720	1330	
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	30.8	0.0	69.2	-	-	-	0.0	0.0	99.5	0.5	-	-	0.1	0.0	99.9	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	0.3	0.0	0.7	-	1.0	0.0	0.0	44.7	0.2	-	44.9	0.1	0.0	54.1	0.0	-	54.1	-	
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	1.000	0.000	0.563	-	0.650	0.000	0.000	0.884	0.750	-	0.888	0.250	0.000	0.936	0.000	-	0.933	0.926	
Lights	0	0	0	0	-	0	0	4	0	9	-	13	0	0	585	3	-	588	1	0	716	0	-	717	1318	
% Lights	-	-	-	-	-	-	-	100.0	-	100.0	-	100.0	-	-	98.5	100.0	-	98.5	100.0	-	99.6	-	-	99.6	99.1	
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	8	0	-	8	0	0	3	0	-	3	11	
% Buses	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	-	1.3	0.0	-	1.3	0.0	-	0.4	-	-	0.4	0.8	
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1	
% Single-Unit Trucks	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	-	0.2	0.0	-	0.2	0.0	-	0.0	-	-	0.0	0.1	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Articulated Trucks	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	-	-	0.0	0.0	
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Bicycles on Road	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	-	-	0.0	0.0	
Pedestrians	-	-	-	-	25	-	-	-	-	-	28	-	-	-	-	-	-	1	-	-	-	-	1	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Humphrey Avenue with Fillmore
Street
Site Code:
Start Date: 02/11/2020
Page No: 1

Turning Movement Data

Start Time	Fillmore Street Eastbound						Fillmore Street Westbound						Humphrey Avenue Northbound						Humphrey 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	
7:00 AM	0	1	0	1	0	2	0	1	0	0	0	1	0	1	10	1	2	12	0	0	4	0	3	4	19
7:15 AM	0	1	0	2	2	3	0	0	2	2	0	4	0	2	11	0	3	13	0	1	2	1	1	4	24
7:30 AM	0	15	0	4	1	19	0	0	1	1	0	2	0	2	10	0	1	12	0	0	6	2	0	8	41
7:45 AM	0	9	1	2	0	12	0	1	1	0	0	2	0	3	6	0	1	9	0	0	8	0	2	8	31
Hourly Total	0	26	1	9	3	36	0	2	4	3	0	9	0	8	37	1	7	46	0	1	20	3	6	24	115
8:00 AM	0	4	1	1	1	6	0	1	0	0	0	1	0	0	7	0	1	7	1	1	2	0	0	4	18
8:15 AM	0	1	0	3	0	4	0	1	1	1	0	3	0	0	3	0	0	3	0	0	3	1	1	4	14
8:30 AM	0	8	1	3	3	12	0	0	4	7	0	11	0	1	54	12	0	67	0	0	2	0	0	2	92
8:45 AM	0	2	0	2	0	4	0	0	0	0	4	0	0	3	10	0	3	13	0	0	5	2	0	7	24
Hourly Total	0	15	2	9	4	26	0	2	5	8	4	15	0	4	74	12	4	90	1	1	12	3	1	17	148
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	0	3	0	2	0	5	0	0	0	0	1	0	0	0	7	2	1	9	0	0	2	0	0	2	16
11:45 AM	0	1	0	1	2	2	0	0	1	0	0	1	0	0	7	1	0	8	1	0	2	0	0	3	14
Hourly Total	0	4	0	3	2	7	0	0	1	0	1	1	0	0	14	3	1	17	1	0	4	0	0	5	30
12:00 PM	0	0	3	0	1	3	0	0	0	0	0	0	0	0	5	1	1	6	0	1	3	0	0	4	13
12:15 PM	0	2	0	3	0	5	0	1	0	1	0	2	0	2	5	1	1	8	0	0	5	0	0	5	20
12:30 PM	0	0	0	1	1	1	0	1	0	1	1	2	0	2	6	1	0	9	0	0	3	0	0	3	15
12:45 PM	0	0	0	1	2	1	0	0	0	0	1	0	0	0	4	3	2	7	2	0	6	0	0	8	16
Hourly Total	0	2	3	5	4	10	0	2	0	2	2	4	0	4	20	6	4	30	2	1	17	0	0	20	64
1:00 PM	0	4	0	2	0	6	0	0	0	0	0	0	0	2	5	0	0	7	0	0	3	0	0	3	16
1:15 PM	0	0	0	3	0	3	0	1	1	1	0	3	0	1	3	1	1	5	0	1	5	1	0	7	18
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	4	0	5	0	9	0	1	1	1	0	3	0	3	8	1	1	12	0	1	8	1	0	10	34
4:00 PM	0	0	2	1	4	3	0	0	0	0	1	0	0	2	4	2	1	8	0	1	11	2	1	14	25
4:15 PM	0	3	1	3	1	7	0	0	1	0	0	1	0	1	9	1	1	11	0	1	7	2	0	10	29
4:30 PM	0	1	2	1	1	4	0	0	0	0	0	0	0	2	6	0	0	8	0	0	7	1	2	8	20
4:45 PM	0	1	1	3	1	5	0	0	1	3	0	4	0	0	7	4	1	11	0	1	4	1	0	6	26
Hourly Total	0	5	6	8	7	19	0	0	2	3	1	5	0	5	26	7	3	38	0	3	29	6	3	38	100
5:00 PM	0	4	1	3	1	8	0	1	2	0	0	3	0	0	9	0	2	9	0	0	3	2	4	5	25
5:15 PM	0	1	0	3	2	4	0	0	0	1	0	1	0	2	9	2	1	13	0	1	15	0	0	16	34
5:30 PM	0	2	0	0	2	2	0	0	0	0	0	0	0	3	6	0	0	9	0	2	5	0	0	7	18
5:45 PM	0	1	4	4	0	9	0	0	2	1	0	3	1	1	0	2	0	5	0	1	5	0	0	6	23
Hourly Total	0	8	5	10	5	23	0	1	4	2	0	7	1	5	26	4	3	36	0	4	28	2	4	34	100
Grand Total	0	64	17	49	25	130	0	8	17	19	8	44	1	29	205	34	23	269	4	11	118	15	14	148	591
Approach %	0.0	49.2	13.1	37.7	-	-	0.0	18.2	38.6	43.2	-	-	0.4	10.8	76.2	12.6	-	-	2.7	7.4	79.7	10.1	-	-	-

Total %	0.0	10.8	2.9	8.3	-	22.0	0.0	1.4	2.9	3.2	-	7.4	0.2	4.9	34.7	5.8	-	45.5	0.7	1.9	20.0	2.5	-	25.0	-
Lights	0	64	17	47	-	128	0	7	16	19	-	42	1	28	198	32	-	259	4	11	114	13	-	142	571
% Lights	-	100.0	100.0	95.9	-	98.5	-	87.5	94.1	100.0	-	95.5	100.0	96.6	96.6	94.1	-	96.3	100.0	100.0	96.6	86.7	-	95.9	96.6
Buses	0	0	0	1	-	1	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	2	-	2	5
% Buses	-	0.0	0.0	2.0	-	0.8	-	0.0	5.9	0.0	-	2.3	0.0	0.0	0.5	0.0	-	0.4	0.0	0.0	0.0	13.3	-	1.4	0.8
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	2	2	-	4	0	0	2	0	-	2	7
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	12.5	0.0	0.0	-	2.3	0.0	0.0	1.0	5.9	-	1.5	0.0	0.0	1.7	0.0	-	1.4	1.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	1.5	0.0	-	1.1	0.0	0.0	0.0	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	1	1	0	-	2	0	0	2	0	-	2	5
% Bicycles on Road	-	0.0	0.0	2.0	-	0.8	-	0.0	0.0	0.0	-	0.0	0.0	3.4	0.5	0.0	-	0.7	0.0	0.0	1.7	0.0	-	1.4	0.8
Pedestrians	-	-	-	-	25	-	-	-	-	-	8	-	-	-	-	-	23	-	-	-	-	-	14	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
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(847)518-9990

Count Name: Humphrey Avenue with Fillmore
Street
Site Code:
Start Date: 02/11/2020
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Fillmore Street Eastbound						Fillmore Street Westbound						Humphrey Avenue Northbound						Humphrey 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		
7:00 AM	0	1	0	1	0	2	0	1	0	0	0	1	0	1	10	1	2	12	0	0	4	0	3	4	19	
7:15 AM	0	1	0	2	2	3	0	0	2	2	0	4	0	2	11	0	3	13	0	1	2	1	1	4	24	
7:30 AM	0	15	0	4	1	19	0	0	1	1	0	2	0	2	10	0	1	12	0	0	6	2	0	8	41	
7:45 AM	0	9	1	2	0	12	0	1	1	0	0	2	0	3	6	0	1	9	0	0	8	0	2	8	31	
Total	0	26	1	9	3	36	0	2	4	3	0	9	0	8	37	1	7	46	0	1	20	3	6	24	115	
Approach %	0.0	72.2	2.8	25.0	-	-	0.0	22.2	44.4	33.3	-	-	0.0	17.4	80.4	2.2	-	-	0.0	4.2	83.3	12.5	-	-	-	
Total %	0.0	22.6	0.9	7.8	-	31.3	0.0	1.7	3.5	2.6	-	7.8	0.0	7.0	32.2	0.9	-	40.0	0.0	0.9	17.4	2.6	-	20.9	-	
PHF	0.000	0.433	0.250	0.563	-	0.474	0.000	0.500	0.500	0.375	-	0.563	0.000	0.667	0.841	0.250	-	0.885	0.000	0.250	0.625	0.375	-	0.750	0.701	
Lights	0	26	1	9	-	36	0	2	3	3	-	8	0	7	35	0	-	42	0	1	19	3	-	23	109	
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	75.0	100.0	-	88.9	-	87.5	94.6	0.0	-	91.3	-	100.0	95.0	100.0	-	-	95.8	94.8
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1	
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	25.0	0.0	-	11.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.9	
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	1	-	2	0	0	0	0	-	0	2	
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	2.7	100.0	-	4.3	-	0.0	0.0	0.0	-	0.0	1.7	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	1	0	-	2	0	0	1	0	-	1	3	
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	12.5	2.7	0.0	-	4.3	-	0.0	5.0	0.0	-	4.2	2.6	
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	6	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	



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(847)518-9990

Count Name: Humphrey Avenue with Fillmore
Street
Site Code:
Start Date: 02/11/2020
Page No: 4

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Fillmore Street Eastbound							Fillmore Street Westbound							Humphrey Avenue Northbound							Humphrey Avenue Southbound						
	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	Int. Total
11:45 AM	0	1	0	1	2	2		0	0	1	0	0	1		0	0	7	1	0	8		1	0	2	0	0	3	14
12:00 PM	0	0	3	0	1	3		0	0	0	0	0	0		0	1	3	0	0	4		0	1	3	0	0	4	13
12:15 PM	0	2	0	3	0	5		0	1	0	1	0	2		0	2	5	1	1	8		0	0	5	0	0	5	20
12:30 PM	0	0	0	1	1	1		0	1	0	1	1	2		0	2	6	1	0	9		0	0	3	0	0	3	15
Total	0	3	3	5	4	11		0	2	1	2	1	5		0	4	23	4	2	31		1	1	13	0	0	15	62
Approach %	0.0	27.3	27.3	45.5	-	-		0.0	40.0	20.0	40.0	-	-		0.0	12.9	74.2	12.9	-	-		6.7	6.7	86.7	0.0	-	-	-
Total %	0.0	4.8	4.8	8.1	-	17.7		0.0	3.2	1.6	3.2	-	8.1		0.0	6.5	37.1	6.5	-	50.0		1.6	1.6	21.0	0.0	-	24.2	-
PHF	0.000	0.375	0.250	0.417	-	0.550		0.000	0.500	0.250	0.500	-	0.625		0.000	0.500	0.821	1.000	-	0.861		0.250	0.250	0.650	0.000	-	0.750	0.775
Lights	0	3	3	5	-	11		0	1	1	2	-	4		0	4	23	3	-	30		1	1	12	0	-	14	59
% Lights	-	100.0	100.0	100.0	-	100.0		-	50.0	100.0	100.0	-	80.0		-	100.0	100.0	75.0	-	96.8		100.0	100.0	92.3	-	-	93.3	95.2
Buses	0	0	0	0	-	0		0	0	0	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	0.0	-	0.0		0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0		0	1	0	0	-	1		0	0	0	1	-	1		0	0	1	0	-	1	3
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0		-	50.0	0.0	0.0	-	20.0		-	0.0	0.0	25.0	-	3.2		0.0	0.0	7.7	-	-	6.7	4.8
Articulated Trucks	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		0.0	0.0	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	-	4	-		-	-	-	-	1	-		-	-	-	-	2	-		-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	-	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Humphrey Avenue with Fillmore
Street
Site Code:
Start Date: 02/11/2020
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Fillmore Street Eastbound						Fillmore Street Westbound						Humphrey Avenue Northbound						Humphrey 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		
5:00 PM	0	4	1	3	1	8	0	1	2	0	0	3	0	0	9	0	2	4	5	0	0	3	2	4	5	25
5:15 PM	0	1	0	3	2	4	0	0	0	1	0	1	0	2	9	2	1	13	0	1	15	0	0	16	34	
5:30 PM	0	2	0	0	2	2	0	0	0	0	0	0	0	3	6	0	0	9	0	2	5	0	0	7	18	
5:45 PM	0	1	4	4	0	9	0	0	2	1	0	3	1	0	2	2	0	5	0	1	5	0	0	6	23	
Total	0	8	5	10	5	23	0	1	4	2	0	7	1	5	26	4	3	36	0	4	28	2	4	34	100	
Approach %	0.0	34.8	21.7	43.5	-	-	0.0	14.3	57.1	28.6	-	-	2.8	13.9	72.2	11.1	-	-	0.0	11.8	82.4	5.9	-	-	-	
Total %	0.0	8.0	5.0	10.0	-	23.0	0.0	1.0	4.0	2.0	-	7.0	1.0	5.0	26.0	4.0	-	36.0	0.0	4.0	28.0	2.0	-	34.0	-	
PHF	0.000	0.500	0.313	0.625	-	0.639	0.000	0.250	0.500	0.500	-	0.583	0.250	0.417	0.722	0.500	-	0.692	0.000	0.500	0.467	0.250	-	0.531	0.735	
Lights	0	8	5	10	-	23	0	1	4	2	-	7	1	5	26	4	-	36	0	4	27	2	-	33	99	
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	-	100.0	-	100.0	96.4	100.0	-	97.1	99.0	
Buses	0	0	0	0	-	0	0	0	0	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	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Single-Unit Trucks	0	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	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1	
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	3.6	0.0	-	2.9	1.0	
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	4	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Humphrey Avenue with Public
Alley
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Turning Movement Data

Start Time	Public Alley Eastbound						Public Alley Westbound						Humphrey Avenue Northbound						Humphrey Avenue Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total					
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	9	0	0	0	6	17				
7:15 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	10	0	3	10	4	16				
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	10	0	0	10	7	17				
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	8	0	0	9	10	20				
Hourly Total	0	0	0	0	1	0	0	3	0	2	0	5	1	0	37	0	3	38	27	70				
	0	1	0	1	1	2	0	1	0	0	0	1	0	0	7	0	0	7	6	16				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	7	11				
8:15 AM	0	0	0	0	2	0	0	0	0	2	0	2	0	1	62	6	1	69	5	76				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	5	19				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	5	19				
Hourly Total	0	1	0	1	3	2	0	1	0	2	0	3	0	1	87	6	1	94	23	122				
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
*** BREAK ***	0	0	0	0	0	0	0	1	0	0	0	1	0	0	8	0	1	8	7	16				
11:30 AM	0	0	0	1	1	1	0	1	0	0	0	1	0	0	6	0	0	6	3	11				
Hourly Total	0	0	0	1	1	1	0	2	0	0	0	2	0	0	14	0	1	14	10	27				
	0	1	0	3	1	4	0	0	0	0	0	0	2	1	7	1	5	11	2	17				
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8	1	0	11	5	16				
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	7	0	0	7	7	15				
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	8	17				
12:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	7	0	0	7	1	17				
Hourly Total	0	1	0	5	1	6	0	0	0	1	0	1	4	1	29	2	5	36	22	65				
	0	1	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0	5	6	12				
1:00 PM	0	0	1	1	1	2	0	0	1	0	0	1	0	0	4	1	0	5	9	17				
1:15 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
*** BREAK ***	0	1	1	1	1	3	0	0	1	0	0	1	0	0	9	1	0	10	15	29				
Hourly Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	0	0	9	11	20				
	0	1	0	0	0	1	0	0	0	1	1	1	0	1	9	1	4	11	10	23				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	8	8	16				
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	8	0	0	8	7	16				
Hourly Total	0	2	0	0	0	2	0	0	0	1	2	1	1	1	33	1	6	36	36	75				
	0	0	0	0	0	0	0	0	0	1	0	1	0	2	8	0	1	10	7	18				
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	11	1	1	12	0	28				
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	0	1	8	7	15				
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	1	1	6	3	16				
5:45 PM	0	1	0	1	3	1	0	0	0	0	0	0	1	0	31	2	4	36	38	77				
Hourly Total	0	6	1	9	11	16	0	6	1	7	2	14	7	5	240	12	20	264	171	465				
	0.0	37.5	6.3	56.3	-	-	0.0	42.9	7.1	50.0	-	-	2.7	1.9	90.9	4.5	-	-	2.9	-				
Grand Total	0	6	1	9	11	16	0	6	1	7	2	14	7	5	240	12	20	264	171	465				
Approach %	0.0	37.5	6.3	56.3	-	-	0.0	42.9	7.1	50.0	-	-	2.7	1.9	90.9	4.5	-	-	2.9	-				

Total %	0.0	1.3	0.2	1.9	-	3.4	0.0	1.3	0.2	1.5	-	3.0	1.5	1.1	51.6	2.6	-	56.8	0.2	0.2	35.3	1.1	-	36.8	-
Lights	0	5	1	9	-	15	0	5	1	7	-	13	7	4	232	12	-	255	1	1	157	5	-	164	447
% Lights	-	83.3	100.0	100.0	-	93.8	-	83.3	100.0	100.0	-	92.9	100.0	80.0	96.7	100.0	-	96.6	100.0	100.0	95.7	100.0	-	95.9	96.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.4	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	1	0	0	-	1	0	1	0	0	-	1	0	0	5	0	-	5	0	0	4	0	-	4	11
% Single-Unit Trucks	-	16.7	0.0	0.0	-	6.3	-	16.7	0.0	0.0	-	7.1	0.0	0.0	2.1	0.0	-	1.9	0.0	0.0	2.4	0.0	-	2.3	2.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.4	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	1	0	-	2	0	0	3	0	-	3	5
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	20.0	0.4	0.0	-	0.8	0.0	0.0	1.8	0.0	-	1.8	1.1
Pedestrians	-	-	-	-	11	-	-	-	-	-	2	-	-	-	-	-	20	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Humphrey Avenue with Public
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Turning Movement Peak Hour Data (7:00 AM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Humphrey Avenue Northbound						Humphrey 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	
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	9	0	0	9	0	0	6	0	0	6	17
7:15 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	10	0	3	10	0	0	4	0	0	4	16
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	7	0	0	7	17
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	8	0	0	9	0	0	10	0	0	10	20
Total	0	0	0	0	1	0	0	3	0	2	0	5	1	0	37	0	3	38	0	0	27	0	0	27	70
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	60.0	0.0	40.0	-	-	2.6	0.0	97.4	0.0	-	-	0.0	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	4.3	0.0	2.9	-	7.1	1.4	0.0	52.9	0.0	-	54.3	0.0	0.0	38.6	0.0	-	38.6	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.375	0.000	0.500	-	0.625	0.250	0.000	0.925	0.000	-	0.950	0.000	0.000	0.675	0.000	-	0.675	0.875
Lights	0	0	0	0	-	0	0	2	0	2	-	4	1	0	34	0	-	35	0	0	26	0	-	26	65
% Lights	-	-	-	-	-	-	-	66.7	-	100.0	-	80.0	100.0	-	91.9	-	-	92.1	-	-	96.3	-	-	96.3	92.9
Buses	0	0	0	0	-	0	0	0	0	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
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	3
% Single-Unit Trucks	-	-	-	-	-	-	-	33.3	-	0.0	-	20.0	0.0	-	5.4	-	-	5.3	-	-	0.0	-	-	0.0	4.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Bicycles on Road	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	0.0	-	2.7	-	-	2.6	-	-	3.7	-	-	3.7	2.9
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



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Turning Movement Peak Hour Data (11:45 AM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Humphrey Avenue Northbound						Humphrey 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		
11:45 AM	0	0	0	1	1	1	0	1	0	0	0	1	0	0	6	0	0	0	6	0	0	3	0	1	3	11
12:00 PM	0	1	0	3	1	4	0	0	0	0	0	0	2	1	7	1	1	5	11	0	0	1	1	0	2	17
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8	1	0	11	0	0	5	0	0	5	16	
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	7	0	0	7	0	1	6	0	2	7	15	
Total	0	1	0	4	2	5	0	1	0	1	0	2	4	1	28	2	5	35	0	1	15	1	3	17	59	
Approach %	0.0	20.0	0.0	80.0	-	-	0.0	50.0	0.0	50.0	-	-	11.4	2.9	80.0	5.7	-	-	0.0	5.9	88.2	5.9	-	-	-	-
Total %	0.0	1.7	0.0	6.8	-	8.5	0.0	1.7	0.0	1.7	-	3.4	6.8	1.7	47.5	3.4	-	59.3	0.0	1.7	25.4	1.7	-	-	28.8	-
PHF	0.000	0.250	0.000	0.333	-	0.313	0.000	0.250	0.000	0.250	-	0.500	0.500	0.250	0.875	0.500	-	0.795	0.000	0.250	0.625	0.250	-	-	0.607	0.868
Lights	0	1	0	4	-	5	0	1	0	1	-	2	4	1	27	2	-	34	0	1	13	1	-	15	56	-
% Lights	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	100.0	100.0	96.4	100.0	-	97.1	-	100.0	86.7	100.0	-	-	88.2	94.9
Buses	0	0	0	0	-	0	0	0	0	0	-	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	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	0	-	2	3	-
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	3.6	0.0	-	2.9	-	0.0	13.3	0.0	-	-	11.8	5.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	-	5	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Humphrey Avenue with Public
Alley
Site Code:
Start Date: 02/11/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Humphrey Avenue Northbound						Humphrey 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		
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	8	0	0	1	10	0	0	7	0	0	7	18
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	11	1	1	12	0	0	15	0	0	15	28	
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	0	1	8	0	0	7	0	0	7	15	
5:45 PM	0	0	0	1	3	1	0	0	0	0	0	0	1	0	4	1	1	6	0	0	9	0	3	9	16	
Total	0	1	0	1	4	2	0	0	0	1	0	1	1	2	31	2	4	36	0	0	38	0	3	38	77	
Approach %	0.0	50.0	0.0	50.0	-	-	0.0	0.0	0.0	100.0	-	-	2.8	5.6	86.1	5.6	-	-	0.0	0.0	100.0	0.0	-	-	-	
Total %	0.0	1.3	0.0	1.3	-	2.6	0.0	0.0	0.0	1.3	-	1.3	1.3	2.6	40.3	2.6	-	46.8	0.0	0.0	49.4	0.0	-	-	49.4	
PHF	0.000	0.250	0.000	0.250	-	0.500	0.000	0.000	0.000	0.250	-	0.250	0.250	0.250	0.705	0.500	-	0.750	0.000	0.000	0.633	0.000	-	-	0.633	
Lights	0	1	0	1	-	2	0	0	0	1	-	1	1	1	31	2	-	35	0	0	37	0	-	-	37	
% Lights	-	100.0	-	100.0	-	100.0	-	-	-	100.0	-	100.0	100.0	50.0	100.0	100.0	-	97.2	-	-	97.4	-	-	-	97.4	
Buses	0	0	0	0	-	0	0	0	0	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	-	-	0.0	-	-	-	0.0	
Single-Unit Trucks	0	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	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	-	-	-	0.0	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	-	-	-	0.0	
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	1	0	-	1	2	
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0	50.0	0.0	0.0	-	2.8	-	-	2.6	-	-	-	2.6	
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	-	4	-	-	-	-	3	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	



Rosemont, Illinois, United States 60018
(847)518-9990

Turning Movement Data

Start Time	Filmore Street Eastbound						Filmore Street Westbound						Humphrey Avenue Northbound						Humphrey Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total			
12:00 PM	0	4	1	3	0	8	0	0	0	2	0	2	1	7	0	1	8	0	0	2	0	2	20		
12:15 PM	0	0	1	1	0	2	0	0	0	0	0	0	1	8	1	1	10	0	0	9	2	11	23		
12:30 PM	0	2	0	0	1	2	0	1	1	1	3	0	1	5	0	0	6	0	0	3	1	4	15		
12:45 PM	0	5	0	2	0	7	0	0	1	0	1	0	0	6	0	0	6	0	1	1	1	3	17		
Hourly Total	0	11	2	6	1	19	0	1	4	1	6	0	3	26	1	2	30	0	1	15	4	20	75		
1:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	1	10	1	0	12	0	0	3	0	3	17		
1:15 PM	0	4	0	2	0	6	0	0	0	0	0	0	2	6	0	0	8	0	0	8	1	9	23		
1:30 PM	0	3	0	3	0	6	0	0	1	0	1	0	1	7	1	0	9	0	0	6	1	7	23		
1:45 PM	0	2	0	4	0	6	0	0	0	2	2	0	3	8	0	0	11	0	3	5	1	9	28		
Hourly Total	0	11	0	9	0	20	0	0	1	2	3	0	7	31	2	0	40	0	3	22	3	28	91		
Grand Total	0	22	2	15	1	39	0	1	5	3	9	0	10	57	3	2	70	0	4	37	7	48	166		
Approach %	0.0	56.4	5.1	38.5	-	-	0.0	11.1	55.6	33.3	-	0.0	14.3	81.4	4.3	-	-	0.0	8.3	77.1	14.6	-	-		
Total %	0.0	13.3	1.2	9.0	-	23.5	0.0	0.6	3.0	1.8	5.4	0.0	6.0	34.3	1.8	-	42.2	0.0	2.4	22.3	4.2	28.9	-		
Lights	0	22	2	15	-	39	0	1	5	3	9	0	7	55	3	-	65	0	4	36	7	47	160		
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	100.0	-	70.0	96.5	100.0	-	92.9	-	100.0	97.3	100.0	97.9	96.4		
Buses	0	0	0	0	-	0	0	0	0	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	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0		
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	0	0	1	2	0	-	3	0	0	1	0	1	4		
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	10.0	3.5	0.0	-	4.3	-	0.0	2.7	0.0	2.1	2.4		
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0		
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0		
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	0	0	2	0	0	-	2	0	0	0	0	0	2		
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	20.0	0.0	0.0	-	2.9	-	0.0	0.0	0.0	0.0	1.2		
Pedestrians	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-		
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-		



Turning Movement Peak Hour Data (1:00 PM)

[illegible]



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Austin
Boulevard - Saturday
Site Code:
Start Date: 03/07/2020
Page No: 1

Turning Movement Data

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						Austin Boulevard Northbound						Austin Boulevard 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	
12:00 PM	0	64	99	19	4	182	0	16	116	24	17	156	0	16	94	7	5	117	0	9	73	55	5	137	592
12:15 PM	0	60	90	11	0	161	0	11	109	27	19	147	0	13	75	9	14	97	0	23	104	55	7	182	587
12:30 PM	0	43	90	17	4	150	0	15	112	29	6	156	0	20	105	9	3	134	1	13	103	46	5	163	603
12:45 PM	0	66	108	16	0	190	0	10	108	29	9	147	0	16	95	9	9	120	0	22	92	45	7	159	616
Hourly Total	0	233	387	63	8	683	0	52	445	109	51	606	0	65	369	34	31	468	1	67	372	201	24	641	2398
1:00 PM	0	55	108	11	3	174	0	21	143	24	7	188	0	16	99	13	6	128	0	11	92	52	3	155	645
1:15 PM	0	45	97	18	2	160	0	13	187	13	12	213	0	14	84	9	2	107	0	14	81	47	7	142	622
1:30 PM	0	57	87	14	3	158	0	17	111	26	10	154	0	19	103	12	10	134	0	19	99	55	7	173	619
1:45 PM	0	55	75	16	2	146	0	13	118	19	12	150	0	7	117	11	7	135	0	13	108	79	2	200	631
Hourly Total	0	212	367	59	10	638	0	64	559	82	41	705	0	56	403	45	25	504	0	57	380	233	19	670	2517
Grand Total	0	445	754	122	18	1321	0	116	1004	191	92	1311	0	121	772	79	56	972	1	124	752	434	43	1311	4915
Approach %	0.0	33.7	57.1	9.2	-	-	0.0	8.8	76.6	14.6	-	-	0.0	12.4	79.4	8.1	-	-	0.1	9.5	57.4	33.1	-	-	-
Total %	0.0	9.1	15.3	2.5	-	26.9	0.0	2.4	20.4	3.9	-	26.7	0.0	2.5	15.7	1.6	-	19.8	0.0	2.5	15.3	8.8	-	26.7	-
Lights	0	442	740	122	-	1304	0	116	991	184	-	1291	0	121	760	79	-	960	1	123	745	429	-	1298	4853
% Lights	-	99.3	98.1	100.0	-	98.7	-	100.0	98.7	96.3	-	98.5	-	100.0	98.4	100.0	-	98.8	100.0	99.2	99.1	98.8	-	99.0	98.7
Buses	0	0	3	0	-	3	0	0	2	6	-	8	0	0	4	0	-	4	0	0	3	1	-	4	19
% Buses	-	0.0	0.4	0.0	-	0.2	-	0.0	0.2	3.1	-	0.6	-	0.0	0.5	0.0	-	0.4	0.0	0.0	0.4	0.2	-	0.3	0.4
Single-Unit Trucks	0	2	11	0	-	13	0	0	9	1	-	10	0	0	8	0	-	8	0	1	4	4	-	9	40
% Single-Unit Trucks	-	0.4	1.5	0.0	-	1.0	-	0.0	0.9	0.5	-	0.8	-	0.0	1.0	0.0	-	0.8	0.0	0.8	0.5	0.9	-	0.7	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.2	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	18	-	-	-	-	-	92	-	-	-	-	-	56	-	-	-	-	-	43	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400
Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Austin
Boulevard - Saturday
Site Code:
Start Date: 03/07/2020
Page No: 2

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							Austin Boulevard Northbound							Austin Boulevard Southbound						
	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	Int. Total
1:00 PM	0	55	108	11	3	174		0	21	143	24	7	188		0	16	99	13	6	128		0	11	92	52	3	155	645
1:15 PM	0	45	97	18	2	160		0	13	187	13	12	213		0	14	84	9	2	107		0	14	81	47	7	142	622
1:30 PM	0	57	87	14	3	158		0	17	111	26	10	154		0	19	103	12	10	134		0	19	99	55	7	173	619
1:45 PM	0	55	75	16	2	146		0	13	118	19	12	150		0	7	117	11	7	135		0	13	108	79	2	200	631
Total	0	212	367	59	10	638		0	64	559	82	41	705		0	56	403	45	25	504		0	57	380	233	19	670	2517
Approach %	0.0	33.2	57.5	9.2	-	-		0.0	9.1	79.3	11.6	-	-		0.0	11.1	80.0	8.9	-	-		0.0	8.5	56.7	34.8	-	-	-
Total %	0.0	8.4	14.6	2.3	-	25.3		0.0	2.5	22.2	3.3	-	28.0		0.0	2.2	16.0	1.8	-	20.0		0.0	2.3	15.1	9.3	-	26.6	-
PHF	0.000	0.930	0.850	0.819	-	0.917		0.000	0.762	0.747	0.788	-	0.827		0.000	0.737	0.861	0.865	-	0.933		0.000	0.750	0.880	0.737	-	0.838	0.976
Lights	0	211	361	59	-	631		0	64	552	79	-	695		0	56	393	45	-	494		0	56	375	231	-	662	2482
% Lights	-	99.5	98.4	100.0	-	98.9		-	100.0	98.7	96.3	-	98.6		-	100.0	97.5	100.0	-	98.0		-	98.2	98.7	99.1	-	98.8	98.6
Buses	0	0	1	0	-	1		0	0	1	3	-	4		0	0	3	0	-	3		0	0	2	0	-	2	10
% Buses	-	0.0	0.3	0.0	-	0.2		-	0.0	0.2	3.7	-	0.6		-	0.0	0.7	0.0	-	0.6		-	0.0	0.5	0.0	-	0.3	0.4
Single-Unit Trucks	0	1	5	0	-	6		0	0	6	0	-	6		0	0	7	0	-	7		0	1	3	2	-	6	25
% Single-Unit Trucks	-	0.5	1.4	0.0	-	0.9		-	0.0	1.1	0.0	-	0.9		-	0.0	1.7	0.0	-	1.4		-	1.8	0.8	0.9	-	0.9	1.0
Articulated Trucks	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	10	-		-	-	-	-	41	-		-	-	-	-	-	25		-	-	-	-	19	-	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	-	100.0		-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Humphrey
Avenue
Site Code:
Start Date: 03/07/2020
Page No: 1

Turning Movement Data

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						Humphrey Avenue Northbound						Humphrey 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	
12:00 PM	0	4	175	4	0	183	0	5	172	6	0	183	0	3	0	10	6	13	0	1	0	8	5	9	388
12:15 PM	0	6	142	5	1	153	0	3	186	2	0	191	0	4	0	19	4	23	0	3	1	10	9	14	381
12:30 PM	0	2	148	1	2	151	0	4	172	2	3	178	0	6	1	11	3	18	0	1	0	2	13	3	350
12:45 PM	0	4	173	10	4	187	0	6	168	2	1	176	0	6	1	13	12	20	0	0	0	5	2	5	388
Hourly Total	0	16	638	20	7	674	0	18	698	12	4	728	0	19	2	53	25	74	0	5	1	25	29	31	1507
1:00 PM	0	2	152	3	0	157	0	6	203	5	0	214	0	4	4	14	5	22	0	0	0	1	1	1	394
1:15 PM	0	3	145	2	0	150	0	2	251	2	1	255	0	9	3	10	5	22	0	0	1	5	7	6	433
1:30 PM	0	3	142	5	1	150	0	6	166	3	0	175	0	5	1	16	10	22	0	3	3	7	5	13	360
1:45 PM	0	3	138	7	2	148	0	5	201	4	0	210	0	5	4	10	1	19	0	3	3	1	5	7	384
Hourly Total	0	11	577	17	3	605	0	19	821	14	1	854	0	23	12	50	21	85	0	6	7	14	18	27	1571
Grand Total	0	27	1215	37	10	1279	0	37	1519	26	5	1582	0	42	14	103	46	159	0	11	8	39	47	58	3078
Approach %	0.0	2.1	95.0	2.9	-	-	0.0	2.3	96.0	1.6	-	-	0.0	26.4	8.8	64.8	-	-	0.0	19.0	13.8	67.2	-	-	-
Total %	0.0	0.9	39.5	1.2	-	41.6	0.0	1.2	49.4	0.8	-	51.4	0.0	1.4	0.5	3.3	-	5.2	0.0	0.4	0.3	1.3	-	1.9	-
Lights	0	27	1201	37	-	1265	0	36	1504	23	-	1563	0	42	13	103	-	158	0	11	8	38	-	57	3043
% Lights	-	100.0	98.8	100.0	-	98.9	-	97.3	99.0	88.5	-	98.8	-	100.0	92.9	100.0	-	99.4	-	100.0	100.0	97.4	-	98.3	98.9
Buses	0	0	2	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	12	0	-	12	0	1	10	3	-	14	0	0	0	0	-	0	0	0	0	1	-	1	27
% Single-Unit Trucks	-	0.0	1.0	0.0	-	0.9	-	2.7	0.7	11.5	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.6	-	1.7	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	7.1	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	10	-	-	-	-	-	5	-	-	-	-	-	46	-	-	-	-	-	47	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Roosevelt Road with Humphrey Avenue
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Start Date: 03/07/2020
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Turning Movement Peak Hour Data (1:00 PM)

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						Humphrey Avenue Northbound						Humphrey Avenue Southbound						
	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	Int. Total
1:00 PM	0	2	152	3	0	157	0	6	203	5	0	214	0	4	4	14	5	22	0	0	0	1	1	1	394
1:15 PM	0	3	145	2	0	150	0	2	251	2	1	255	0	9	3	10	5	22	0	0	1	5	7	6	433
1:30 PM	0	3	142	5	1	150	0	6	166	3	0	175	0	5	1	16	10	22	0	3	3	7	5	13	360
1:45 PM	0	3	138	7	2	148	0	5	201	4	0	210	0	5	4	10	1	19	0	3	3	1	5	7	384
Total	0	11	577	17	3	605	0	19	821	14	1	854	0	23	12	50	21	85	0	6	7	14	18	27	1571
Approach %	0.0	1.8	95.4	2.8	-	-	0.0	2.2	96.1	1.6	-	-	0.0	27.1	14.1	58.8	-	-	0.0	22.2	25.9	51.9	-	-	-
Total %	0.0	0.7	36.7	1.1	-	38.5	0.0	1.2	52.3	0.9	-	54.4	0.0	1.5	0.8	3.2	-	5.4	0.0	0.4	0.4	0.9	-	1.7	-
PHF	0.000	0.917	0.949	0.607	-	0.963	0.000	0.792	0.818	0.700	-	0.837	0.000	0.639	0.750	0.781	-	0.966	0.000	0.500	0.583	0.500	-	0.519	0.907
Lights	0	11	570	17	-	598	0	18	812	13	-	843	0	23	11	50	-	84	0	6	7	13	-	26	1551
% Lights	-	100.0	98.8	100.0	-	98.8	-	94.7	98.9	92.9	-	98.7	-	100.0	91.7	100.0	-	98.8	-	100.0	100.0	92.9	-	96.3	98.7
Buses	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	6	0	-	6	0	1	7	1	-	9	0	0	0	0	-	0	0	0	0	1	-	1	16
% Single-Unit Trucks	-	0.0	1.0	0.0	-	1.0	-	5.3	0.9	7.1	-	1.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	7.1	-	3.7	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	8.3	0.0	-	1.2	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	21	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Roosevelt Road with Humphrey
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Start Date: 03/10/2020
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Turning Movement Data

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						Humphrey Avenue Northbound						Humphrey Avenue Southbound						
	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	Int. Total
7:00 AM	0	2	220	1	0	223	0	0	154	3	0	157	0	2	2	13	0	17	0	1	1	2	0	4	401
7:15 AM	0	1	240	3	0	244	0	1	173	5	0	179	0	1	2	12	1	15	0	1	1	4	1	6	444
7:30 AM	0	1	229	6	1	236	0	1	165	5	0	171	0	1	4	16	2	21	0	0	1	3	3	4	432
7:45 AM	0	4	196	4	0	204	0	3	168	5	0	176	0	2	3	6	0	11	0	4	0	5	3	9	400
Hourly Total	0	8	885	14	1	907	0	5	660	18	0	683	0	6	11	47	3	64	0	6	3	14	7	23	1677
8:00 AM	0	3	212	1	1	216	0	0	199	5	1	204	0	4	2	10	2	16	0	3	0	5	0	8	444
8:15 AM	0	2	208	8	1	218	0	14	166	1	6	181	0	1	0	2	3	3	0	0	0	3	0	3	405
8:30 AM	0	8	208	24	0	240	0	10	173	4	2	187	0	1	0	5	3	6	0	3	0	4	3	7	440
8:45 AM	1	0	142	2	0	145	0	4	125	4	1	133	0	4	3	11	3	18	0	1	2	4	3	7	303
Hourly Total	1	13	770	35	2	819	0	28	663	14	10	705	0	10	5	28	11	43	0	7	2	16	6	25	1592
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	0	2	120	1	0	123	0	2	130	1	1	133	0	3	1	8	4	12	0	2	0	3	2	5	273
11:45 AM	0	0	149	1	0	150	1	4	132	0	0	137	0	4	0	6	5	10	0	1	1	1	5	3	300
Hourly Total	0	2	269	2	0	273	1	6	262	1	1	270	0	7	1	14	9	22	0	3	1	4	7	8	573
12:00 PM	0	2	163	1	0	166	0	4	127	1	1	132	0	3	0	6	4	9	0	1	1	1	1	3	310
12:15 PM	0	4	116	9	0	129	0	4	135	1	0	140	0	5	0	11	2	16	0	1	0	7	5	8	293
12:30 PM	0	2	129	3	0	134	0	1	131	3	0	135	0	3	3	7	1	13	0	5	2	3	6	10	292
12:45 PM	0	4	126	4	2	134	1	1	136	2	0	140	0	3	1	5	7	9	0	1	2	7	5	10	293
Hourly Total	0	12	534	17	2	563	1	10	529	7	1	547	0	14	4	29	14	47	0	8	5	18	17	31	1188
1:00 PM	0	1	135	1	0	137	0	3	137	2	0	142	0	0	1	6	8	7	0	1	2	7	1	10	296
1:15 PM	0	1	153	0	2	154	0	1	129	0	0	130	0	4	0	6	7	10	0	2	2	4	5	8	302
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	2	288	1	2	291	0	4	266	2	0	272	0	4	1	12	15	17	0	3	4	11	6	18	598
4:00 PM	0	3	173	6	0	182	0	6	179	4	4	189	0	3	1	7	2	11	0	2	2	5	3	9	391
4:15 PM	0	4	176	5	0	185	0	2	205	1	2	208	0	2	2	5	1	9	0	2	1	11	0	14	416
4:30 PM	0	2	154	5	1	161	0	4	214	3	0	221	0	3	4	7	9	14	0	1	2	7	2	10	406
4:45 PM	0	4	148	2	0	154	0	3	202	3	2	208	0	3	1	9	7	13	0	0	3	7	3	10	385
Hourly Total	0	13	651	18	1	682	0	15	800	11	8	826	0	11	8	28	19	47	0	5	8	30	8	43	1598
5:00 PM	0	3	150	4	0	157	0	3	187	1	0	191	0	1	0	10	10	11	0	1	1	9	5	11	370
5:15 PM	0	6	165	5	2	176	0	1	175	3	4	179	1	1	0	8	4	10	0	0	2	4	10	6	371
5:30 PM	0	3	176	9	0	188	0	3	187	4	0	194	0	1	0	7	3	8	0	0	1	1	1	2	392
5:45 PM	0	1	174	7	0	182	0	2	156	2	0	160	0	2	0	6	6	8	0	0	3	4	1	7	357
Hourly Total	0	13	665	25	2	703	0	9	705	10	4	724	1	5	0	31	23	37	0	1	7	18	17	26	1490
Grand Total	1	63	4062	112	10	4238	2	77	3885	63	24	4027	1	57	30	189	94	277	0	33	30	111	68	174	8716
Approach %	0.0	1.5	95.8	2.6	-	-	0.0	1.9	96.5	1.6	-	-	0.4	20.6	10.8	68.2	-	-	0.0	19.0	17.2	63.8	-	-	-

Total %	0.0	0.7	46.6	1.3	-	48.6	0.0	0.9	44.6	0.7	-	46.2	0.0	0.7	0.3	2.2	-	3.2	0.0	0.4	0.3	1.3	-	2.0	-
Lights	1	62	3937	111	-	4111	2	74	3752	62	-	3890	1	54	30	177	-	262	0	33	29	109	-	171	8434
% Lights	100.0	98.4	96.9	99.1	-	97.0	100.0	96.1	96.6	98.4	-	96.6	100.0	94.7	100.0	93.7	-	94.6	-	100.0	96.7	98.2	-	98.3	96.8
Buses	0	0	28	0	-	28	0	1	20	0	-	21	0	2	0	8	-	10	0	0	0	0	-	0	59
% Buses	0.0	0.0	0.7	0.0	-	0.7	0.0	1.3	0.5	0.0	-	0.5	0.0	3.5	0.0	4.2	-	3.6	-	0.0	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	0	62	1	-	63	0	2	82	1	-	85	0	0	0	1	-	1	0	0	0	2	-	2	151
% Single-Unit Trucks	0.0	0.0	1.5	0.9	-	1.5	0.0	2.6	2.1	1.6	-	2.1	0.0	0.0	0.0	0.5	-	0.4	-	0.0	0.0	1.8	-	1.1	1.7
Articulated Trucks	0	0	33	0	-	33	0	0	29	0	-	29	0	0	0	2	-	2	0	0	0	0	-	0	64
% Articulated Trucks	0.0	0.0	0.8	0.0	-	0.8	0.0	0.0	0.7	0.0	-	0.7	0.0	0.0	0.0	1.1	-	0.7	-	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	1	2	0	-	3	0	0	2	0	-	2	0	1	0	1	-	2	0	0	1	0	-	1	8
% Bicycles on Road	0.0	1.6	0.0	0.0	-	0.1	0.0	0.0	0.1	0.0	-	0.0	0.0	1.8	0.0	0.5	-	0.7	-	0.0	3.3	0.0	-	0.6	0.1
Pedestrians	-	-	-	-	10	-	-	-	-	-	24	-	-	-	-	-	94	-	-	-	-	-	68	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Roosevelt Road with Humphrey
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Turning Movement Peak Hour Data (7:15 AM)

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						Humphrey Avenue Northbound						Humphrey 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	
7:15 AM	0	1	240	3	0	244	0	1	173	5	0	179	0	1	2	12	1	15	0	1	1	4	1	6	444
7:30 AM	0	1	229	6	1	236	0	1	165	5	0	171	0	1	4	16	2	21	0	0	1	3	3	4	432
7:45 AM	0	4	196	4	0	204	0	3	168	5	0	176	0	2	3	6	0	11	0	4	0	5	3	9	400
8:00 AM	0	3	212	1	1	216	0	0	199	5	1	204	0	4	2	10	2	16	0	3	0	5	0	8	444
Total	0	9	877	14	2	900	0	5	705	20	1	730	0	8	11	44	5	63	0	8	2	17	7	27	1720
Approach %	0.0	1.0	97.4	1.6	-	-	0.0	0.7	96.6	2.7	-	-	0.0	12.7	17.5	69.8	-	-	0.0	29.6	7.4	63.0	-	-	-
Total %	0.0	0.5	51.0	0.8	-	52.3	0.0	0.3	41.0	1.2	-	42.4	0.0	0.5	0.6	2.6	-	3.7	0.0	0.5	0.1	1.0	-	1.6	-
PHF	0.000	0.563	0.914	0.583	-	0.922	0.000	0.417	0.886	1.000	-	0.895	0.000	0.500	0.688	0.688	-	0.750	0.000	0.500	0.500	0.850	-	0.750	0.968
Lights	0	9	844	14	-	867	0	3	680	20	-	703	0	8	11	43	-	62	0	8	2	17	-	27	1659
% Lights	-	100.0	96.2	100.0	-	96.3	-	60.0	96.5	100.0	-	96.3	-	100.0	100.0	97.7	-	98.4	-	100.0	100.0	100.0	-	100.0	96.5
Buses	0	0	9	0	-	9	0	1	6	0	-	7	0	0	0	1	-	1	0	0	0	0	-	0	17
% Buses	-	0.0	1.0	0.0	-	1.0	-	20.0	0.9	0.0	-	1.0	-	0.0	0.0	2.3	-	1.6	-	0.0	0.0	0.0	-	0.0	1.0
Single-Unit Trucks	0	0	15	0	-	15	0	1	14	0	-	15	0	0	0	0	-	0	0	0	0	0	-	0	30
% Single-Unit Trucks	-	0.0	1.7	0.0	-	1.7	-	20.0	2.0	0.0	-	2.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.7
Articulated Trucks	0	0	9	0	-	9	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	14
% Articulated Trucks	-	0.0	1.0	0.0	-	1.0	-	0.0	0.7	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Humphrey Avenue
Site Code:
Start Date: 03/10/2020
Page No: 4

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							Humphrey Avenue Northbound							Humphrey Avenue Southbound						
	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	Int. Total
11:45 AM	0	0	149	1	0	150		1	4	132	0	0	137		0	4	0	6	5	10		0	1	1	1	5	3	300
12:00 PM	0	2	163	1	0	166		0	4	127	1	1	132		0	3	0	6	4	9		0	1	1	1	1	3	310
12:15 PM	0	4	116	9	0	129		0	4	135	1	0	140		0	5	0	11	2	16		0	1	0	7	5	8	293
12:30 PM	0	2	129	3	0	134		0	1	131	3	0	135		0	3	3	7	1	13		0	5	2	3	6	10	292
Total	0	8	557	14	0	579		1	13	525	5	1	544		0	15	3	30	12	48		0	8	4	12	17	24	1195
Approach %	0.0	1.4	96.2	2.4	-	-		0.2	2.4	96.5	0.9	-	-		0.0	31.3	6.3	62.5	-	-		0.0	33.3	16.7	50.0	-	-	-
Total %	0.0	0.7	46.6	1.2	-	48.5		0.1	1.1	43.9	0.4	-	45.5		0.0	1.3	0.3	2.5	-	4.0		0.0	0.7	0.3	1.0	-	2.0	-
PHF	0.000	0.500	0.854	0.389	-	0.872		0.250	0.813	0.972	0.417	-	0.971		0.000	0.750	0.250	0.682	-	0.750		0.000	0.400	0.500	0.429	-	0.600	0.964
Lights	0	8	535	13	-	556		1	13	499	5	-	518		0	15	3	26	-	44		0	8	4	12	-	24	1142
% Lights	-	100.0	96.1	92.9	-	96.0		100.0	100.0	95.0	100.0	-	95.2		-	100.0	100.0	86.7	-	91.7		-	100.0	100.0	100.0	-	100.0	95.6
Buses	0	0	5	0	-	5		0	0	3	0	-	3		0	0	0	3	-	3		0	0	0	0	-	0	11
% Buses	-	0.0	0.9	0.0	-	0.9		0.0	0.0	0.6	0.0	-	0.6		-	0.0	0.0	10.0	-	6.3		-	0.0	0.0	0.0	-	0.0	0.9
Single-Unit Trucks	0	0	11	1	-	12		0	0	20	0	-	20		0	0	0	1	-	1		0	0	0	0	-	0	33
% Single-Unit Trucks	-	0.0	2.0	7.1	-	2.1		0.0	0.0	3.8	0.0	-	3.7		-	0.0	0.0	3.3	-	2.1		-	0.0	0.0	0.0	-	0.0	2.8
Articulated Trucks	0	0	5	0	-	5		0	0	3	0	-	3		0	0	0	0	-	0		0	0	0	0	-	0	8
% Articulated Trucks	-	0.0	0.9	0.0	-	0.9		0.0	0.0	0.6	0.0	-	0.6		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	0	1	0	-	1		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.2	0.0	-	0.2		0.0	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-		-	-	-	-	1	-		-	-	-	-	12	-		-	-	-	-	17	-	-
% Pedestrians	-	-	-	-	-	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

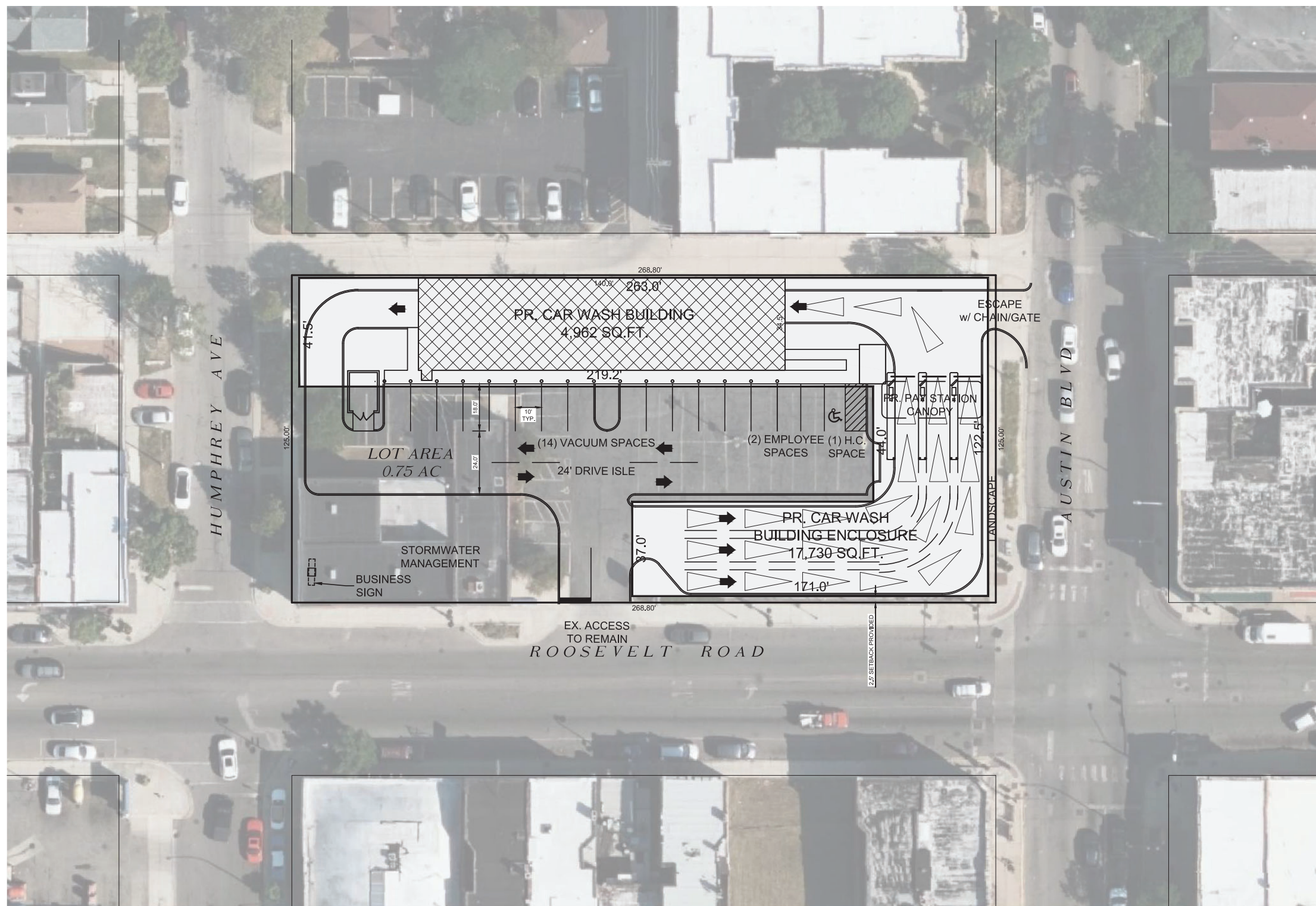
Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Roosevelt Road with Humphrey
Avenue
Site Code:
Start Date: 03/10/2020
Page No: 5

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Roosevelt Road Eastbound							Roosevelt Road Westbound							Humphrey Avenue Northbound							Humphrey Avenue Southbound						
	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	Int. Total
4:00 PM	0	3	173	6	0	182		0	6	179	4	4	189		0	3	1	7	2	11		0	2	2	5	3	9	391
4:15 PM	0	4	176	5	0	185		0	2	205	1	2	208		0	2	2	5	1	9		0	2	1	11	0	14	416
4:30 PM	0	2	154	5	1	161		0	4	214	3	0	221		0	3	4	7	9	14		0	1	2	7	2	10	406
4:45 PM	0	4	148	2	0	154		0	3	202	3	2	208		0	3	1	9	7	13		0	0	3	7	3	10	385
Total	0	13	651	18	1	682		0	15	800	11	8	826		0	11	8	28	19	47		0	5	8	30	8	43	1598
Approach %	0.0	1.9	95.5	2.6	-	-		0.0	1.8	96.9	1.3	-	-		0.0	23.4	17.0	59.6	-	-		0.0	11.6	18.6	69.8	-	-	-
Total %	0.0	0.8	40.7	1.1	-	42.7		0.0	0.9	50.1	0.7	-	51.7		0.0	0.7	0.5	1.8	-	2.9		0.0	0.3	0.5	1.9	-	2.7	-
PHF	0.000	0.813	0.925	0.750	-	0.922		0.000	0.625	0.935	0.688	-	0.934		0.000	0.917	0.500	0.778	-	0.839		0.000	0.625	0.667	0.682	-	0.768	0.960
Lights	-	12	639	18	-	669		0	15	784	11	-	810		0	11	8	28	-	47		0	5	8	30	-	43	1569
% Lights	-	92.3	98.2	100.0	-	98.1		-	100.0	98.0	100.0	-	98.1		-	100.0	100.0	100.0	-	100.0		-	100.0	100.0	100.0	-	100.0	98.2
Buses	0	0	3	0	-	3		0	0	3	0	-	3		0	0	0	0	-	0		0	0	0	0	-	0	6
% Buses	-	0.0	0.5	0.0	-	0.4		-	0.0	0.4	0.0	-	0.4		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	6	0	-	6		0	0	11	0	-	11		0	0	0	0	-	0		0	0	0	0	-	0	17
% Single-Unit Trucks	-	0.0	0.9	0.0	-	0.9		-	0.0	1.4	0.0	-	1.3		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	1.1
Articulated Trucks	0	0	3	0	-	3		0	0	2	0	-	2		0	0	0	0	-	0		0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.5	0.0	-	0.4		-	0.0	0.3	0.0	-	0.2		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	1	0	0	-	1		0	0	0	0	-	0		0	0	0	0	-	0		0	0	0	0	-	0	1
% Bicycles on Road	-	7.7	0.0	0.0	-	0.1		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0		-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	1	-		-	-	-	-	8	-		-	-	-	-	19	-		-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-		-	-	-	-	100.0	-	-

Site Plan



- NOTES:**
- 1. SITE BOUNDARY INFORMATION SHOWN IS TAKEN FROM GIS AND TAX MAP INFORMATION ONLY, SUBJECT TO SURVEY.**
 - 2. STORM WATER MANAGEMENT IS NOT SHOWN, TO BE DETERMINED.**

[illegible]

 CIVIL ENGINEERING
SURVEYING

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MGA WEST
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25620 S. GOUGAR RD. | MANHATTAN, IL 60442
www.mga2a.com

DESIGN: *BPH*

DRAWING: *BPH*

CHECKED: *###*

APPROVED: *###*

DRIVEN CAR WASH OAK PARK, ILLINOIS	CONCEPT PLAN
--	---------------------

SHEET NO.
1 OF **1**

JOB NO. 23-175

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ITE Trip Generation Summary Sheets

Land Use: 948

Automated Car Wash

Description

An automated car wash is a facility that allows for the mechanical cleaning of the exterior of vehicles. Manual cleaning service may also be available at the facility. Self-service car wash (Land Use 947) and car wash and detail center (Land Use 949) are related uses.

Additional Data

The sites were surveyed in the 1990s and the 2000s in New Jersey, New York, and Washington.

Source Numbers

552, 555, 585, 599, 954

Automated Car Wash (948)

Vehicle Trip Ends vs: Car Wash Tunnels

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 3

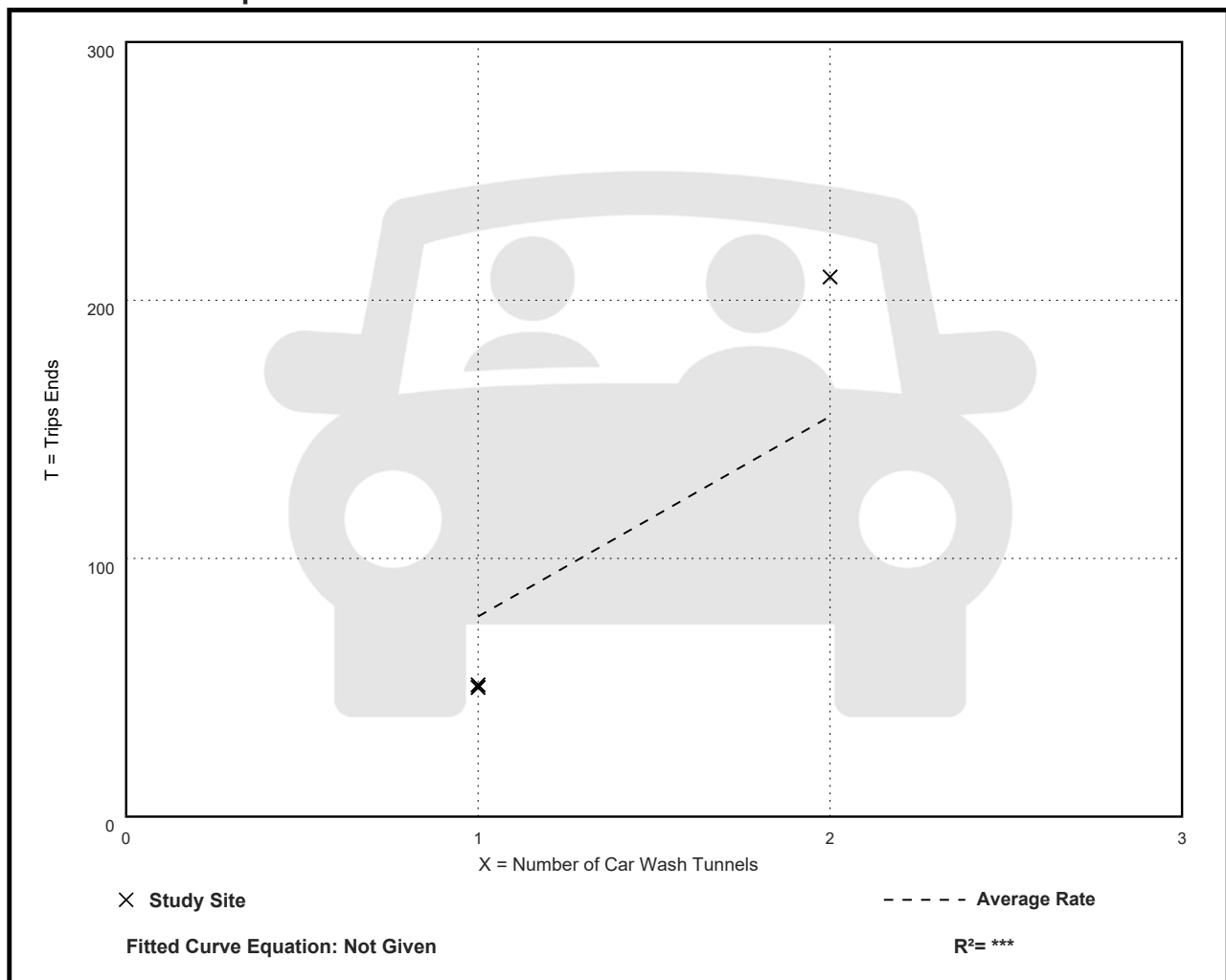
Avg. Num. of Car Wash Tunnels: 1

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

Data Plot and Equation



Automated Car Wash (948)

Vehicle Trip Ends vs: Car Wash Tunnels

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Car Wash Tunnels: 1

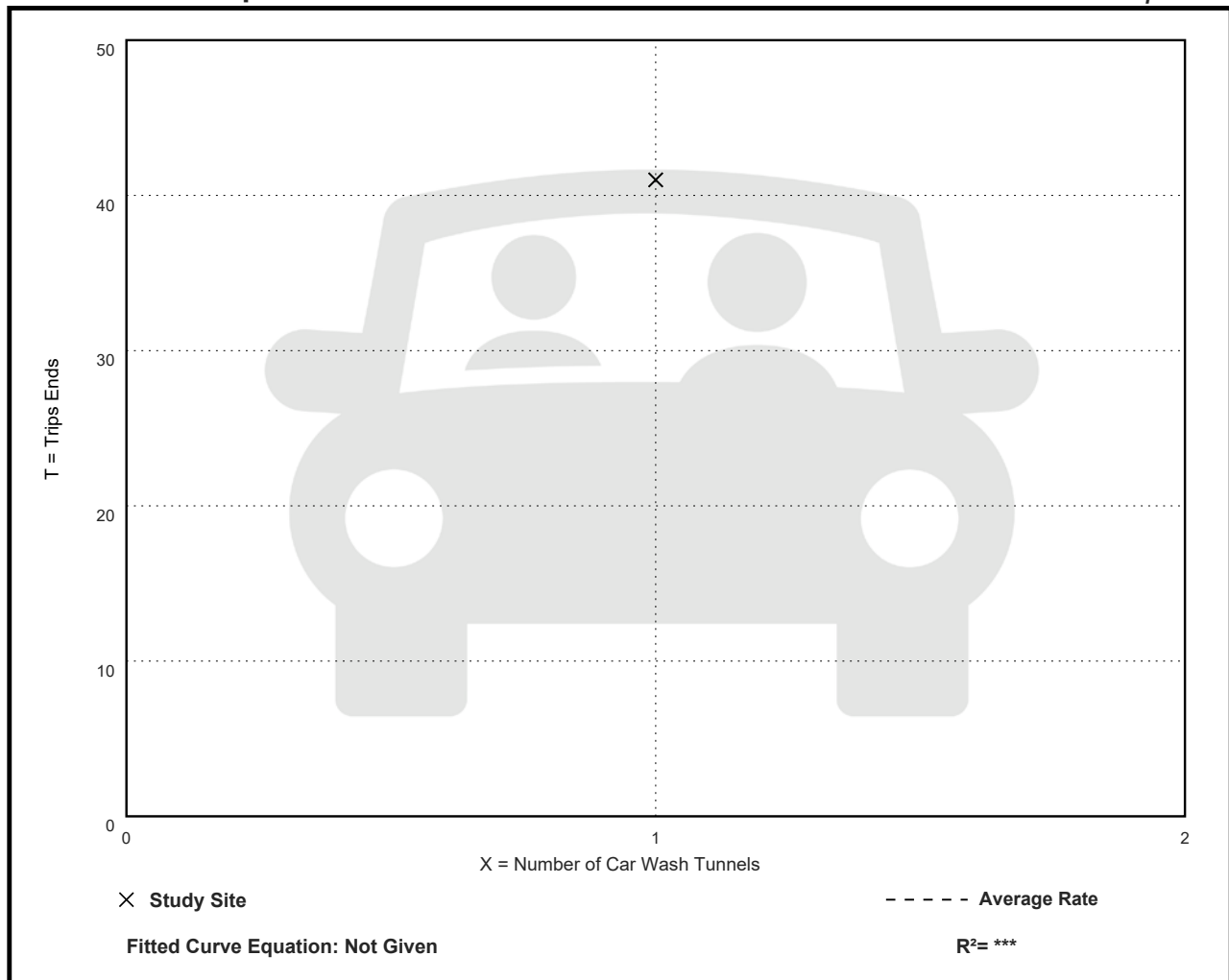
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
41.00	41.00 - 41.00	***

Data Plot and Equation

Caution – Small Sample Size



CMAP 2050 Projections Letter



August 10th, 2023

Shahrzad Ainkeshavarzi
Consultant
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: Roosevelt Rd @ Austin Blvd
IDOT

Dear Mr. Ainkeshavarzi:

In response to a request made on your behalf and dated August 10th, 2023, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT (2022)	Year 2050 ADT
Roosevelt Road west of Austin Boulevard	18,200	20,000
Roosevelt Road east of Austin Boulevard	16,200	18,700
Austin Boulevard north of Roosevelt Road	18,800	20,200
Austin Boulevard south of Roosevelt Road	15,600	17,700

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2022 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806 or email me at jrodriguez@cmap.illinois.gov

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
\\2023_TrafficForecasts\OakPark\ck-125-23\ck-125-23.docx

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
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: <i>Highway Capacity Manual</i> , 6 th Edition.		

Capacity Analysis Summary Sheets
Year 2023 Base Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	642	23	124	422	103	63	377	43	83	386	223
Future Volume (vph)	240	642	23	124	422	103	63	377	43	83	386	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.995			0.971			0.985			0.945	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1722	0	1787	1681	0	1770	1825	0	1770	3273	0
Flt Permitted	0.230			0.177			0.234			0.139		
Satd. Flow (perm)	433	1722	0	333	1681	0	433	1825	0	256	3273	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	5%	0%	1%	4%	6%	2%	1%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	242	671	0	125	530	0	64	424	0	84	615	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	21.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	21.0	56.0		13.0	48.0		13.0	33.0		13.0	33.0	
Total Split (%)	18.3%	48.7%		11.3%	41.7%		11.3%	28.7%		11.3%	28.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	66.9	52.7		59.1	48.0		37.6	28.3		38.4	28.7	
Actuated g/C Ratio	0.58	0.46		0.51	0.42		0.33	0.25		0.33	0.25	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.59	0.85		0.45	0.75		0.27	0.95		0.43	0.75	
Control Delay	18.4	40.8		17.3	38.3		27.1	74.8		31.3	47.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	40.8		17.3	38.3		27.1	74.8		31.3	47.1	
LOS	B	D		B	D		C	E		C	D	
Approach Delay		34.9			34.3			68.5			45.2	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	85	449		41	337		31	313		41	223	
Queue Length 95th (ft)	130	#684		70	#557		62	#523		76	296	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	459	788		293	702		254	448		211	815	
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	0.53	0.85		0.43	0.75		0.25	0.95		0.40	0.75	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 43.3

Intersection LOS: D

Intersection Capacity Utilization 86.0%

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: 1: Austin Boulevard & Roosevelt Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	56 s	13 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
21 s	48 s	13 s	33 s

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	26	1	9	2	4	3	8	37	1	1	20	3
Future Vol, veh/h	26	1	9	2	4	3	8	37	1	1	20	3
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	25	0	0	3	100	0	0	0
Mvmt Flow	37	1	13	3	6	4	11	53	1	1	29	4
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	7.4	7.1	7.4	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	72%	22%	4%
Vol Thru, %	80%	3%	44%	83%
Vol Right, %	2%	25%	33%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	46	36	9	24
LT Vol	8	26	2	1
Through Vol	37	1	4	20
RT Vol	1	9	3	3
Lane Flow Rate	66	51	13	34
Geometry Grp	1	1	1	1
Degree of Util (X)	0.074	0.058	0.014	0.038
Departure Headway (Hd)	4.059	4.075	3.956	3.994
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	880	874	897	892
Service Time	2.095	2.124	2.013	2.038
HCM Lane V/C Ratio	0.075	0.058	0.014	0.038
HCM Control Delay	7.4	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0	0.1

HCM 6th TWSC

3: Humphrey Avenue & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	3	0	2	1	37	0	0	27	0
Future Vol, veh/h	0	0	0	3	0	2	1	37	0	0	27	0
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	33	0	0	0	5	0	0	0	0
Mvmt Flow	0	0	0	3	0	2	1	42	0	0	31	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	77	76	35	78	76	42	32	0	0	42	0	0
Stage 1	32	32	-	44	44	-	-	-	-	-	-	-
Stage 2	45	44	-	34	32	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.43	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.797	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	917	818	1044	841	818	1034	1593	-	-	1580	-	-
Stage 1	990	872	-	897	862	-	-	-	-	-	-	-
Stage 2	974	862	-	908	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	913	816	1040	838	816	1034	1591	-	-	1580	-	-
Mov Cap-2 Maneuver	913	816	-	838	816	-	-	-	-	-	-	-
Stage 1	988	871	-	896	861	-	-	-	-	-	-	-
Stage 2	971	861	-	905	871	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		9			0.2			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1591	-	-	-	907	1580	-	-				
HCM Lane V/C Ratio	0.001	-	-	-	0.006	-	-	-				
HCM Control Delay (s)	7.3	0	-	0	9	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-				

HCM 6th TWSC
4: Austin Boulevard & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	4	0	718	2	1	691	0
Future Vol, veh/h	0	0	0	1	0	4	0	718	2	1	691	0
Conflicting Peds, #/hr	4	0	1	1	0	4	10	0	18	18	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	100	0	80	0	2	0	0	2	0
Mvmt Flow	0	0	0	1	0	4	0	740	2	1	712	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1471	1484	723	1474	1483	763	722	0	0	760	0	0
Stage 1	724	724	-	759	759	-	-	-	-	-	-	-
Stage 2	747	760	-	715	724	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.1	6.5	7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.4	4	4.02	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	106	126	430	64	126	302	889	-	-	861	-	-
Stage 1	420	433	-	281	418	-	-	-	-	-	-	-
Stage 2	408	417	-	300	433	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	103	122	425	63	122	296	881	-	-	846	-	-
Mov Cap-2 Maneuver	103	122	-	63	122	-	-	-	-	-	-	-
Stage 1	416	428	-	276	411	-	-	-	-	-	-	-
Stage 2	401	410	-	299	428	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	26.8	0	0
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	881	-	-	-	170	846	-
HCM Lane V/C Ratio	-	-	-	-	0.03	0.001	-
HCM Control Delay (s)	0	-	-	0	26.8	9.3	0
HCM Lane LOS	A	-	-	A	D	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

Capacity Analysis Summary Sheets
Year 2023 Base Weekday Morning Peak Hour
(Increased Volumes)

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	674	23	124	422	103	63	387	43	83	396	223
Future Volume (vph)	240	674	23	124	422	103	63	387	43	83	396	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.995			0.971			0.985			0.946	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1722	0	1787	1681	0	1770	1826	0	1770	3277	0
Flt Permitted	0.225			0.139			0.232			0.137		
Satd. Flow (perm)	423	1722	0	261	1681	0	430	1826	0	252	3277	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		4.5			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	5%	0%	1%	4%	6%	2%	1%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	242	704	0	125	530	0	64	434	0	84	625	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	21.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	21.0	56.0		13.0	48.0		13.0	33.0		13.0	33.0	
Total Split (%)	18.3%	48.7%		11.3%	41.7%		11.3%	28.7%		11.3%	28.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	66.4	52.0		58.5	47.4		38.2	28.9		39.0	29.3	
Actuated g/C Ratio	0.58	0.45		0.51	0.41		0.33	0.25		0.34	0.25	
v/c Ratio	0.60	0.90		0.51	0.77		0.27	0.95		0.43	0.75	
Control Delay	18.9	46.8		20.0	39.1		27.0	74.6		31.2	46.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.9	46.8		20.0	39.1		27.0	74.6		31.2	46.6	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	D		C	D		C	E		C	D	
Approach Delay		39.6			35.4			68.4			44.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	85	486		41	337		31	323		41	227	
Queue Length 95th (ft)	130	#738		70	#557		62	#538		76	#302	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	452	779		260	692		256	458		211	833	
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	0.54	0.90		0.48	0.77		0.25	0.95		0.40	0.75	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 45.1

Intersection LOS: D

Intersection Capacity Utilization 88.2%

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: 1: Austin Boulevard & Roosevelt Road

					
Ø1	Ø2 (R)		Ø3	Ø4	
13 s	56 s		13 s	33 s	
					
Ø5	Ø6 (R)		Ø7	Ø8	
21 s	48 s		13 s	33 s	

Capacity Analysis Summary Sheets
Year 2023 Base Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	461	60	62	503	78	61	311	42	68	452	210
Future Volume (vph)	216	461	60	62	503	78	61	311	42	68	452	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		1.00	0.99		0.98	0.99	
Frt		0.983			0.980			0.982			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1749	0	1805	1709	0	1805	1818	0	1787	3327	0
Flt Permitted	0.197			0.327			0.174			0.227		
Satd. Flow (perm)	374	1749	0	619	1709	0	329	1818	0	420	3327	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
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%	2%	0%	0%	3%	9%	0%	1%	2%	1%	1%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	537	0	64	599	0	63	364	0	70	682	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	15.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	15.0	54.0		13.0	52.0		13.0	35.0		13.0	35.0	
Total Split (%)	13.0%	47.0%		11.3%	45.2%		11.3%	30.4%		11.3%	30.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	67.7	56.5		61.1	51.2		37.0	27.8		37.4	28.0	
Actuated g/C Ratio	0.59	0.49		0.53	0.45		0.32	0.24		0.33	0.24	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.63	0.63		0.16	0.79		0.31	0.83		0.30	0.84	
Control Delay	20.6	28.3		12.8	38.2		27.1	58.2		26.9	51.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.6	28.3		12.8	38.2		27.1	58.2		26.9	51.9	
LOS	C	C		B	D		C	E		C	D	
Approach Delay		26.0			35.8			53.6			49.6	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	80	315		21	404		29	250		33	247	
Queue Length 95th (ft)	125	464		42	#617		59	#396		64	323	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	364	858		438	761		230	461		252	848	
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	0.61	0.63		0.15	0.79		0.27	0.79		0.28	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 39.9

Intersection LOS: D

Intersection Capacity Utilization 83.5%

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: 1: Austin Boulevard & Roosevelt Road

			
Ø1	Ø2 (R)	Ø3	Ø4
13 s	54 s	13 s	35 s
			
Ø5	Ø6 (R)	Ø7	Ø8
15 s	52 s	13 s	35 s

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	5	10	1	4	2	6	26	4	4	28	2
Future Vol, veh/h	8	5	10	1	4	2	6	26	4	4	28	2
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	7	14	1	5	3	8	35	5	5	38	3
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	7.1	7	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	35%	14%	12%
Vol Thru, %	72%	22%	57%	82%
Vol Right, %	11%	43%	29%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	23	7	34
LT Vol	6	8	1	4
Through Vol	26	5	4	28
RT Vol	4	10	2	2
Lane Flow Rate	49	31	9	46
Geometry Grp	1	1	1	1
Degree of Util (X)	0.054	0.033	0.01	0.051
Departure Headway (Hd)	3.972	3.879	3.945	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	902	918	902	897
Service Time	1.994	1.921	1.99	2.018
HCM Lane V/C Ratio	0.054	0.034	0.01	0.051
HCM Control Delay	7.2	7.1	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.2

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	0	0	1	3	31	2	0	38	0
Future Vol, veh/h	1	0	1	0	0	1	3	31	2	0	38	0
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	0	0	1	4	45	3	0	55	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	111	112	59	114	111	47	56	0	0	48	0	0
Stage 1	56	56	-	55	55	-	-	-	-	-	-	-
Stage 2	55	56	-	59	56	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	872	782	1012	868	783	1028	1562	-	-	1572	-	-
Stage 1	961	852	-	962	853	-	-	-	-	-	-	-
Stage 2	962	852	-	958	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	868	779	1008	862	780	1028	1561	-	-	1572	-	-
Mov Cap-2 Maneuver	868	779	-	862	780	-	-	-	-	-	-	-
Stage 1	957	851	-	959	850	-	-	-	-	-	-	-
Stage 2	958	849	-	954	851	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	8.9		8.5		0.6			0				
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1561	-	-	933 1028	1572	-	-					
HCM Lane V/C Ratio	0.003	-	-	0.003 0.001	-	-	-					
HCM Control Delay (s)	7.3	0	-	8.9 8.5	0	-	-					
HCM Lane LOS	A	A	-	A A	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0 0	0	-	-					

HCM 6th TWSC
4: Austin Boulevard & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	4	0	9	0	602	3	1	726	0
Future Vol, veh/h	0	0	0	4	0	9	0	602	3	1	726	0
Conflicting Peds, #/hr	4	0	1	1	0	4	10	0	18	18	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	0	0	0	4	0	10	0	647	3	1	781	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1451	1461	792	1451	1460	671	791	0	0	668	0	0
Stage 1	793	793	-	667	667	-	-	-	-	-	-	-
Stage 2	658	668	-	784	793	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	110	130	392	110	130	460	838	-	-	931	-	-
Stage 1	385	403	-	451	460	-	-	-	-	-	-	-
Stage 2	457	459	-	389	403	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	126	388	108	126	450	830	-	-	915	-	-
Mov Cap-2 Maneuver	106	126	-	108	126	-	-	-	-	-	-	-
Stage 1	381	398	-	443	452	-	-	-	-	-	-	-
Stage 2	445	451	-	388	398	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	21.8	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	830	-	-	- 228	915	-	-
HCM Lane V/C Ratio	-	-	-	- 0.061	0.001	-	-
HCM Control Delay (s)	0	-	-	0 21.8	8.9	0	-
HCM Lane LOS	A	-	-	A C	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	- 0.2	0	-	-

Capacity Analysis Summary Sheets
Year 2023 Base Weekday Evening Peak Hour
(Increased Volumes)

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	461	60	62	503	78	61	321	42	68	462	210
Future Volume (vph)	216	461	60	62	503	78	61	321	42	68	462	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		1.00	0.99		0.98	0.99	
Frt		0.983			0.980			0.983			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1749	0	1805	1709	0	1805	1820	0	1787	3332	0
Flt Permitted	0.197			0.325			0.169			0.214		
Satd. Flow (perm)	374	1749	0	615	1709	0	320	1820	0	396	3332	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		4.5			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
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
Heavy Vehicles (%)	0%	2%	0%	0%	3%	9%	0%	1%	2%	1%	1%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	537	0	64	599	0	63	374	0	70	692	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	15.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	15.0	54.0		13.0	52.0		13.0	35.0		13.0	35.0	
Total Split (%)	13.0%	47.0%		11.3%	45.2%		11.3%	30.4%		11.3%	30.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	67.5	56.3		60.9	51.1		37.2	28.0		37.6	28.2	
Actuated g/C Ratio	0.59	0.49		0.53	0.44		0.32	0.24		0.33	0.25	
v/c Ratio	0.63	0.63		0.16	0.79		0.31	0.85		0.31	0.85	
Control Delay	20.8	28.5		12.9	38.5		27.1	59.6		27.0	52.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.8	28.5		12.9	38.5		27.1	59.6		27.0	52.1	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C		B	D		C	E		C	D	
Approach Delay		26.2			36.0			54.9			49.8	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	80	317		21	404		29	258		33	250	
Queue Length 95th (ft)	125	464		42	#617		59	#413		64	#329	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	362	855		435	759		228	462		246	851	
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	0.62	0.63		0.15	0.79		0.28	0.81		0.28	0.81	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 40.3

Intersection LOS: D

Intersection Capacity Utilization 83.8%

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: 1: Austin Boulevard & Roosevelt Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	54 s	13 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
15 s	52 s	13 s	35 s

Capacity Analysis Summary Sheets
Year 2023 Base Saturday Midday Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	372	60	65	571	83	57	416	45	58	392	235
Future Volume (vph)	214	372	60	65	571	83	57	416	45	58	392	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		0.99	1.00		0.99	0.99		0.99	0.99	
Frt		0.979			0.981			0.985			0.944	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1741	0	1805	1751	0	1805	1814	0	1770	3314	0
Flt Permitted	0.094			0.384			0.246			0.137		
Satd. Flow (perm)	177	1741	0	726	1751	0	465	1814	0	253	3314	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	1%	4%	0%	2%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	218	441	0	66	668	0	58	470	0	59	640	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	13.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	13.0	50.0		13.0	50.0		13.0	34.0		13.0	34.0	
Total Split (%)	11.8%	45.5%		11.8%	45.5%		11.8%	30.9%		11.8%	30.9%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	59.0	48.9		54.4	44.5		39.6	30.6		39.8	30.7	
Actuated g/C Ratio	0.54	0.44		0.49	0.40		0.36	0.28		0.36	0.28	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.91	0.57		0.15	0.94		0.22	0.93		0.30	0.69	
Control Delay	63.2	27.8		13.0	55.1		23.1	66.6		25.0	40.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	63.2	27.8		13.0	55.1		23.1	66.6		25.0	40.7	
LOS	E	C		B	E		C	E		C	D	
Approach Delay		39.5			51.3			61.9			39.4	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	95	238		21	450		25	327		26	215	
Queue Length 95th (ft)	#249	356		43	#692		53	#554		53	287	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	240	773		466	709		287	504		225	924	
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	0.91	0.57		0.14	0.94		0.20	0.93		0.26	0.69	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 17 (15%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 47.3

Intersection LOS: D

Intersection Capacity Utilization 91.8%

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.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road

				
Ø1	Ø2 (R)		Ø3	Ø4
13 s	50 s		13 s	34 s
				
Ø5	Ø6 (R)		Ø7	Ø8
13 s	50 s		13 s	34 s

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection

Intersection Delay, s/veh 7.1
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	0	9	0	1	2	7	31	2	3	22	3
Future Vol, veh/h	11	0	9	0	1	2	7	31	2	3	22	3
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	0
Mvmt Flow	14	0	11	0	1	2	9	38	2	4	27	4
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	7	6.7	7.2	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	55%	0%	11%
Vol Thru, %	78%	0%	33%	79%
Vol Right, %	5%	45%	67%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	20	3	28
LT Vol	7	11	0	3
Through Vol	31	0	1	22
RT Vol	2	9	2	3
Lane Flow Rate	49	25	4	35
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.027	0.004	0.038
Departure Headway (Hd)	3.98	3.888	3.665	3.943
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	901	918	972	909
Service Time	1.998	1.924	1.704	1.964
HCM Lane V/C Ratio	0.054	0.027	0.004	0.039
HCM Control Delay	7.2	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.1

HCM 6th TWSC
2: 60th Court/Humphrey Avenue & Roosevelt Road

08/28/2023

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	588	17	19	829	15	23	17	51	7	8	19
Future Vol, veh/h	12	588	17	19	829	15	23	17	51	7	8	19
Conflicting Peds, #/hr	2	0	7	7	0	2	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	55	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	5	1	7	0	0	0	0	0	7
Mvmt Flow	13	646	19	21	911	16	25	19	56	8	9	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	929	0	0	672	0	0	1666	1660	663	1682	1661	922
Stage 1	-	-	-	-	-	-	689	689	-	963	963	-
Stage 2	-	-	-	-	-	-	977	971	-	719	698	-
Critical Hdwy	4.1	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.363
Pot Cap-1 Maneuver	744	-	-	905	-	-	78	98	465	76	98	321
Stage 1	-	-	-	-	-	-	439	450	-	310	337	-
Stage 2	-	-	-	-	-	-	304	334	-	423	445	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	743	-	-	899	-	-	68	93	462	60	93	320
Mov Cap-2 Maneuver	-	-	-	-	-	-	175	208	-	172	209	-
Stage 1	-	-	-	-	-	-	428	439	-	304	329	-
Stage 2	-	-	-	-	-	-	270	326	-	350	434	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			24.7			22.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	743	-	-	899	-	-	246
HCM Lane V/C Ratio	0.356	0.018	-	-	0.023	-	-	0.152
HCM Control Delay (s)	24.7	9.9	-	-	9.1	-	-	22.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0.1	-	-	0.5

Capacity Analysis Summary Sheets
Year 2029 No-Build Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	655	23	126	430	105	64	385	44	85	394	227
Future Volume (vph)	245	655	23	126	430	105	64	385	44	85	394	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.995			0.971			0.985			0.945	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1722	0	1787	1681	0	1770	1825	0	1770	3273	0
Flt Permitted	0.214			0.158			0.231			0.137		
Satd. Flow (perm)	403	1722	0	297	1681	0	428	1825	0	252	3273	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	5%	0%	1%	4%	6%	2%	1%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	247	685	0	127	540	0	65	433	0	86	627	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	21.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	21.0	56.0		13.0	48.0		13.0	33.0		13.0	33.0	
Total Split (%)	18.3%	48.7%		11.3%	41.7%		11.3%	28.7%		11.3%	28.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	66.5	52.1		58.4	47.3		38.1	28.8		38.9	29.2	
Actuated g/C Ratio	0.58	0.45		0.51	0.41		0.33	0.25		0.34	0.25	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.63	0.88		0.48	0.78		0.28	0.95		0.43	0.76	
Control Delay	19.7	43.7		18.7	40.1		27.1	75.0		31.4	46.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.7	43.7		18.7	40.1		27.1	75.0		31.4	46.9	
LOS	B	D		B	D		C	E		C	D	
Approach Delay		37.4			36.0			68.7			45.1	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	87	464		41	348		31	322		42	228	
Queue Length 95th (ft)	133	#707		71	#574		62	#538		78	#303	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	444	779		276	691		255	456		211	830	
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	0.56	0.88		0.46	0.78		0.25	0.95		0.41	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 44.6

Intersection LOS: D

Intersection Capacity Utilization 87.4%

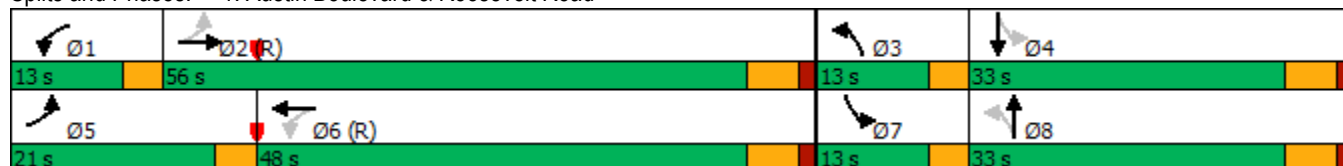
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	1	9	2	4	3	8	38	1	1	20	3
Future Vol, veh/h	27	1	9	2	4	3	8	38	1	1	20	3
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	25	0	0	3	100	0	0	0
Mvmt Flow	39	1	13	3	6	4	11	54	1	1	29	4
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	7.4	7.1	7.4	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	73%	22%	4%
Vol Thru, %	81%	3%	44%	83%
Vol Right, %	2%	24%	33%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	37	9	24
LT Vol	8	27	2	1
Through Vol	38	1	4	20
RT Vol	1	9	3	3
Lane Flow Rate	67	53	13	34
Geometry Grp	1	1	1	1
Degree of Util (X)	0.076	0.06	0.014	0.038
Departure Headway (Hd)	4.06	4.085	3.96	3.998
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	880	872	896	891
Service Time	2.099	2.134	2.019	2.043
HCM Lane V/C Ratio	0.076	0.061	0.015	0.038
HCM Control Delay	7.4	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0	0.1

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	3	0	2	1	38	0	0	28	0
Future Vol, veh/h	0	0	0	3	0	2	1	38	0	0	28	0
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	33	0	0	0	5	0	0	0	0
Mvmt Flow	0	0	0	3	0	2	1	43	0	0	32	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	79	78	36	80	78	43	33	0	0	43	0	0
Stage 1	33	33	-	45	45	-	-	-	-	-	-	-
Stage 2	46	45	-	35	33	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.43	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.797	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	914	816	1042	838	816	1033	1592	-	-	1579	-	-
Stage 1	988	872	-	896	861	-	-	-	-	-	-	-
Stage 2	973	861	-	907	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	910	814	1038	835	814	1033	1590	-	-	1579	-	-
Mov Cap-2 Maneuver	910	814	-	835	814	-	-	-	-	-	-	-
Stage 1	986	871	-	895	860	-	-	-	-	-	-	-
Stage 2	970	860	-	904	871	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		9			0.2			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1590	-	-	-	904	1579	-	-				
HCM Lane V/C Ratio	0.001	-	-	-	0.006	-	-	-				
HCM Control Delay (s)	7.3	0	-	0	9	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-				

HCM 6th TWSC
4: Austin Boulevard & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	4	0	732	2	1	705	0
Future Vol, veh/h	0	0	0	1	0	4	0	732	2	1	705	0
Conflicting Peds, #/hr	4	0	1	1	0	4	10	0	18	18	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	100	0	80	0	2	0	0	2	0
Mvmt Flow	0	0	0	1	0	4	0	755	2	1	727	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1501	1514	738	1504	1513	778	737	0	0	775	0	0
Stage 1	739	739	-	774	774	-	-	-	-	-	-	-
Stage 2	762	775	-	730	739	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.1	6.5	7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.4	4	4.02	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	101	121	421	61	121	295	878	-	-	850	-	-
Stage 1	412	427	-	275	411	-	-	-	-	-	-	-
Stage 2	400	411	-	293	427	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	98	117	417	60	117	289	870	-	-	835	-	-
Mov Cap-2 Maneuver	98	117	-	60	117	-	-	-	-	-	-	-
Stage 1	408	422	-	270	404	-	-	-	-	-	-	-
Stage 2	393	404	-	292	422	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		27.7		0		0					
HCM LOS	A		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	870	-	-	-	164	835	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.031	0.001	-	-				
HCM Control Delay (s)	0	-	-	0	27.7	9.3	0	-				
HCM Lane LOS	A	-	-	A	D	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-				

Capacity Analysis Summary Sheets
Year 2029 No-Build Weekday Morning Peak Hour
(Increased Volumes)

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

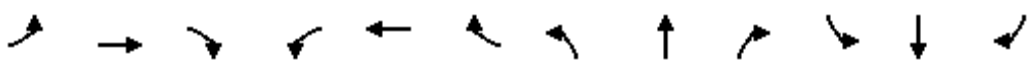
09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	687	23	126	430	105	64	395	44	85	404	227
Future Volume (vph)	245	687	23	126	430	105	64	395	44	85	404	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.995			0.971			0.985			0.946	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1722	0	1787	1681	0	1770	1826	0	1770	3278	0
Flt Permitted	0.209			0.121			0.229			0.134		
Satd. Flow (perm)	393	1722	0	228	1681	0	424	1826	0	247	3278	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		4.5			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	5%	0%	1%	4%	6%	2%	1%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	247	717	0	127	540	0	65	443	0	86	637	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	21.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	21.0	56.0		13.0	48.0		13.0	33.0		13.0	33.0	
Total Split (%)	18.3%	48.7%		11.3%	41.7%		11.3%	28.7%		11.3%	28.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	65.9	51.5		57.8	46.7		38.7	29.4		39.5	29.8	
Actuated g/C Ratio	0.57	0.45		0.50	0.41		0.34	0.26		0.34	0.26	
v/c Ratio	0.64	0.93		0.55	0.79		0.28	0.95		0.43	0.75	
Control Delay	20.3	50.9		23.7	41.0		27.1	74.8		31.4	46.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.3	50.9		23.7	41.0		27.1	74.8		31.4	46.5	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D		C	D		C	E		C	D	
Approach Delay		43.0			37.7			68.7			44.7	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	87	501		41	348		31	~349		42	233	
Queue Length 95th (ft)	133	#760		82	#574		62	#553		78	#314	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	437	770		245	682		256	466		211	848	
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	0.57	0.93		0.52	0.79		0.25	0.95		0.41	0.75	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 46.8

Intersection LOS: D

Intersection Capacity Utilization 89.6%

ICU Level of Service E

Analysis Period (min) 15

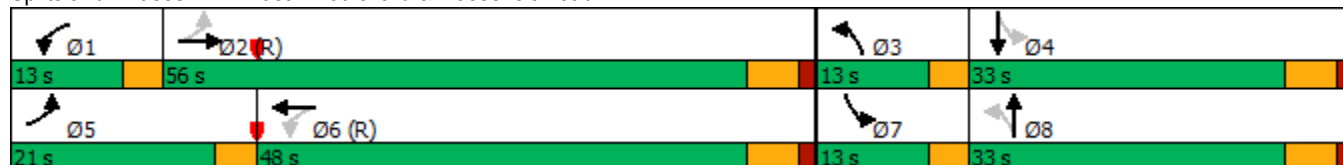
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



Capacity Analysis Summary Sheets
Year 2029 No-Build Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	470	61	63	513	80	62	317	43	69	461	214
Future Volume (vph)	220	470	61	63	513	80	62	317	43	69	461	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		1.00	0.99		0.98	0.99	
Frt		0.983			0.980			0.982			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1749	0	1805	1708	0	1805	1818	0	1787	3327	0
Flt Permitted	0.183			0.314			0.169			0.220		
Satd. Flow (perm)	348	1749	0	594	1708	0	320	1818	0	407	3327	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
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%	2%	0%	0%	3%	9%	0%	1%	2%	1%	1%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	548	0	65	611	0	64	371	0	71	696	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	15.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	15.0	54.0		13.0	52.0		13.0	35.0		13.0	35.0	
Total Split (%)	13.0%	47.0%		11.3%	45.2%		11.3%	30.4%		11.3%	30.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	67.4	56.1		60.7	50.8		37.3	28.1		37.7	28.3	
Actuated g/C Ratio	0.59	0.49		0.53	0.44		0.32	0.24		0.33	0.25	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.67	0.64		0.17	0.81		0.31	0.84		0.31	0.85	
Control Delay	22.5	29.0		13.0	39.9		27.2	58.7		26.9	52.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.5	29.0		13.0	39.9		27.2	58.7		26.9	52.3	
LOS	C	C		B	D		C	E		C	D	
Approach Delay		27.1			37.3			54.1			50.0	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	82	327		21	416		30	255		33	252	
Queue Length 95th (ft)	127	477		43	#638		60	#407		65	#334	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	349	853		424	755		228	461		249	850	
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	0.65	0.64		0.15	0.81		0.28	0.80		0.29	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 40.7

Intersection LOS: D

Intersection Capacity Utilization 84.6%

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: 1: Austin Boulevard & Roosevelt Road

			
Ø1	Ø2 (R)	Ø3	Ø4
13 s	54 s	13 s	35 s
			
Ø5	Ø6 (R)	Ø7	Ø8
15 s	52 s	13 s	35 s

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	5	10	1	4	2	6	27	4	4	29	2
Future Vol, veh/h	8	5	10	1	4	2	6	27	4	4	29	2
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	7	14	1	5	3	8	36	5	5	39	3
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	7.1	7	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	35%	14%	11%
Vol Thru, %	73%	22%	57%	83%
Vol Right, %	11%	43%	29%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	23	7	35
LT Vol	6	8	1	4
Through Vol	27	5	4	29
RT Vol	4	10	2	2
Lane Flow Rate	50	31	9	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.034	0.01	0.053
Departure Headway (Hd)	3.974	3.883	3.949	3.996
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	901	917	901	896
Service Time	1.999	1.927	1.996	2.021
HCM Lane V/C Ratio	0.055	0.034	0.01	0.052
HCM Control Delay	7.2	7.1	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.2

HCM 6th TWSC

3: Humphrey Avenue & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	0	0	1	3	32	2	0	39	0
Future Vol, veh/h	1	0	1	0	0	1	3	32	2	0	39	0
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	0	0	1	4	46	3	0	57	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	114	115	61	117	114	48	58	0	0	49	0	0
Stage 1	58	58	-	56	56	-	-	-	-	-	-	-
Stage 2	56	57	-	61	58	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	868	779	1010	864	780	1027	1559	-	-	1571	-	-
Stage 1	959	851	-	961	852	-	-	-	-	-	-	-
Stage 2	961	851	-	955	851	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	864	776	1006	858	777	1027	1558	-	-	1571	-	-
Mov Cap-2 Maneuver	864	776	-	858	777	-	-	-	-	-	-	-
Stage 1	955	850	-	958	849	-	-	-	-	-	-	-
Stage 2	957	848	-	951	850	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	8.9		8.5		0.6			0				
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1558	-	-	930 1027	1571	-	-					
HCM Lane V/C Ratio	0.003	-	-	0.003 0.001	-	-	-					
HCM Control Delay (s)	7.3	0	-	8.9 8.5	0	-	-					
HCM Lane LOS	A	A	-	A A	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0 0	0	-	-					

HCM 6th TWSC

4: Austin Boulevard & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	4	0	9	0	614	3	1	741	0
Future Vol, veh/h	0	0	0	4	0	9	0	614	3	1	741	0
Conflicting Peds, #/hr	4	0	1	1	0	4	10	0	18	18	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	0	0	0	4	0	10	0	660	3	1	797	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1480	1490	808	1480	1489	684	807	0	0	681	0	0
Stage 1	809	809	-	680	680	-	-	-	-	-	-	-
Stage 2	671	681	-	800	809	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	105	125	384	105	125	452	827	-	-	921	-	-
Stage 1	377	396	-	444	454	-	-	-	-	-	-	-
Stage 2	449	453	-	382	396	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	121	380	103	121	443	819	-	-	905	-	-
Mov Cap-2 Maneuver	101	121	-	103	121	-	-	-	-	-	-	-
Stage 1	373	391	-	436	446	-	-	-	-	-	-	-
Stage 2	438	445	-	381	391	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		22.5		0		0					
HCM LOS	A		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	819	-	-	-	220	905	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.064	0.001	-	-				
HCM Control Delay (s)	0	-	-	0	22.5	9	0	-				
HCM Lane LOS	A	-	-	A	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-				

Capacity Analysis Summary Sheets
Year 2029 No-Build Weekday Evening Peak Hour
(Increased Volumes)

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	470	61	63	513	80	62	327	43	69	471	214
Future Volume (vph)	220	470	61	63	513	80	62	327	43	69	471	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		1.00	0.99		0.98	0.99	
Frt		0.983			0.980			0.983			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1749	0	1805	1708	0	1805	1820	0	1787	3332	0
Flt Permitted	0.182			0.313			0.162			0.205		
Satd. Flow (perm)	346	1749	0	592	1708	0	306	1820	0	380	3332	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		4.5			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
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
Heavy Vehicles (%)	0%	2%	0%	0%	3%	9%	0%	1%	2%	1%	1%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	548	0	65	611	0	64	381	0	71	707	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	15.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	15.0	54.0		13.0	52.0		13.0	35.0		13.0	35.0	
Total Split (%)	13.0%	47.0%		11.3%	45.2%		11.3%	30.4%		11.3%	30.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	67.3	56.0		60.6	50.7		37.4	28.2		37.9	28.4	
Actuated g/C Ratio	0.59	0.49		0.53	0.44		0.33	0.25		0.33	0.25	
v/c Ratio	0.67	0.64		0.17	0.81		0.32	0.86		0.32	0.86	
Control Delay	22.7	29.1		13.0	40.1		27.3	60.5		27.1	52.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.7	29.1		13.0	40.1		27.3	60.5		27.1	52.9	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C		B	D		C	E		C	D	
Approach Delay		27.2			37.5			55.7			50.6	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	82	327		21	416		30	264		33	257	
Queue Length 95th (ft)	127	477		43	#638		60	#425		65	#354	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	348	851		422	752		225	462		243	851	
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	0.65	0.64		0.15	0.81		0.28	0.82		0.29	0.83	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 41.4

Intersection LOS: D

Intersection Capacity Utilization 84.9%

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: 1: Austin Boulevard & Roosevelt Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	54 s	13 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
15 s	52 s	13 s	35 s

Capacity Analysis Summary Sheets
Year 2029 No-Build Saturday Midday Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	218	379	61	66	582	85	58	424	46	59	400	240
Future Volume (vph)	218	379	61	66	582	85	58	424	46	59	400	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.979			0.981			0.985			0.944	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1741	0	1805	1751	0	1805	1814	0	1770	3314	0
Flt Permitted	0.085			0.371			0.242			0.134		
Satd. Flow (perm)	160	1741	0	701	1751	0	457	1814	0	247	3314	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	1%	4%	0%	2%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	449	0	67	681	0	59	480	0	60	653	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	13.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	13.0	50.0		13.0	50.0		13.0	34.0		13.0	34.0	
Total Split (%)	11.8%	45.5%		11.8%	45.5%		11.8%	30.9%		11.8%	30.9%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	58.4	48.3		53.9	44.0		40.2	31.2		40.4	31.3	
Actuated g/C Ratio	0.53	0.44		0.49	0.40		0.37	0.28		0.37	0.28	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.96	0.59		0.16	0.97		0.23	0.93		0.30	0.69	
Control Delay	77.8	28.4		13.1	61.4		23.2	66.6		25.1	40.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	77.8	28.4		13.1	61.4		23.2	66.6		25.1	40.5	
LOS	E	C		B	E		C	E		C	D	
Approach Delay		44.8			57.1			61.9			39.2	
Approach LOS		D			E			E			D	
Queue Length 50th (ft)	105	243		22	465		26	338		26	220	
Queue Length 95th (ft)	#267	364		43	#713		53	#569		54	294	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	231	763		452	700		287	514		224	942	
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	0.96	0.59		0.15	0.97		0.21	0.93		0.27	0.69	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 17 (15%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 50.2

Intersection LOS: D

Intersection Capacity Utilization 93.2%

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.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road

				
Ø1	Ø2 (R)		Ø3	Ø4
13 s	50 s		13 s	34 s
				
Ø5	Ø6 (R)		Ø7	Ø8
13 s	50 s		13 s	34 s

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	0	9	0	1	2	7	32	2	3	22	3
Future Vol, veh/h	11	0	9	0	1	2	7	32	2	3	22	3
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	0
Mvmt Flow	14	0	11	0	1	2	9	40	2	4	27	4
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	7	6.7	7.2	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	55%	0%	11%
Vol Thru, %	78%	0%	33%	79%
Vol Right, %	5%	45%	67%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	20	3	28
LT Vol	7	11	0	3
Through Vol	32	0	1	22
RT Vol	2	9	2	3
Lane Flow Rate	51	25	4	35
Geometry Grp	1	1	1	1
Degree of Util (X)	0.056	0.027	0.004	0.038
Departure Headway (Hd)	3.98	3.89	3.666	3.944
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	901	917	971	908
Service Time	1.998	1.926	1.706	1.965
HCM Lane V/C Ratio	0.057	0.027	0.004	0.039
HCM Control Delay	7.2	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.1

HCM 6th TWSC
2: 60th Court/Humphrey Avenue & Roosevelt Road

08/28/2023

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	600	17	19	846	15	23	17	52	7	8	19
Future Vol, veh/h	12	600	17	19	846	15	23	17	52	7	8	19
Conflicting Peds, #/hr	2	0	7	7	0	2	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	55	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	5	1	7	0	0	0	0	0	7
Mvmt Flow	13	659	19	21	930	16	25	19	57	8	9	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	948	0	0	685	0	0	1698	1692	676	1715	1693	941
Stage 1	-	-	-	-	-	-	702	702	-	982	982	-
Stage 2	-	-	-	-	-	-	996	990	-	733	711	-
Critical Hdwy	4.1	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.363
Pot Cap-1 Maneuver	732	-	-	895	-	-	74	94	457	72	94	312
Stage 1	-	-	-	-	-	-	432	443	-	302	330	-
Stage 2	-	-	-	-	-	-	297	327	-	415	439	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	731	-	-	889	-	-	64	89	454	57	89	311
Mov Cap-2 Maneuver	-	-	-	-	-	-	170	202	-	166	204	-
Stage 1	-	-	-	-	-	-	422	432	-	296	321	-
Stage 2	-	-	-	-	-	-	263	318	-	341	428	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			25.5			22.8		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	275	731	-	-	889	-	-	239				
HCM Lane V/C Ratio	0.368	0.018	-	-	0.023	-	-	0.156				
HCM Control Delay (s)	25.5	10	-	-	9.1	-	-	22.8				
HCM Lane LOS	D	B	-	-	A	-	-	C				
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0.1	-	-	0.5				

Capacity Analysis Summary Sheets
Year 2029 Total Projected Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	248	658	24	126	433	105	65	385	44	85	394	230
Future Volume (vph)	248	658	24	126	433	105	65	385	44	85	394	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.995			0.971			0.985			0.945	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1722	0	1787	1681	0	1770	1825	0	1770	3273	0
Flt Permitted	0.211			0.155			0.227			0.137		
Satd. Flow (perm)	397	1722	0	292	1681	0	420	1825	0	252	3273	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	5%	0%	1%	4%	6%	2%	1%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	251	689	0	127	543	0	66	433	0	86	630	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	21.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	21.0	56.0		13.0	48.0		13.0	33.0		13.0	33.0	
Total Split (%)	18.3%	48.7%		11.3%	41.7%		11.3%	28.7%		11.3%	28.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	66.5	52.1		58.3	47.2		38.1	28.8		38.9	29.2	
Actuated g/C Ratio	0.58	0.45		0.51	0.41		0.33	0.25		0.34	0.25	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.64	0.88		0.49	0.79		0.28	0.95		0.43	0.76	
Control Delay	20.1	44.3		19.0	40.5		27.3	75.0		31.4	47.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.1	44.3		19.0	40.5		27.3	75.0		31.4	47.1	
LOS	C	D		B	D		C	E		C	D	
Approach Delay		37.9			36.4			68.6			45.2	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	88	469		41	351		32	322		42	230	
Queue Length 95th (ft)	135	#715		71	#577		63	#538		78	#307	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	441	779		273	690		253	456		211	829	
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	0.57	0.88		0.47	0.79		0.26	0.95		0.41	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 44.8

Intersection LOS: D

Intersection Capacity Utilization 87.6%

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: 1: Austin Boulevard & Roosevelt Road

					
Ø1	Ø2 (R)		Ø3	Ø4	
13 s	56 s		13 s	33 s	
					
Ø5	Ø6 (R)		Ø7	Ø8	
21 s	48 s		13 s	33 s	

HCM 6th AWSC

5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	1	9	2	4	3	8	39	1	1	21	3
Future Vol, veh/h	27	1	9	2	4	3	8	39	1	1	21	3
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	25	0	0	3	100	0	0	0
Mvmt Flow	39	1	13	3	6	4	11	56	1	1	30	4
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	7.4	7.1	7.4	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	73%	22%	4%
Vol Thru, %	81%	3%	44%	84%
Vol Right, %	2%	24%	33%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	37	9	25
LT Vol	8	27	2	1
Through Vol	39	1	4	21
RT Vol	1	9	3	3
Lane Flow Rate	69	53	13	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.077	0.06	0.014	0.04
Departure Headway (Hd)	4.062	4.091	3.966	4.002
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	879	871	895	890
Service Time	2.1	2.14	2.024	2.047
HCM Lane V/C Ratio	0.078	0.061	0.015	0.04
HCM Control Delay	7.4	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0	0.1

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	3	0	2	0	39	0	0	29	0
Future Vol, veh/h	0	0	0	3	0	2	0	39	0	0	29	0
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	33	0	0	0	5	0	0	0	0
Mvmt Flow	0	0	0	3	0	2	0	44	0	0	33	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	79	78	37	80	78	44	34	0	0	44	0	0
Stage 1	34	34	-	44	44	-	-	-	-	-	-	-
Stage 2	45	44	-	36	34	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.43	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.797	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	914	816	1041	838	816	1032	1591	-	-	1577	-	-
Stage 1	987	871	-	897	862	-	-	-	-	-	-	-
Stage 2	974	862	-	906	871	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	911	815	1037	835	815	1032	1589	-	-	1577	-	-
Mov Cap-2 Maneuver	911	815	-	835	815	-	-	-	-	-	-	-
Stage 1	986	870	-	897	862	-	-	-	-	-	-	-
Stage 2	972	862	-	903	870	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	0		9		0			0				
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1589	-	-	-	904	1577	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-	-				
HCM Control Delay (s)	0	-	-	0	9	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-				

HCM 6th TWSC
4: Austin Boulevard & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	4	0	735	2	1	708	0
Future Vol, veh/h	0	0	0	1	0	4	0	735	2	1	708	0
Conflicting Peds, #/hr	4	0	1	1	0	4	10	0	18	18	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	100	0	80	0	2	0	0	2	0
Mvmt Flow	0	0	0	1	0	4	0	758	2	1	730	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1507	1520	741	1510	1519	781	740	0	0	778	0	0
Stage 1	742	742	-	777	777	-	-	-	-	-	-	-
Stage 2	765	778	-	733	742	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.1	6.5	7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.4	4	4.02	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	100	120	420	60	120	294	876	-	-	848	-	-
Stage 1	411	425	-	274	410	-	-	-	-	-	-	-
Stage 2	399	410	-	292	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	97	117	416	59	117	288	868	-	-	833	-	-
Mov Cap-2 Maneuver	97	117	-	59	117	-	-	-	-	-	-	-
Stage 1	407	420	-	269	403	-	-	-	-	-	-	-
Stage 2	392	403	-	291	420	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		28		0		0					
HCM LOS	A		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	868	-	-	-	162	833	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.032	0.001	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	28	9.3	0	-	-	-	-	-
HCM Lane LOS	A	-	-	A	D	A	A	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-	-	-	-	-

Capacity Analysis Summary Sheets
Year 2029 Total Projected Weekday Morning Peak Hour
(Increased Volumes)

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	248	690	24	126	433	105	65	395	44	85	404	230
Future Volume (vph)	248	690	24	126	433	105	65	395	44	85	404	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.995			0.971			0.985			0.946	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1722	0	1787	1681	0	1770	1826	0	1770	3277	0
Flt Permitted	0.205			0.117			0.225			0.134		
Satd. Flow (perm)	386	1722	0	220	1681	0	417	1826	0	247	3277	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		4.5			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	5%	0%	1%	4%	6%	2%	1%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	251	721	0	127	543	0	66	443	0	86	640	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	21.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	21.0	56.0		13.0	48.0		13.0	33.0		13.0	33.0	
Total Split (%)	18.3%	48.7%		11.3%	41.7%		11.3%	28.7%		11.3%	28.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	65.9	51.5		57.7	46.6		38.7	29.4		39.5	29.8	
Actuated g/C Ratio	0.57	0.45		0.50	0.41		0.34	0.26		0.34	0.26	
v/c Ratio	0.65	0.94		0.56	0.80		0.28	0.95		0.43	0.75	
Control Delay	20.8	51.7		24.6	41.4		27.2	74.8		31.4	46.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.8	51.7		24.6	41.4		27.2	74.8		31.4	46.6	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D		C	D		C	E		C	D	
Approach Delay		43.7			38.3			68.7			44.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	88	506		41	351		32	~349		42	234	
Queue Length 95th (ft)	135	#766		84	#577		63	#553		78	#325	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	435	770		241	680		255	466		211	848	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.94		0.53	0.80		0.26	0.95		0.41	0.75	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 47.1

Intersection LOS: D

Intersection Capacity Utilization 89.8%

ICU Level of Service E

Analysis Period (min) 15

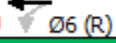
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road

			
13 s	56 s	13 s	33 s
			
21 s	48 s	13 s	33 s

Capacity Analysis Summary Sheets
Year 2029 Total Projected Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	480	65	63	523	80	66	317	43	69	461	222
Future Volume (vph)	228	480	65	63	523	80	66	317	43	69	461	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		1.00	0.99		0.98	0.99	
Frt		0.982			0.980			0.982			0.951	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1747	0	1805	1709	0	1805	1818	0	1787	3322	0
Flt Permitted	0.172			0.301			0.163			0.222		
Satd. Flow (perm)	327	1747	0	570	1709	0	308	1818	0	411	3322	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
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%	2%	0%	0%	3%	9%	0%	1%	2%	1%	1%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	562	0	65	621	0	68	371	0	71	704	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	15.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	15.0	54.0		13.0	52.0		13.0	35.0		13.0	35.0	
Total Split (%)	13.0%	47.0%		11.3%	45.2%		11.3%	30.4%		11.3%	30.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	67.3	56.0		60.3	50.5		37.5	28.2		37.8	28.3	
Actuated g/C Ratio	0.59	0.49		0.52	0.44		0.33	0.25		0.33	0.25	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.66		0.17	0.83		0.33	0.83		0.31	0.86	
Control Delay	25.4	29.7		13.1	41.5		27.7	58.1		26.8	53.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.4	29.7		13.1	41.5		27.7	58.1		26.8	53.2	
LOS	C	C		B	D		C	E		C	D	
Approach Delay		28.5			38.8			53.4			50.7	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	85	339		21	427		32	255		33	256	
Queue Length 95th (ft)	#156	495		43	#653		63	#407		65	#343	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	340	850		411	749		226	461		251	846	
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	0.69	0.66		0.16	0.83		0.30	0.80		0.28	0.83	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 41.5

Intersection LOS: D

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: 1: Austin Boulevard & Roosevelt Road

			
Ø1	Ø2 (R)	Ø3	Ø4
13 s	54 s	13 s	35 s
			
Ø5	Ø6 (R)	Ø7	Ø8
15 s	52 s	13 s	35 s

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	5	10	1	4	2	6	31	4	4	33	2
Future Vol, veh/h	8	5	10	1	4	2	6	31	4	4	33	2
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	7	14	1	5	3	8	42	5	5	45	3
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	7.1	7.1	7.3	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	35%	14%	10%
Vol Thru, %	76%	22%	57%	85%
Vol Right, %	10%	43%	29%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	23	7	39
LT Vol	6	8	1	4
Through Vol	31	5	4	33
RT Vol	4	10	2	2
Lane Flow Rate	55	31	9	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.061	0.034	0.01	0.059
Departure Headway (Hd)	3.981	3.902	3.968	4.002
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	899	912	896	894
Service Time	2.007	1.95	2.02	2.028
HCM Lane V/C Ratio	0.061	0.034	0.01	0.059
HCM Control Delay	7.3	7.1	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.2

HCM 6th TWSC

3: Humphrey Avenue & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	0	0	1	3	36	2	0	43	0
Future Vol, veh/h	1	0	1	0	0	1	3	36	2	0	43	0
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	0	0	1	4	52	3	0	62	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	125	126	66	128	125	54	63	0	0	55	0	0
Stage 1	63	63	-	62	62	-	-	-	-	-	-	-
Stage 2	62	63	-	66	63	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	854	768	1003	850	769	1019	1553	-	-	1563	-	-
Stage 1	953	846	-	954	847	-	-	-	-	-	-	-
Stage 2	954	846	-	950	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	850	765	999	844	766	1019	1552	-	-	1563	-	-
Mov Cap-2 Maneuver	850	765	-	844	766	-	-	-	-	-	-	-
Stage 1	949	845	-	951	844	-	-	-	-	-	-	-
Stage 2	950	843	-	946	845	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.9		8.5		0.5		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1552	-	-	918	1019	1563	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.003	0.001	-	-	-				
HCM Control Delay (s)	7.3	0	-	8.9	8.5	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

HCM 6th TWSC
4: Austin Boulevard & EW Alley

09/13/2023

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	9	0	622	3	1	749	0
Future Vol, veh/h	0	0	0	4	0	9	0	622	3	1	749	0
Conflicting Peds, #/hr	4	0	1	1	0	4	10	0	18	18	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	0	0	0	4	0	10	0	669	3	1	805	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1497	1507	816	1497	1506	693	815	0	0	690	0	0
Stage 1	817	817	-	689	689	-	-	-	-	-	-	-
Stage 2	680	690	-	808	817	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	102	122	380	102	122	447	821	-	-	914	-	-
Stage 1	373	393	-	439	450	-	-	-	-	-	-	-
Stage 2	444	449	-	378	393	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	98	118	376	100	118	438	813	-	-	898	-	-
Mov Cap-2 Maneuver	98	118	-	100	118	-	-	-	-	-	-	-
Stage 1	369	388	-	432	442	-	-	-	-	-	-	-
Stage 2	433	441	-	377	388	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		22.9			0			0			
HCM LOS	A		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	813	-	-	-	215	898	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.065	0.001	-	-				
HCM Control Delay (s)	0	-	-	0	22.9	9	0	-				
HCM Lane LOS	A	-	-	A	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-				

Capacity Analysis Summary Sheets
Year 2029 Total Projected Weekday Evening Peak Hour
(Increased Volumes)

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	480	65	63	523	80	66	327	43	69	471	222
Future Volume (vph)	228	480	65	63	523	80	66	327	43	69	471	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		1.00	0.99		0.98	0.99	
Frt		0.982			0.980			0.983			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1747	0	1805	1709	0	1805	1820	0	1787	3327	0
Flt Permitted	0.169			0.299			0.158			0.210		
Satd. Flow (perm)	321	1747	0	566	1709	0	299	1820	0	389	3327	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		4.5			7.2			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
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
Heavy Vehicles (%)	0%	2%	0%	0%	3%	9%	0%	1%	2%	1%	1%	3%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	562	0	65	621	0	68	381	0	71	715	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	15.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	15.0	54.0		13.0	52.0		13.0	35.0		13.0	35.0	
Total Split (%)	13.0%	47.0%		11.3%	45.2%		11.3%	30.4%		11.3%	30.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	67.0	55.7		60.0	50.1		37.9	28.5		38.1	28.6	
Actuated g/C Ratio	0.58	0.48		0.52	0.44		0.33	0.25		0.33	0.25	
v/c Ratio	0.71	0.67		0.17	0.83		0.33	0.84		0.31	0.86	
Control Delay	26.2	29.9		13.1	42.0		27.7	59.2		27.0	53.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.2	29.9		13.1	42.0		27.7	59.2		27.0	53.2	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C		B	D		C	E		C	D	
Approach Delay		28.8			39.3			54.4			50.8	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	85	339		21	427		32	264		33	262	
Queue Length 95th (ft)	#160	495		43	#653		63	#425		65	#361	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	336	845		407	744		225	462		246	848	
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	0.70	0.67		0.16	0.83		0.30	0.82		0.29	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 42.0

Intersection LOS: D

Intersection Capacity Utilization 85.9%

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: 1: Austin Boulevard & Roosevelt Road

			
Ø1	Ø2 (R)	Ø3	Ø4
13 s	54 s	13 s	35 s
			
Ø5	Ø6 (R)	Ø7	Ø8
15 s	52 s	13 s	35 s

Capacity Analysis Summary Sheets
Year 2029 Total Projected Saturday Midday Peak Hour

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	384	63	66	587	85	60	424	46	63	400	244
Future Volume (vph)	222	384	63	66	587	85	60	424	46	63	400	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	170		0	140		0	140		0	90		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	35			95			40			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor		1.00		1.00	1.00		0.99	0.99		0.99	0.99	
Frt		0.979			0.981			0.985			0.943	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1741	0	1805	1751	0	1805	1814	0	1770	3310	0
Flt Permitted	0.085			0.364			0.239			0.132		
Satd. Flow (perm)	160	1741	0	688	1751	0	452	1814	0	243	3310	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			20			30			30	
Link Distance (ft)		200			318			255			158	
Travel Time (s)		6.8			10.8			5.8			3.6	
Confl. Peds. (#/hr)	2		10	10		2	8		17	17		8
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	1%	4%	0%	2%	0%	2%	1%	1%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	2	0	0	2	0
Parking (#/hr)		10	10		10	10						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	456	0	67	686	0	61	480	0	64	657	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	5.0	
Minimum Split (s)	13.0	30.0		6.5	30.0		6.5	31.0		6.5	31.0	
Total Split (s)	13.0	50.0		13.0	50.0		13.0	34.0		13.0	34.0	
Total Split (%)	11.8%	45.5%		11.8%	45.5%		11.8%	30.9%		11.8%	30.9%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	58.4	48.3		53.9	44.0		40.2	31.1		40.4	31.2	
Actuated g/C Ratio	0.53	0.44		0.49	0.40		0.37	0.28		0.37	0.28	

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

09/13/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.98	0.60		0.16	0.98		0.24	0.94		0.32	0.70	
Control Delay	83.4	28.7		13.2	63.0		23.3	67.1		25.6	40.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	83.4	28.7		13.2	63.0		23.3	67.1		25.6	40.7	
LOS	F	C		B	E		C	E		C	D	
Approach Delay		46.9			58.6			62.1			39.4	
Approach LOS		D			E			E			D	
Queue Length 50th (ft)	~111	248		22	470		27	338		28	222	
Queue Length 95th (ft)	#276	372		43	#720		55	#569		57	296	
Internal Link Dist (ft)		120			238			175			78	
Turn Bay Length (ft)	170			140			140			90		
Base Capacity (vph)	231	763		446	700		286	513		223	939	
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	0.98	0.60		0.15	0.98		0.21	0.94		0.29	0.70	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 17 (15%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 51.2

Intersection LOS: D

Intersection Capacity Utilization 93.8%

ICU Level of Service F

Analysis Period (min) 15

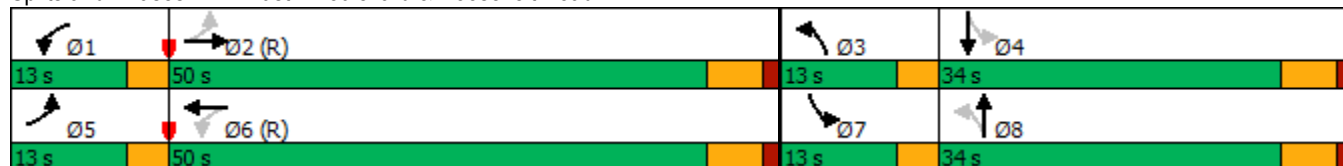
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

08/11/2023

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	0	9	0	1	2	7	34	2	3	24	3
Future Vol, veh/h	11	0	9	0	1	2	7	34	2	3	24	3
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	0
Mvmt Flow	14	0	11	0	1	2	9	42	2	4	30	4
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	7	6.7	7.3	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	55%	0%	10%
Vol Thru, %	79%	0%	33%	80%
Vol Right, %	5%	45%	67%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	20	3	30
LT Vol	7	11	0	3
Through Vol	34	0	1	24
RT Vol	2	9	2	3
Lane Flow Rate	53	25	4	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.059	0.027	0.004	0.041
Departure Headway (Hd)	3.981	3.898	3.674	3.949
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	901	915	969	907
Service Time	2	1.938	1.717	1.971
HCM Lane V/C Ratio	0.059	0.027	0.004	0.041
HCM Control Delay	7.3	7	6.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.1

HCM 6th TWSC
2: 60th Court/Humphrey Avenue & Roosevelt Road

08/28/2023

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	606	17	20	854	17	23	17	53	9	8	19
Future Vol, veh/h	12	606	17	20	854	17	23	17	53	9	8	19
Conflicting Peds, #/hr	2	0	7	7	0	2	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	55	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	5	1	7	0	0	0	0	0	7
Mvmt Flow	13	666	19	22	938	19	25	19	58	10	9	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	959	0	0	692	0	0	1717	1712	683	1734	1712	951
Stage 1	-	-	-	-	-	-	709	709	-	994	994	-
Stage 2	-	-	-	-	-	-	1008	1003	-	740	718	-
Critical Hdwy	4.1	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.363
Pot Cap-1 Maneuver	725	-	-	889	-	-	72	91	453	70	91	308
Stage 1	-	-	-	-	-	-	428	440	-	298	326	-
Stage 2	-	-	-	-	-	-	292	322	-	412	436	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	724	-	-	883	-	-	62	86	450	55	86	307
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	199	-	163	200	-
Stage 1	-	-	-	-	-	-	417	429	-	292	317	-
Stage 2	-	-	-	-	-	-	258	313	-	337	425	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			25.9			24		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	273	724	-	-	883	-	-	229
HCM Lane V/C Ratio	0.374	0.018	-	-	0.025	-	-	0.173
HCM Control Delay (s)	25.9	10.1	-	-	9.2	-	-	24
HCM Lane LOS	D	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.7	0.1	-	-	0.1	-	-	0.6

HCM 6th TWSC
11: Roosevelt Road & Proposed Access Drive

08/28/2023

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	659	880	11	11	11
Future Vol, veh/h	9	659	880	11	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	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	0
Mvmt Flow	9	694	926	12	12	12

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	938	0	0 1644 932
Stage 1	-	-	- 932 -
Stage 2	-	-	- 712 -
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	739	-	- 111 326
Stage 1	-	-	- 386 -
Stage 2	-	-	- 490 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	739	-	- 110 326
Mov Cap-2 Maneuver	-	-	- 110 -
Stage 1	-	-	- 381 -
Stage 2	-	-	- 490 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	30.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	739	-	-	-	164
HCM Lane V/C Ratio	0.013	-	-	-	0.141
HCM Control Delay (s)	9.9	-	-	-	30.5
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.5