

Traffic Impact Study Proposed Taco Bell

Oak Park, Illinois



Prepared For:

Ampler Development



February 20, 2020

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed Taco Bell restaurant 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 with an approximately 2,145 square-foot Taco Bell restaurant with a drive-through window and 22 parking spaces. Access to the proposed restaurant will be provided via a full movement access drive off Roosevelt Road and via a full movement access drive off Austin Boulevard, both of which will replace existing access drives serving the site.

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

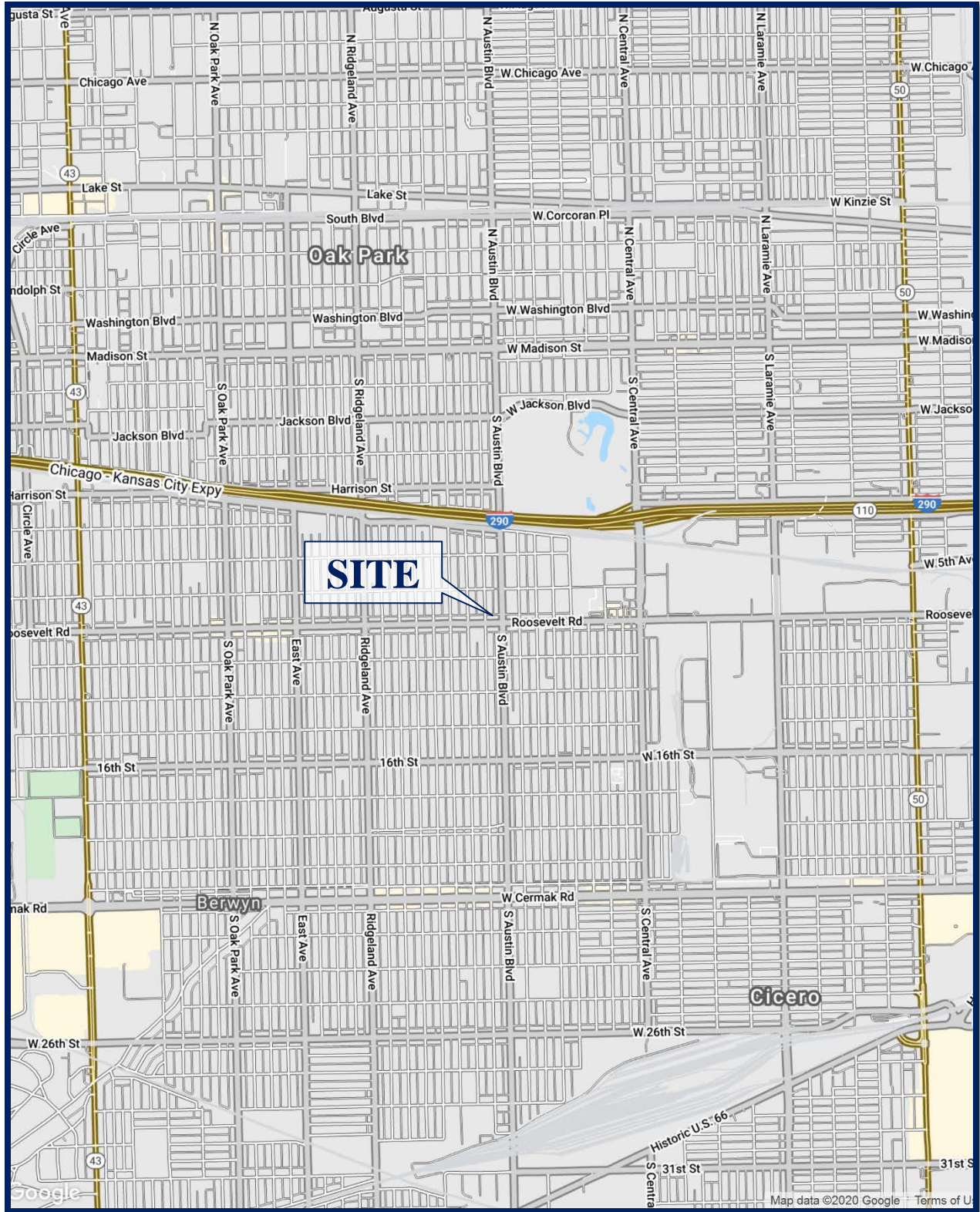
Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

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

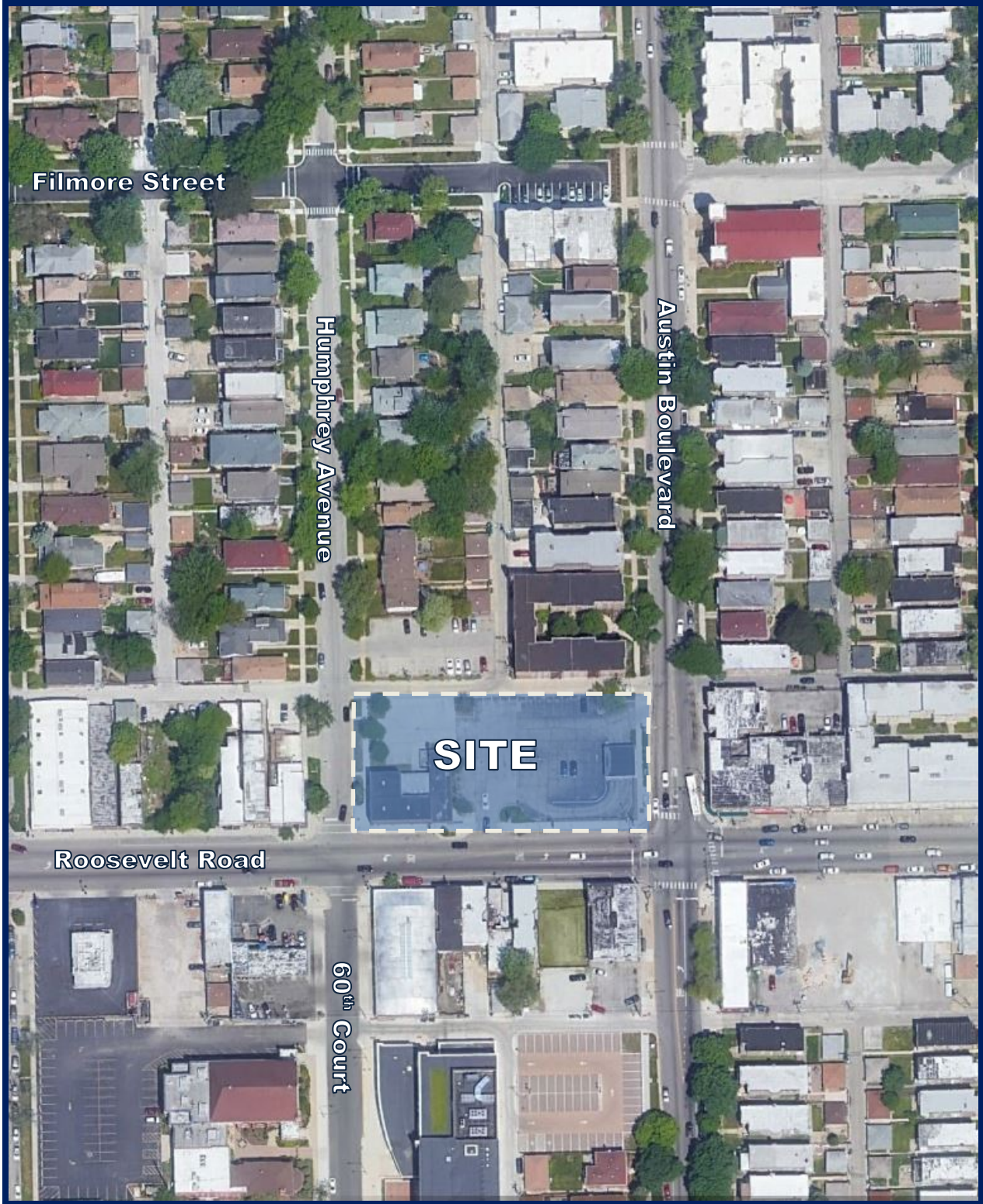
Traffic capacity analyses were conducted for the weekday morning, weekday midday, and weekday evening peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. No-Build Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes increased by an ambient area growth factor not attributable to any particular development.
3. Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient area growth not attributable to any particular development, and the net increase in traffic estimated to be generated by the proposed development.



Site Location

Figure 1



Aerial View of Site

Figure 2

2. Existing Conditions

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

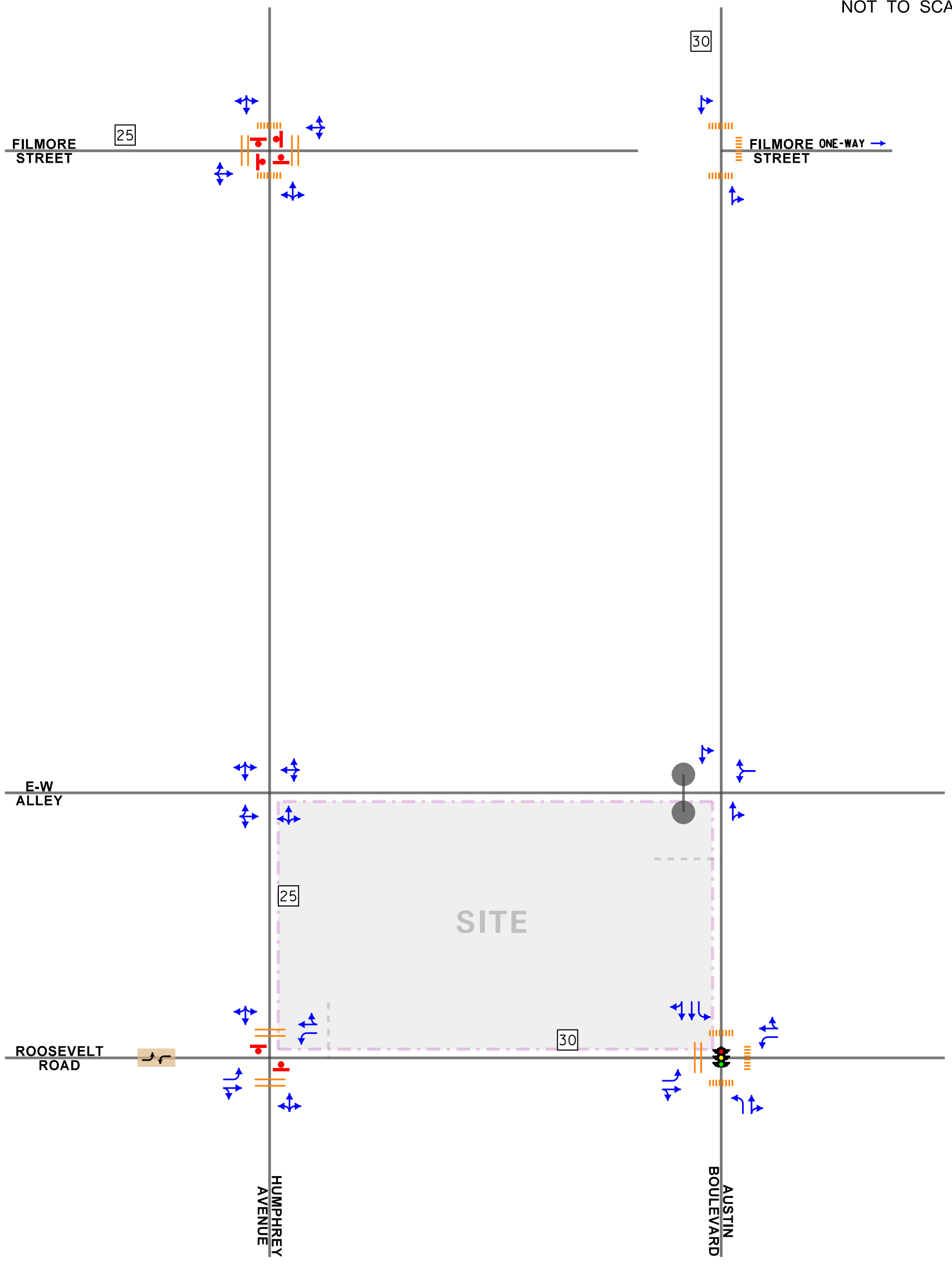
The characteristics of the existing roadways near the site are described below and illustrated in **Figure 3**.

Roosevelt Road is an east-west, principal arterial roadway that provides two through lanes in each direction generally divided by a two-way left-turn lane west of Humphrey Avenue/60th Court. 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. 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. 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 17,700 vehicles east of Austin Boulevard and 19,000 vehicles west of Austin Boulevard (IDOT 2018). Parking is generally permitted on both sides of the road.

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. 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 two southbound lanes and one northbound lane. Approximately 2,000 feet north of Roosevelt Road, Austin Boulevard has a signalized interchange with I-290 (Dwight D. Eisenhower Expressway) Austin Boulevard is under the jurisdiction of the Village of Oak Park, has a posted speed limit of 30 miles per hour, is not designated as an SRA route, and carries an AADT volume of 20,700 vehicles north of Roosevelt Road and 15,800 vehicles south of Roosevelt Road (IDOT 2018). Parking is generally permitted on both sides of the road.



NOT TO SCALE



LEGEND

- TRAVEL LANE
- TRAFFIC SIGNAL
- STOP SIGN
- SPEED LIMIT
- STANDARD CROSSWALK
- HIGH VISIBILITY CROSSWALK
- TWO-WAY LEFT TURN LANE
- SECURITY GATE

Humphrey Avenue is a north-south local roadway that extends north from Roosevelt Road where it is aligned opposite 60th Court. Humphrey Avenue provides one lane in each direction. At its all-way stop-sign controlled intersection with Filmore 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 and 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. Parking is generally permitted on both sides of the road.

60th Court is a north-south local roadway that extends south from Roosevelt Road where it is aligned opposite Humphrey Avenue. 60th Court provides one lane in each direction. At its unsignalized intersection with Roosevelt Road, Humphrey Avenue provides a shared through/left-turn/right-turn lane on the southbound approach and 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. Parking is generally permitted on both sides of the road.

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

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 provides one outbound lane. At its unsignalized intersection with Humphrey Avenue, the alley provides one lane in each direction.

Existing Traffic Volumes

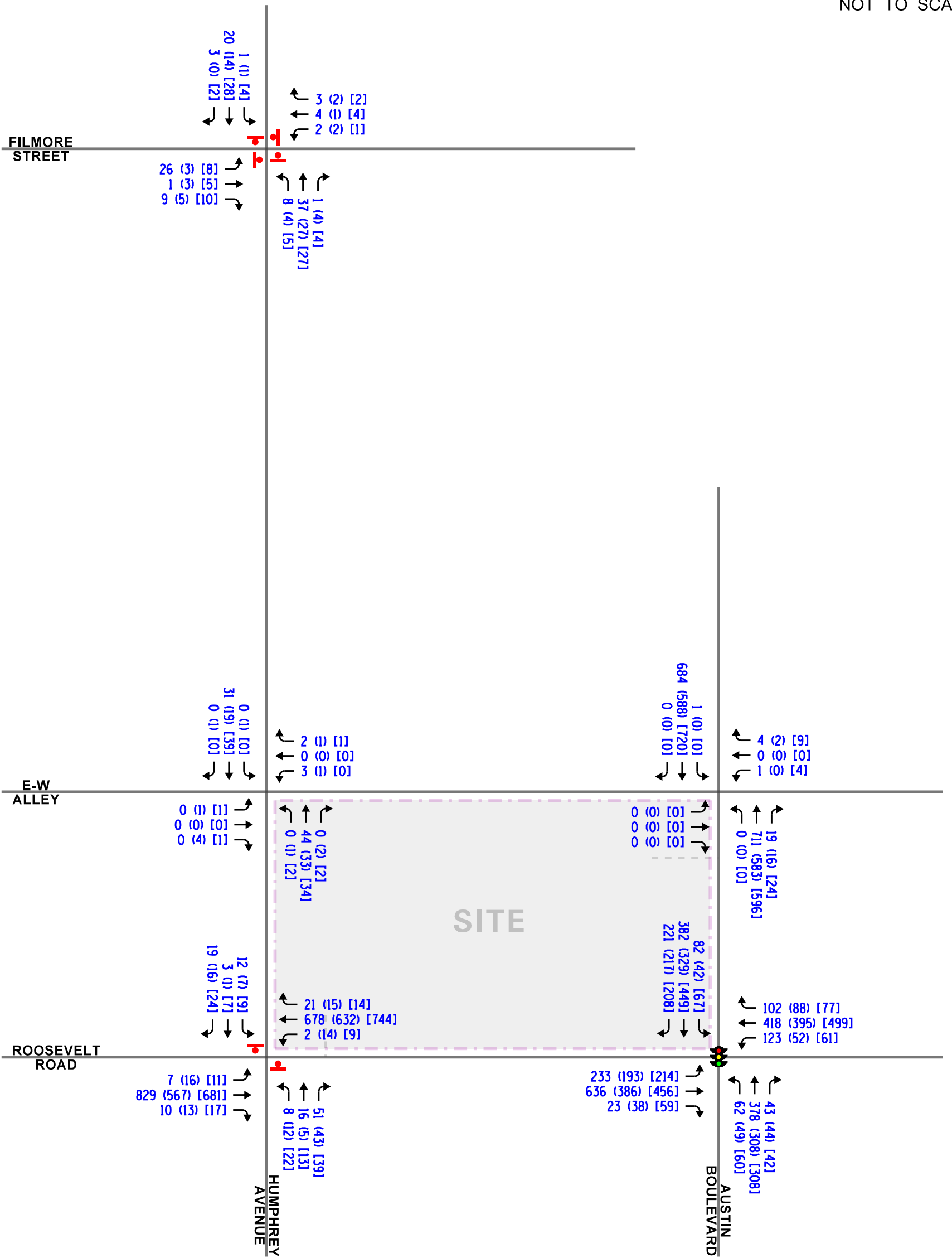
In order to determine current traffic conditions within the study area, KLOA, Inc. conducted peak period traffic counts at the following intersections:

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

The counts were conducted on Tuesday, February 11, 2020 during the weekday morning (7:00 to 9:00 A.M.), weekday midday (11:30 A.M. to 1:30 P.M.), and weekday evening (3:00 to 7:00 P.M.) peak periods. The results of the traffic counts show that the peak hours of traffic generally occur between 7:00 and 8:00 A.M. during the weekday morning peak period, between 11:45 A.M. and 12:45 P.M. during the weekday midday peak period, and between 5:00 and 6:00 P.M. during the weekday evening peak period. Copies of the traffic count summary sheets are included in the Appendix. **Figure 4** illustrates the existing peak hour vehicle traffic volumes.



NOT TO SCALE



LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY MIDDAY PEAK HOUR (11:45 AM-12:45 PM)
- [00] - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

Crash Analysis

KLOA, Inc. obtained crash data¹ for the most recent available past five years (2014 to 2018) for the intersections of Roosevelt Road with Austin Boulevard and Humphrey Avenue/60th Street and Humphrey Avenue with Filmore Street. A review of the crash data indicated that one accident occurred at the intersections of Humphrey Avenue with Filmore 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	
2014	2	2	12	5	4	1	26
2015	0	6	13	5	4	4	32
2016	1	4	19	4	3	1	32
2017	3	4	12	4	3	3	29
2018	<u>2</u>	<u>4</u>	<u>9</u>	<u>6</u>	<u>5</u>	<u>1</u>	<u>27</u>
Total	8	20	65	24	19	10	146
Average	1.6	4.0	13.0	4.4	3.8	2.0	29.2

Table 2

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

Year	Type of Crash Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2014	2	2	12	5	4	1	26
2015	0	6	13	5	4	4	32
2016	1	4	19	4	3	1	32
2017	3	4	12	4	3	3	29
2018	<u>2</u>	<u>4</u>	<u>9</u>	<u>6</u>	<u>5</u>	<u>1</u>	<u>27</u>
Total	8	20	65	24	19	10	146
Average	1.6	4.0	13.0	4.4	3.8	2.0	29.2

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 Development

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

Proposed Development Plan

As proposed, the plans call for redeveloping the site with a 2,145 square-foot Taco Bell restaurant with a drive-through lane and 22 parking spaces. The restaurant is proposed to have a one-way counterclockwise drive-through facility that will extend along the west, south, and east sides of the building. As proposed, vehicles will enter the drive-through facility in the northwest corner of the site which will be separated from the by-pass lane by a raised curb. The lane will extend south and then east along the south side of the building. Vehicles will exit the drive-through facility at the northeast corner of the site. Access to the restaurant will be provided as follows:

- A full movement access drive off Roosevelt Road located approximately 260 feet west of Austin Boulevard and 70 feet east of Humphrey Avenue. This access drive will provide one inbound lane and one outbound lanes with outbound movements under stop sign control. As part of the development, the existing westbound left-turn lane on Roosevelt Road serving 60th Court will be restriped to provide a two-way left-turn lane serving 60th Court and the access drive. This access drive will replace an existing access drive off Roosevelt Road located 185 feet west of Austin Boulevard.
- A full movement access drive off Austin Boulevard located approximately 135 feet north of Roosevelt Road and 30 feet south of the east-west alley. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. This access drive will replace an existing access drive off Austin Boulevard at this location.

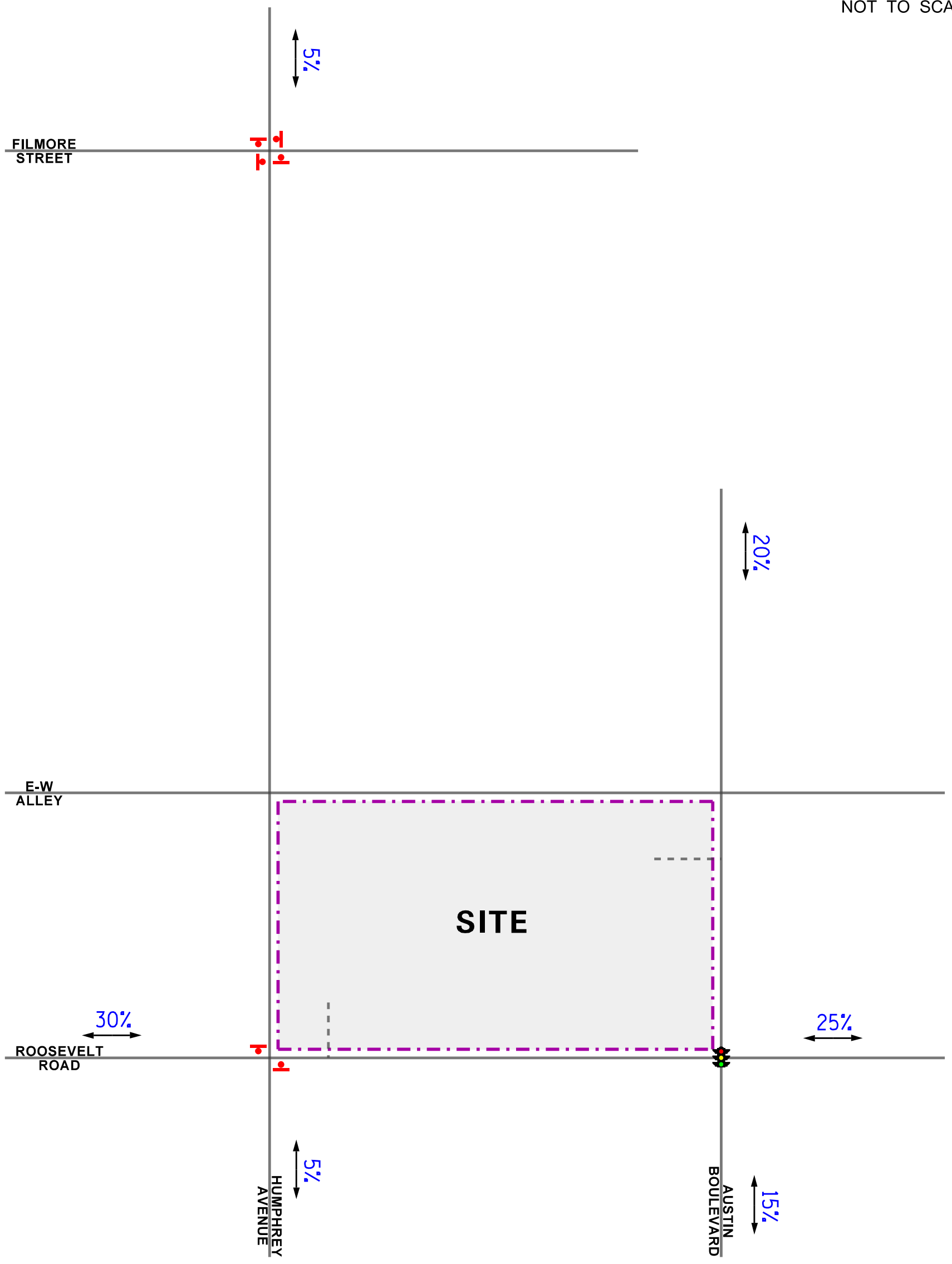
It is important to note that no access drive will be provided on Humphrey Avenue. The lack of access combined with Filmore Street not providing access to Austin Boulevard will minimize the potential of non-local restaurant traffic from traveling through the neighborhood. A copy of the preliminary site plan is included in the Appendix.

Directional Distribution

The directions from which patrons and employees will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the new restaurant-generated traffic.



NOT TO SCALE



LEGEND

00% - PERCENT DISTRIBUTION

Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed restaurant was based on vehicle trip generation rates contained in *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE). The “Fast-Food Restaurant with Drive-Through Window” (Land-Use Code 934) rate was used for the development. Copies of the trip generation worksheets are included in the Appendix.

In addition, it is important to note that surveys conducted by ITE have shown that approximately 50 percent of trips made to fast food restaurants 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. As such, the number of new trips to be generated by the restaurant was reduced by 50 percent to account for pass-by traffic. **Table 3** summarizes the trips projected to be generated by the proposed development.

Table 3
PEAK HOUR SITE-GENERATED TRAFFIC VOLUMES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Midday Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Traffic
		In	Out	Total	In	Out	Total	In	Out	Total	
934	Taco Bell Restaurant (2,145 s.f.)	44	42	86	60	59	119	36	34	70	1,010
	<i>50% Pass-By Reduction</i>	-22	-22	-44	-30	-30	-60	-18	-18	-36	-506
	Total	22	20	42	30	29	59	18	16	34	504

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 subject restaurant.

Restaurant Traffic Assignment

The estimated traffic volumes that will be generated by the proposed restaurant were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the total new trips. As previously indicated, a 50 percent pass-by reduction was applied. **Figure 7** illustrates the traffic assignment of the pass-by trips.

As discussed earlier, site traffic traveling through the adjacent neighborhood will be limited to local traffic only.

Background Traffic Conditions

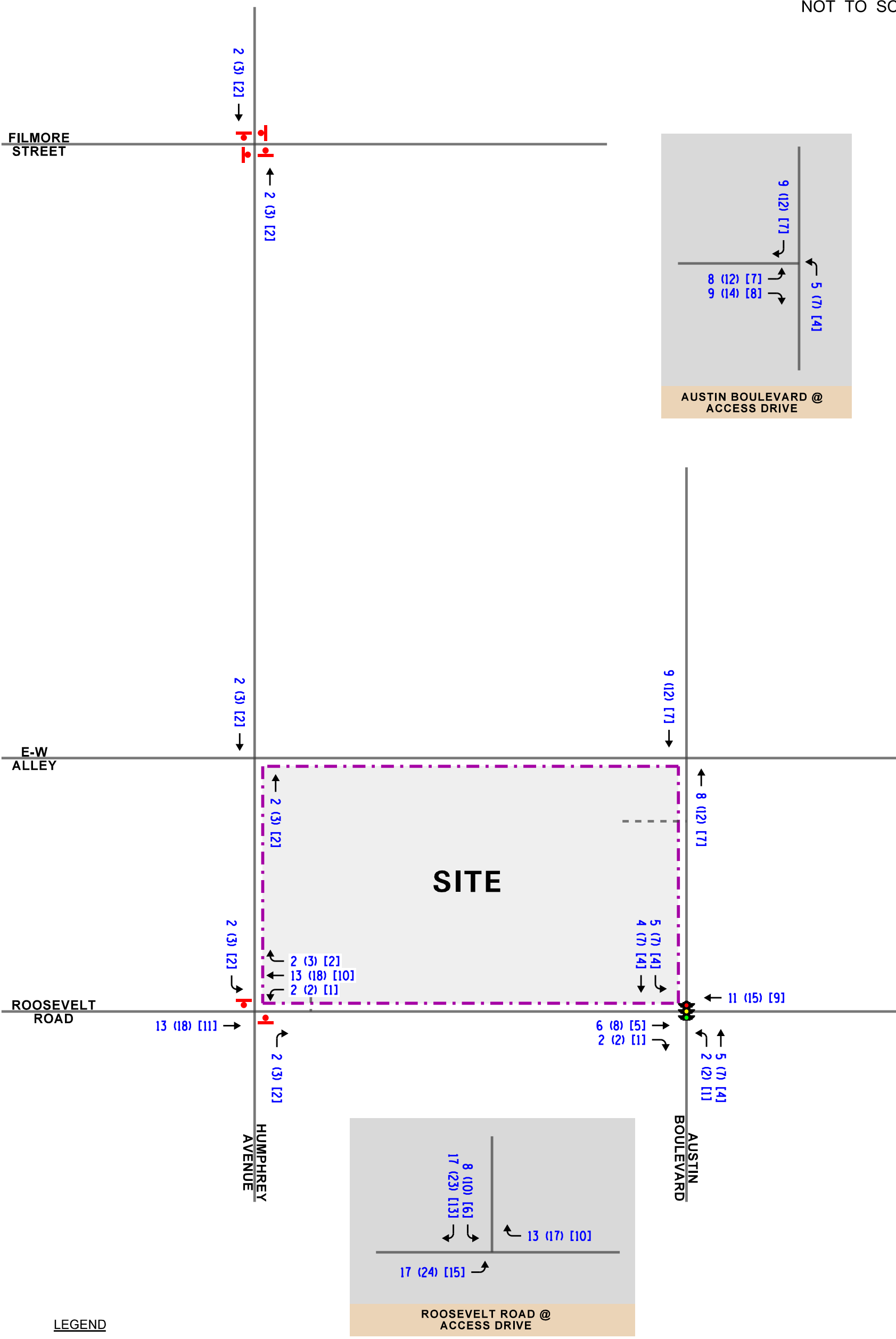
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated February 19, 2020, the existing traffic volumes are projected to increase annually by a compounded growth rate of approximately 0.1 percent. In order to be conservative when projecting Year 2026 conditions (one-year buildout plus five years), a total increase of 1.0 percent was used. A copy of the CMAP 2050 projections letter is included in the Appendix. The Year 2026 no-build traffic volumes, which include the existing traffic volumes increased by the regional growth factor of 1.0 percent, are illustrated in **Figure 8**.

Total Projected Traffic Volumes

The restaurant-generated traffic (Figures 6 and 7) was added to the existing traffic volumes accounting for ambient background growth (Figure 8) to determine the Year 2026 total projected traffic volumes, as shown in **Figure 9**.



NOT TO SCALE



- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
 - (00) - WEEKDAY MIDDAY PEAK HOUR (11:45 AM-12:45 PM)
 - [00] - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)



NOT TO SCALE

FILMORE STREET

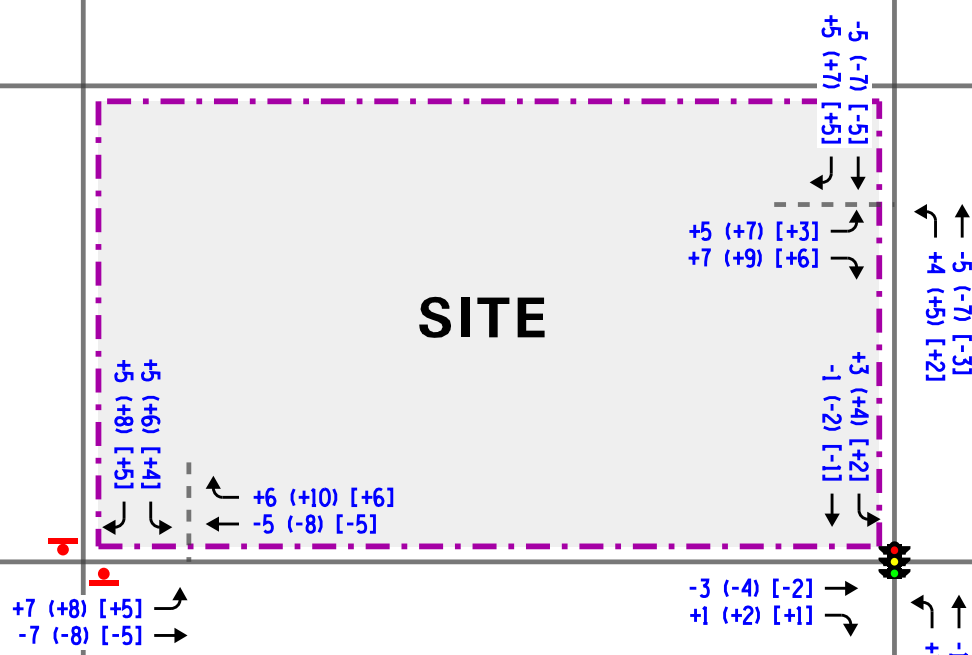
E-W ALLEY

ROOSEVELT ROAD

HUMPHREY AVENUE

AUSTIN BOULEVARD

SITE

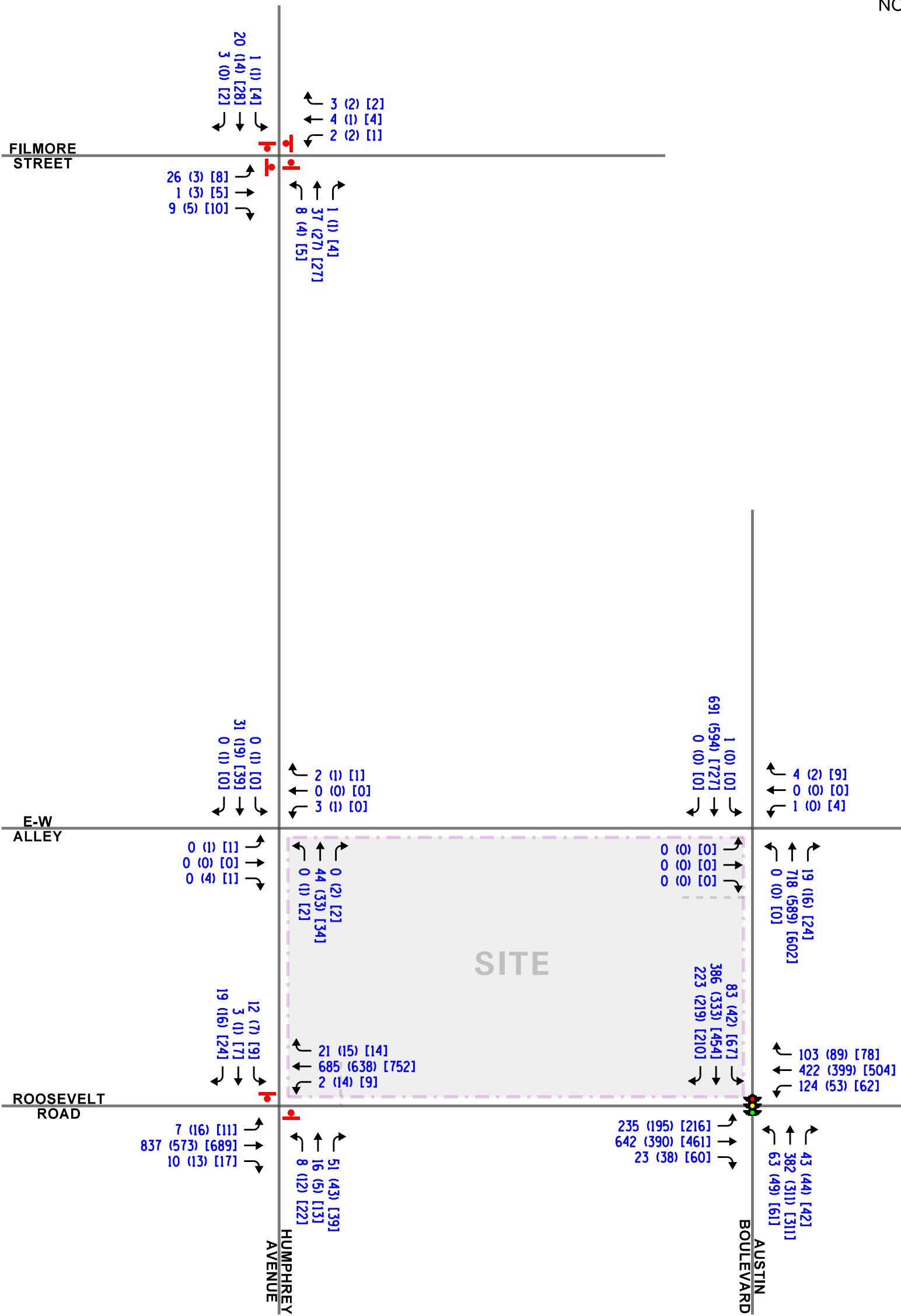


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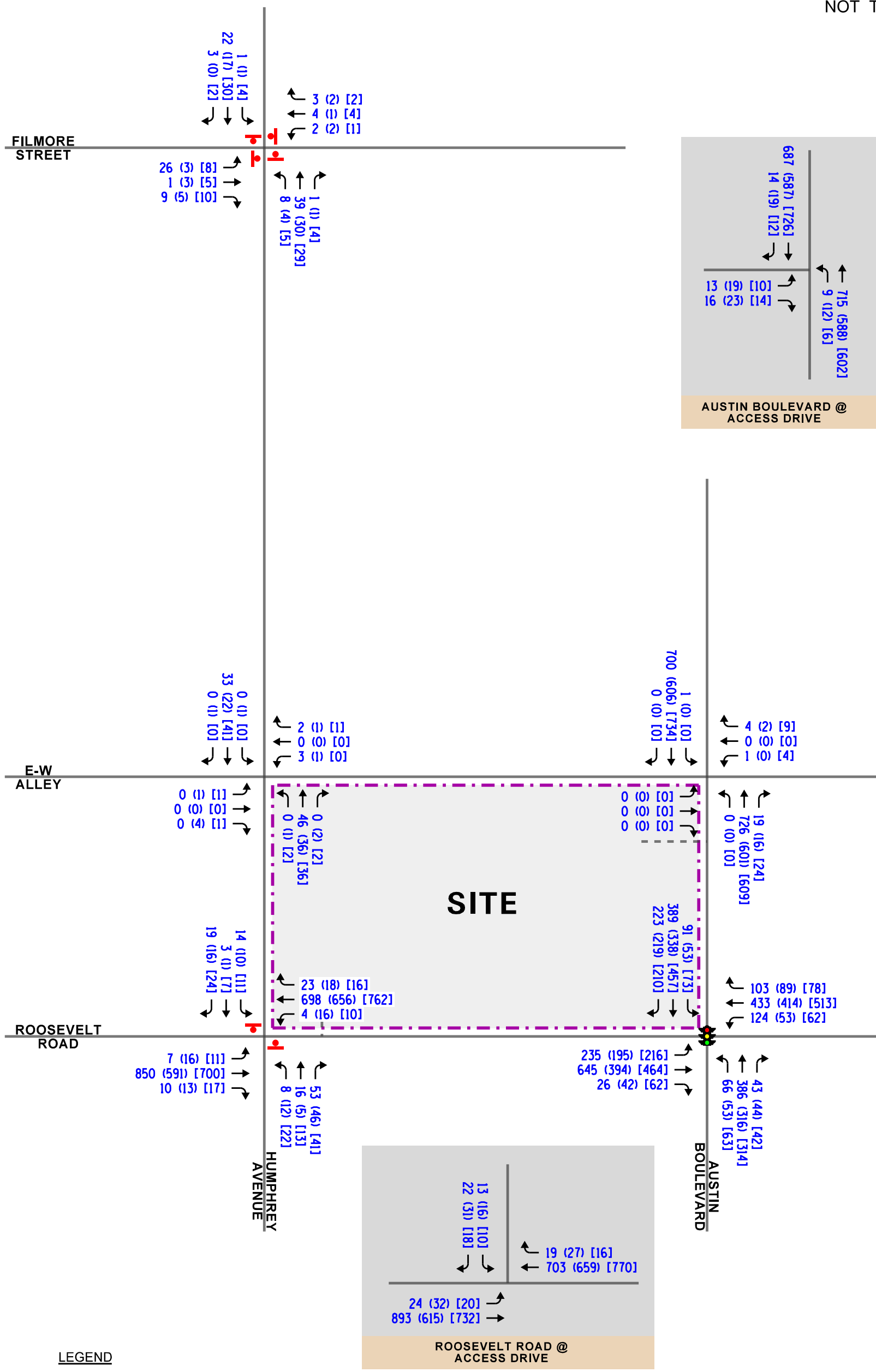


LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY MIDDAY PEAK HOUR (11:45 AM-12:45 PM)
- [00] - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)



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5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning, weekday midday, and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives 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 midday, and weekday evening peak hours for the existing (Year 2020), no-build, and Year 2026 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 6th Edition* and analyzed using the Synchro/SimTraffic 10 software. The analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and 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 intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, no-build, and total projected conditions are presented in **Tables 4** through **7**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 4

CAPACITY ANALYSIS RESULTS – ROOSEVELT ROAD WITH AUSTIN BOULEVARD

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2020 Existing Conditions	Weekday Morning Peak Hour	B 17.6	D 44.7		B 16.7	D 40.1		C 27.1	E 75.3		C 31.4	D 47.1		D 44.7
		D – 37.6			D – 35.6			E – 69.1			D – 45.2			
	Weekday Midday Peak Hour	B 17.0	C 27.2		B 12.6	D 35.5		C 22.4	E 57.6		C 23.6	D 44.3		D 37.0
	C – 24.0			C – 33.3			D – 53.4			D – 42.8				
Year 2020 Existing Conditions	Weekday Evening Peak Hour	B 19.8	C 29.5		B 12.8	D 41.2		C 27.1	E 57.8		C 26.9	D 51.0		D 40.4
		C – 26.7			D – 38.5			D – 53.3			D – 48.8			
	Weekday Morning Peak Hour	B 19.5	D 52.1		B 18.9	D 44.4		C 26.1	E 77.7		C 31.2	D 44.4		D 47.7
	D – 43.6			D – 39.5			E – 71.5			D – 42.8				
Year 2026 No-Build Conditions	Weekday Midday Peak Hour	B 17.3	C 27.4		B 12.6	D 36.0		C 23.4	E 57.9		C 23.6	D 44.4		D 37.3
		C – 24.2			C – 33.7			D – 53.7			D – 42.9			
	Weekday Evening Peak Hour	C 20.6	C 30.0		B 12.9	D 42.4		C 27.1	E 57.8		C 26.8	D 51.2		D 40.9
	C – 27.3			D – 39.5			D – 53.2			D – 49.0				

Delay is measured in seconds.

Table 4 - Continued
 CAPACITY ANALYSIS RESULTS – ROOSEVELT ROAD WITH AUSTIN BOULEVARD

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2026 Total Projected Conditions	Weekday Morning Peak Hour	C 20.2	D 54.3		B 19.4	D 46.2		C 26.8	E 78.1		C 32.2	D 44.5		D 48.4
		D – 45.5			D – 41.2			E – 71.2			D – 42.9			
	Weekday Midday Peak Hour	B 18.2	C 28.1		B 12.7	D 37.6		C 23.6	E 59.0		C 24.4	D 44.3		D 37.9
		C – 25.0			D – 35.2			D – 54.5			D – 42.6			
	Weekday Evening Peak Hour	C 21.4	C 30.4		B 12.9	D 43.6		C 27.4	E 58.4		C 27.4	D 51.3		D 41.5
		C – 27.8			D – 40.7			D – 53.7			D – 49.0			

Delay is measured in seconds.

Table 5

CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Midday Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Roosevelt Road with Humphrey Avenue/60th Court						
• Eastbound Left Turn	A	9.2	A	9.1	A	9.4
• Westbound Left Turn	B	11.2	A	8.9	A	9.2
• Northbound Approach	C	23.0	C	16.9	C	22.9
• Southbound Approach	C	21.2	C	16.8	C	20.0
Austin Boulevard with the East-West Alley						
• Westbound Approach	C	23.5	C	15.1	C	17.0
• Southbound Left Turn	A	9.2	--	--	--	--
Humphrey Avenue with Filmore Street¹						
• Overall	A	7.5	A	7.1	A	7.2
• Eastbound Approach	A	7.4	A	6.9	A	7.1
• Westbound Approach	A	7.1	A	7.8	A	7.0
• Northbound Approach	A	7.7	A	7.1	A	7.2
• Southbound Approach	A	7.2	A	7.1	A	7.2
Humphrey Avenue with the East-West Alley						
• Eastbound Approach	--	--	A	8.6	A	8.9
• Westbound Approach	A	9.0	A	8.7	A	8.5
• Northbound Left Turn	--	--	A	7.3	A	7.8
• Southbound Left Turn	--	--	A	7.3	--	--
LOS = Level of Service Delay is measured in seconds. 1- All-Way Stop Controlled						

Table 6
CAPACITY ANALYSIS RESULTS – YEAR 2026 NO-BUILD CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Midday Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Roosevelt Road with Humphrey Avenue/60th Court						
• Eastbound Left Turn	A	9.2	A	9.2	A	9.5
• Westbound Left Turn	B	11.2	A	8.9	A	9.3
• Northbound Approach	C	23.2	C	17.0	C	23.3
• Southbound Approach	C	21.4	C	16.9	C	20.2
Austin Boulevard with the East-West Alley						
• Westbound Approach	C	23.8	C	15.2	C	17.2
• Southbound Left Turn	A	9.3	--	--	--	--
Humphrey Avenue with Filmore Street¹						
• Overall	A	7.5	A	7.1	A	7.2
• Eastbound Approach	A	7.4	A	6.9	A	7.1
• Westbound Approach	A	7.1	A	7.8	A	7.0
• Northbound Approach	A	7.7	A	7.1	A	7.2
• Southbound Approach	A	7.2	A	7.1	A	7.2
Humphrey Avenue with the East-West Alley						
• Eastbound Approach	--	--	A	8.6	A	8.9
• Westbound Approach	A	9.0	A	8.7	A	8.5
• Northbound Left Turn	--	--	A	7.3	A	7.8
• Southbound Left Turn	--	--	A	7.3	--	--
LOS = Level of Service Delay is measured in seconds. 1- All-Way Stop Controlled						

Table 7

CAPACITY ANALYSIS RESULTS – YEAR 2026 PROJECTED CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Midday Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Roosevelt Road with Humphrey Avenue/60th Court						
• Eastbound Left Turn	A	9.3	A	9.2	A	9.5
• Westbound Left Turn	B	11.3	A	9.0	A	9.3
• Northbound Approach	C	23.9	C	17.4	C	23.8
• Southbound Approach	C	22.9	C	18.5	C	21.1
Austin Boulevard with the East-West Alley						
• Westbound Approach	C	24.1	C	15.4	C	17.4
• Southbound Left Turn	A	9.3	--	--	--	--
Humphrey Avenue with Filmore Street¹						
• Overall	A	7.5	A	7.1	A	7.2
• Eastbound Approach	A	7.4	A	6.9	A	7.1
• Westbound Approach	A	7.1	A	7.8	A	7.0
• Northbound Approach	A	7.7	A	7.1	A	7.2
• Southbound Approach	A	7.2	A	7.1	A	7.3
Humphrey Avenue with the East-West Alley						
• Eastbound Approach	--	--	A	8.6	A	9.0
• Westbound Approach	A	9.1	A	8.8	A	8.6
• Northbound Left Turn	--	--	A	7.3	A	7.8
• Southbound Left Turn	--	--	A	7.3	--	--
Roosevelt Road with Site Access						
• Eastbound Left Turn	A	9.3	A	9.2	A	9.6
• Southbound Approach	C	18.1	C	16.4	D	25.8
Austin Boulevard with Site Access						
• Eastbound Approach	C	23.9	C	19.7	C	20.8
• Northbound Left Turn	A	9.2	A	8.8	A	9.3
LOS = Level of Service Delay is measured in seconds.						
1- All-Way Stop Controlled						

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 restaurant-generated traffic.

Roosevelt Road with Austin Boulevard

The results of the capacity analysis indicate that overall this intersection currently operates at Level of Service (LOS) D during the weekday morning peak hour, weekday midday, and weekday evening peak hours. It should be noted that 95th percentile queues for the southbound approach are between approximately 250 and 300 feet during the peak hours and block the location of the proposed access drive off Austin Boulevard. Further, eastbound 95th percentile queues extend up to 705 feet during the weekday morning, 385 feet during the weekday midday, and 480 feet during the weekday evening peak hours, similarly blocking the proposed access drive off Roosevelt Road. However, these approaches operate at a good LOS D or better and the queues were observed to typically clear the intersection with every green phase.

Under Year 2026 no-build conditions, this intersection is projected to continue to operate at LOS D during all three peak hours with an increase in delay of three seconds or less over existing conditions. Further, all approaches are projected to continue to operate at the same LOS as existing conditions.

Under Year 2026 total projected conditions, this intersection is projected to continue to operate at LOS D during the weekday morning, weekday midday, and weekday evening peak hours with an increase in delay of less than one second over Year 2026 no-build conditions. In addition, all movements are projected to continue to operate at the same LOS as Year 2026 no-build conditions. Further 95th percentile queues for the southbound and eastbound approaches are projected to increase by five to 25 feet over existing conditions, or approximately one car length, and will continue to typically clear the intersection with each green phase. As such, this intersection has sufficient reserve capacity to accommodate traffic expected to be generated by the development and no signal or geometric improvements will be required.

Roosevelt Road with Humphrey Avenue/60th Court

The results of the capacity analysis indicate that the critical movements at this intersection operate at LOS C or better during the weekday morning, weekday midday, and weekday evening peak hours. Under Year 2026 no-build conditions, all critical movements at this intersection are projected to continue to operate the same LOS during both peak hours with an increase in delay of less than one second.

Under Year 2026 total projected conditions, all critical movements are projected to continue to operate at the same LOS with an increase in delay of two seconds. Further, eastbound and westbound left-turn movements from Roosevelt Road operate at LOS B or better under existing conditions and are projected to continue to do so. In addition, 95th percentile queues for the movement are not projected to exceed one vehicle, which can be accommodated by the proposed turn lane. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no roadway or traffic control improvements will be required.

Austin Boulevard with the East-West Alley

The results of the capacity analysis indicate that the westbound approach at this intersection currently operates at LOS C during the weekday morning, weekday midday, and weekday evening peak hours and the southbound left turn operates at LOS A. As previously mentioned, the west leg of this intersection is gated and signed for no entry, and, as a result, carries no traffic.

Under Year 2026 no-build conditions, all critical movements at this intersection are projected to continue to operate the same LOS during both peak hours with an increase in delay of less than one second.

Under Year 2026 total projected conditions the westbound approach is projected to continue to operate at LOS C during all three peak hours with an increase in delay of less than one second over existing and no-build conditions. Further, the southbound left-turn movement is projected to continue to operate at LOS with an increase in delay of less than one second and 95th percentile queues of one to two vehicles. It is important to note that, while the alley is close to the location of the proposed access drive, the east leg of the alley is positively offset from the proposed drive and left-turn movements on Austin Boulevard waiting to turn on to the alley will not conflict with traffic waiting to enter the site. This offset, combined with the west leg being gated and the low volume of traffic that utilize the east leg of the alley indicate that the proximity of the proposed access drive to the east-west alley will not impact the operations of the alley or the access drive. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no roadway or traffic control improvements will be required.

Humphrey Avenue with Filmore Street

The results of the capacity analysis indicate that overall this intersection currently operates at LOS A during the weekday morning, weekday midday, and weekday evening peak hours. Furthermore, all of the approaches currently operate at LOS A during the peak hours. Under Year 2026 no-build conditions, this intersection overall is projected to operate at LOS A during all three peak hours with increases in delay of less than one second.

Under Year 2026 total projected conditions, this intersection is projected to operate at LOS A during the weekday morning, weekday midday, and weekday evening peak hour with increases in delay of less than one second over no-build conditions. Additionally, all of the approaches are projected to continue operating at LOS A during the peak hours. It is important to note that, as previously mentioned, all traffic assigned to this intersection is expected 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 development and no roadway or traffic control improvements 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, weekday midday, and weekday evening peak hours. Under Year 2026 no-build conditions, all critical movements at this intersection are projected to continue to operate at the same LOS during all three peak hours with an increase in delay of less than one second.

Under Year 2026 total projected conditions, all critical movements are projected to continue to operate at LOS A during all three peak hours with an increase in delay of less than one second over existing and no-build conditions. As with the intersection of Humphrey Avenue and Filmore Street, the low volume of traffic projected to be added to this intersection is expected 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 development and no roadway or traffic control improvements will be required.

Roosevelt Road with the Proposed Site Access Drive

As proposed, a full movement access drive serving the site will be provided off Roosevelt Road located approximately 260 feet west of Austin Boulevard and 70 feet east of Humphrey Avenue. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. As part of the development, the existing westbound left-turn lane on Roosevelt Road serving 60th Court will be restriped to provide a two-way left-turn lane serving 60th Court and the access drive.

Under Year 2026 total projected conditions, the outbound movements from this access drive are projected to operate at LOS C during the weekday morning and weekday midday peak hours and LOS D during the weekday evening peak hour. It is important to note that eastbound 95th percentile left-turn queues at this access drive are not projected to exceed one vehicle, which can be accommodated by the proposed two-way left-turn lane on Roosevelt Road and, as such, 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. As previously mentioned, 95th percentile eastbound queues from the intersection of Roosevelt Road with Austin Boulevard currently extend to the location of this access drive and are projected to continue to do so. However, these queues will continue to clear the location of the proposed access drive with every green cycle, allowing site traffic to exit the site.

When the projected traffic volumes are compared to the turn lane warrant guidelines published in Chapter 36 of the IDOT *Bureau of Design and Environment* (BDE) Manual, a westbound right-turn lane is not warranted at this access drive during any of the three peak hours. As such, the proposed access drive will adequately accommodate site-generated traffic.

Austin Boulevard with the Proposed Site Access Drive

As proposed, a full movement access drive serving the site will be provided off Austin Boulevard located approximately 135 feet north of Roosevelt Road and 30 feet south of the east-west alley. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. This access drive will replace an existing access drive off Austin Boulevard at this location.

Under Year 2026 total projected conditions, the outbound movements from this access drive are projected to operate at LOS C during the weekday morning, weekday midday, and weekday evening peak hours. As previously mentioned, the southbound 95th percentile queues from the intersection of Roosevelt Road with Austin Boulevard are projected to extend to this location. These queues may prevent outbound vehicles from exiting the site as well as prevent inbound left-turn vehicles from entering. In order to improve operations of this intersection and reduce the impact of inbound left-turning vehicles on through traffic on Austin Boulevard, a “do not block intersection” sign should be provided for southbound traffic on Austin Boulevard indicating that vehicles should not stop within the intersection of the access drive with Austin Boulevard. With the provision of this restriction and given that the southbound queues on Roosevelt Road will continue to clear the location of the proposed access drive with every green cycle, it is anticipated that site traffic will be able to enter and exit the site efficiently.

When the projected traffic volumes are compared to the turn lane warrant guidelines published in Chapter 36 of the IDOT *Bureau of Design and Environment* (BDE) Manual, neither a southbound right-turn lane nor a northbound left-turn lane is warranted at this access drive. As such, the proposed access drive will adequately accommodate site-generated traffic.

On-Site Circulation and Drive-Through Evaluation

Under the proposed plan, the Taco Bell restaurant will provide a two-way drive aisle along the east and north sides of the site and a one-way by-pass lane along the east and south sides of the site. The provision of the two-way drive aisle as well as the by-pass lane will ensure that flexible on-site circulation is provided, allowing customers to enter or exit the site at either access drive.

The drive-through lane for the Taco Bell restaurant, which will run parallel to the by-pass lane, will also have a counterclockwise flow with stacking for approximately eight vehicles (three from the pick-up window and five from the ordering board) with the potential for an additional 12 vehicles to queue on-site for a total stacking of 20 vehicles.

Based on observations conducted by KLOA, Inc. at fast-food restaurants in the Chicago Area, the restaurant is expected to peak during the midday lunchtime period with an average drive-through lane queue of 11 to 13 vehicles and a maximum queue of approximately 14 vehicles. Therefore, the proposed drive-through stacking of 20 vehicles will be sufficient to accommodate the peak demand. In order to ensure that drive-through traffic can exit the lane with minimal delays and without impacting drive-through operations, a “Do Not Block Intersection” sign should be posted for eastbound traffic to ensure that the area in front of the drive-through exit remains clear of queued vehicles. Furthermore, a stop sign should be provided for exiting traffic as well as a “Do Not Enter” sign to enforce the one-way circulation.

6. Conclusion

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

- The volume of new traffic estimated by the proposed restaurant will be reduced due to the volume of pass-by trips.
- The intersection of Roosevelt Road with Austin Boulevard has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed restaurant.
- The site generated traffic that will travel along Humphrey Avenue is expected to be local traffic with new traffic entering and exiting the proposed restaurant utilizing Roosevelt Road and Austin Boulevard.
- The proposed access system will provide flexible and efficient access to and from the site.
- A “Do Not Block Intersection” sign should be provided on Austin Boulevard at the proposed site access drive.
- The drive-through lane, as proposed, will be adequate in accommodating the projected drive-through demand.

Appendix

Traffic Count Summary Sheets
Preliminary Site Plan
ITE Trip Generation Worksheets
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets



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
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	
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	-	-



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
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						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	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
Page No: 4

Turning Movement Peak Hour Data (11:45 AM)

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	
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.
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
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

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	
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	-	-



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
Page No: 1

Turning Movement Data

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						60th Court 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	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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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
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						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	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
Page No: 4

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						60th Court 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	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
% Lights	100.0	93.3	97.2	92.3	-	97.0	100.0	100.0	96.0	93.3	-	96.1	-	91.7	100.0	88.4	-	90.0	-	66.7	100.0	100.0	-	90.0	96.1
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	-	-



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
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Roosevelt Road Eastbound						Roosevelt Road Westbound						60th Court 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	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
(847)518-9990

Count Name: Austin Boulevard with Public Alley
Site Code:
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						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	1	0	0	1	0	1	5	2	0	0	187	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	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	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	175	0	1	185	0	0	186	361
Hourly 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
8:00 AM	0	0	0	0	8	0	0	1	0	1	5	2	0	0	151	0	0	151	0	0	162	0	1	162	315
8:15 AM	0	0	0	0	6	0	0	0	0	0	8	0	0	0	134	0	0	134	0	0	147	0	1	147	281
8:30 AM	0	0	0	0	4	0	0	1	0	2	12	3	0	0	130	1	0	131	0	0	111	0	2	111	245
8:45 AM	0	0	0	0	5	0	0	0	0	1	6	1	0	0	148	1	0	149	0	0	134	0	0	134	284
Hourly Total	0	0	0	0	23	0	0	2	0	4	31	6	0	0	563	2	0	565	0	0	554	0	4	554	1125
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	0	0	0	0	4	0	0	0	0	1	4	1	0	0	154	1	1	155	0	0	131	0	3	131	287
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
Hourly Total	0	0	0	0	7	0	0	0	0	2	13	2	0	0	288	1	2	289	0	0	287	0	4	287	578
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
12:45 PM	0	0	0	1	5	1	0	0	0	1	8	1	0	0	146	1	0	147	0	0	132	0	0	132	281
Hourly Total	0	0	0	1	14	1	0	0	0	2	29	2	0	0	592	7	1	599	0	0	564	0	2	564	1166
1:00 PM	0	1	0	0	3	1	0	0	0	0	12	0	0	0	150	0	1	150	0	0	147	0	0	147	298
1:15 PM	0	0	0	0	6	0	0	0	0	0	6	0	0	0	163	0	0	163	0	0	147	0	0	147	310
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	1	0	0	9	1	0	0	0	0	18	0	0	0	313	0	1	313	0	0	294	0	0	294	608
4:00 PM	0	0	0	0	3	0	0	0	0	1	7	1	0	0	164	0	0	164	0	0	181	0	0	181	346
4:15 PM	0	0	0	0	7	0	0	0	0	1	4	1	0	0	146	0	0	146	0	0	181	0	0	181	328
4:30 PM	0	0	0	0	6	0	0	0	0	0	2	0	0	0	147	0	0	147	0	1	178	0	0	179	326
4:45 PM	0	0	0	0	6	0	0	0	0	0	9	0	0	0	145	1	1	146	0	0	191	0	0	191	337
Hourly Total	0	0	0	0	22	0	0	0	0	2	22	2	0	0	602	1	1	603	0	1	731	0	0	732	1337
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
Hourly 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
Grand Total	0	1	0	1	110	2	0	7	0	23	159	30	0	0	3663	16	10	3679	1	2	3833	0	12	3836	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	-	-	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	0.0	0.0	48.5	0.2	-	48.7	0.0	0.0	50.8	0.0	-	50.8	-
Lights	0	1	0	1	-	2	0	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	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	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	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	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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Rosemont, Illinois, United States 60018
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Count Name: Austin Boulevard with Public Alley
Site Code:
Start Date: 02/11/2020
Page No: 3

Turning Movement Peak Hour Data (7:00 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	
7:00 AM	0	0	0	0	1	0	0	1	0	1	5	2	0	0	187	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	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	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	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	0.0	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	0.000	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	0	0	697	2	-	699	0	1	670	0	-	671	1374
% Lights	-	-	-	-	-	-	-	0.0	-	100.0	-	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	9	0	-	9	0	0	8	0	-	8	17
% Buses	-	-	-	-	-	-	-	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	0	0	5	0	-	5	0	0	5	0	-	5	11
% Single-Unit Trucks	-	-	-	-	-	-	-	100.0	-	0.0	-	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	0.1	-	-	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
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	0.925
Lights	0	0	0	0	-	0	0	0	0	1	-	1	0	0	567	6	-	573	0	0	574	0	-	574	1148
% Lights	-	-	-	-	-	-	-	-	-	50.0	-	50.0	-	-	97.8	100.0	-	97.8	-	-	97.6	-	-	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	0.9
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	1.4
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	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
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	0	2	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.
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: 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	-	-



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: 4

Turning Movement Peak Hour Data (11:45 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	
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	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
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
Page No: 5

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	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	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	-	-



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 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: 1

Turning Movement Data

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
Hourly 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
8:00 AM	0	1	0	1	1	2	0	1	0	0	0	1	0	0	7	0	0	7	0	0	6	0	0	6	16
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	7	0	0	7	11
8:30 AM	0	0	0	0	2	0	0	0	0	2	0	2	0	1	62	6	1	69	1	0	4	0	0	5	76
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	0	4	1	0	5	19
Hourly Total	0	1	0	1	3	2	0	1	0	2	0	3	0	1	87	6	1	94	1	0	21	1	0	23	122
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	8	0	1	8	0	0	7	0	0	7	16
11:45 AM	0	0	0	1	1	1	0	1	0	0	0	1	0	0	6	0	0	6	0	0	3	0	1	3	11
Hourly Total	0	0	0	1	1	1	0	2	0	0	0	2	0	0	14	0	1	14	0	0	10	0	1	10	27
12:00 PM	0	1	0	3	1	4	0	0	0	0	0	0	2	1	7	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
12:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	7	0	0	7	0	0	7	1	1	8	17
Hourly Total	0	1	0	5	1	6	0	0	0	1	0	1	4	1	29	2	5	36	0	1	19	2	3	22	65
1:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0	5	0	0	5	1	0	6	12
1:15 PM	0	0	1	1	1	2	0	0	1	0	0	1	0	0	4	1	0	5	0	0	9	0	0	9	17
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	1	1	1	1	3	0	0	1	0	0	1	0	0	9	1	0	10	0	0	14	1	0	15	29
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	0	2	9	0	0	11	0	0	11	20
4:15 PM	0	1	0	0	0	1	0	0	0	1	1	1	0	1	9	1	4	11	0	0	10	0	0	10	23
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	8	0	0	7	1	0	8	16
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	8	0	0	8	0	0	7	0	0	7	16
Hourly Total	0	2	0	0	0	2	0	0	0	1	2	1	1	1	33	1	6	36	0	0	35	1	0	36	75
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	8	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
Hourly 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
Grand Total	0	6	1	9	11	16	0	6	1	7	2	14	7	5	240	12	20	264	1	1	164	5	7	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	-	-	0.6	0.6	95.9	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	-	-



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: 3

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	-	-	-	-	-	-	-	-



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: 4

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	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	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
% 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
% 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	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	0.688
Lights	0	1	0	1	-	2	0	0	0	1	-	1	1	1	31	2	-	35	0	0	37	0	-	37	75
% 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	97.4
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
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
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
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	2.6
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Preliminary Site Plan

ITE Trip Generation Sheets

Land Use: 934

Fast-Food Restaurant with Drive-Through Window

Description

This category includes fast-food restaurants with drive-through windows. This type of restaurant is characterized by a large drive-through clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Non-drive-through patrons generally order at a cash register and pay before they eat. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

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

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 46 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:00 and 1:00 p.m., respectively. For the one dense multi-use urban site with data, the same AM and PM peak hours were observed.

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

Source Numbers

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

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

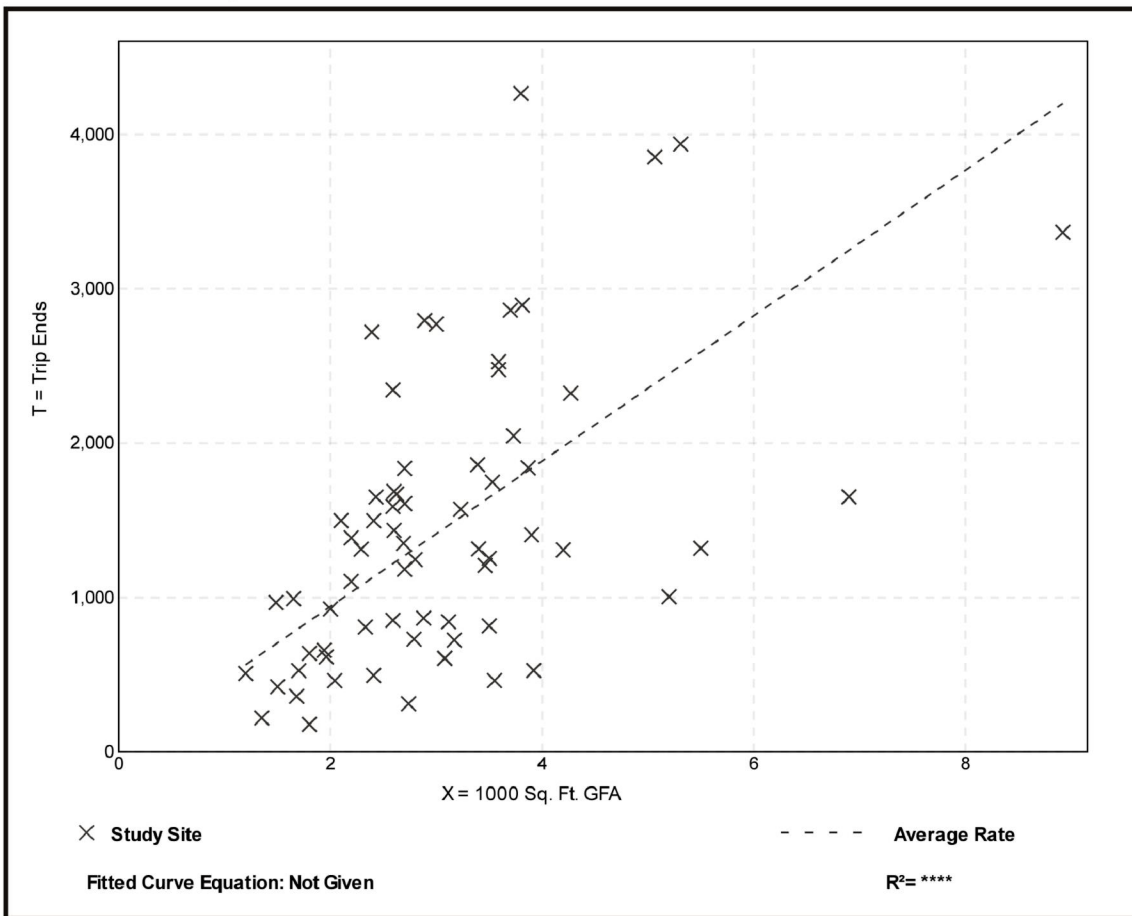
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
 Number of Studies: 67
 1000 Sq. Ft. GFA: 3
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
470.95	98.89 - 1137.66	244.44

Data Plot and Equation



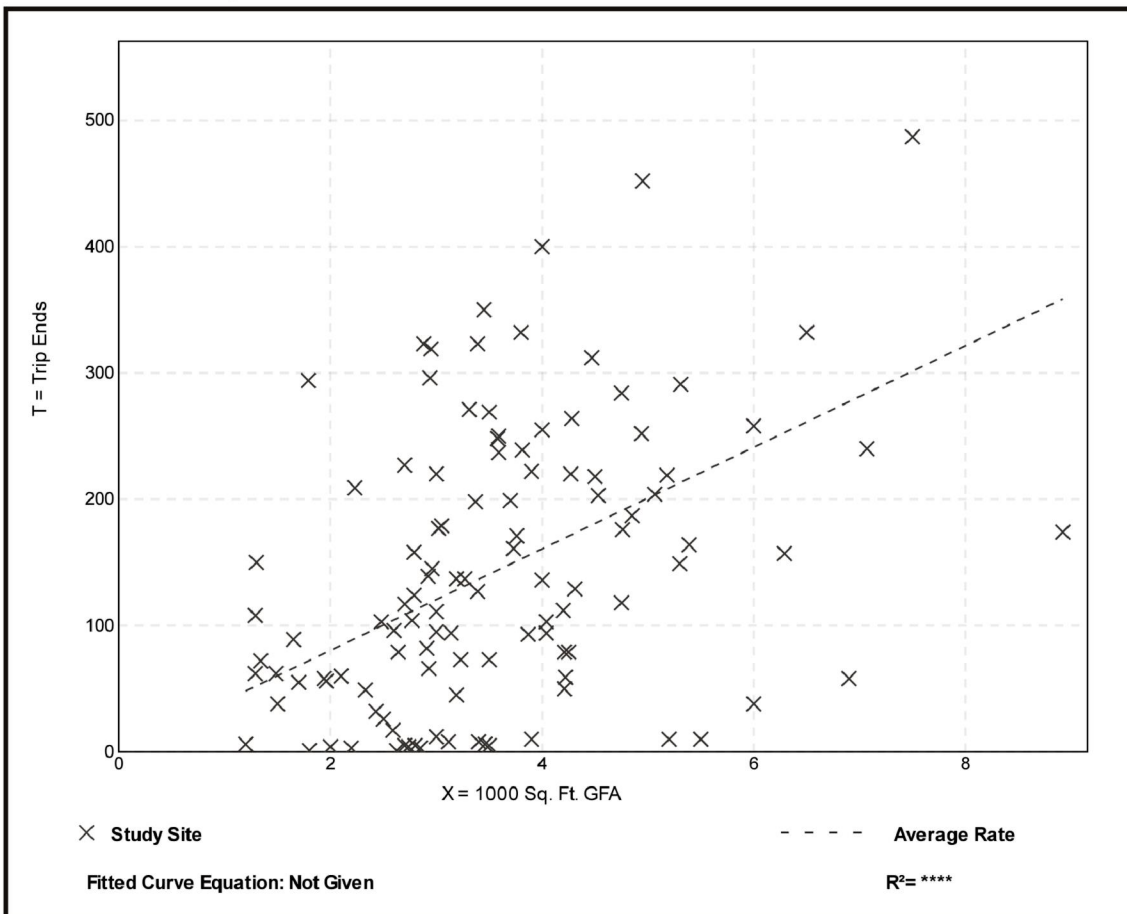
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 111
 1000 Sq. Ft. GFA: 4
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
40.19	0.38 - 164.25	28.78

Data Plot and Equation



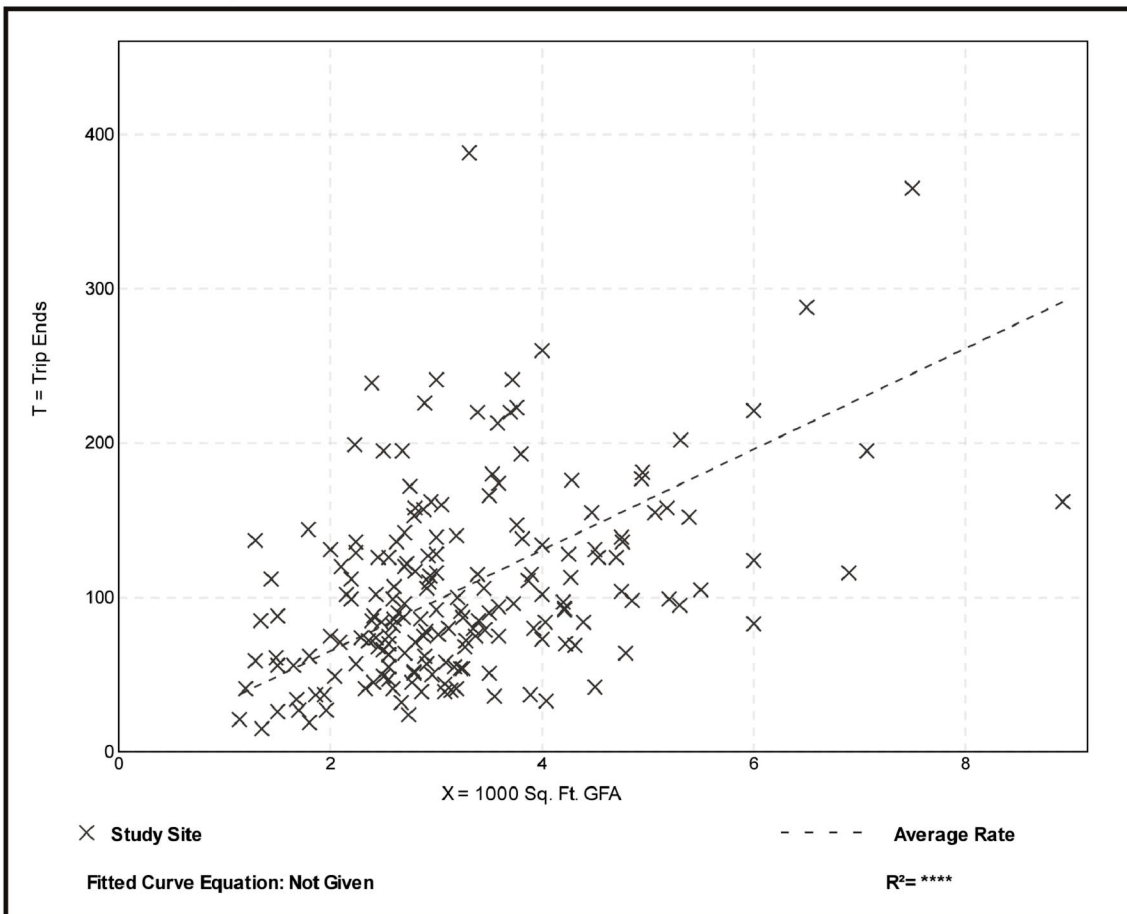
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 185
 1000 Sq. Ft. GFA: 3
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.67	8.17 - 117.22	17.87

Data Plot and Equation



CMAP 2050 Projections Letter



Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

February 19, 2020

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

Subject: Roosevelt Road @ Austin Boulevard
IDOT

Dear Mr. Bowen:

In response to a request made on your behalf and dated February 18, 2020, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current Volumes	Year 2050 ADT
Roosevelt Rd west of Austin Blvd	19,000	19,800
Roosevelt Rd east of Austin Blvd	17,700	18,400
Austin Blvd north of Roosevelt Rd	20,700	21,300
Austin Blvd south of Roosevelt Rd	15,800	16,500

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2019 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.

Sincerely,

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

cc: Quigley (IDOT)
2020_TrafficForecast\OakPark\ck-18-20\ck-18-20.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.	>80.0
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets
Existing Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	636	23	123	418	102	62	378	43	82	382	221
Future Volume (vph)	233	636	23	123	418	102	62	378	43	82	382	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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		1.00	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	1622	0	1787	1583	0	1770	1841	0	1770	3288	0
Flt Permitted	0.241			0.188			0.235			0.141		
Satd. Flow (perm)	453	1622	0	353	1583	0	436	1841	0	260	3288	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			228			289			158	
Travel Time (s)		7.7			5.2			6.6			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	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	665	0	124	525	0	63	425	0	83	609	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	20.7	56.4		12.6	48.3		12.7	33.3		12.7	33.3	
Total Split (%)	18.0%	49.0%		11.0%	42.0%		11.0%	29.0%		11.0%	29.0%	
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	53.3		59.6	48.8		37.2	28.0		37.9	28.3	
Actuated g/C Ratio	0.59	0.46		0.52	0.42		0.32	0.24		0.33	0.25	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020

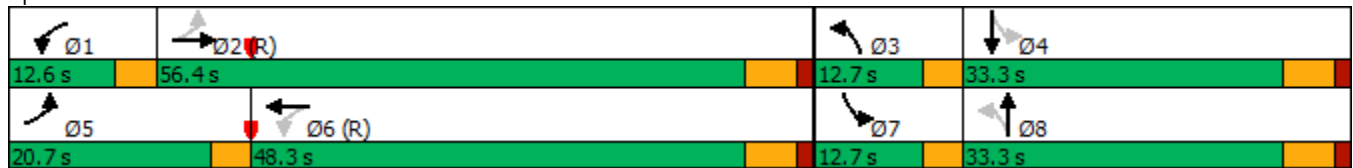


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.57	0.89		0.43	0.78		0.27	0.95		0.43	0.75	
Control Delay	17.6	44.7		16.7	40.1		27.1	75.3		31.4	47.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.6	44.7		16.7	40.1		27.1	75.3		31.4	47.1	
LOS	B	D		B	D		C	E		C	D	
Approach Delay		37.6			35.6			69.1			45.2	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	82	459		40	341		30	313		40	220	
Queue Length 95th (ft)	126	#704		69	#572		61	#517		76	291	
Internal Link Dist (ft)		258			148			209			78	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	465	751		298	671		250	448		206	810	
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	0.51	0.89		0.42	0.78		0.25	0.95		0.40	0.75	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 22.5 (20%), 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: 44.7 Intersection LOS: D
 Intersection Capacity Utilization 85.6% 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



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

02/19/2020

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	7	829	10	2	678	21	8	16	51	12	3	19
Future Vol, veh/h	7	829	10	2	678	21	8	16	51	12	3	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	4	0	50	4	5	0	8	2	0	0	6
Mvmt Flow	7	882	11	2	721	22	9	17	54	13	3	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	745	0	0	900	0	0	1658	1658	895	1675	1652	735
Stage 1	-	-	-	-	-	-	909	909	-	738	738	-
Stage 2	-	-	-	-	-	-	749	749	-	937	914	-
Critical Hdwy	4.1	-	-	4.6	-	-	7.1	6.58	6.22	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.58	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.58	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.65	-	-	3.5	4.072	3.318	3.5	4	3.354
Pot Cap-1 Maneuver	872	-	-	588	-	-	79	95	339	77	100	413
Stage 1	-	-	-	-	-	-	332	346	-	413	427	-
Stage 2	-	-	-	-	-	-	407	411	-	320	355	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	870	-	-	584	-	-	73	93	337	60	98	412
Mov Cap-2 Maneuver	-	-	-	-	-	-	193	211	-	167	219	-
Stage 1	-	-	-	-	-	-	327	341	-	409	425	-
Stage 2	-	-	-	-	-	-	382	409	-	253	350	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			23			21.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	279	870	-	-	584	-	-	258
HCM Lane V/C Ratio	0.286	0.009	-	-	0.004	-	-	0.14
HCM Control Delay (s)	23	9.2	-	-	11.2	-	-	21.2
HCM Lane LOS	C	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	0.5

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

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	44	0	0	31	0
Future Vol, veh/h	0	0	0	3	0	2	0	44	0	0	31	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	8	0	0	4	0
Mvmt Flow	0	0	0	3	0	2	0	50	0	0	35	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	87	86	39	88	86	50	36	0	0	50	0	0
Stage 1	36	36	-	50	50	-	-	-	-	-	-	-
Stage 2	51	50	-	38	36	-	-	-	-	-	-	-
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	904	808	1038	828	808	1024	1588	-	-	1570	-	-
Stage 1	985	869	-	890	857	-	-	-	-	-	-	-
Stage 2	967	857	-	904	869	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	901	807	1034	826	807	1024	1586	-	-	1570	-	-
Mov Cap-2 Maneuver	901	807	-	826	807	-	-	-	-	-	-	-
Stage 1	984	868	-	890	857	-	-	-	-	-	-	-
Stage 2	965	857	-	901	868	-	-	-	-	-	-	-

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)	1586	-	-	-	895	1570	-
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

02/19/2020

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	711	2	1	684	0
Future Vol, veh/h	0	0	0	1	0	4	0	711	2	1	684	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	733	2	1	705	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1457	1470	364	1108	1469	756	715	0	0	753	0	0
Stage 1	717	717	-	752	752	-	-	-	-	-	-	-
Stage 2	740	753	-	356	717	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	8.8	6.5	7.4	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.45	4	4.06	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	100	129	639	99	129	279	895	-	-	866	-	-
Stage 1	391	437	-	254	421	-	-	-	-	-	-	-
Stage 2	412	420	-	453	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	97	125	632	97	125	273	886	-	-	851	-	-
Mov Cap-2 Maneuver	97	125	-	97	125	-	-	-	-	-	-	-
Stage 1	387	432	-	250	414	-	-	-	-	-	-	-
Stage 2	404	413	-	452	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	23.5	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	886	-	-	-	200	851	-
HCM Lane V/C Ratio	-	-	-	-	0.026	0.001	-
HCM Control Delay (s)	0	-	-	0	23.5	9.2	0
HCM Lane LOS	A	-	-	A	C	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

Intersection	
Intersection Delay, s/veh	7.5
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	12	5	0	0	5	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	7.7	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)	0.078	0.058	0.014	0.038
Departure Headway (Hd)	4.263	4.075	3.956	3.994
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	872	895	891
Service Time	2.299	2.132	2.021	2.041
HCM Lane V/C Ratio	0.079	0.058	0.015	0.038
HCM Control Delay	7.7	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0	0.1

Capacity Analysis Summary Sheets
Existing Weekday Midday Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	386	38	52	395	88	49	308	44	42	329	217
Future Volume (vph)	193	386	38	52	395	88	49	308	44	42	329	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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	0.99	1.00		0.99	0.99		0.99	0.99		0.98	0.98	
Fr _t		0.987			0.973			0.981			0.940	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1606	0	1736	1553	0	1805	1821	0	1719	3260	0
Fl _t Permitted	0.271			0.400			0.253			0.220		
Satd. Flow (perm)	500	1606	0	727	1553	0	478	1821	0	390	3260	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			228			289			158	
Travel Time (s)		7.7			5.2			6.6			3.6	
Confl. Peds. (#/hr)	23		19	19		23	11		29	29		11
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	5%	3%	4%	6%	7%	0%	1%	4%	5%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	205	451	0	55	514	0	52	375	0	45	581	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	13.2	49.5		13.2	49.5		13.2	34.1		13.2	34.1	
Total Split (%)	12.0%	45.0%		12.0%	45.0%		12.0%	31.0%		12.0%	31.0%	
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)	63.8	53.3		58.7	49.1		35.7	26.8		35.5	26.7	
Actuated g/C Ratio	0.58	0.48		0.53	0.45		0.32	0.24		0.32	0.24	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.51	0.58		0.12	0.74		0.21	0.85		0.21	0.74	
Control Delay	17.0	27.2		12.6	35.5		23.4	57.6		23.6	44.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.0	27.2		12.6	35.5		23.4	57.6		23.6	44.3	
LOS	B	C		B	D		C	E		C	D	
Approach Delay		24.0			33.3			53.4			42.8	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	70	246		17	322		23	246		20	194	
Queue Length 95th (ft)	115	383		38	#511		48	#390		43	258	
Internal Link Dist (ft)		258			148			209			78	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	405	778		494	692		278	474		248	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	0.51	0.58		0.11	0.74		0.19	0.79		0.18	0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 37.0 Intersection LOS: D
 Intersection Capacity Utilization 76.4% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



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

02/19/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	16	567	13	14	632	15	12	5	43	7	1	16
Future Vol, veh/h	16	567	13	14	632	15	12	5	43	7	1	16
Conflicting Peds, #/hr	7	0	27	27	0	7	5	0	2	2	0	5
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	7	3	8	0	4	7	8	0	12	33	0	0
Mvmt Flow	16	585	13	14	652	15	12	5	44	7	1	16

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	674	0	0	625	0	0	1352	1353	621	1345	1352	672
Stage 1	-	-	-	-	-	-	651	651	-	695	695	-
Stage 2	-	-	-	-	-	-	701	702	-	650	657	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.18	6.5	6.32	7.43	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.43	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.43	5.5	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.572	4	3.408	3.797	4	3.3
Pot Cap-1 Maneuver	894	-	-	966	-	-	123	151	470	111	151	459
Stage 1	-	-	-	-	-	-	447	468	-	387	447	-
Stage 2	-	-	-	-	-	-	420	443	-	410	465	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	888	-	-	941	-	-	112	141	457	95	141	454
Mov Cap-2 Maneuver	-	-	-	-	-	-	235	261	-	208	262	-
Stage 1	-	-	-	-	-	-	428	447	-	377	437	-
Stage 2	-	-	-	-	-	-	396	433	-	359	445	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.2		0.2		16.9		16.8	
HCM LOS					C		C	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	365	888	-	-	941	-	-	330
HCM Lane V/C Ratio	0.169	0.019	-	-	0.015	-	-	0.075
HCM Control Delay (s)	16.9	9.1	-	-	8.9	-	-	16.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	1	0	1	1	33	2	1	19	1
Future Vol, veh/h	1	0	4	1	0	1	1	33	2	1	19	1
Conflicting Peds, #/hr	3	0	5	5	0	3	2	0	0	0	0	2
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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	13	0
Mvmt Flow	1	0	5	1	0	1	1	38	2	1	22	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	72	69	30	73	68	42	25	0	0	40	0	0
Stage 1	27	27	-	41	41	-	-	-	-	-	-	-
Stage 2	45	42	-	32	27	-	-	-	-	-	-	-
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	924	825	1050	923	826	1034	1603	-	-	1583	-	-
Stage 1	996	877	-	979	865	-	-	-	-	-	-	-
Stage 2	974	864	-	990	877	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	918	822	1043	913	823	1031	1600	-	-	1583	-	-
Mov Cap-2 Maneuver	918	822	-	913	823	-	-	-	-	-	-	-
Stage 1	993	874	-	978	864	-	-	-	-	-	-	-
Stage 2	969	863	-	980	874	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		8.7		0.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1600	-	-	1015	968	1583	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.002	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.6	8.7	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
4: Austin Boulevard & EW Alley

02/19/2020

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	2	0	583	6	0	588	0
Future Vol, veh/h	0	0	0	0	0	2	0	583	6	0	588	0
Conflicting Peds, #/hr	2	0	3	3	0	2	12	0	30	30	0	12
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	50	0	2	0	0	2	0
Mvmt Flow	0	0	0	0	0	2	0	627	6	0	632	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1277	1307	331	979	1304	662	644	0	0	663	0	0
Stage 1	644	644	-	660	660	-	-	-	-	-	-	-
Stage 2	633	663	-	319	644	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.95	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.775	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	135	161	671	219	162	368	951	-	-	935	-	-
Stage 1	433	471	-	455	463	-	-	-	-	-	-	-
Stage 2	471	462	-	673	471	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	132	155	661	212	156	357	940	-	-	908	-	-
Mov Cap-2 Maneuver	132	155	-	212	156	-	-	-	-	-	-	-
Stage 1	428	466	-	442	450	-	-	-	-	-	-	-
Stage 2	467	449	-	671	466	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		15.1		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	940	-	-	-	357	908	-
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-
HCM Control Delay (s)	0	-	-	0	15.1	0	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

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	3	3	5	2	1	2	4	27	4	1	14	0
Future Vol, veh/h	3	3	5	2	1	2	4	27	4	1	14	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	50	0	0	0	0	25	0	7	0
Mvmt Flow	4	4	6	3	1	3	5	35	5	1	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7.8	7.1	7.1
HCM LOS	A	A	A	A






















Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	27%	40%	7%
Vol Thru, %	77%	27%	20%	93%
Vol Right, %	11%	45%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	11	5	15
LT Vol	4	3	2	1
Through Vol	27	3	1	14
RT Vol	4	5	2	0
Lane Flow Rate	45	14	6	19
Geometry Grp	1	1	1	1
Degree of Util (X)	0.049	0.015	0.008	0.021
Departure Headway (Hd)	3.906	3.798	4.713	3.984
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	920	941	760	900
Service Time	1.917	1.825	2.74	2
HCM Lane V/C Ratio	0.049	0.015	0.008	0.021
HCM Control Delay	7.1	6.9	7.8	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.1

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	456	59	61	499	77	60	308	42	67	449	208
Future Volume (vph)	214	456	59	61	499	77	60	308	42	67	449	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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	0.99	1.00		0.99	0.99		0.99	0.99		0.97	0.99	
Fr _t		0.983			0.980			0.982			0.953	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1647	0	1805	1617	0	1805	1821	0	1787	3367	0
Fl _t Permitted	0.204			0.336			0.175			0.229		
Satd. Flow (perm)	384	1647	0	635	1617	0	330	1821	0	416	3367	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			228			289			163	
Travel Time (s)		7.7			5.2			6.6			3.7	
Confl. Peds. (#/hr)	26		21	21		26	14		48	48		14
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%	2%	9%	0%	1%	2%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	531	0	63	593	0	62	361	0	69	677	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	15.0	54.0		12.7	51.7		12.7	35.6		12.7	35.6	
Total Split (%)	13.0%	47.0%		11.0%	45.0%		11.0%	31.0%		11.0%	31.0%	
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)	68.0	56.8		61.2	51.4		36.8	27.6		37.1	27.8	
Actuated g/C Ratio	0.59	0.49		0.53	0.45		0.32	0.24		0.32	0.24	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020

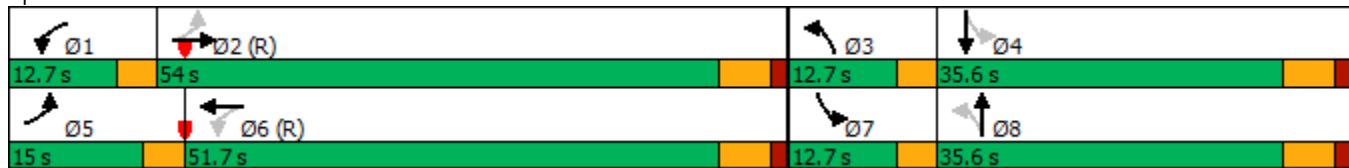


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.61	0.65		0.15	0.82		0.30	0.83		0.30	0.83	
Control Delay	19.8	29.5		12.8	41.2		27.1	57.8		26.9	51.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.8	29.5		12.8	41.2		27.1	57.8		26.9	51.0	
LOS	B	C		B	D		C	E		C	D	
Approach Delay		26.7			38.5			53.3			48.8	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	78	316		20	412		29	249		33	245	
Queue Length 95th (ft)	125	476		42	#638		58	#382		63	316	
Internal Link Dist (ft)		258			148			209			83	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	372	812		441	722		225	468		246	868	
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	0.59	0.65		0.14	0.82		0.28	0.77		0.28	0.78	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 40.4
 Intersection LOS: D
 Intersection Capacity Utilization 82.7%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



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

02/19/2020

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	11	681	17	9	744	14	22	13	39	9	7	24
Future Vol, veh/h	11	681	17	9	744	14	22	13	39	9	7	24
Conflicting Peds, #/hr	6	0	14	14	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	55	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	2	0	0	0	5	0	14	0
Mvmt Flow	12	717	18	9	783	15	23	14	41	9	7	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	804	0	0	749	0	0	1589	1586	740	1593	1588	797
Stage 1	-	-	-	-	-	-	764	764	-	815	815	-
Stage 2	-	-	-	-	-	-	825	822	-	778	773	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.25	7.1	6.64	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.64	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.345	3.5	4.126	3.3
Pot Cap-1 Maneuver	829	-	-	869	-	-	88	109	412	87	101	390
Stage 1	-	-	-	-	-	-	399	416	-	374	374	-
Stage 2	-	-	-	-	-	-	370	391	-	392	392	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	824	-	-	857	-	-	78	104	407	73	97	388
Mov Cap-2 Maneuver	-	-	-	-	-	-	196	224	-	191	213	-
Stage 1	-	-	-	-	-	-	388	404	-	367	368	-
Stage 2	-	-	-	-	-	-	335	384	-	336	381	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			22.9			20		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	278	824	-	-	857	-	-	282
HCM Lane V/C Ratio	0.28	0.014	-	-	0.011	-	-	0.149
HCM Control Delay (s)	22.9	9.4	-	-	9.2	-	-	20
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	0.5

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

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	2	34	2	0	39	0
Future Vol, veh/h	1	0	1	0	0	1	2	34	2	0	39	0
Conflicting Peds, #/hr	3	0	4	4	0	3	4	0	0	0	0	4
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	50	0	0	0	3	0
Mvmt Flow	1	0	1	0	0	1	3	49	3	0	57	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	121	119	65	119	118	54	61	0	0	52	0	0
Stage 1	61	61	-	57	57	-	-	-	-	-	-	-
Stage 2	60	58	-	62	61	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.6	-	-	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	2.65	-	-	2.2	-	-
Pot Cap-1 Maneuver	859	775	1005	861	776	1019	1285	-	-	1567	-	-
Stage 1	955	848	-	960	851	-	-	-	-	-	-	-
Stage 2	957	851	-	954	848	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	850	770	997	855	771	1016	1280	-	-	1567	-	-
Mov Cap-2 Maneuver	850	770	-	855	771	-	-	-	-	-	-	-
Stage 1	949	845	-	958	849	-	-	-	-	-	-	-
Stage 2	951	849	-	949	845	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		8.5		0.4		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	918	1016	1567	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.001	-	-
HCM Control Delay (s)	7.8	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

02/19/2020

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	596	3	0	720	0
Future Vol, veh/h	0	0	0	4	0	9	0	596	3	0	720	0
Conflicting Peds, #/hr	1	0	1	1	0	1	25	0	28	28	0	25
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	1	0	0	1	0
Mvmt Flow	0	0	0	4	0	10	0	641	3	0	774	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1448	1471	413	1059	1470	672	799	0	0	672	0	0
Stage 1	799	799	-	671	671	-	-	-	-	-	-	-
Stage 2	649	672	-	388	799	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	102	128	594	192	129	459	833	-	-	928	-	-
Stage 1	350	401	-	449	458	-	-	-	-	-	-	-
Stage 2	462	458	-	613	401	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	97	122	579	187	123	446	813	-	-	903	-	-
Mov Cap-2 Maneuver	97	122	-	187	123	-	-	-	-	-	-	-
Stage 1	342	391	-	437	446	-	-	-	-	-	-	-
Stage 2	452	446	-	612	391	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		17		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	813	-	-	-	313	903	-
HCM Lane V/C Ratio	-	-	-	-	0.045	-	-
HCM Control Delay (s)	0	-	-	0	17	0	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

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	5	27	4	4	28	2
Future Vol, veh/h	8	5	10	1	4	2	5	27	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	4	0
Mvmt Flow	11	7	14	1	5	3	7	36	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, %	14%	35%	14%	12%
Vol Thru, %	75%	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	5	8	1	4
Through Vol	27	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)	3.966	3.879	3.945	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	903	918	902	897
Service Time	1.989	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

Capacity Analysis Summary Sheets
No Build Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	642	23	124	422	103	63	382	73	83	386	223
Future Volume (vph)	235	642	23	124	422	103	63	382	73	83	386	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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		1.00	0.99		0.99	0.99	
Fr _t		0.995			0.971			0.976			0.945	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1622	0	1787	1583	0	1770	1817	0	1770	3288	0
Fl _t Permitted	0.216			0.161			0.248			0.132		
Satd. Flow (perm)	406	1622	0	302	1583	0	460	1817	0	244	3288	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			228			289			158	
Travel Time (s)		7.7			5.2			6.6			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	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	237	671	0	125	530	0	64	460	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	20.7	56.4		12.6	48.3		12.7	33.3		12.7	33.3	
Total Split (%)	18.0%	49.0%		11.0%	42.0%		11.0%	29.0%		11.0%	29.0%	
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)	65.3	51.1		57.3	46.4		39.4	30.1		40.0	30.4	
Actuated g/C Ratio	0.57	0.44		0.50	0.40		0.34	0.26		0.35	0.26	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020

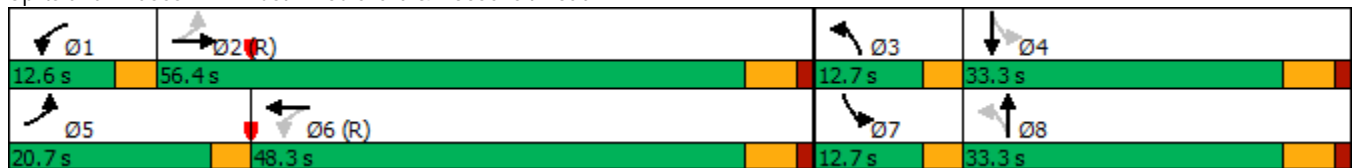


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.61	0.93		0.48	0.83		0.26	0.97		0.43	0.71	
Control Delay	19.5	52.1		18.9	44.4		26.7	77.7		31.2	44.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.5	52.1		18.9	44.4		26.7	77.7		31.2	44.4	
LOS	B	D		B	D		C	E		C	D	
Approach Delay		43.6			39.5			71.5			42.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	83	466		41	346		31	~376		41	223	
Queue Length 95th (ft)	127	#713		70	#581		62	#579		76	294	
Internal Link Dist (ft)		258			148			209			78	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	437	720		270	638		264	475		207	870	
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	0.93		0.46	0.83		0.24	0.97		0.41	0.71	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 47.7
 Intersection LOS: D
 Intersection Capacity Utilization 88.2%
 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



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

02/19/2020

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	7	837	10	2	685	21	8	16	51	12	3	19
Future Vol, veh/h	7	837	10	2	685	21	8	16	51	12	3	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	4	0	50	4	5	0	8	2	0	0	6
Mvmt Flow	7	890	11	2	729	22	9	17	54	13	3	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	753	0	0	908	0	0	1674	1674	903	1691	1668	743
Stage 1	-	-	-	-	-	-	917	917	-	746	746	-
Stage 2	-	-	-	-	-	-	757	757	-	945	922	-
Critical Hdwy	4.1	-	-	4.6	-	-	7.1	6.58	6.22	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.58	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.58	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.65	-	-	3.5	4.072	3.318	3.5	4	3.354
Pot Cap-1 Maneuver	866	-	-	584	-	-	77	92	336	75	97	409
Stage 1	-	-	-	-	-	-	329	343	-	409	424	-
Stage 2	-	-	-	-	-	-	403	407	-	317	352	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	864	-	-	580	-	-	71	90	334	58	95	408
Mov Cap-2 Maneuver	-	-	-	-	-	-	190	208	-	165	216	-
Stage 1	-	-	-	-	-	-	324	338	-	405	422	-
Stage 2	-	-	-	-	-	-	378	405	-	250	347	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	23.3	21.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	276	864	-	-	580	-	-	255
HCM Lane V/C Ratio	0.289	0.009	-	-	0.004	-	-	0.142
HCM Control Delay (s)	23.3	9.2	-	-	11.2	-	-	21.4
HCM Lane LOS	C	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	0.5

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

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	44	0	0	31	0
Future Vol, veh/h	0	0	0	3	0	2	0	44	0	0	31	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	8	0	0	4	0
Mvmt Flow	0	0	0	3	0	2	0	50	0	0	35	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	87	86	39	88	86	50	36	0	0	50	0	0
Stage 1	36	36	-	50	50	-	-	-	-	-	-	-
Stage 2	51	50	-	38	36	-	-	-	-	-	-	-
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	904	808	1038	828	808	1024	1588	-	-	1570	-	-
Stage 1	985	869	-	890	857	-	-	-	-	-	-	-
Stage 2	967	857	-	904	869	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	901	807	1034	826	807	1024	1586	-	-	1570	-	-
Mov Cap-2 Maneuver	901	807	-	826	807	-	-	-	-	-	-	-
Stage 1	984	868	-	890	857	-	-	-	-	-	-	-
Stage 2	965	857	-	901	868	-	-	-	-	-	-	-

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)	1586	-	-	-	895	1570	-
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

02/19/2020

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	367	1118	1483	763	722	0	0	760	0	0
Stage 1	724	724	-	759	759	-	-	-	-	-	-	-
Stage 2	747	760	-	359	724	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	8.8	6.5	7.4	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.45	4	4.06	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	98	126	636	97	126	276	889	-	-	861	-	-
Stage 1	388	433	-	251	418	-	-	-	-	-	-	-
Stage 2	408	417	-	451	433	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	95	122	629	95	122	270	881	-	-	846	-	-
Mov Cap-2 Maneuver	95	122	-	95	122	-	-	-	-	-	-	-
Stage 1	384	428	-	247	411	-	-	-	-	-	-	-
Stage 2	400	410	-	450	428	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		23.8		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	881	-	-	-	197	846	-
HCM Lane V/C Ratio	-	-	-	-	0.026	0.001	-
HCM Control Delay (s)	0	-	-	0	23.8	9.3	0
HCM Lane LOS	A	-	-	A	C	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

Intersection	
Intersection Delay, s/veh	7.5
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	12	5	0	0	5	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	7.7	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)	0.078	0.058	0.014	0.038
Departure Headway (Hd)	4.263	4.075	3.956	3.994
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	872	895	891
Service Time	2.299	2.132	2.021	2.041
HCM Lane V/C Ratio	0.079	0.058	0.015	0.038
HCM Control Delay	7.7	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0	0.1

Capacity Analysis Summary Sheets
No Build Weekday Midday Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	390	38	53	399	89	49	311	44	42	333	219
Future Volume (vph)	195	390	38	53	399	89	49	311	44	42	333	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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	0.99	1.00		0.99	0.99		0.99	0.99		0.98	0.98	
Fr _t		0.987			0.973			0.981			0.940	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1606	0	1736	1553	0	1805	1821	0	1719	3260	0
Fl _t Permitted	0.267			0.395			0.249			0.217		
Satd. Flow (perm)	493	1606	0	718	1553	0	470	1821	0	385	3260	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			228			289			158	
Travel Time (s)		7.7			5.2			6.6			3.6	
Confl. Peds. (#/hr)	23		19	19		23	11		29	29		11
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	5%	3%	4%	6%	7%	0%	1%	4%	5%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	455	0	56	519	0	52	378	0	45	587	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	13.2	49.5		13.2	49.5		13.2	34.1		13.2	34.1	
Total Split (%)	12.0%	45.0%		12.0%	45.0%		12.0%	31.0%		12.0%	31.0%	
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)	63.7	53.2		58.6	49.0		35.8	26.9		35.5	26.8	
Actuated g/C Ratio	0.58	0.48		0.53	0.45		0.33	0.24		0.32	0.24	

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.52	0.59		0.12	0.75		0.21	0.85		0.21	0.74	
Control Delay	17.3	27.4		12.6	36.0		23.4	57.9		23.6	44.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.3	27.4		12.6	36.0		23.4	57.9		23.6	44.4	
LOS	B	C		B	D		C	E		C	D	
Approach Delay		24.2			33.7			53.7			42.9	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	71	250		18	327		23	248		20	195	
Queue Length 95th (ft)	116	387		38	#520		48	#396		43	262	
Internal Link Dist (ft)		258			148			209			78	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	401	776		489	692		276	475		247	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	0.52	0.59		0.11	0.75		0.19	0.80		0.18	0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 37.3
 Intersection LOS: D
 Intersection Capacity Utilization 77.0%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



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

02/19/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	16	573	13	14	638	15	12	5	43	7	1	16
Future Vol, veh/h	16	573	13	14	638	15	12	5	43	7	1	16
Conflicting Peds, #/hr	7	0	27	27	0	7	5	0	2	2	0	5
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	7	3	8	0	4	7	8	0	12	33	0	0
Mvmt Flow	16	591	13	14	658	15	12	5	44	7	1	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	680	0	0	631	0	0	1364	1365	627	1357	1364	678
Stage 1	-	-	-	-	-	-	657	657	-	701	701	-
Stage 2	-	-	-	-	-	-	707	708	-	656	663	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.18	6.5	6.32	7.43	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.43	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.43	5.5	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.572	4	3.408	3.797	4	3.3
Pot Cap-1 Maneuver	889	-	-	961	-	-	121	149	466	108	149	456
Stage 1	-	-	-	-	-	-	444	465	-	384	444	-
Stage 2	-	-	-	-	-	-	417	441	-	407	462	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	883	-	-	936	-	-	110	139	453	93	139	451
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	259	-	205	260	-
Stage 1	-	-	-	-	-	-	425	445	-	374	434	-
Stage 2	-	-	-	-	-	-	393	431	-	356	442	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			17			16.9		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	362	883	-	-	936	-	-	327
HCM Lane V/C Ratio	0.171	0.019	-	-	0.015	-	-	0.076
HCM Control Delay (s)	17	9.2	-	-	8.9	-	-	16.9
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	1	0	1	1	33	2	1	19	1
Future Vol, veh/h	1	0	4	1	0	1	1	33	2	1	19	1
Conflicting Peds, #/hr	3	0	5	5	0	3	2	0	0	0	0	2
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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	13	0
Mvmt Flow	1	0	5	1	0	1	1	38	2	1	22	1

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	72	69	30	73	68	42	25	0	0	40	0	0
Stage 1	27	27	-	41	41	-	-	-	-	-	-	-
Stage 2	45	42	-	32	27	-	-	-	-	-	-	-
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	924	825	1050	923	826	1034	1603	-	-	1583	-	-
Stage 1	996	877	-	979	865	-	-	-	-	-	-	-
Stage 2	974	864	-	990	877	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	918	822	1043	913	823	1031	1600	-	-	1583	-	-
Mov Cap-2 Maneuver	918	822	-	913	823	-	-	-	-	-	-	-
Stage 1	993	874	-	978	864	-	-	-	-	-	-	-
Stage 2	969	863	-	980	874	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		8.7		0.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1600	-	-	1015	968	1583	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.002	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.6	8.7	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
4: Austin Boulevard & EW Alley

02/19/2020

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	2	0	589	6	0	594	0
Future Vol, veh/h	0	0	0	0	0	2	0	589	6	0	594	0
Conflicting Peds, #/hr	2	0	3	3	0	2	12	0	30	30	0	12
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	50	0	2	0	0	2	0
Mvmt Flow	0	0	0	0	0	2	0	633	6	0	639	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1290	1320	335	989	1317	668	651	0	0	669	0	0
Stage 1	651	651	-	666	666	-	-	-	-	-	-	-
Stage 2	639	669	-	323	651	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.95	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.775	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	132	158	667	216	159	365	945	-	-	931	-	-
Stage 1	429	468	-	452	460	-	-	-	-	-	-	-
Stage 2	468	459	-	669	468	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	129	152	657	209	153	354	934	-	-	904	-	-
Mov Cap-2 Maneuver	129	152	-	209	153	-	-	-	-	-	-	-
Stage 1	424	463	-	439	447	-	-	-	-	-	-	-
Stage 2	464	446	-	667	463	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	15.2	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	934	-	-	-	354	904	-
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-
HCM Control Delay (s)	0	-	-	0	15.2	0	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

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	3	3	5	2	1	2	4	27	4	1	14	0
Future Vol, veh/h	3	3	5	2	1	2	4	27	4	1	14	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	50	0	0	0	0	25	0	7	0
Mvmt Flow	4	4	6	3	1	3	5	35	5	1	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0






















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7.8	7.1	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	27%	40%	7%
Vol Thru, %	77%	27%	20%	93%
Vol Right, %	11%	45%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	11	5	15
LT Vol	4	3	2	1
Through Vol	27	3	1	14
RT Vol	4	5	2	0
Lane Flow Rate	45	14	6	19
Geometry Grp	1	1	1	1
Degree of Util (X)	0.049	0.015	0.008	0.021
Departure Headway (Hd)	3.906	3.798	4.713	3.984
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	920	941	760	900
Service Time	1.917	1.825	2.74	2
HCM Lane V/C Ratio	0.049	0.015	0.008	0.021
HCM Control Delay	7.1	6.9	7.8	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.1

Capacity Analysis Summary Sheets
No Build Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	461	60	62	504	78	61	311	42	67	454	210
Future Volume (vph)	216	461	60	62	504	78	61	311	42	67	454	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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	0.99	1.00		0.99	0.99		0.99	0.99		0.97	0.99	
Fr _t		0.983			0.980			0.982			0.953	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1647	0	1805	1617	0	1805	1821	0	1787	3367	0
Fl _t Permitted	0.196			0.328			0.172			0.230		
Satd. Flow (perm)	369	1647	0	620	1617	0	325	1821	0	418	3367	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			228			289			163	
Travel Time (s)		7.7			5.2			6.6			3.7	
Confl. Peds. (#/hr)	26		21	21		26	14		48	48		14
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%	2%	9%	0%	1%	2%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	537	0	64	600	0	63	364	0	69	684	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	15.0	54.0		12.7	51.7		12.7	35.6		12.7	35.6	
Total Split (%)	13.0%	47.0%		11.0%	45.0%		11.0%	31.0%		11.0%	31.0%	
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)	67.8	56.5		61.0	51.1		37.0	27.8		37.3	28.0	
Actuated g/C Ratio	0.59	0.49		0.53	0.44		0.32	0.24		0.32	0.24	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020

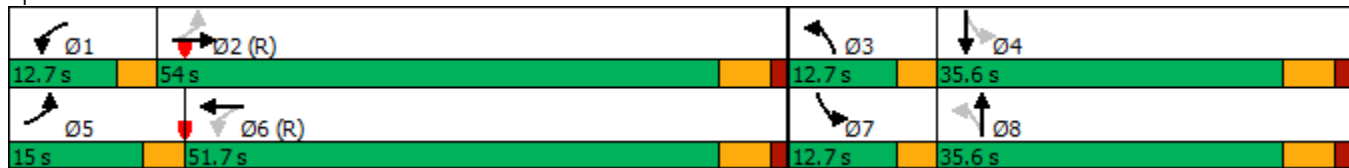


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.63	0.66		0.16	0.84		0.31	0.83		0.30	0.84	
Control Delay	20.6	30.0		12.9	42.4		27.1	57.8		26.8	51.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.6	30.0		12.9	42.4		27.1	57.8		26.8	51.2	
LOS	C	C		B	D		C	E		C	D	
Approach Delay		27.3			39.5			53.2			49.0	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	79	322		21	419		30	251		33	248	
Queue Length 95th (ft)	126	485		42	#650		58	#388		63	321	
Internal Link Dist (ft)		258			148			209			83	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	363	809		433	718		224	468		247	868	
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	0.66		0.15	0.84		0.28	0.78		0.28	0.79	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 40.9
 Intersection LOS: D
 Intersection Capacity Utilization 83.3%
 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 TWSC
 2: 60th Court/Humphrey Avenue & Roosevelt Road

02/19/2020

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	11	689	17	9	752	14	22	13	39	9	7	24
Future Vol, veh/h	11	689	17	9	752	14	22	13	39	9	7	24
Conflicting Peds, #/hr	6	0	14	14	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	55	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	2	0	0	0	5	0	14	0
Mvmt Flow	12	725	18	9	792	15	23	14	41	9	7	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	813	0	0	757	0	0	1606	1603	748	1610	1605	806
Stage 1	-	-	-	-	-	-	772	772	-	824	824	-
Stage 2	-	-	-	-	-	-	834	831	-	786	781	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.25	7.1	6.64	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.64	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.345	3.5	4.126	3.3
Pot Cap-1 Maneuver	823	-	-	863	-	-	86	107	408	85	99	385
Stage 1	-	-	-	-	-	-	395	412	-	370	371	-
Stage 2	-	-	-	-	-	-	365	387	-	388	388	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	818	-	-	851	-	-	76	102	403	71	95	383
Mov Cap-2 Maneuver	-	-	-	-	-	-	193	221	-	188	211	-
Stage 1	-	-	-	-	-	-	384	400	-	363	365	-
Stage 2	-	-	-	-	-	-	331	380	-	332	377	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			23.3			20.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	274	818	-	-	851	-	-	278
HCM Lane V/C Ratio	0.284	0.014	-	-	0.011	-	-	0.151
HCM Control Delay (s)	23.3	9.5	-	-	9.3	-	-	20.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	0.5

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

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	2	34	2	0	39	0
Future Vol, veh/h	1	0	1	0	0	1	2	34	2	0	39	0
Conflicting Peds, #/hr	3	0	4	4	0	3	4	0	0	0	0	4
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	50	0	0	0	3	0
Mvmt Flow	1	0	1	0	0	1	3	49	3	0	57	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	121	119	65	119	118	54	61	0	0	52	0	0
Stage 1	61	61	-	57	57	-	-	-	-	-	-	-
Stage 2	60	58	-	62	61	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.6	-	-	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	2.65	-	-	2.2	-	-
Pot Cap-1 Maneuver	859	775	1005	861	776	1019	1285	-	-	1567	-	-
Stage 1	955	848	-	960	851	-	-	-	-	-	-	-
Stage 2	957	851	-	954	848	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	850	770	997	855	771	1016	1280	-	-	1567	-	-
Mov Cap-2 Maneuver	850	770	-	855	771	-	-	-	-	-	-	-
Stage 1	949	845	-	958	849	-	-	-	-	-	-	-
Stage 2	951	849	-	949	845	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	8.9		8.5			0.4			0		
HCM LOS	A		A								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	918	1016	1567	-	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.001	-	-	-
HCM Control Delay (s)	7.8	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

02/19/2020

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	0	727	0
Future Vol, veh/h	0	0	0	4	0	9	0	602	3	0	727	0
Conflicting Peds, #/hr	1	0	1	1	0	1	25	0	28	28	0	25
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	1	0	0	1	0
Mvmt Flow	0	0	0	4	0	10	0	647	3	0	782	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1462	1485	417	1069	1484	678	807	0	0	678	0	0
Stage 1	807	807	-	677	677	-	-	-	-	-	-	-
Stage 2	655	678	-	392	807	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	99	126	590	189	126	456	827	-	-	923	-	-
Stage 1	346	397	-	446	455	-	-	-	-	-	-	-
Stage 2	458	455	-	610	397	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	94	120	575	184	120	443	807	-	-	898	-	-
Mov Cap-2 Maneuver	94	120	-	184	120	-	-	-	-	-	-	-
Stage 1	338	387	-	434	443	-	-	-	-	-	-	-
Stage 2	448	443	-	609	387	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		17.2		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	807	-	-	-	309	898	-
HCM Lane V/C Ratio	-	-	-	-	0.045	-	-
HCM Control Delay (s)	0	-	-	0	17.2	0	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

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	5	27	4	4	28	2
Future Vol, veh/h	8	5	10	1	4	2	5	27	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	4	0
Mvmt Flow	11	7	14	1	5	3	7	36	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, %	14%	35%	14%	12%
Vol Thru, %	75%	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	5	8	1	4
Through Vol	27	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)	3.966	3.879	3.945	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	903	918	902	897
Service Time	1.989	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

Capacity Analysis Summary Sheets

Total Projected Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	645	26	124	433	103	66	386	43	91	389	223
Future Volume (vph)	235	645	26	124	433	103	66	386	43	91	389	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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		1.00	0.99		0.99	0.99	
Fr _t		0.994			0.971			0.985			0.945	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1621	0	1787	1584	0	1770	1841	0	1770	3288	0
Fl _t Permitted	0.205			0.154			0.259			0.131		
Satd. Flow (perm)	385	1621	0	289	1584	0	480	1841	0	242	3288	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		252			228			289			101	
Travel Time (s)		5.7			5.2			6.6			2.3	
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	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	237	678	0	125	541	0	67	433	0	92	618	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	20.7	56.4		12.6	48.3		12.7	33.3		12.7	33.3	
Total Split (%)	18.0%	49.0%		11.0%	42.0%		11.0%	29.0%		11.0%	29.0%	
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)	65.2	51.0		57.2	46.3		38.6	28.1		40.2	30.5	
Actuated g/C Ratio	0.57	0.44		0.50	0.40		0.34	0.24		0.35	0.27	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020

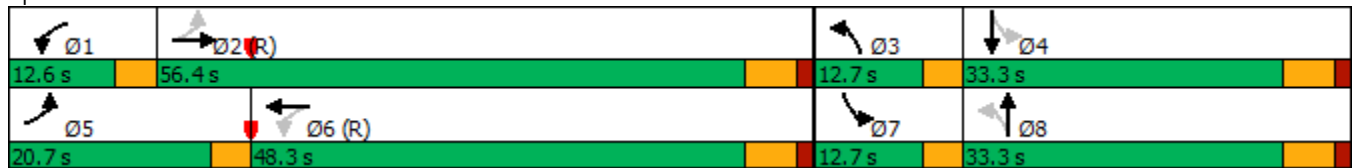


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.63	0.94		0.49	0.85		0.27	0.96		0.47	0.71	
Control Delay	20.2	54.3		19.4	46.2		26.8	78.1		32.2	44.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.2	54.3		19.4	46.2		26.8	78.1		32.2	44.5	
LOS	C	D		B	D		C	E		C	D	
Approach Delay		45.5			41.2			71.2			42.9	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	83	474		41	357		32	321		45	224	
Queue Length 95th (ft)	127	#726		70	#599		64	#531		82	296	
Internal Link Dist (ft)		172			148			209			21	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	428	718		263	637		268	450		207	872	
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	0.55	0.94		0.48	0.85		0.25	0.96		0.44	0.71	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 48.4 Intersection LOS: D
 Intersection Capacity Utilization 87.2% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



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

02/20/2020

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	7	850	10	4	698	23	8	16	53	14	3	19
Future Vol, veh/h	7	850	10	4	698	23	8	16	53	14	3	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	-	-	25	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	4	0	50	4	5	0	8	2	0	0	6
Mvmt Flow	7	904	11	4	743	24	9	17	56	15	3	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	769	0	0	922	0	0	1707	1708	917	1725	1701	758
Stage 1	-	-	-	-	-	-	931	931	-	765	765	-
Stage 2	-	-	-	-	-	-	776	777	-	960	936	-
Critical Hdwy	4.1	-	-	4.6	-	-	7.1	6.58	6.22	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.58	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.58	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.65	-	-	3.5	4.072	3.318	3.5	4	3.354
Pot Cap-1 Maneuver	854	-	-	576	-	-	73	88	330	71	93	401
Stage 1	-	-	-	-	-	-	323	338	-	399	415	-
Stage 2	-	-	-	-	-	-	393	398	-	311	346	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	852	-	-	572	-	-	67	86	328	54	91	400
Mov Cap-2 Maneuver	-	-	-	-	-	-	185	202	-	158	210	-
Stage 1	-	-	-	-	-	-	318	333	-	395	411	-
Stage 2	-	-	-	-	-	-	367	394	-	242	341	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			23.9			22.9		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	852	-	-	572	-	-	239
HCM Lane V/C Ratio	0.302	0.009	-	-	0.007	-	-	0.16
HCM Control Delay (s)	23.9	9.3	-	-	11.3	-	-	22.9
HCM Lane LOS	C	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	0.6

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/20/2020

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	0	0	0	3	0	2	0	46	0	0	33	0
Future Vol, veh/h	0	0	0	3	0	2	0	46	0	0	33	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	8	0	0	4	0
Mvmt Flow	0	0	0	3	0	2	0	52	0	0	38	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	92	91	42	93	91	52	39	0	0	52	0	0
Stage 1	39	39	-	52	52	-	-	-	-	-	-	-
Stage 2	53	52	-	41	39	-	-	-	-	-	-	-
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	897	803	1034	822	803	1021	1584	-	-	1567	-	-
Stage 1	981	866	-	888	856	-	-	-	-	-	-	-
Stage 2	965	856	-	900	866	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	894	802	1030	820	802	1021	1582	-	-	1567	-	-
Mov Cap-2 Maneuver	894	802	-	820	802	-	-	-	-	-	-	-
Stage 1	980	865	-	888	856	-	-	-	-	-	-	-
Stage 2	963	856	-	897	865	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.1	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1582	-	-	-	890	1567	-
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-
HCM Control Delay (s)	0	-	-	0	9.1	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

HCM 6th TWSC
4: Austin Boulevard & EW Alley

02/20/2020

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	726	2	1	700	0
Future Vol, veh/h	0	0	0	1	0	4	0	726	2	1	700	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	748	2	1	722	0

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1489	1502	372	1131	1501	771	732	0	0	768	0	0
Stage 1	734	734	-	767	767	-	-	-	-	-	-	-
Stage 2	755	768	-	364	734	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	8.8	6.5	7.4	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.45	4	4.06	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	95	123	631	95	123	272	882	-	-	855	-	-
Stage 1	382	429	-	248	414	-	-	-	-	-	-	-
Stage 2	404	414	-	447	429	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	92	119	624	93	119	266	874	-	-	840	-	-
Mov Cap-2 Maneuver	92	119	-	93	119	-	-	-	-	-	-	-
Stage 1	378	424	-	244	407	-	-	-	-	-	-	-
Stage 2	396	407	-	446	424	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	0		24.1			0		0		
HCM LOS	A		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	874	-	-	-	194	840	-
HCM Lane V/C Ratio	-	-	-	-	0.027	0.001	-
HCM Control Delay (s)	0	-	-	0	24.1	9.3	0
HCM Lane LOS	A	-	-	A	C	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

Intersection	
Intersection Delay, s/veh	7.5
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	39	1	1	22	3
Future Vol, veh/h	26	1	9	2	4	3	8	39	1	1	22	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	12	5	0	0	5	0
Mvmt Flow	37	1	13	3	6	4	11	56	1	1	31	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	7.7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	72%	22%	4%
Vol Thru, %	81%	3%	44%	85%
Vol Right, %	2%	25%	33%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	36	9	26
LT Vol	8	26	2	1
Through Vol	39	1	4	22
RT Vol	1	9	3	3
Lane Flow Rate	69	51	13	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.081	0.058	0.014	0.041
Departure Headway (Hd)	4.265	4.087	3.967	4.002
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	870	893	890
Service Time	2.301	2.144	2.032	2.049
HCM Lane V/C Ratio	0.082	0.059	0.015	0.042
HCM Control Delay	7.7	7.4	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0	0.1

HCM 6th TWSC
6: Roosevelt Road & Site Access

02/20/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	893	703	19	13	22
Future Vol, veh/h	24	893	703	19	13	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	4	4	0	0	0
Mvmt Flow	25	940	740	20	14	23

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	760	0	-	0	1740 750
Stage 1	-	-	-	-	750 -
Stage 2	-	-	-	-	990 -
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	861	-	-	-	97 415
Stage 1	-	-	-	-	470 -
Stage 2	-	-	-	-	363 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	861	-	-	-	94 415
Mov Cap-2 Maneuver	-	-	-	-	219 -
Stage 1	-	-	-	-	456 -
Stage 2	-	-	-	-	363 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	861	-	-	-	311
HCM Lane V/C Ratio	0.029	-	-	-	0.118
HCM Control Delay (s)	9.3	-	-	-	18.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
7: Austin Boulevard & Site Access

02/20/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	13	16	9	715	687	14
Future Vol, veh/h	13	16	9	715	687	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	14	17	9	753	723	15

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1502	369	738	0	-	0
Stage 1	731	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	125	634	877	-	-	-
Stage 1	443	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	123	634	877	-	-	-
Mov Cap-2 Maneuver	123	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	460	-	-	-	-	-






















Approach	EB	NB	SB
HCM Control Delay, s	23.9	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	877	-	221	-	-
HCM Lane V/C Ratio	0.011	-	0.138	-	-
HCM Control Delay (s)	9.2	0	23.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Capacity Analysis Summary Sheets
Total Projected Weekday Midday Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	394	42	53	414	89	53	316	44	53	338	219
Future Volume (vph)	195	394	42	53	414	89	53	316	44	53	338	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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	0.99	1.00		0.99	0.99		0.99	0.99		0.98	0.98	
Fr _t		0.985			0.973			0.982			0.941	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1603	0	1736	1554	0	1805	1824	0	1719	3264	0
Fl _t Permitted	0.252			0.384			0.248			0.207		
Satd. Flow (perm)	465	1603	0	698	1554	0	468	1824	0	367	3264	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			228			289			103	
Travel Time (s)		5.7			5.2			6.6			2.3	
Confl. Peds. (#/hr)	23		19	19		23	11		29	29		11
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	5%	3%	4%	6%	7%	0%	1%	4%	5%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	464	0	56	535	0	56	383	0	56	593	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	13.2	49.5		13.2	49.5		13.2	34.1		13.2	34.1	
Total Split (%)	12.0%	45.0%		12.0%	45.0%		12.0%	31.0%		12.0%	31.0%	
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)	63.3	52.9		58.4	48.8		35.9	26.9		36.1	27.0	
Actuated g/C Ratio	0.58	0.48		0.53	0.44		0.33	0.24		0.33	0.25	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.55	0.60		0.13	0.78		0.23	0.86		0.26	0.74	
Control Delay	18.2	28.1		12.7	37.6		23.6	59.0		24.4	44.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.2	28.1		12.7	37.6		23.6	59.0		24.4	44.3	
LOS	B	C		B	D		C	E		C	D	
Approach Delay		25.0			35.2			54.5			42.6	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	72	261		18	343		24	251		24	196	
Queue Length 95th (ft)	116	398		38	#546		50	#408		51	265	
Internal Link Dist (ft)		171			148			209			23	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	384	770		478	689		276	474		243	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	0.54	0.60		0.12	0.78		0.20	0.81		0.23	0.70	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 37.9
 Intersection LOS: D
 Intersection Capacity Utilization 78.0%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Austin Boulevard & Roosevelt Road



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

02/19/2020

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	16	591	13	16	656	18	12	5	46	10	1	16
Future Vol, veh/h	16	591	13	16	656	18	12	5	46	10	1	16
Conflicting Peds, #/hr	7	0	27	27	0	7	5	0	2	2	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	25	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	7	3	8	0	4	7	8	0	12	33	0	0
Mvmt Flow	16	609	13	16	676	19	12	5	47	10	1	16

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	702	0	0	649	0	0	1406	1409	645	1401	1406	698
Stage 1	-	-	-	-	-	-	675	675	-	725	725	-
Stage 2	-	-	-	-	-	-	731	734	-	676	681	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.18	6.5	6.32	7.43	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.43	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.43	5.5	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.572	4	3.408	3.797	4	3.3
Pot Cap-1 Maneuver	873	-	-	947	-	-	113	140	455	101	140	444
Stage 1	-	-	-	-	-	-	434	456	-	372	433	-
Stage 2	-	-	-	-	-	-	404	429	-	396	453	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	867	-	-	923	-	-	102	131	442	86	131	439
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	251	-	196	252	-
Stage 1	-	-	-	-	-	-	415	436	-	363	423	-
Stage 2	-	-	-	-	-	-	379	419	-	342	433	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.2		0.2		17.4		18.5	
HCM LOS					C		C	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	354	867	-	-	923	-	-	295
HCM Lane V/C Ratio	0.183	0.019	-	-	0.018	-	-	0.094
HCM Control Delay (s)	17.4	9.2	-	-	9	-	-	18.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	0.3

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	1	0	1	1	36	2	1	22	1
Future Vol, veh/h	1	0	4	1	0	1	1	36	2	1	22	1
Conflicting Peds, #/hr	3	0	5	5	0	3	2	0	0	0	0	2
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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	13	0
Mvmt Flow	1	0	5	1	0	1	1	41	2	1	25	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	78	75	33	79	74	45	28	0	0	43	0	0
Stage 1	30	30	-	44	44	-	-	-	-	-	-	-
Stage 2	48	45	-	35	30	-	-	-	-	-	-	-
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	916	819	1046	914	820	1031	1599	-	-	1579	-	-
Stage 1	992	874	-	975	862	-	-	-	-	-	-	-
Stage 2	971	861	-	986	874	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	910	816	1039	904	817	1028	1596	-	-	1579	-	-
Mov Cap-2 Maneuver	910	816	-	904	817	-	-	-	-	-	-	-
Stage 1	989	871	-	974	861	-	-	-	-	-	-	-
Stage 2	966	860	-	976	871	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		8.8		0.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1596	-	-	1010	962	1579	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.002	0.001	-
HCM Control Delay (s)	7.3	0	-	8.6	8.8	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
4: Austin Boulevard & EW Alley

02/19/2020

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	2	0	601	6	0	606	0
Future Vol, veh/h	0	0	0	0	0	2	0	601	6	0	606	0
Conflicting Peds, #/hr	2	0	3	3	0	2	12	0	30	30	0	12
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	50	0	2	0	0	2	0
Mvmt Flow	0	0	0	0	0	2	0	646	6	0	652	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1316	1346	341	1008	1343	681	664	0	0	682	0	0
Stage 1	664	664	-	679	679	-	-	-	-	-	-	-
Stage 2	652	682	-	329	664	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.95	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.775	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	126	153	661	209	153	358	935	-	-	920	-	-
Stage 1	421	461	-	445	454	-	-	-	-	-	-	-
Stage 2	460	453	-	664	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	124	147	652	203	147	347	924	-	-	894	-	-
Mov Cap-2 Maneuver	124	147	-	203	147	-	-	-	-	-	-	-
Stage 1	416	456	-	432	441	-	-	-	-	-	-	-
Stage 2	456	440	-	662	456	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		15.4		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	-	347	894	-
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-
HCM Control Delay (s)	0	-	-	0	15.4	0	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

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	3	3	5	2	1	2	4	30	4	1	17	0
Future Vol, veh/h	3	3	5	2	1	2	4	30	4	1	17	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	50	0	0	0	0	25	0	7	0
Mvmt Flow	4	4	6	3	1	3	5	38	5	1	22	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7.8	7.1	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	27%	40%	6%
Vol Thru, %	79%	27%	20%	94%
Vol Right, %	11%	45%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	11	5	18
LT Vol	4	3	2	1
Through Vol	30	3	1	17
RT Vol	4	5	2	0
Lane Flow Rate	49	14	6	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.015	0.008	0.026
Departure Headway (Hd)	3.913	3.812	4.727	3.984
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	918	937	757	900
Service Time	1.925	1.842	2.758	2.001
HCM Lane V/C Ratio	0.053	0.015	0.008	0.026
HCM Control Delay	7.1	6.9	7.8	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.1

HCM 6th TWSC
6: Roosevelt Road & Site Access

02/19/2020

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	615	659	27	16	31
Future Vol, veh/h	32	615	659	27	16	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	4	0	0	0
Mvmt Flow	34	647	694	28	17	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	722	0	-	0	1423 708
Stage 1	-	-	-	-	708 -
Stage 2	-	-	-	-	715 -
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	889	-	-	-	151 438
Stage 1	-	-	-	-	492 -
Stage 2	-	-	-	-	488 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	889	-	-	-	145 438
Mov Cap-2 Maneuver	-	-	-	-	278 -
Stage 1	-	-	-	-	473 -
Stage 2	-	-	-	-	488 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	889	-	-	-	366
HCM Lane V/C Ratio	0.038	-	-	-	0.135
HCM Control Delay (s)	9.2	-	-	-	16.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

HCM 6th TWSC
7: Austin Boulevard & Site Access

02/19/2020

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	19	23	12	588	587	19
Future Vol, veh/h	19	23	12	588	587	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	20	24	13	619	618	20

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1273	319	638	0	-	0
Stage 1	628	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	174	683	956	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	170	683	956	-	-	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	526	-	-	-	-	-






















Approach	EB	NB	SB
HCM Control Delay, s	19.7	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	956	-	289	-	-
HCM Lane V/C Ratio	0.013	-	0.153	-	-
HCM Control Delay (s)	8.8	0	19.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Capacity Analysis Summary Sheets
Total Projected Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings
1: Austin Boulevard & Roosevelt Road

02/19/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	464	62	62	513	78	63	314	42	73	457	210
Future Volume (vph)	216	464	62	62	513	78	63	314	42	73	457	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		0	90		0	40		40
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	85			135			90			75		
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	0.99	1.00		0.99	0.99		0.99	0.99		0.97	0.99	
Fr _t		0.982			0.980			0.982			0.953	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1645	0	1805	1617	0	1805	1821	0	1787	3367	0
Fl _t Permitted	0.188			0.323			0.170			0.222		
Satd. Flow (perm)	354	1645	0	611	1617	0	321	1821	0	403	3367	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			228			289			113	
Travel Time (s)		5.7			5.2			6.6			2.6	
Confl. Peds. (#/hr)	26		21	21		26	14		48	48		14
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%	2%	9%	0%	1%	2%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	542	0	64	609	0	65	367	0	75	687	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)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	15.0	54.0		12.7	51.7		12.7	35.6		12.7	35.6	
Total Split (%)	13.0%	47.0%		11.0%	45.0%		11.0%	31.0%		11.0%	31.0%	
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	56.4		60.9	51.0		37.0	27.8		37.4	28.0	
Actuated g/C Ratio	0.59	0.49		0.53	0.44		0.32	0.24		0.33	0.24	

Lanes, Volumes, Timings
 1: Austin Boulevard & Roosevelt Road

02/19/2020

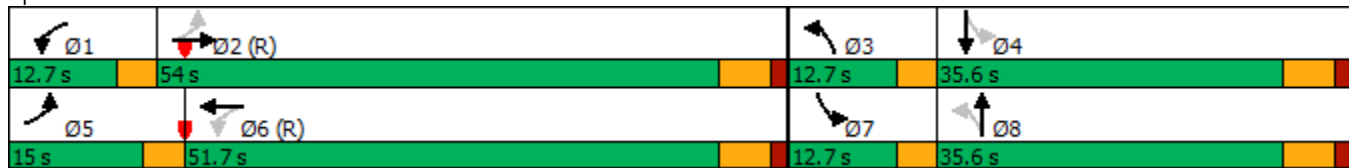


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.64	0.67		0.16	0.85		0.32	0.83		0.33	0.84	
Control Delay	21.4	30.4		12.9	43.6		27.4	58.4		27.4	51.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.4	30.4		12.9	43.6		27.4	58.4		27.4	51.3	
LOS	C	C		B	D		C	E		C	D	
Approach Delay		27.8			40.7			53.7			49.0	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	80	328		21	430		30	254		35	249	
Queue Length 95th (ft)	126	491		42	#664		60	#393		68	322	
Internal Link Dist (ft)		171			148			209			33	
Turn Bay Length (ft)	120			90			90			40		
Base Capacity (vph)	355	807		428	717		224	468		243	869	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.63	0.67		0.15	0.85		0.29	0.78		0.31	0.79	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 22.5 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 41.5 Intersection LOS: D
 Intersection Capacity Utilization 84.3% 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 TWSC
2: 60th Court/Humphrey Avenue & Roosevelt Road

02/19/2020

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	11	700	17	10	762	16	22	13	41	11	7	24
Future Vol, veh/h	11	700	17	10	762	16	22	13	41	11	7	24
Conflicting Peds, #/hr	6	0	14	14	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	25	-	-	25	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	2	0	0	0	5	0	14	0
Mvmt Flow	12	737	18	11	802	17	23	14	43	12	7	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	825	0	0	769	0	0	1633	1631	760	1638	1632	817
Stage 1	-	-	-	-	-	-	784	784	-	839	839	-
Stage 2	-	-	-	-	-	-	849	847	-	799	793	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.25	7.1	6.64	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.64	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.345	3.5	4.126	3.3
Pot Cap-1 Maneuver	814	-	-	854	-	-	82	103	401	81	95	380
Stage 1	-	-	-	-	-	-	389	407	-	363	365	-
Stage 2	-	-	-	-	-	-	358	381	-	382	383	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	809	-	-	843	-	-	72	98	396	67	91	378
Mov Cap-2 Maneuver	-	-	-	-	-	-	188	217	-	183	206	-
Stage 1	-	-	-	-	-	-	378	396	-	356	358	-
Stage 2	-	-	-	-	-	-	323	374	-	324	372	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			23.8			21.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	809	-	-	843	-	-	267
HCM Lane V/C Ratio	0.295	0.014	-	-	0.012	-	-	0.166
HCM Control Delay (s)	23.8	9.5	-	-	9.3	-	-	21.1
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	0.6

HCM 6th TWSC
3: Humphrey Avenue & EW Alley

02/19/2020

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	2	36	2	0	41	0
Future Vol, veh/h	1	0	1	0	0	1	2	36	2	0	41	0
Conflicting Peds, #/hr	3	0	4	4	0	3	4	0	0	0	0	4
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	50	0	0	0	3	0
Mvmt Flow	1	0	1	0	0	1	3	52	3	0	59	0

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	126	124	67	124	123	57	63	0	0	55	0	0
Stage 1	63	63	-	60	60	-	-	-	-	-	-	-
Stage 2	63	61	-	64	63	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.6	-	-	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	2.65	-	-	2.2	-	-
Pot Cap-1 Maneuver	852	770	1002	855	771	1015	1283	-	-	1563	-	-
Stage 1	953	846	-	957	849	-	-	-	-	-	-	-
Stage 2	953	848	-	952	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	843	765	994	849	766	1012	1278	-	-	1563	-	-
Mov Cap-2 Maneuver	843	765	-	849	766	-	-	-	-	-	-	-
Stage 1	947	843	-	955	847	-	-	-	-	-	-	-
Stage 2	947	846	-	947	843	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	9		8.6			0.4		0		
HCM LOS	A		A							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1278	-	-	912	1012	1563	-	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.001	-	-	-
HCM Control Delay (s)	7.8	0	-	9	8.6	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

02/19/2020

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	609	3	0	734	0
Future Vol, veh/h	0	0	0	4	0	9	0	609	3	0	734	0
Conflicting Peds, #/hr	1	0	1	1	0	1	25	0	28	28	0	25
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	1	0	0	1	0
Mvmt Flow	0	0	0	4	0	10	0	655	3	0	789	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1477	1500	421	1081	1499	686	814	0	0	686	0	0
Stage 1	814	814	-	685	685	-	-	-	-	-	-	-
Stage 2	663	686	-	396	814	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	97	123	587	186	123	451	822	-	-	917	-	-
Stage 1	342	394	-	441	451	-	-	-	-	-	-	-
Stage 2	454	451	-	606	394	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	93	117	572	181	117	439	802	-	-	893	-	-
Mov Cap-2 Maneuver	93	117	-	181	117	-	-	-	-	-	-	-
Stage 1	334	385	-	429	439	-	-	-	-	-	-	-
Stage 2	444	439	-	605	385	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		17.4		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	802	-	-	-	305	893	-
HCM Lane V/C Ratio	-	-	-	-	0.046	-	-
HCM Control Delay (s)	0	-	-	0	17.4	0	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th AWSC
5: Humphrey Avenue & Filmore Street

02/20/2020

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	5	29	4	4	30	2
Future Vol, veh/h	8	5	10	1	4	2	5	29	4	4	30	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	4	0
Mvmt Flow	11	7	14	1	5	3	7	39	5	5	41	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	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	35%	14%	11%
Vol Thru, %	76%	22%	57%	83%
Vol Right, %	11%	43%	29%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	23	7	36
LT Vol	5	8	1	4
Through Vol	29	5	4	30
RT Vol	4	10	2	2
Lane Flow Rate	51	31	9	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.034	0.01	0.054
Departure Headway (Hd)	3.97	3.888	3.954	3.998
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	902	916	900	896
Service Time	1.995	1.933	2.002	2.023
HCM Lane V/C Ratio	0.057	0.034	0.01	0.055
HCM Control Delay	7.2	7.1	7	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.2

HCM 6th TWSC
6: Roosevelt Road & Site Access

02/19/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	732	770	16	10	18
Future Vol, veh/h	20	732	770	16	10	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	21	771	811	17	11	19

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	828	0	-	0	1633 820
Stage 1	-	-	-	-	820 -
Stage 2	-	-	-	-	813 -
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	812	-	-	-	113 378
Stage 1	-	-	-	-	436 -
Stage 2	-	-	-	-	440 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	812	-	-	-	110 378
Mov Cap-2 Maneuver	-	-	-	-	110 -
Stage 1	-	-	-	-	425 -
Stage 2	-	-	-	-	440 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	25.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	812	-	-	-	202
HCM Lane V/C Ratio	0.026	-	-	-	0.146
HCM Control Delay (s)	9.6	-	-	-	25.8
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

HCM 6th TWSC
7: Austin Boulevard & Site Access

02/19/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	10	14	6	602	726	12
Future Vol, veh/h	10	14	6	602	726	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	11	15	6	634	764	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1417	389	777	0	-	0
Stage 1	771	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	141	615	848	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	615	848	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	848	-	253	-	-
HCM Lane V/C Ratio	0.007	-	0.1	-	-
HCM Control Delay (s)	9.3	0	20.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-