

Traffic Impact Study

Rush Oak Park Hospital Parking Garage

Oak Park, Illinois



Prepared For:

 **RUSH**
OAK PARK HOSPITAL

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

February 13, 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 the proposed parking garage to be located within the Rush Oak Park Hospital (ROPH) campus in Oak Park, Illinois. The new parking garage will replace the existing employee parking lot located in the northwest quadrant of the intersection of Wenonah Avenue with Monroe Street. As proposed, the parking garage will be developed to provide a total of 713 parking spaces. As part of the proposed parking garage, the Monroe Street northern right-of-way will be vacated in order to provide for a two-way drive aisle serving the proposed garage to and from Wisconsin Avenue and an approximate 11-foot raised island separating the existing Monroe Street, which will continue to allow two-way traffic between Wisconsin Avenue and Wenonah Avenue, from the proposed driveway. Furthermore, as part of the development, the existing gate between Wisconsin Avenue and Monroe Avenue separating the hospital property from Monroe Street/Wisconsin Street will be eliminated and permanently closed.

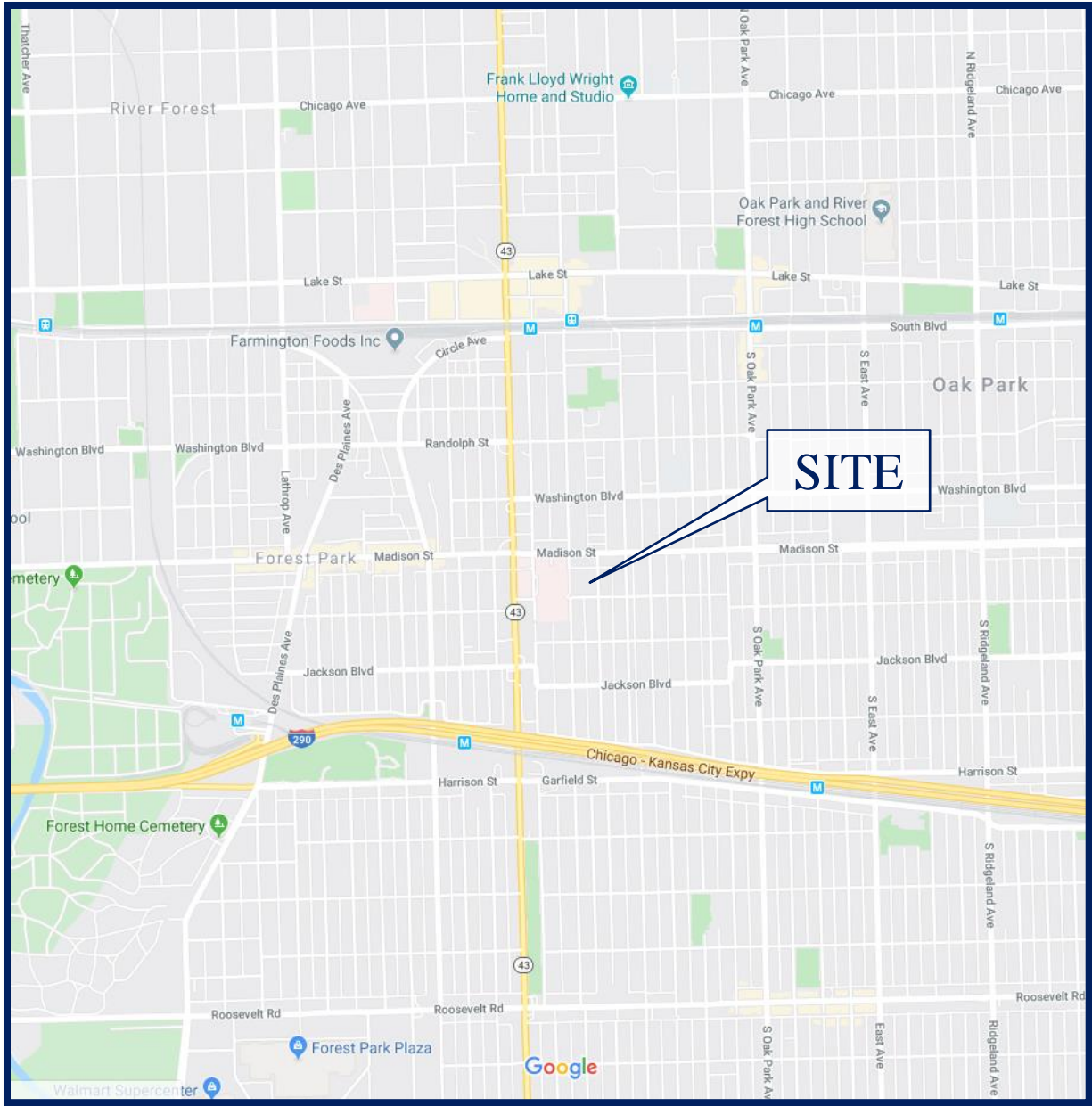
The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed parking garage and vacation of Monroe Street will have on traffic conditions in the area, and determine recommendations to mitigate any impacts and enhance the area’s streets and alternative modes of transportation. **Figure 1** shows the location of the site in relation to the area street system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed parking garage
- Directional distribution of the traffic generated by the proposed parking garage
- Vehicle trip generation for the parking garage
- Future traffic conditions including access to the parking garage
- Traffic analyses for a weekday morning and weekday evening peak hours
- Evaluation and recommendations with respect to adequacy of the access to the site, the adjacent roadway system, and alternate forms of transportation

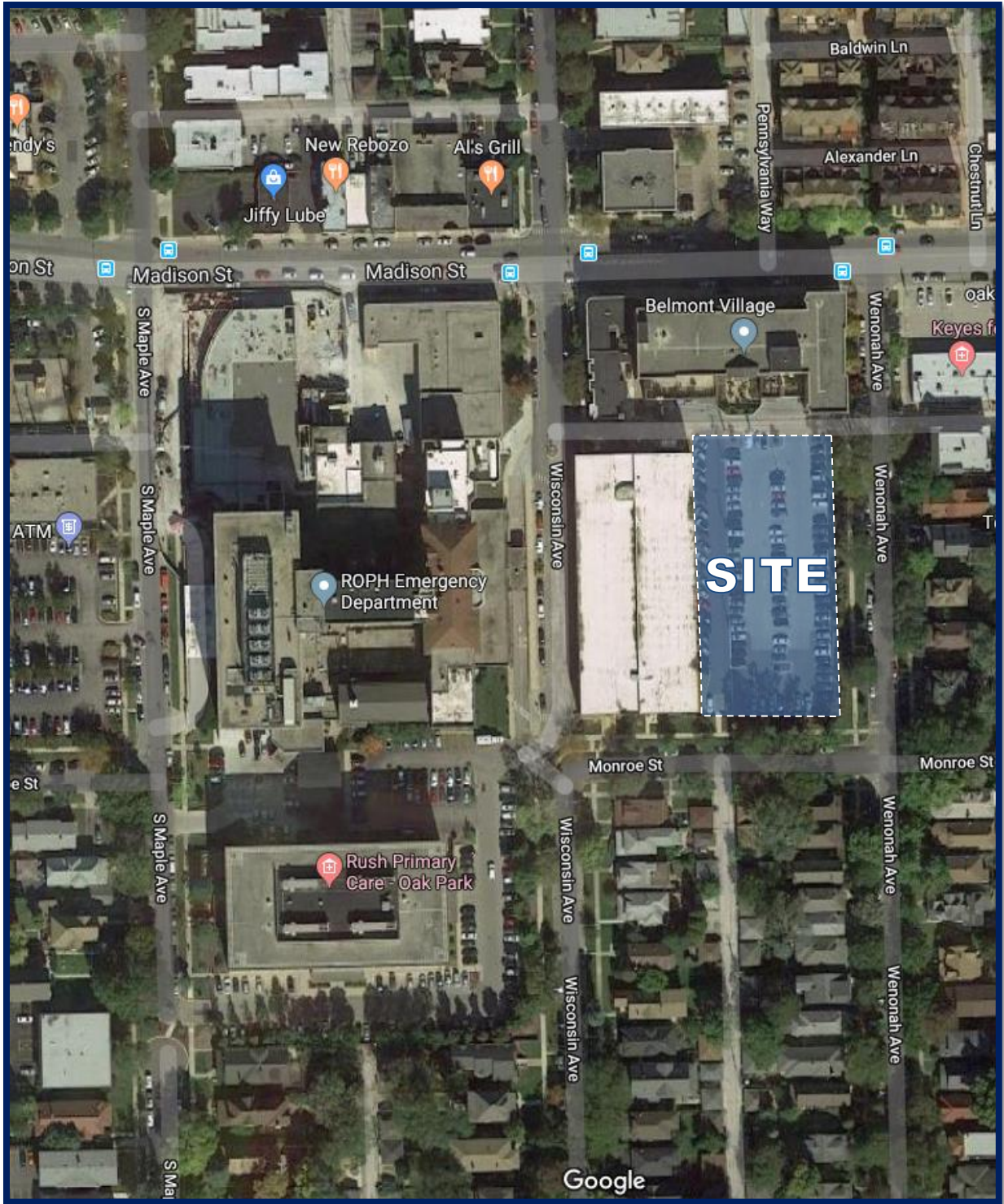
Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Year 2023 (Future) Base Conditions with Road Diet – This condition analyzes Year 2023 traffic volumes assuming the currently under construction road diet plans for Madison Street by the Village of Oak Park. These plans will reduce the cross-section of Madison Street from a five-lane cross-section to a three-lane cross-section (one through lane in each direction with a center lane providing left-turn storage) at all signalized and unsignalized intersections and exclusive right-turn lanes at key intersections.
2. Year 2023 (Future Total) Projected Conditions – This condition includes the Year 2023 Base Conditions with Road Diet and the addition of the 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 is currently occupied by an employee parking lot, is located in the northwest quadrant of the intersection of Monroe Street with Wenonah Avenue. Land uses in the vicinity of the site are primarily include the hospital campus to the west, commercial to the north and residential to the east and south.

Existing Street System Characteristics

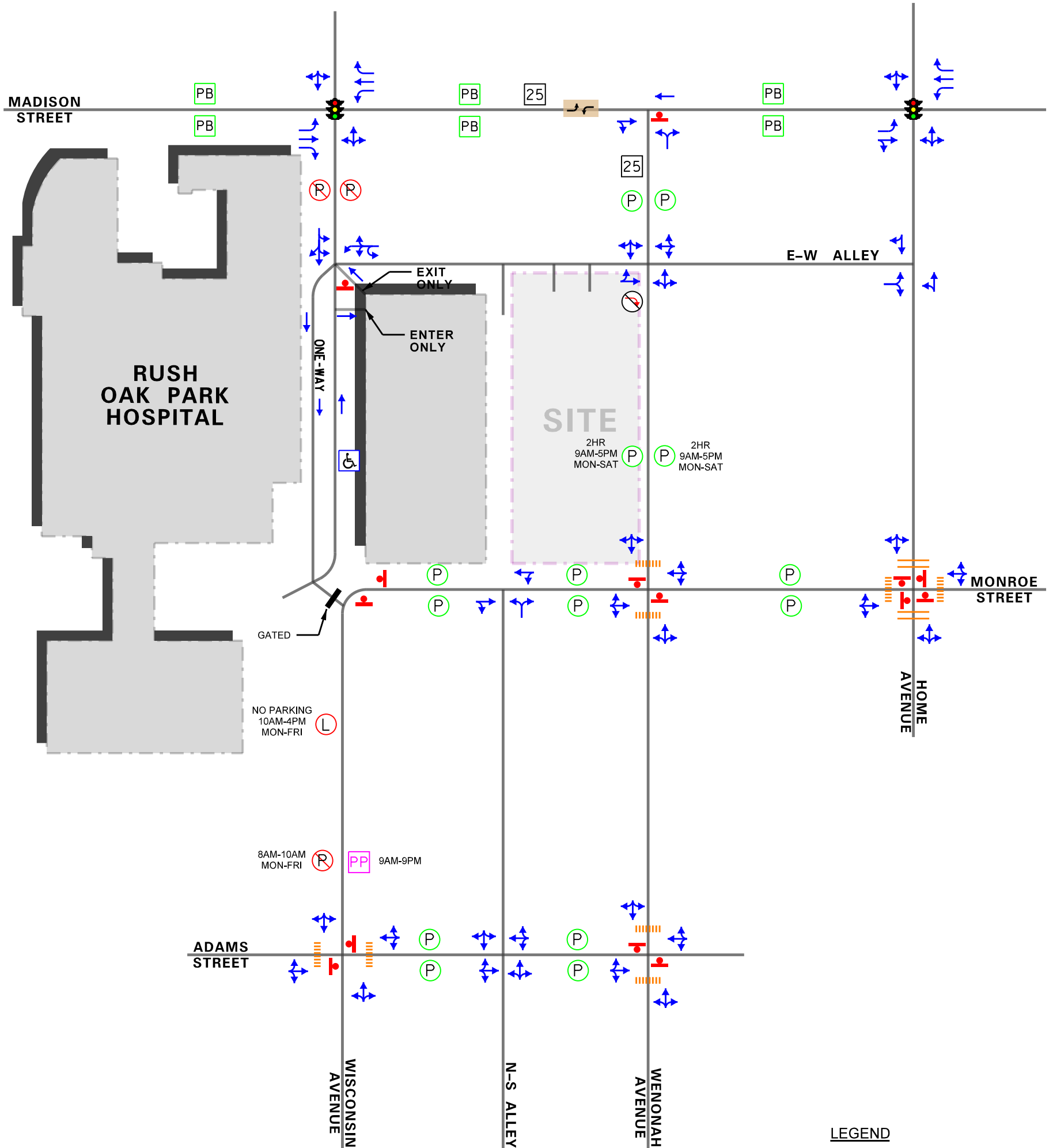
The characteristics of the existing streets within the study area are illustrated in **Figure 3** and described below.

Madison Street is an east-west, minor arterial roadway that provides a three-lane cross section (one lane in each direction and a center striped median) with a striped bike lane and parking on both sides of the road. At its signalized intersection with Wisconsin Avenue, Madison Street provides an exclusive left-turn lane, a through lane and an exclusive right-turn lane on both approaches. At its signalized intersection with Home Avenue, Madison Street provides an exclusive left turn lane and a shared through/right-turn lane on the eastbound approach. The westbound approach provides an exclusive left-turn lane, a through lane and an exclusive right-turn lane. Madison Street is under the jurisdiction of the Village of Oak Park, has a posted speed limit of 25 mph, and carries an annual average daily traffic (AADT) volume of 19,100 vehicles (Illinois Department of Transportation [IDOT] 2018).

Wisconsin Avenue is a north-south local roadway that provides one lane in each direction. In order to reduce the impact of Hospital traffic on the surrounding neighborhood, Wisconsin Avenue is broken in to two segments divided by a gated access drive in the southeast corner of the hospital property. The northern segment extends from Randolph Street to its terminus approximately 500 feet south of Madison Street. The southern segment extends from Monroe Street to Harrison Street. At its signalized intersection with Madison Street, Wisconsin Street provides one lane in each direction. Crosswalks and pedestrian signals are provided on both legs of the intersection. At its unsignalized intersections with Monroe Street Wisconsin Avenue provides one lane on the northbound approach and is under stop sign control. At its unsignalized intersections with Adams Street, Wisconsin Avenue provides one lane on one lane in each direction under stop sign control. Wisconsin Street is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.



NOT TO SCALE



- LEGEND**
- TRAVEL LANE
 - TRAFFIC SIGNAL
 - STOP SIGN
 - SPEED LIMIT
 - ON-STREET PARKING
 - NO PARKING
 - PAYBOX PARKING
 - RESIDENT PERMIT PARKING
 - LOADING ZONE
 - NO RIGHT TURN
 - HANDICAP PARKING
 - STANDARD CROSSWALK
 - HIGH VISIBILITY CROSSWALK
 - TWO-WAY LEFT TURN LANE

Wenonah Avenue is a north-south, local roadway that extends south from Madison Street and provides one lane in each direction. At its unsignalized intersections with Madison Street, Wisconsin Avenue provides one lane on the northbound approach and is under stop sign control. At its unsignalized intersections with Monroe Street and Adams Street, Wenonah Avenue provides one lane in each direction under stop sign control. At its unsignalized intersection with the east-west alley, Wenonah Avenue provides one lane in each direction. Wenonah Avenue is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.

Home Avenue is a north-south, local roadway that provides one lane in each direction. At its signalized intersection with Madison Street, Home Avenue provides one lane in each direction. Crosswalks and pedestrian signals are provided on both legs of the intersection. At its all-way stop controlled intersection with Monroe Street, Home Avenue provides one lane in each direction. Home Avenue is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.

Monroe Street is an east-west, local roadway that extends east from Wisconsin Avenue and provides one lane in each direction. At its all-way stop controlled intersection with Monroe Street, Home Avenue provides one lane in each direction. At its unsignalized intersection with Wisconsin Avenue, Monroe Street provides one lane on the westbound approach and is under stop sign control. At its unsignalized intersections with Wenonah Avenue and the north-south alley, Monroe Street provides one lane in each direction. Monroe Street is under the jurisdiction of the Village of Oak Park.

Adams Street is an east-west local roadway that provides one lane in each direction. At its unsignalized intersection with Wisconsin Avenue, Adams Street provides one lane in each direction and is under stop sign control. At its unsignalized intersections with Wenonah Avenue and the north-south alley, Adams Street provides one lane in each direction. Wenonah Avenue is under the jurisdiction of the Village of Oak.

East-West Public Alley is an east-west alley that extends from Wisconsin Avenue to Home Avenue. The alley provides one lane in each direction and serves the commercial developments along Madison Street, the hospital employee parking lot, and the residential homes south of the alley.

North-South Public Alley is a north-south alley that extends south Monroe Street. The alley provides one lane in each direction and serves the residential homes along Wisconsin Avenue and Wenonah Avenue

Existing Traffic Volumes

In order to determine current vehicle, pedestrian, and bicycle conditions within the study area, KLOA, Inc. conducted peak period traffic, pedestrian, and bicycle counts utilizing Miovision Scout Collection Units on Tuesday, October 15, 2019 during the weekday morning (6:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 7:00 P.M.) peak periods at the following intersections:

- Monroe Street with Wenonah Avenue
- Monroe Street with Home Avenue
- Adams Street with Wisconsin Avenue
- Adams Street with Wenonah Avenue
- Wenonah Avenue with the East-West Public Alley
- Monroe Street with the North-South Public Alley
- Adams Street with the North-South Public Alley
- The East-West Public Alley with the Employee Parking Lot Access Drives
- Wisconsin Avenue with the East-West Public Alley/Emergency Room Drop-Off Lane/Parking Garage Access

In addition, given that Madison Street was under construction when the traffic counts were conducted, the through traffic volumes are lower than what they normally would be. As such and in order to reflect traffic volumes under normal conditions, the existing traffic volumes that were collected as part of the Madison Street Road Diet traffic study (Year 2018) on behalf of the Village of Oak Park were utilized at the intersections of Madison Street with Wisconsin Avenue and Madison Street with Home Avenue. The results of the traffic counts indicated that the system peak hours generally occur from 7:45 A.M. to 8:45 A.M. during the weekday morning peak hour and from 5:00 P.M. to 6:00 P.M. during the weekday evening peak.

Figure 4 illustrates the existing peak hour vehicle traffic volumes.

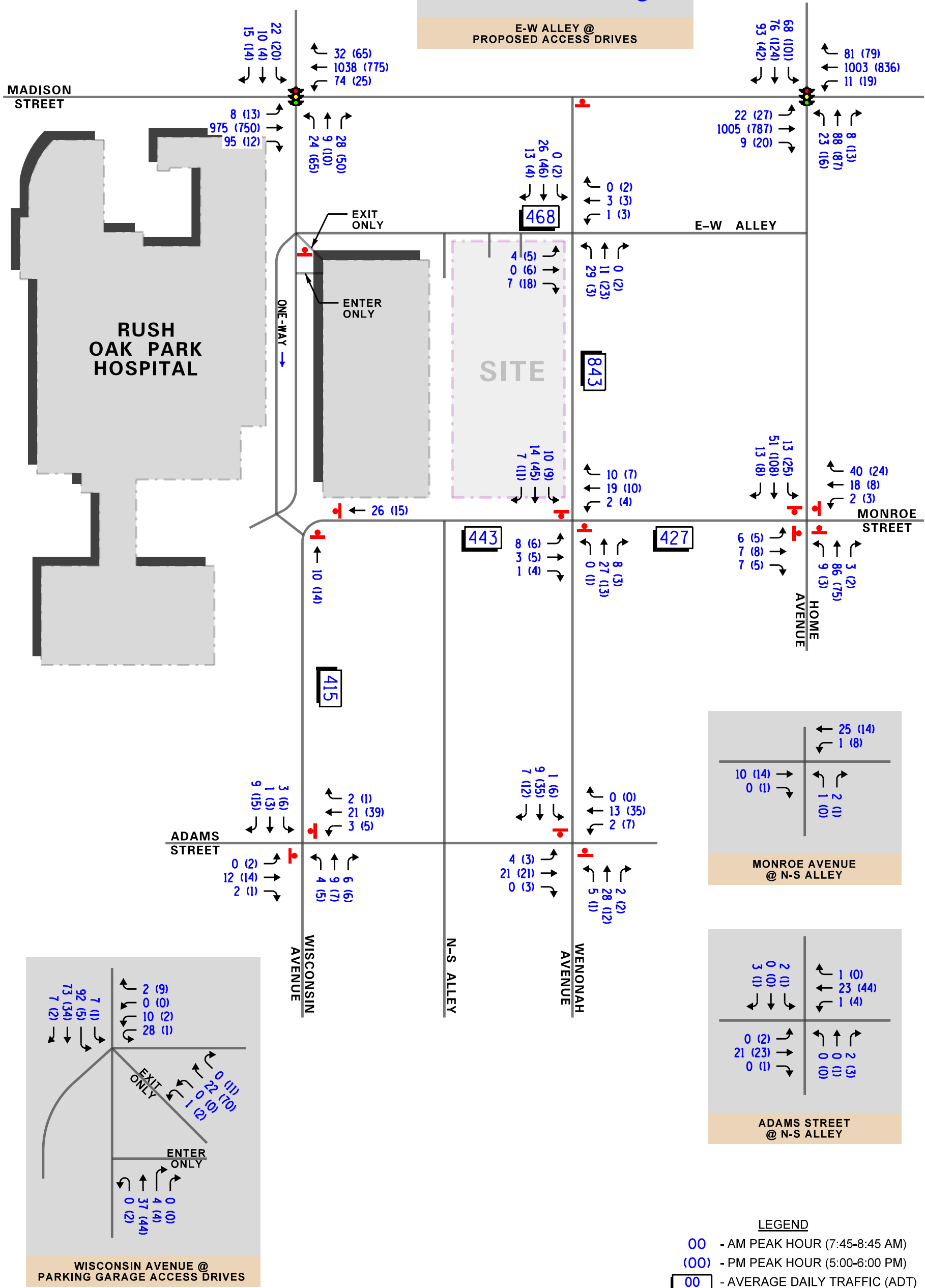
Furthermore, 24-hour two-way traffic counts were conducted at the following roadway segments:

- Wenonah Avenue between the east-west public alley and Monroe Street
- Monroe Street east of Wenonah Avenue
- Monroe Street between the north-south public alley and Wenonah Avenue
- Wisconsin Avenue between Monroe Street and Adams Street
- Wenonah Avenue with the east-west alley

The results of the 24-hour counts are shown in Figure 4. It should be noted that based on the traffic counts, the east-west alley west of Wenonah Avenue carries an average daily traffic (ADT) volume of approximately 468 vehicles. **Table A** in the Appendix summarizes the 24-hour traffic count on the east-west alley west of Wenonah Avenue.



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EXISTING TRAFFIC VOLUMES

3. Traffic Characteristics of the Proposed Development

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

Proposed Development Plan

As proposed, the existing 107-space employee parking located in the northwest quadrant of the intersection of Monroe Street with Wenonah Avenue will be redeveloped to provide a 713-space parking garage. As part of the proposed parking garage, the Monroe Street northern right-of-way will be vacated in order to provide for a two-way drive aisle serving the proposed garage to and from Wisconsin Avenue and an approximate 11-foot raised island separating the existing Monroe Street, which will continue to allow two-way traffic between Wisconsin Avenue and Wenonah Avenue, from the proposed driveway. Furthermore, as part of the development, the existing gate between Wisconsin Avenue and Monroe Avenue separating the hospital property from Monroe Street/Wisconsin Street will be eliminated and permanently closed. Furthermore, it should be noted that emergency outbound only (westbound) access for the parking garage will be provided off the east-west public alley.

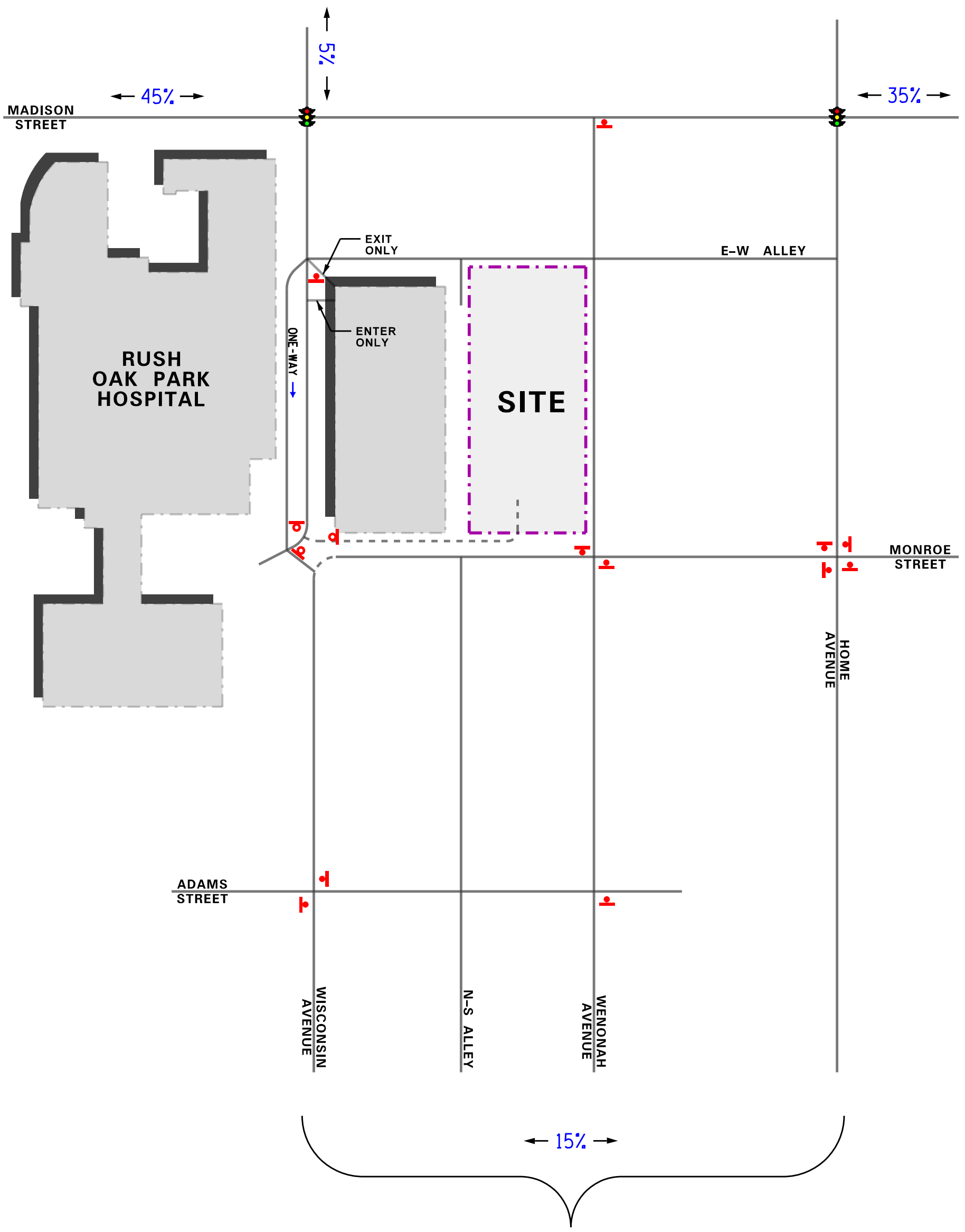
As part of the vacation of Monroe Street northern street right-of-way, it is recommended that on-street parking (approximately 12 spaces) be prohibited on the north side of Monroe Street. A site plan depicting the proposed parking garage, access, and roadway modifications is provided in the Appendix.

Directional Distribution

The directions from which employees and guests of the hospital will approach and depart the site were estimated based on existing travel patterns (as determined from the traffic counts), one-way restrictions, and the available access to the area. **Figure 5** illustrates the general directional distribution of traffic to and from the site.



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LEGEND

- 00% - PERCENT DISTRIBUTION
- P - PROPOSED STOP SIGN

Estimated Peak Hour Traffic Volumes

The number of peak hour vehicle trips estimated to be generated by the proposed parking garage was based on trip generation rates established based on the traffic counts conducted at the entrance to the existing parking garage serving the hospital. As can be seen from Figure 4, the existing parking garage (which has approximately 404 parking spaces) generates 143 total trips during the weekday morning peak hour and 89 trips during the weekday evening peak hour. The resulting trips rates are 0.35 trips per parking space during the weekday morning peak hour and 0.22 trips per parking space during the weekday evening peak hour.

As previously indicated, the proposed parking garage will replace an existing 107 space parking lot and 12 on-street parking spaces (due to the vacation of Monroe Street northern street right-of-way) resulting in a net increase of 594 parking spaces. Since the existing parking locations are currently generating traffic during the peak hours, the traffic estimated to be generated by the proposed parking garage was based on the net increase in parking spaces. The existing parking garage trip generation, calculated trip generation rates and the estimated trip generation for the proposed parking garage is shown in **Table 1**.

Table 1
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

Land Use Type and Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total
Existing Parking Garage (404 Parking Spaces)	120	23	143	6	83	89
Rush Oak Park Hospital Parking Garage Trip Generation Rates ¹	0.29	0.06	0.35	0.02	0.20	0.22
Proposed Parking Garage (Net Increase of 594 Parking Spaces)	172	33	205	9	120	129
Existing Employee Parking Lot (107 Parking Spaces)	<u>23</u>	<u>18</u>	<u>41</u>	<u>0</u>	<u>15</u>	<u>15</u>
Parking Garage Total (713 Parking Spaces)	185	51	246	9	135	144

1 – Trip generation per number of parking spaces
Note: Proposed garage will provide 713 spaces - 107 existing employee lot - 12 on-street parking spaces on north side of Monroe Street = 594 spaces (net increase)

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 development.

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the new passenger vehicle trips for the development.

Year 2023 Base (with Road Diet) Traffic Conditions

Due to the ongoing construction of the Madison Street Road Diet, Year 2023 base traffic conditions were developed which take into consideration the Madison Street Road Diet, the Rush Oak Park Hospital emergency room relocation and expansion, and the proposed Senior Living Development located in the southwest quadrant of the intersection of Madison Street with Wesley Avenue.

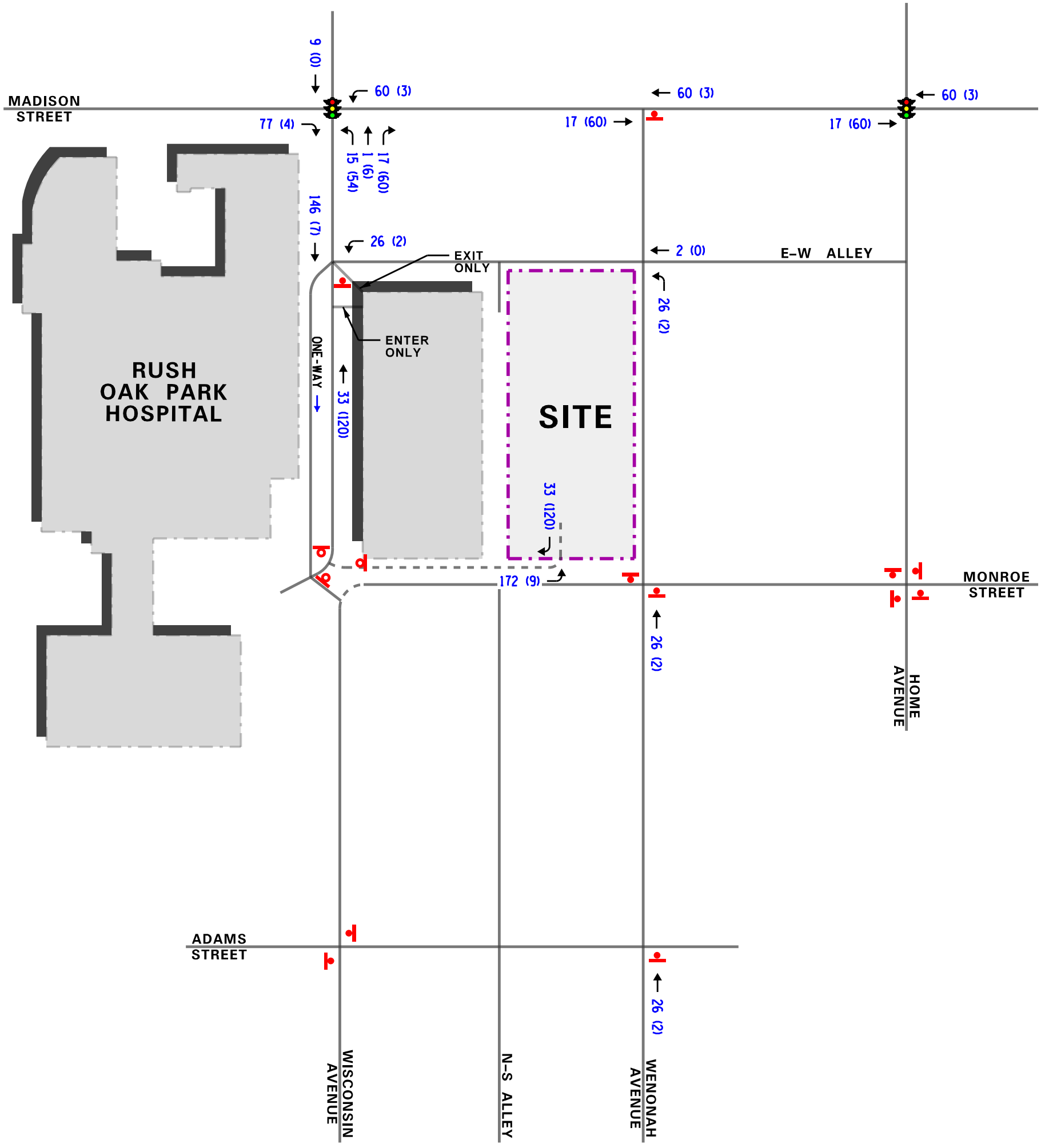
It should be noted that as discussed in the Madison Street Road Diet traffic study prepared on behalf of the Village of Oak Park, the Madison Street corridor is projected to experience an ambient area traffic growth of approximately one-half percent or less per year. Furthermore, it is likely that approximately 20 percent of the Madison Street traffic will be diverted to other east-west roads with the road diet, primarily during the weekday morning and evening peak periods. Based on the Madison Street traffic study, it is anticipated that this traffic will be diverted to Washington Boulevard and Jackson Boulevard. As such, this diversion will offset the increase in ambient growth in the area.

Total Projected Traffic Volumes

The development generated traffic was added to the Year 2023 base traffic volumes to determine the Year 2023 total projected traffic volumes as shown in **Figure 7**.

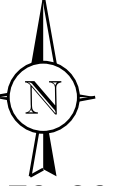


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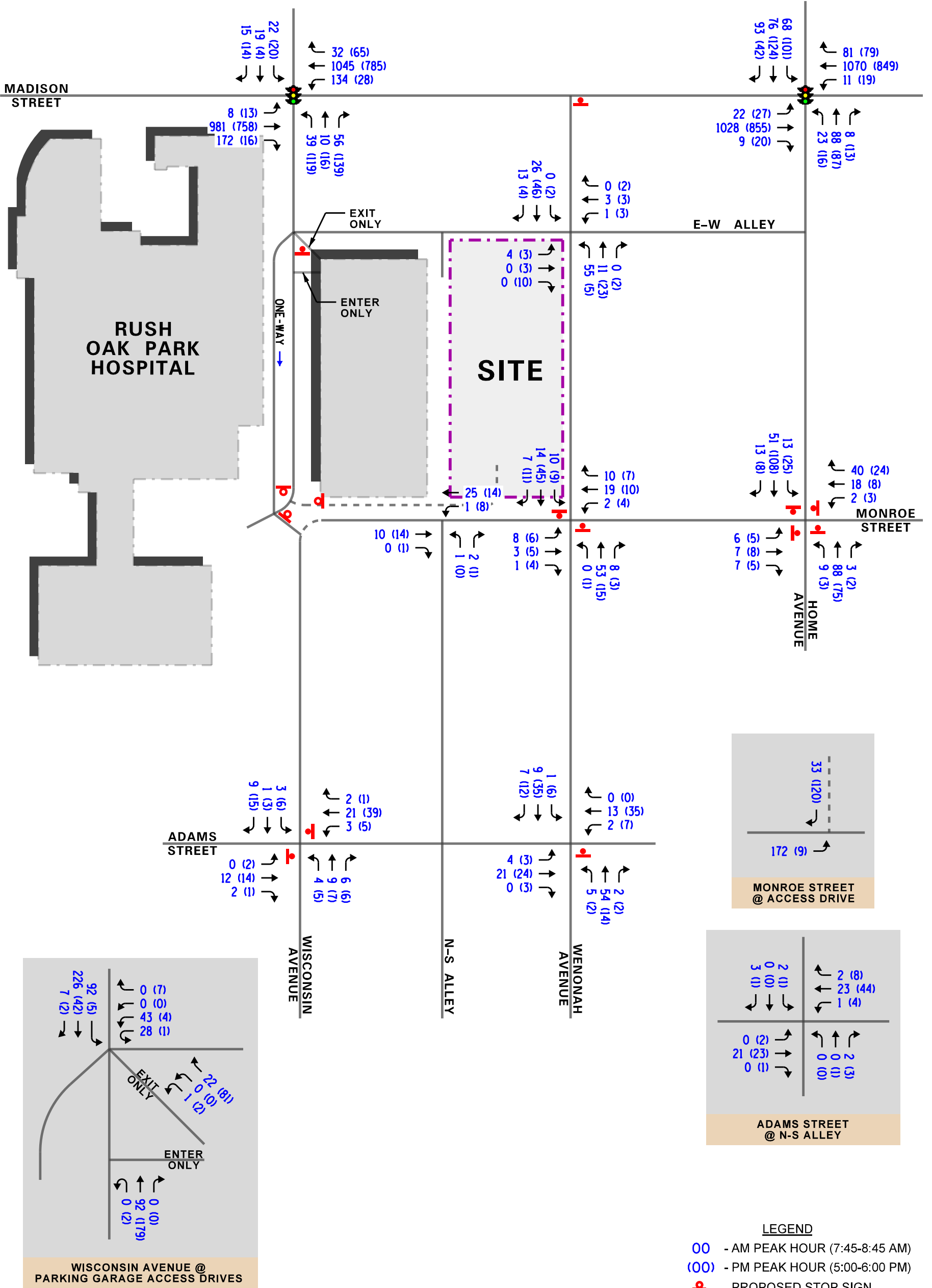


LEGEND

- 00 - AM PEAK HOUR (7:45-8:45 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- P - PROPOSED STOP SIGN



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5. Traffic Analysis and Recommendations

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

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for existing conditions and Year 2023 total 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 computer software. The analyses for signalized intersection were conducted utilizing actual cycle lengths, phasings, and offsets.

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for existing conditions and the Year 2023 total projected conditions are presented in **Tables 2, 3, and 4**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 2

CAPACITY ANALYSIS RESULTS – MADISON STREET WITH WISCONSIN AVENUE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound		Southbound	Overall
		L	T	R	L	T	R	LT	R	LTR	
Existing Conditions	Weekday Morning Peak Hour	A 2.9	B 17.3	A 3.0	A 2.9	A 5.7	A 0.2	C 30.0		C 32.9	B – 11.5
		B – 16.0			A – 5.4						
	Weekday Evening Peak Hour	A 4.1	B 12.4	A 0.1	A 1.5	A 3.6	A 0.3	C 30.6		C 23.1	A – 9.4
		B – 12.1			A – 3.3						
Year 2023 Total Projected Conditions	Weekday Morning Peak Hour ¹	A 3.8	C 28.8	A 6.6	C 21.4	A 6.1	A 0.2	D 45.0	A 7.2	C 33.9	B – 17.0
		C – 25.3			A – 7.6			C – 24.7			
	Weekday Evening Peak Hour ¹	A 5.4	B 19.6	A 0.1	A 1.9	A 4.8	A 0.3	D 39.6	A 8.1	C 20.3	B – 13.2
		B – 19.0			A – 4.4			C – 23.6			
Letter denotes Level of Service L – Left Turns R – Right Turns Delay is measured in seconds. T – Through											
1 – Assumes the following improvements <ul style="list-style-type: none"> • Elimination of on-street parking on both sides of the northbound approach of Wisconsin Avenue. • Restriping Wisconsin Avenue to provide a shared left/through lane and an exclusive right-turn lane • Provision of a northbound right-turn overlap phase • Eliminating three on-street parking spaces on the south side of Madison Street west of Wisconsin Avenue to extend the exclusive right-turn lane by approximately 60 additional feet • Restriping the existing westbound left-turn lane to provide an additional 25 feet 											

Table 3

CAPACITY ANALYSIS RESULTS – MADISON STREET WITH HOME AVENUE – SIGNALIZED

	Peak Hour	Eastbound		Westbound			Northbound	Southbound	Overall
		L	TR	L	T	R	LTR	LTR	
Existing Conditions	Weekday Morning Peak Hour	A 9.2	C 24.9	A 2.9	B 15.5	A 0.8	C – 34.4	D – 46.7	C – 22.6
		C – 24.5		B – 14.3					
	Weekday Evening Peak Hour	B 10.6	C 23.6	A 4.1	B 12.9	A 0.3	C – 26.0	D – 46.8	C – 21.3
		C – 23.2		B – 11.7					
Year 2023 Total Projected Conditions	Weekday Morning Peak Hour	B 11.0	C 28.9	A 2.6	B 15.3	A 0.7	C – 34.4	D – 46.7	C – 24.0
		C – 28.5		B – 14.1					
	Weekday Evening Peak Hour	B 11.4	C 25.8	A 4.0	B 12.8	A 0.3	C – 26.0	D – 46.8	C – 22.1
		C – 25.3		B – 11.6					
Letter denotes Level of Service Delay is measured in seconds.		L – Left Turns T – Through		R – Right Turns					

Table 4

CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Monroe Street with Wenonah Avenue				
• Northbound Approach	A	9.5	A	9.3
• Southbound Approach	A	9.4	A	9.6
• Eastbound Left Turn	A	7.3	A	7.3
• Westbound Left Turn	A	7.3	A	7.3
Monroe Street with Public Alley				
• Northbound Approach	A	8.6	A	8.4
• Westbound Left Turn	A	7.3	A	7.3
Monroe Street with Home Avenue				
• Overall	A	7.6	A	7.8
• Eastbound Approach	A	7.3	A	7.5
• Westbound Approach	A	7.2	A	7.3
• Northbound Approach	A	7.7	A	7.7
• Southbound Approach	A	7.7	A	8.1
Adams Street with Wisconsin Avenue				
• Eastbound Approach	A	9.3	A	9.4
• Westbound Approach	A	9.4	A	9.6
• Northbound Left Turn	A	7.5	A	7.2
• Southbound Left Turn	A	7.3	A	7.3
Adams Street with Public Alley				
• Northbound Approach	A	8.4	A	8.7
• Southbound Approach	A	8.6	A	8.9
• Eastbound Left Turn	--	--	A	7.3
• Westbound Left Turn	A	7.2	A	7.3
Adams Street with Wenonah Avenue				
• Northbound Approach	A	9.7	A	9.5
• Southbound Approach	A	9.2	A	9.6
• Eastbound Left Turn	A	7.3	A	7.3
• Westbound Left Turn	A	7.3	A	7.3
Wenonah Avenue with Public Alley				
• Eastbound Approach	A	8.9	A	9.0
• Westbound Approach	A	9.8	A	9.2
• Northbound Left Turn	A	7.4	A	7.3
• Southbound Left Turn	--	--	A	7.3
Wisconsin Avenue with Public Alley/Garage Access				
• ICU Level of Service	A	40.1%	A	28.8%
LOS = Level of Service Delay is measured in seconds.	1 - The operation of this intersection is based on a critical volume to saturation flow (v/s) evaluation also known as the Intersection Capacity Utilization (ICU) method.			

Table 5

CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Monroe Street with Wenonah Avenue				
• Northbound Approach	A	9.9	A	9.4
• Southbound Approach	A	9.5	A	9.6
• Eastbound Left Turn	A	7.3	A	7.3
• Westbound Left Turn	A	7.3	A	7.3
Monroe Street with Public Alley				
• Northbound Approach	A	8.6	A	8.4
• Westbound Left Turn	A	7.3	A	7.3
Monroe Street with Home Avenue				
• Overall	A	7.6	A	7.8
• Eastbound Approach	A	7.3	A	7.5
• Westbound Approach	A	7.2	A	7.3
• Northbound Approach	A	7.7	A	7.7
• Southbound Approach	A	7.7	A	8.1
Adams Street with Wisconsin Avenue				
• Eastbound Approach	A	9.3	A	9.4
• Westbound Approach	A	9.4	A	9.6
• Northbound Left Turn	A	7.5	A	7.2
• Southbound Left Turn	A	7.3	A	7.3
Adams Street with Public Alley				
• Northbound Approach	A	8.4	A	8.8
• Southbound Approach	A	8.6	A	8.9
• Eastbound Left Turn	--	--	A	7.3
• Westbound Left Turn	A	7.2	A	7.3
Adams Street with Wenonah Avenue				
• Northbound Approach	B	10.0	A	9.6
• Southbound Approach	A	9.2	A	9.6
• Eastbound Left Turn	A	7.3	A	7.3
• Westbound Left Turn	A	7.3	A	7.3
Wenonah Avenue with Public Alley				
• Eastbound Approach	B	10.0	A	9.0
• Westbound Approach	B	10.4	A	9.2
• Northbound Left Turn	A	7.4	A	7.3
• Southbound Left Turn	--	--	A	7.3
Wisconsin Avenue with Public Alley/Garage Access				
• ICU Level of Service	A	47.9%	A	32.2%

LOS = Level of Service
 Delay is measured in seconds. | 1 - The operation of this intersection is based on a critical volume to saturation flow (v/s) evaluation also known as the Intersection Capacity Utilization (ICU) method.

Discussion and Recommendations

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

Madison Street with Wisconsin Avenue

The results of the capacity analysis indicate that under existing conditions this intersection operates at an acceptable level of service (LOS) B during the weekday morning peak hour and at an acceptable LOS A during the weekday evening peak hour. In order to provide for efficient traffic movement, maintain acceptable levels of service and ensure that all of the calculated 95th percentile queues are accommodated within designated storage areas and within the length of a segment without impacting the next intersections, the following improvements were assumed in the analyses and should be implemented:

- Eliminate on-street parking on the east side of the northbound approach of Wisconsin Avenue between Madison Street and the east-west alley.
- Restripe the northbound approach of Wisconsin Avenue to provide a shared left/through lane and an exclusive right-turn lane
- Provide for a northbound right-turn overlap phase
- Eliminate three on-street parking spaces on the south side of Madison Street west of Wisconsin Avenue to extend the exclusive right-turn lane by approximately 60 additional feet
- Restripe the existing westbound left-turn lane to provide an additional 25 feet of storage
- Provide a phasing plan and signal timing optimization to accommodate the aforementioned improvements

Under Year 2023 total projected conditions, which include the traffic estimated to be generated by the proposed parking garage and assuming these improvements, this intersection overall is projected to operate at the acceptable LOS B during the weekday morning and evening peak hours with increases in delay of less than six seconds. The 95th percentile queues for the northbound approach are projected to be approximately 64 feet during the weekday morning peak hour and approximately 120 feet during the weekday evening peak hour and as such will not extend to the internal intersection of Wisconsin Avenue with the east-west alley and will not obstruct inbound/outbound movements from the parking garage. Furthermore, the eastbound left-turn and westbound right-turn queues will be accommodated by the proposed storage lengths and will not spill into the through traffic volumes along Madison Street. Additionally, a review of the traffic simulation indicates that all of the turning movements as well as the northbound queues will clear the intersection with each green phase. As such, no additional improvements are necessary at this intersection in conjunction with the proposed development.

Madison Street with Home Avenue

The results of the capacity analysis indicate that under existing conditions this intersection operates at a LOS C during the weekday morning and weekday evening peak hours. Under Year 2023 total projected conditions, which include the traffic estimated to be generated by the proposed parking garage, this intersection overall is projected to continue operating at LOS C during the peak hours with increases in delay of approximately two seconds or less. Furthermore, all of the approaches are projected to continue operating at LOS D or better during the peak hours with increase in delay of approximately three seconds or less. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed parking garage and no roadway improvements or signal modifications will be required in conjunction with the proposed development.

Unsignalized Intersections

The results of the capacity analysis indicate that under existing conditions, all of the unsignalized intersections within the study area are operating at LOS A during the weekday morning and weekday evening peak hours. Under Year 2023 total projected conditions, which include the traffic estimated to be generated by the proposed parking garage, all of the unsignalized intersections within the study are projected to operate at LOS B or better during the peak hours with increases in delay of less than one second.

It should be noted that due to the roadway configuration and traffic control at the intersection of Wisconsin Avenue with the east-west public alley, parking garage entrance and exit and the emergency room lay-by lane, the intersection could not be analyzed using HCM procedures. Given this traffic control configuration and the limitations of the HCM procedures, the intersection was analyzed using the Intersection Capacity Utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity. Based on the ICU analysis, the intersection currently utilizes approximately 40 to 29 percent of the capacity of the intersection. Under future conditions, assuming the reassignment of existing traffic volumes and the traffic estimated to be generated by the proposed development, it is projected that the intersection will utilize approximately 48 to 32 percent of the capacity of the intersection. As a result, the intersection will continue to operate efficiently and with minimal delays.

Monroe Street Roadway Vacation

As previously indicated, the proposed plan calls for vacating the Monroe Street northern right-of-way in order to provide for a two-way drive aisle serving the proposed garage to and from Wisconsin Avenue and an approximate 11-foot raised island separating the existing Monroe Street from the proposed driveway that will also serve as a pedestrian walkway between Wenonah Avenue and Wisconsin Avenue. This will allow pedestrians to and from the garage to safely access the Rush Oak Park Hospital building. It should be noted that the remaining portion of Monroe Street will continue to connect between Wisconsin Avenue and Wenonah Avenue. Given the “Y” intersection that will be created between Wisconsin Avenue, the proposed access drive to the garage and the access drive to the surface parking lot southwest of the site coupled with the existing and anticipated pedestrian movements, it is recommended that the intersection of Wisconsin Avenue with the proposed parking garage access drive and the surface parking access drive be under all-way stop control. Further, the existing on-street parking on the west side of Wisconsin Avenue between the east-west alley and Monroe Street will be relocated to the east side to provide for better sight lines and traffic flow. Based on a review of Auto Turn runs conducted by KLOA, Inc. (see Appendix), passenger vehicles will be able to traverse simultaneously with no encroachment. Therefore, this proposed design will ensure that adequate access is provided for the proposed garage while maintaining the street connectivity to the residential neighborhood to the south will be maintained as it currently is.

6. Conclusion

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

- The signalized intersection of Madison Street with Wisconsin Avenue, taking into consideration the proposed Madison Street road diet, has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed parking garage.
- In order to provide for efficient traffic movement, maintain acceptable levels of service and ensure that all of the calculated 95th percentile queues are accommodated within designated storage areas and within the length of a segment without impacting the next intersections, the following improvements for the intersection of Madison Street with Wisconsin Avenue are recommended and should be implemented:
 - Eliminate on-street parking on the east side of the northbound approach of Wisconsin Avenue between Madison Street and the east-west alley.
 - Restripe the northbound approach of Wisconsin Avenue to provide a shared left/through lane and an exclusive right-turn lane
 - Provide for a northbound right-turn overlap phase
 - Eliminate three on-street parking spaces on the south side of Madison Street west of Wisconsin Avenue to extend the exclusive right-turn lane by approximately 60 additional feet
 - Restripe the existing westbound left-turn lane to provide an additional 25 feet of storage
 - Provide a phasing plan and signal timing optimization to accommodate the aforementioned improvements
- The results of the capacity analyses indicate that the intersection of Madison Street with Home Avenue as well as all of the unsignalized intersections are operating at an acceptable LOS and will continue to do so in the future with limited increases in delay.
- Providing access to the parking garage via the vacation of the northern right-of-way of Monroe Street and physically separating it from Monroe Street will ensure that adequate access will be provided to the proposed garage while maintaining the street connectivity of Monroe Street between Wisconsin Avenue and Wenonah Avenue for the residential neighborhood to the south.
- The existing gate between Wisconsin Avenue and Monroe Avenue separating the hospital property from Monroe Street/Wisconsin Street will be eliminated and replaced by a barrier median ensuring that the hospital traffic will be contained within the campus.
- The proposed “Y” intersection that will be created between Wisconsin Avenue, the proposed access drive to the garage and the access drive to the surface parking lot southwest of the site should be under all-way stop control.

Appendix

Traffic Count Summary Sheets
East-West Alley Average Daily Traffic
Site Plan
Level of Service Criteria
Capacity Analysis Summary Sheets
Auto Turn Runs

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: Adams Street with Public Alley
Site Code:
Start Date: 10/16/2019
Page No: 1

Turning Movement Data

Start Time	Adams Street Eastbound					Adams Street Westbound					Public Alley Northbound					Public Alley Southbound							
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total			
6:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	
6:15 AM	0	0	0	0	0	0	0	4	0	0	4	0	0	0	2	0	2	0	0	0	0	0	0
6:30 AM	0	0	3	0	3	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	2	0	2	0	0	5	0	0	5	0	0	0	1	0	1	0	0	0	1	0	1
Hourly Total	0	0	5	0	5	0	1	13	0	0	14	0	0	0	3	0	3	0	0	0	2	0	2
7:00 AM	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	1	0	1	2	2
7:15 AM	0	1	2	0	3	0	0	12	0	0	12	0	1	1	2	1	4	0	1	0	1	0	2
7:30 AM	0	0	2	0	2	0	0	7	0	0	7	0	1	0	1	5	2	0	2	0	0	0	2
7:45 AM	0	0	5	0	5	0	1	8	1	1	10	0	0	0	1	2	1	0	2	0	1	4	3
Hourly Total	0	1	9	0	10	0	1	31	1	1	33	0	2	1	4	8	7	0	6	0	3	6	9
8:00 AM	0	0	2	0	2	0	0	8	0	0	8	0	0	0	0	0	0	0	0	0	1	2	1
8:15 AM	0	0	7	0	7	1	0	3	0	1	4	0	0	0	1	0	1	0	0	0	1	6	1
8:30 AM	0	0	7	0	7	0	0	4	0	0	4	0	0	0	0	2	0	0	0	0	0	6	0
8:45 AM	0	0	4	0	4	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	6	0
Hourly Total	0	0	20	0	20	1	1	17	0	1	19	0	0	0	1	2	1	0	0	0	2	20	2
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	1	0	1	0	1	0	0	1	11	0	0	0	0	4	0	0	0	0	0	4	0
4:15 PM	0	0	2	0	2	0	0	10	0	0	10	0	0	0	1	2	1	0	0	0	0	0	0
4:30 PM	1	0	4	0	5	0	0	5	0	0	5	0	0	1	1	2	2	0	0	0	0	3	0
4:45 PM	0	0	5	0	5	0	2	6	0	0	8	0	0	0	1	0	1	0	1	0	0	4	1
Hourly Total	1	0	12	0	13	0	3	31	0	1	34	0	0	1	3	8	4	0	1	0	0	11	1
5:00 PM	0	2	3	0	5	0	2	12	0	0	14	0	0	0	0	1	0	0	0	0	1	2	1
5:15 PM	0	0	7	0	7	0	1	7	0	0	8	0	0	1	1	1	2	0	1	0	0	1	18
5:30 PM	0	0	6	1	7	0	0	14	0	1	14	0	0	0	1	0	1	0	0	0	0	3	0
5:45 PM	0	0	7	0	7	0	1	11	0	0	12	0	0	0	1	1	1	0	0	0	0	3	0
Hourly Total	0	2	23	1	26	0	4	44	0	1	48	0	0	1	3	3	4	0	1	0	1	9	2
6:00 PM	0	0	3	0	3	0	0	8	0	0	8	0	0	0	0	3	0	0	0	0	0	3	0
6:15 PM	0	1	5	0	6	0	0	3	0	1	3	0	0	0	0	0	0	0	0	0	0	2	0
6:30 PM	0	0	1	0	1	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	2	0	2	0	0	7	0	0	7	0	0	0	2	0	2	0	0	0	0	0	0
Hourly Total	0	1	11	0	12	0	0	27	0	1	27	0	0	0	2	3	2	0	0	0	0	5	0
Grand Total	1	4	80	1	86	1	10	163	1	5	175	0	2	3	16	24	21	0	8	0	8	51	16
Approach %	1.2	4.7	93.0	1.2	-	0.6	5.7	93.1	0.6	-	-	0.0	9.5	14.3	76.2	-	-	0.0	50.0	0.0	50.0	-	-
Total %	0.3	1.3	26.8	0.3	28.9	0.3	3.4	54.7	0.3	58.7	58.7	0.0	0.7	1.0	5.4	-	7.0	0.0	2.7	0.0	2.7	-	5.4
Lights	1	4	78	1	84	1	9	158	1	-	169	0	2	2	16	-	20	0	8	0	8	-	16



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Adams Street with Public Alley
Site Code:
Start Date: 10/16/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Adams Street Eastbound					Adams Street Westbound					Public Alley Northbound					Public Alley Southbound												
	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
7:45 AM	0	0	5	0	0	0	0	1	8	1	1	1	10	0	0	0	0	1	2	2	1	0	2	0	1	4	3	19
8:00 AM	0	0	2	0	0	2	0	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	11
8:15 AM	0	0	7	0	0	7	1	0	3	0	1	4	0	0	0	1	0	1	0	0	1	0	0	0	1	6	1	13
8:30 AM	0	0	7	0	0	7	0	0	4	0	0	4	0	0	0	0	2	0	6	0	2	0	0	0	6	0	11	
Total	0	0	21	0	0	21	1	1	23	1	2	26	0	0	0	2	4	2	18	5	2	0	2	0	3	18	5	54
Approach %	0.0	0.0	100.0	0.0	-	-	3.8	3.8	88.5	3.8	-	-	0.0	0.0	0.0	100.0	-	-	0.0	0.0	0.0	0.0	40.0	0.0	60.0	-	-	-
Total %	0.0	0.0	38.9	0.0	-	38.9	1.9	1.9	42.6	1.9	-	48.1	0.0	0.0	0.0	3.7	-	3.7	0.0	3.7	0.0	3.7	0.0	5.6	-	-	9.3	-
PHF	0.000	0.000	0.750	0.000	-	0.750	0.250	0.250	0.719	0.250	-	0.650	0.000	0.000	0.000	0.500	-	0.500	0.000	0.250	0.000	0.250	0.000	0.750	-	-	0.417	0.711
Lights	0	0	20	0	0	20	1	1	23	1	2	26	0	0	0	2	4	2	18	5	2	0	2	0	3	18	5	53
% Lights	-	-	95.2	-	-	95.2	100.0	100.0	100.0	100.0	-	100.0	-	-	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	-	100.0	98.1
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
% 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
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
% 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
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
% 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
Bicycles on Road	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Bicycles on Road	-	-	4.8	-	-	4.8	0.0	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	1.9
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	4	-	-	-	-	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Adams Street with Public Alley
Site Code:
Start Date: 10/16/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Adams Street Eastbound					Adams Street Westbound					Public Alley Northbound					Public Alley Southbound											
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total		
5:00 PM	0	2	3	0	0	5	0	2	12	0	0	14	0	0	0	0	0	1	0	0	0	0	0	1	2	1	20
5:15 PM	0	0	7	0	0	7	0	1	7	0	0	8	0	0	1	1	1	1	2	0	1	0	0	0	1	1	18
5:30 PM	0	0	6	1	0	7	0	0	14	0	1	14	0	0	0	0	1	0	1	0	0	0	0	0	3	0	22
5:45 PM	0	0	7	0	0	7	0	1	11	0	0	12	0	0	0	1	1	1	1	0	0	0	0	0	3	0	20
Total	0	2	23	1	0	26	0	4	44	0	1	48	0	0	1	3	3	4	0	1	0	1	9	2	2	80	
Approach %	0.0	7.7	88.5	3.8	-	-	0.0	8.3	91.7	0.0	-	-	0.0	0.0	25.0	75.0	-	-	0.0	50.0	0.0	50.0	-	-	-	-	
Total %	0.0	2.5	28.8	1.3	-	32.5	0.0	5.0	55.0	0.0	-	60.0	0.0	0.0	1.3	3.8	-	5.0	0.0	1.3	0.0	1.3	-	-	2.5	-	
PHF	0.000	0.250	0.821	0.250	-	0.929	0.000	0.500	0.786	0.000	-	0.857	0.000	0.000	0.250	0.750	-	0.500	0.000	0.250	0.000	0.250	-	-	0.500	0.909	
% Lights	0	2	22	1	-	25	0	4	42	0	-	46	0	0	1	3	-	4	0	1	0	1	-	2	2	77	
% Buses	-	100.0	95.7	100.0	-	96.2	-	100.0	95.5	-	-	95.8	-	-	100.0	100.0	-	100.0	-	100.0	-	100.0	-	-	100.0	96.3	
% 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	
% Articulated Trucks	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	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	-	0	1.3	
% Pedestrians	-	0.0	4.3	0.0	-	3.8	-	0.0	2.3	-	-	2.1	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	2.5	
% Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	9	-	-	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	



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Count Name: Adams Street with Wenonah Avenue
Site Code:
Start Date: 10/15/2019
Page No: 1

Turning Movement Data

Start Time	Adams Street Eastbound					Adams Street Westbound					Wenonah Avenue Northbound					Wenonah Avenue Southbound															
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	Int. Total					
6:00 AM	0	0	0	0	0	0	0	3	0	1	3	0	0	2	0	0	2	0	0	1	2	0	0	0	1	2	0	3	8		
6:15 AM	0	0	0	2	0	2	0	0	2	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5	10		
6:30 AM	0	0	1	0	1	0	0	4	0	0	4	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	2	22		
6:45 AM	0	0	2	0	2	0	0	4	0	0	4	0	0	14	0	0	14	0	1	0	1	0	0	0	1	0	0	2	45		
Hourly Total	0	0	3	2	5	0	0	13	0	1	13	0	0	22	0	0	22	0	1	1	3	2	0	2	2	5	45	19			
7:00 AM	0	0	3	0	3	0	0	4	1	0	5	0	1	7	0	0	7	0	0	1	2	0	0	1	2	0	3	15			
7:15 AM	0	0	1	0	1	0	0	5	1	4	6	0	0	6	0	1	6	0	1	0	1	0	0	0	1	0	2	32			
7:30 AM	0	0	9	1	10	0	1	8	0	8	9	0	2	5	2	5	9	0	1	2	1	1	8	4	4	4	31	97			
7:45 AM	0	1	6	0	7	0	1	4	0	3	5	0	3	7	1	4	11	0	0	5	3	5	8	5	8	8	23	20			
Hourly Total	0	1	19	1	21	0	2	21	2	15	25	0	6	25	3	10	34	0	2	8	7	13	17	17	17	41	86	25			
8:00 AM	0	1	3	0	4	0	1	6	0	3	7	0	1	8	0	0	8	0	1	0	2	2	3	3	3	3	16	35			
8:15 AM	0	1	1	0	2	0	0	5	0	0	5	0	0	10	0	0	10	0	0	2	1	4	3	4	3	3	27	18			
8:30 AM	0	1	4	0	5	0	0	5	0	1	5	0	1	3	1	2	5	0	0	2	1	2	3	2	3	2	25	117			
8:45 AM	0	0	7	0	7	0	0	9	1	1	10	0	1	5	0	0	5	0	1	0	1	3	2	3	2	2	25	117			
Hourly Total	0	3	15	0	18	0	1	25	1	5	27	0	3	26	1	2	30	0	2	4	5	11	11	11	11	11	86	25			
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
4:00 PM	0	1	2	0	3	0	1	6	0	2	7	0	0	2	1	1	3	0	0	7	2	2	9	2	2	9	22	16			
4:15 PM	0	1	3	0	4	0	0	2	0	0	2	0	0	3	0	1	3	0	0	4	3	3	7	3	3	7	16	35			
4:30 PM	0	2	6	0	8	0	0	6	1	3	7	0	1	6	1	0	8	0	0	9	3	0	12	3	0	12	27	100			
4:45 PM	0	2	2	0	4	0	0	6	1	0	7	0	1	1	1	0	3	0	3	8	2	0	13	2	0	13	27	28			
Hourly Total	0	6	13	0	19	0	1	20	2	5	23	0	2	12	3	2	17	0	3	28	10	5	41	5	4	41	100	28			
5:00 PM	0	0	4	2	6	0	0	4	0	1	4	0	0	2	0	0	2	0	4	8	4	2	16	4	2	16	25	32			
5:15 PM	0	0	0	0	0	0	2	8	0	1	10	0	0	2	2	0	4	0	1	6	4	1	11	1	1	11	25	32			
5:30 PM	0	1	4	0	5	0	2	4	0	1	6	0	1	5	0	0	6	0	1	12	2	5	15	5	5	15	32	117			
5:45 PM	0	2	6	1	9	0	3	6	0	2	9	0	0	3	0	2	3	0	0	9	2	0	11	2	0	11	32	25			
Hourly Total	0	3	14	3	20	0	7	22	0	5	29	0	1	12	2	2	15	0	6	35	12	8	53	8	5	53	117	25			
6:00 PM	0	0	2	1	3	0	0	5	0	1	5	0	0	2	5	5	7	0	0	6	4	1	10	1	0	10	25	23			
6:15 PM	0	1	3	0	4	0	0	10	1	1	11	0	0	2	0	0	2	0	0	5	1	1	6	1	1	6	23	13			
6:30 PM	0	0	4	0	4	0	0	3	1	0	4	0	0	0	0	1	0	0	2	1	2	1	5	1	5	13	14				
6:45 PM	0	0	1	0	1	0	0	4	0	0	4	0	0	3	1	1	4	0	2	2	1	0	5	1	0	5	14	75			
Hourly Total	0	1	10	1	12	0	0	22	2	2	24	0	0	7	6	7	13	0	4	14	8	3	26	3	26	75	520				
Grand Total	0	14	74	7	95	0	11	123	7	33	141	0	12	104	15	23	131	0	18	90	45	42	153	42	153	520	-				
Approach %	0.0	14.7	77.9	7.4	-	0.0	7.8	87.2	5.0	-	-	0.0	9.2	79.4	11.5	-	-	0.0	11.8	58.8	29.4	-	-	-	-	-	-	-			
Total %	0.0	2.7	14.2	1.3	18.3	0.0	2.1	23.7	1.3	27.1	0.0	2.3	20.0	2.9	25.2	0.0	3.5	17.3	8.7	29.4	0.0	3.5	17.3	8.7	29.4	0.0	3.5	17.3	8.7	29.4	-
Lights	0	14	74	7	95	0	11	117	7	33	135	0	11	100	15	23	126	0	18	87	45	42	150	42	150	506	-				

% Lights	-	100.0	100.0	100.0	100.0	95.7	-	91.7	96.2	100.0	-	96.2	-	100.0	96.7	100.0	-	98.0	97.3
Buses	0	0	0	0	1	1	0	1	1	0	1	2	0	0	1	0	-	1	4
% Buses	-	0.0	0.0	0.0	0.8	0.0	-	8.3	1.0	0.0	-	1.5	-	0.0	1.1	0.0	-	0.7	0.8
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-	1	1
% Single-Unit Trucks	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.1	0.0	-	0.7	0.2
Articulated Trucks	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
Bicycles on Road	0	0	0	0	5	0	0	0	3	0	0	3	0	0	1	0	-	1	9
% Bicycles on Road	-	0.0	0.0	0.0	4.1	0.0	-	0.0	2.9	0.0	-	2.3	-	0.0	1.1	0.0	-	0.7	1.7
Pedestrians	-	-	-	-	-	33	-	-	-	-	23	-	-	-	-	-	42	-	-
% 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: Adams Street with Wenonah Avenue
Site Code:
Start Date: 10/15/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Adams Street Eastbound						Adams Street Westbound						Wenonah Avenue Northbound						Wenonah Avenue Southbound							
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
7:45 AM	0	1	6	0	0	7	0	1	4	0	3	5	0	3	7	1	4	11	0	0	5	3	5	8	31	
8:00 AM	0	1	3	0	3	4	0	1	6	0	3	7	0	1	8	0	0	9	0	1	0	2	2	3	23	
8:15 AM	0	1	1	0	2	2	0	0	5	0	0	5	0	0	10	0	0	10	0	0	2	1	4	3	20	
8:30 AM	0	1	4	0	0	5	0	0	5	0	1	5	0	1	3	1	2	5	0	0	2	1	2	3	18	
Total	0	4	14	0	5	18	0	2	20	0	7	22	0	5	28	2	6	35	0	1	9	7	13	17	92	
Approach %	0.0	22.2	77.8	0.0	-	-	0.0	9.1	90.9	0.0	-	-	0.0	14.3	80.0	5.7	-	-	0.0	5.9	52.9	41.2	-	-	-	-
Total %	0.0	4.3	15.2	0.0	-	19.6	0.0	2.2	21.7	0.0	-	23.9	0.0	5.4	30.4	2.2	-	38.0	0.0	1.1	9.8	7.6	-	18.5	-	-
PHF	0.000	1.000	0.583	0.000	-	0.643	0.000	0.500	0.833	0.000	-	0.786	0.000	0.417	0.700	0.500	-	0.795	0.000	0.250	0.450	0.583	-	0.531	0.742	-
Lights	0	4	14	0	-	18	0	2	20	0	-	22	0	5	27	2	-	34	0	1	9	7	-	17	91	
% Lights	-	100.0	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	-	100.0	96.4	100.0	-	97.1	-	100.0	100.0	100.0	-	100.0	98.9	-
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	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
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1	1
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	3.6	0.0	-	2.9	-	0.0	0.0	0.0	-	0.0	1.1	1.1
Pedestrians	-	-	-	-	5	-	-	-	-	-	7	-	-	-	-	-	6	-	-	-	-	-	13	-	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-



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Count Name: Adams Street with Wenonah Avenue
Site Code:
Start Date: 10/15/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Adams Street Eastbound						Adams Street Westbound						Wenonah Avenue Northbound						Wenonah Avenue Southbound													
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
5:00 PM	0	0	4	2	3	6	0	0	4	0	1	4	0	0	2	0	0	0	2	0	0	8	4	4	2	0	4	8	4	2	16	28
5:15 PM	0	0	0	0	1	0	0	2	8	0	1	10	0	0	2	2	0	0	4	0	1	6	4	1	11	25						
5:30 PM	0	1	4	0	0	5	0	2	4	0	1	6	0	1	5	0	0	6	0	1	12	2	5	15	32							
5:45 PM	0	2	6	1	1	9	0	3	6	0	2	9	0	0	3	0	2	3	0	0	9	2	0	11	32							
Total	0	3	14	3	5	20	0	7	22	0	5	29	0	1	12	2	2	15	0	6	35	12	8	53	117							
Approach %	0.0	15.0	70.0	15.0	-	-	0.0	24.1	75.9	0.0	-	-	0.0	6.7	80.0	13.3	-	-	0.0	11.3	66.0	22.6	-	-	-							
Total %	0.0	2.6	12.0	2.6	-	17.1	0.0	6.0	18.8	0.0	-	24.8	0.0	0.9	10.3	1.7	-	12.8	0.0	5.1	29.9	10.3	-	45.3	-							
PHF	0.000	0.375	0.583	0.375	-	0.556	0.000	0.583	0.688	0.000	-	0.725	0.000	0.250	0.600	0.250	-	0.625	0.000	0.375	0.729	0.750	-	0.828	0.914							
Lights	0	3	14	3	-	20	0	7	20	0	-	27	0	1	11	2	-	14	0	6	35	12	-	53	114							
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	90.9	-	-	93.1	-	100.0	91.7	100.0	-	93.3	-	100.0	100.0	100.0	-	100.0	97.4							
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0							
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	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							
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	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	3							
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	9.1	-	-	6.9	-	0.0	8.3	0.0	-	6.7	-	0.0	0.0	0.0	-	0.0	2.6							
Pedestrians	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	2	-	-	-	-	-	8	-	-							
% 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: Home Avenue with Monroe Street
Site Code:
Start Date: 10/15/2019
Page No: 1

Turning Movement Data

Start Time	Monroe Street Eastbound					Monroe Street Westbound					Home Avenue Northbound					Home Avenue Southbound												
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total			
6:00 AM	0	0	0	0	0	0	0	0	2	1	3	3	0	0	1	0	0	0	2	1	0	1	2	0	0	0	3	7
6:15 AM	0	0	0	0	1	0	0	0	0	0	3	0	0	2	0	0	0	0	2	0	0	4	0	0	1	4	6	
6:30 AM	0	2	0	0	0	2	0	1	1	0	0	2	0	0	3	1	1	1	4	0	0	6	0	0	0	6	14	
6:45 AM	0	1	0	0	2	1	0	1	5	1	1	7	0	3	6	0	0	0	9	0	0	7	1	0	0	8	25	
Hourly Total	0	3	0	0	3	3	0	2	8	2	7	12	0	5	10	1	3	16	0	1	19	1	1	1	21	52		
7:00 AM	0	3	0	1	0	4	0	0	1	2	1	3	0	4	4	2	2	10	0	0	4	0	0	0	4	21		
7:15 AM	0	1	4	0	1	5	0	0	1	3	0	4	0	2	9	1	0	12	0	1	6	2	0	0	9	30		
7:30 AM	0	1	3	2	2	6	0	2	1	6	3	9	0	0	25	0	8	25	0	2	13	0	1	1	15	55		
7:45 AM	0	2	2	1	2	5	0	0	5	8	2	13	0	2	24	1	0	27	0	0	14	8	0	0	22	67		
Hourly Total	0	7	9	4	5	20	0	2	8	19	6	29	0	8	62	4	10	74	0	3	37	10	1	1	50	173		
8:00 AM	0	1	0	2	0	3	0	2	5	8	1	15	0	3	20	1	4	24	1	2	11	3	2	2	17	59		
8:15 AM	0	2	3	3	0	8	0	0	4	9	20	13	0	4	17	1	5	22	0	5	12	2	2	2	19	62		
8:30 AM	0	1	2	1	9	4	0	0	4	15	40	19	0	0	25	0	2	25	0	6	14	0	1	0	20	68		
8:45 AM	0	2	1	1	3	4	0	0	2	7	2	9	0	1	22	0	1	23	0	2	15	3	2	2	20	56		
Hourly Total	0	6	6	7	12	19	0	2	15	39	63	56	0	8	84	2	12	94	1	15	52	8	7	7	76	245		
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4:00 PM	0	3	1	1	0	5	0	1	4	7	5	12	0	1	15	0	3	16	0	4	25	3	2	2	32	65		
4:15 PM	0	4	0	3	0	7	0	1	2	4	1	7	0	0	18	0	0	19	0	1	19	2	1	1	22	55		
4:30 PM	0	2	5	3	0	10	0	0	5	4	1	9	0	0	16	1	0	17	0	9	22	2	0	0	33	69		
4:45 PM	0	1	3	1	5	5	0	1	3	2	1	6	0	0	24	2	2	26	0	4	18	2	0	0	24	61		
Hourly Total	0	10	9	8	5	27	0	3	14	17	8	34	0	2	73	3	5	78	0	18	84	9	3	3	111	250		
5:00 PM	0	0	1	2	1	3	0	0	2	8	5	10	0	0	23	0	0	23	0	9	35	1	1	1	45	81		
5:15 PM	0	1	1	0	0	2	0	2	4	5	0	11	0	1	11	1	1	13	0	6	17	3	1	1	26	52		
5:30 PM	0	2	3	2	0	7	0	1	1	5	1	7	0	1	18	0	6	19	0	5	30	3	2	2	38	71		
5:45 PM	0	2	3	1	1	6	0	0	1	6	0	7	0	1	23	1	1	25	0	5	26	1	0	0	32	70		
Hourly Total	0	5	8	5	2	18	0	3	8	24	6	35	0	3	75	2	8	80	0	25	108	8	4	4	141	274		
6:00 PM	0	1	3	0	1	4	0	0	4	13	2	17	0	2	20	0	1	22	0	3	28	5	4	4	36	79		
6:15 PM	0	1	1	0	1	2	0	0	2	3	7	5	0	0	11	1	4	12	0	5	23	2	1	1	30	49		
6:30 PM	0	1	1	2	2	4	0	1	3	5	0	9	0	3	11	1	1	15	0	2	18	3	0	0	23	51		
6:45 PM	0	0	2	0	0	2	0	1	1	3	1	5	0	0	7	1	0	8	0	2	14	2	0	0	18	33		
Hourly Total	0	3	7	2	4	12	0	2	10	24	10	36	0	5	49	3	6	57	0	12	83	12	5	5	107	212		
Grand Total	0	34	39	26	31	99	0	14	63	125	100	202	0	31	353	15	44	399	1	74	383	48	21	21	506	1206		
Approach %	0.0	34.3	39.4	26.3	-	-	0.0	6.9	31.2	61.9	-	-	0.0	7.8	88.5	3.8	-	-	-	0.2	14.6	75.7	9.5	-	-	-		
Total %	0.0	2.8	3.2	2.2	-	8.2	0.0	1.2	5.2	10.4	-	16.7	0.0	2.6	29.3	1.2	-	33.1	0.1	6.1	31.8	4.0	-	-	42.0	-		
Lights	0	31	35	24	-	90	0	13	59	118	-	190	0	31	314	13	-	358	1	67	360	48	-	-	476	1114		

% Lights	-	91.2	89.7	92.3	-	90.9	-	92.9	93.7	94.4	-	94.1	-	100.0	86.7	-	89.7	100.0	90.5	94.0	100.0	-	94.1	92.4
Buses	0	0	1	0	-	1	-	0	0	1	-	1	-	0	0	-	0	0	1	5	0	-	6	8
% Buses	-	0.0	2.6	0.0	-	1.0	-	0.0	0.0	0.8	-	0.5	-	-	0.0	-	0.0	0.0	1.4	1.3	0.0	-	1.2	0.7
Single-Unit Trucks	0	1	0	0	-	1	-	0	0	0	-	0	-	0	0	-	1	0	0	0	0	-	0	2
% Single-Unit Trucks	-	2.9	0.0	0.0	-	1.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.2
Articulated Trucks	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	2	3	2	-	7	-	0	1	4	-	11	-	0	0	-	40	0	6	18	0	-	24	82
% Bicycles on Road	-	5.9	7.7	7.7	-	7.1	-	7.1	6.3	4.8	-	5.4	-	-	0.0	-	10.0	0.0	8.1	4.7	0.0	-	4.7	6.8
Pedestrians	-	-	-	-	-	31	-	-	-	-	-	100	-	-	-	-	44	-	-	-	-	-	21	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	21	-
	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	100.0	-



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Count Name: Home Avenue with Monroe Street
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Start Date: 10/15/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Monroe Street Eastbound					Monroe Street Westbound					Home Avenue Northbound					Home Avenue Southbound										
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
7:45 AM	0	2	2	1	2	5	0	0	5	8	2	13	0	2	24	1	0	0	27	0	0	14	8	0	22	67
8:00 AM	0	1	0	2	0	3	0	2	5	8	1	15	0	3	20	1	4	24	1	2	11	3	2	17	59	
8:15 AM	0	2	3	3	0	8	0	0	4	9	20	13	0	4	17	1	5	22	0	5	12	2	2	19	62	
8:30 AM	0	1	2	1	9	4	0	0	4	15	40	19	0	0	25	0	2	25	0	6	14	0	1	20	68	
Total	0	6	7	7	11	20	0	2	18	40	63	60	0	9	86	3	11	98	1	13	51	13	5	78	256	
Approach %	0.0	30.0	35.0	35.0	-	-	0.0	3.3	30.0	66.7	-	-	0.0	9.2	87.8	3.1	-	-	1.3	16.7	65.4	16.7	-	-	-	
Total %	0.0	2.3	2.7	2.7	-	7.8	0.0	0.8	7.0	15.6	-	23.4	0.0	3.5	33.6	1.2	-	38.3	0.4	5.1	19.9	5.1	-	30.5	-	
PHF	0.000	0.750	0.583	0.583	-	0.625	0.000	0.250	0.900	0.667	-	0.789	0.000	0.563	0.860	0.750	-	0.907	0.250	0.542	0.911	0.406	-	0.886	0.941	
Lights	0	5	7	7	-	19	0	2	15	39	-	56	0	9	70	1	-	80	1	12	50	13	-	76	231	
% Lights	-	83.3	100.0	100.0	-	95.0	-	100.0	83.3	97.5	-	93.3	-	100.0	81.4	33.3	-	81.6	100.0	92.3	98.0	100.0	-	97.4	90.2	
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	1	1	0	-	2	3	
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.5	-	1.7	-	0.0	0.0	0.0	-	0.0	0.0	7.7	2.0	0.0	-	2.6	1.2	
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	1	0	0	-	1	0	0	3	0	-	3	0	0	16	2	-	18	0	0	0	0	-	0	22	
% Bicycles on Road	-	16.7	0.0	0.0	-	5.0	-	0.0	16.7	0.0	-	5.0	-	0.0	18.6	66.7	-	18.4	0.0	0.0	0.0	0.0	-	0.0	8.6	
Pedestrians	-	-	-	-	11	-	-	-	-	-	63	-	-	-	-	-	11	-	-	-	-	-	5	-	-	
% 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: Home Avenue with Monroe Street
Site Code:
Start Date: 10/15/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Monroe Street Eastbound					Monroe Street Westbound					Home Avenue Northbound					Home Avenue Southbound											
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total		
5:00 PM	0	0	1	2	1	3	0	0	2	8	5	10	0	0	23	0	0	0	0	23	0	9	35	1	1	45	81
5:15 PM	0	1	1	0	0	2	0	2	4	5	0	11	0	1	11	1	1	1	13	0	6	17	3	1	26	52	
5:30 PM	0	2	3	2	0	7	0	1	1	5	1	7	0	1	18	0	6	19	0	5	30	3	2	38	71		
5:45 PM	0	2	3	1	1	6	0	0	1	6	0	7	0	1	23	1	1	25	0	5	26	1	0	32	70		
Total	0	5	8	5	2	18	0	3	8	24	6	35	0	3	75	2	8	80	0	25	108	8	4	141	274		
Approach %	0.0	27.8	44.4	27.8	-	-	0.0	8.6	22.9	68.6	-	-	0.0	3.8	93.8	2.5	-	-	0.0	17.7	76.6	5.7	-	-	-		
Total %	0.0	1.8	2.9	1.8	-	6.6	0.0	1.1	2.9	8.8	-	12.8	0.0	1.1	27.4	0.7	-	29.2	0.0	9.1	39.4	2.9	-	51.5	-		
PHF	0.000	0.625	0.667	0.625	-	0.643	0.000	0.375	0.500	0.750	-	0.795	0.000	0.750	0.815	0.500	-	0.800	0.000	0.694	0.771	0.667	-	0.783	0.846		
Lights	0	5	7	4	-	16	0	3	8	21	-	32	0	3	74	2	-	79	0	24	98	8	-	130	257		
% Lights	-	100.0	87.5	80.0	-	88.9	-	100.0	100.0	87.5	-	91.4	-	100.0	98.7	100.0	-	98.8	-	96.0	90.7	100.0	-	92.2	93.8		
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1		
% 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	0.9	0.0	-	0.7	0.4		
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	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.3	0.0	-	1.3	-	0.0	0.0	0.0	-	0.0	0.4		
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0		
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0		
Bicycles on Road	0	0	1	1	-	2	0	0	0	3	-	3	0	0	0	0	-	0	0	1	9	0	-	10	15		
% Bicycles on Road	-	0.0	12.5	20.0	-	11.1	-	0.0	0.0	12.5	-	8.6	-	0.0	0.0	0.0	-	0.0	-	4.0	8.3	0.0	-	7.1	5.5		
Pedestrians	-	-	-	-	2	-	-	-	-	-	6	-	-	-	-	-	8	-	-	-	-	4	-	-	-		
% 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: Monroe Street with Public Alley
 Site Code:
 Start Date: 10/15/2019
 Page No: 1

Turning Movement Data

Start Time	Eastbound St. Eastbound					Westbound St. Westbound					Northbound St. Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
6:00 AM	0	0	0	0	0	0	0	2	0	2	0	2	0	2	2	4
6:15 AM	0	5	0	0	5	0	0	2	0	2	0	0	0	0	0	7
6:30 AM	0	2	0	0	2	1	0	0	2	1	0	0	1	2	1	4
6:45 AM	0	0	0	0	0	0	0	4	0	4	0	1	0	1	1	5
Hourly Total	0	7	0	0	7	1	0	8	2	9	0	3	1	5	4	20
7:00 AM	0	4	0	0	4	1	0	1	0	2	0	0	1	3	1	7
7:15 AM	0	5	0	1	5	0	0	1	0	1	0	1	2	3	3	9
7:30 AM	0	1	0	0	1	0	0	1	0	1	0	0	0	1	0	2
7:45 AM	0	3	0	0	3	0	0	6	0	6	0	0	1	4	1	10
Hourly Total	0	13	0	1	13	1	0	9	0	10	0	1	4	11	5	28
8:00 AM	0	2	0	0	2	0	1	5	1	6	0	1	0	6	1	9
8:15 AM	0	2	0	0	2	0	0	8	0	8	0	0	0	2	0	10
8:30 AM	0	3	0	0	3	0	0	6	0	6	0	0	1	3	1	10
8:45 AM	0	3	0	0	3	0	1	4	0	5	0	0	0	0	0	8
Hourly Total	0	10	0	0	10	0	2	23	1	25	0	1	1	11	2	37
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	6	0	0	6	0	1	6	0	7	0	0	0	2	0	13
4:15 PM	0	3	0	0	3	0	0	5	0	5	0	0	0	4	0	8
4:30 PM	0	5	0	0	5	0	0	10	0	10	0	0	1	3	1	16
4:45 PM	0	2	0	0	2	0	0	5	0	5	0	0	0	3	0	7
Hourly Total	0	16	0	0	16	0	1	26	0	27	0	0	1	12	1	44
5:00 PM	0	0	0	0	0	0	3	3	0	6	0	0	0	1	0	6
5:15 PM	0	1	1	0	2	0	1	5	0	6	0	0	1	0	1	9
5:30 PM	0	5	0	0	5	0	3	2	0	5	0	0	0	2	0	10
5:45 PM	0	7	1	0	7	0	1	5	0	6	0	0	0	1	0	13
Hourly Total	0	13	1	0	14	0	8	15	0	23	0	0	1	4	1	38
6:00 PM	0	3	1	0	4	0	1	8	0	9	0	0	0	0	0	13
6:15 PM	0	2	0	0	2	0	0	1	1	1	0	0	0	8	0	3
6:30 PM	0	1	0	0	1	0	3	4	0	7	0	0	0	1	0	8
6:45 PM	0	4	0	0	4	0	3	3	0	6	0	0	1	1	1	11
Hourly Total	0	10	1	0	11	0	7	16	1	23	0	0	1	10	1	35
Grand Total	0	69	2	1	71	2	18	97	4	117	0	5	9	53	14	202
Approach %	0.0	97.2	2.8	-	-	1.7	15.4	82.9	-	-	0.0	35.7	64.3	-	-	-
Total %	0.0	34.2	1.0	-	35.1	1.0	8.9	48.0	-	57.9	0.0	2.5	4.5	-	6.9	-
Lights	0	68	1	-	69	2	16	93	-	111	0	2	9	-	11	191
% Lights	-	98.6	50.0	-	97.2	100.0	88.9	95.9	-	94.9	-	40.0	100.0	-	78.6	94.6



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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Monroe Street with Public Alley
Site Code:
Start Date: 10/15/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Eastbound St. Eastbound				Westbound St. Westbound				Northbound St. Northbound							
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	0	3	0	0	3	0	0	6	0	6	0	0	1	4	1	10
8:00 AM	0	2	0	0	2	0	1	5	1	6	0	1	0	6	1	9
8:15 AM	0	2	0	0	2	0	8	0	0	8	0	0	0	2	0	10
8:30 AM	0	3	0	0	3	0	6	0	0	6	0	0	1	3	1	10
Total	0	10	0	0	10	0	25	1	1	26	0	1	2	15	3	39
Approach %	0.0	100.0	0.0	-	-	0.0	3.8	96.2	-	-	0.0	33.3	66.7	-	-	-
Total %	0.0	25.6	0.0	-	25.6	0.0	2.6	64.1	-	66.7	0.0	2.6	5.1	-	7.7	-
PHF	0.000	0.833	0.000	-	0.833	0.000	0.250	0.781	-	0.813	0.000	0.250	0.500	-	0.750	0.975
Lights	0	10	0	-	10	0	1	22	-	23	0	0	2	-	2	35
% Lights	-	100.0	-	-	100.0	-	100.0	88.0	-	88.5	-	0.0	100.0	-	66.7	89.7
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	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
Articulated Trucks	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	3	0	-	3	0	1	0	-	1	4
% Bicycles on Road	-	0.0	-	-	0.0	-	0.0	12.0	-	11.5	-	100.0	0.0	-	33.3	10.3
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	15	-	-
% Pedestrians	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Rosemont, Illinois, United States 60018
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Count Name: Monroe Street with Public Alley
Site Code:
Start Date: 10/15/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Eastbound St. Eastbound				Westbound St. Westbound				Northbound St. Northbound							
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	0	0	0	0	3	3	0	6	0	0	0	1	0	6
5:15 PM	0	1	1	0	2	0	1	5	0	6	0	0	1	0	1	9
5:30 PM	0	5	0	0	5	0	3	2	0	5	0	0	0	2	0	10
5:45 PM	0	7	0	0	7	0	1	5	0	6	0	0	0	1	0	13
Total	0	13	1	0	14	0	8	15	0	23	0	0	1	4	1	38
Approach %	0.0	92.9	7.1	-	-	0.0	34.8	65.2	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	34.2	2.6	-	36.8	0.0	21.1	39.5	-	60.5	0.0	0.0	2.6	-	2.6	-
PHF	0.000	0.464	0.250	-	0.500	0.000	0.667	0.750	-	0.958	0.000	0.000	0.250	-	0.250	0.731
Lights	0	12	1	-	13	0	6	15	-	21	0	0	1	-	1	35
% Lights	-	92.3	100.0	-	92.9	-	75.0	100.0	-	91.3	-	-	100.0	-	100.0	92.1
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	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
Articulated Trucks	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	1	0	-	1	0	2	0	-	2	0	0	0	-	0	3
% Bicycles on Road	-	7.7	0.0	-	7.1	-	25.0	0.0	-	8.7	-	-	0.0	-	0.0	7.9
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Wenonah Avenue with Monroe Street
Site Code:
Start Date: 10/15/2019
Page No: 1

Turning Movement Data

Start Time	Monroe Street Eastbound					Monroe Street Westbound					Wenonah Avenue Northbound					Wenonah Avenue Southbound											
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total		
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	0	1	3	0	0	3	0	0	0	3	7
6:15 AM	0	3	0	0	0	3	0	0	1	1	0	2	0	0	1	0	0	1	0	0	0	1	0	1	0	1	
6:30 AM	0	1	2	0	0	3	0	0	1	1	1	3	0	1	4	0	0	5	0	0	0	1	0	1	0	11	
6:45 AM	0	0	0	0	0	0	0	0	4	6	0	10	0	3	8	0	0	11	0	0	2	0	0	2	0	23	
Hourly Total	0	4	2	0	0	6	0	0	6	9	1	15	0	6	14	0	2	20	0	0	5	2	0	7	0	48	
7:00 AM	0	3	1	0	0	4	0	0	0	4	0	4	0	2	7	1	3	10	1	0	3	0	0	4	0	22	
7:15 AM	0	4	2	0	1	6	0	0	1	3	1	4	0	0	6	0	2	6	0	0	2	1	0	3	0	19	
7:30 AM	0	0	0	1	0	1	0	0	0	1	4	1	0	0	3	1	14	4	0	3	3	1	0	7	0	13	
7:45 AM	0	4	0	0	0	4	1	1	6	1	0	9	0	0	7	2	3	9	0	3	7	0	1	10	0	32	
Hourly Total	0	11	3	1	1	15	1	1	7	9	5	18	0	2	23	4	22	29	1	6	15	2	1	24	0	86	
8:00 AM	0	1	0	1	0	2	0	1	5	1	4	7	0	0	8	2	6	10	0	3	2	1	2	6	0	25	
8:15 AM	0	1	1	0	0	2	0	0	4	7	2	11	0	0	8	3	5	11	0	3	3	4	0	10	0	34	
8:30 AM	0	2	2	0	0	4	0	0	4	1	0	5	0	0	4	1	2	5	0	1	2	2	0	5	0	19	
8:45 AM	0	3	0	0	0	3	0	0	4	1	0	5	0	0	1	1	5	2	0	1	2	1	0	4	0	14	
Hourly Total	0	7	3	1	0	11	0	1	17	10	6	28	0	0	21	7	18	28	0	8	9	8	2	25	0	92	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4:00 PM	0	4	0	2	0	6	0	1	4	2	1	7	0	0	1	1	2	2	0	1	8	3	0	12	0	27	
4:15 PM	0	2	1	0	0	3	0	1	2	1	1	4	0	0	2	3	0	5	0	2	8	2	1	12	0	24	
4:30 PM	0	2	2	1	0	5	0	2	6	2	4	10	0	0	6	3	3	9	0	3	8	5	1	16	0	40	
4:45 PM	0	1	1	1	1	3	0	1	3	1	0	5	0	0	2	0	1	2	0	2	10	2	0	14	0	24	
Hourly Total	0	9	4	4	1	17	0	5	15	6	6	26	0	0	11	7	6	18	0	8	34	12	2	54	0	115	
5:00 PM	0	0	1	0	0	1	0	1	2	1	0	4	0	0	3	0	1	3	0	1	12	4	0	17	0	25	
5:15 PM	0	1	1	0	0	2	0	1	4	3	0	8	0	0	0	1	1	1	0	1	10	2	0	13	0	24	
5:30 PM	0	2	0	2	0	4	0	1	3	1	2	5	0	1	4	2	5	7	0	5	13	1	1	19	0	35	
5:45 PM	0	3	3	2	1	8	0	1	1	2	2	4	0	0	6	0	2	6	0	2	10	4	0	16	0	34	
Hourly Total	0	6	5	4	1	15	0	4	10	7	4	21	0	1	13	3	9	17	0	9	45	11	1	65	0	118	
6:00 PM	0	1	2	0	0	3	0	0	4	2	0	6	0	0	0	0	0	0	0	1	9	5	0	15	0	24	
6:15 PM	0	1	1	0	0	2	0	1	1	2	1	4	0	0	5	0	5	5	0	0	4	0	0	4	0	15	
6:30 PM	0	0	0	0	0	0	0	1	3	2	0	6	0	0	0	1	3	1	0	2	4	4	0	10	0	17	
6:45 PM	0	2	3	1	0	6	0	0	3	1	0	4	0	0	3	0	3	3	0	0	4	3	1	7	0	20	
Hourly Total	0	4	6	1	0	11	0	2	11	7	1	20	0	0	8	1	9	9	0	3	21	12	1	36	0	76	
Grand Total	0	41	23	11	3	75	1	13	66	48	23	128	0	9	90	22	66	121	1	34	129	47	7	211	0	535	
Approach %	0.0	54.7	30.7	14.7	-	-	0.8	10.2	51.6	37.5	-	-	0.0	7.4	74.4	18.2	-	-	0.5	16.1	61.1	22.3	-	-	-	-	
Total %	0.0	7.7	4.3	2.1	-	14.0	0.2	2.4	12.3	9.0	-	23.9	0.0	1.7	16.8	4.1	-	22.6	0.2	6.4	24.1	8.8	-	39.4	-	-	
Lights	0	41	22	11	-	74	1	13	63	47	-	124	0	7	90	20	-	117	1	33	126	46	-	206	0	521	

% Lights	-	100.0	95.7	100.0	-	98.7	100.0	100.0	95.5	97.9	-	96.9	-	77.8	100.0	90.9	-	96.7	100.0	97.1	97.7	97.9	-	97.6	97.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	-	0	0	1	-	1	0	0	1	0	-	1	2
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	4.5	-	0.8	0.0	0.0	0.8	0.0	-	0.5	0.4
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	-	0	0	0	-	0	0	1	1	0	-	2	2
% 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	2.9	0.8	0.0	-	0.9	0.4
Articulated Trucks	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	1	0	-	1	0	0	3	1	-	4	-	0	2	0	1	-	3	0	1	1	-	2	10
% Bicycles on Road	-	0.0	4.3	0.0	-	1.3	0.0	0.0	4.5	2.1	-	3.1	-	-	22.2	0.0	4.5	-	2.5	0.0	0.8	2.1	-	0.9	1.9
Pedestrians	-	-	-	-	3	-	-	-	-	-	23	-	66	-	-	-	-	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: Wenonah Avenue with Monroe
Street
Site Code:
Start Date: 10/15/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Monroe Street Eastbound						Monroe Street Westbound						Wenonah Avenue Northbound						Wenonah Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	4	0	0	0	4	1	1	6	1	0	9	0	0	7	2	3	9	0	3	7	0	1	10	32
8:00 AM	0	1	0	1	0	2	0	1	5	1	4	7	0	0	8	2	6	10	0	3	2	1	2	6	25
8:15 AM	0	1	1	0	0	2	0	0	4	7	2	11	0	0	8	3	5	11	0	3	3	4	0	10	34
8:30 AM	0	2	2	0	0	4	0	0	4	1	0	5	0	1	4	1	2	5	0	1	2	2	0	5	19
Total	0	8	3	1	0	12	1	2	19	10	6	32	0	0	27	8	16	35	0	10	14	7	3	31	110
Approach %	0.0	66.7	25.0	8.3	-	-	3.1	6.3	59.4	31.3	-	-	0.0	0.0	77.1	22.9	-	-	0.0	32.3	45.2	22.6	-	-	-
Total %	0.0	7.3	2.7	0.9	-	10.9	0.9	1.8	17.3	9.1	-	29.1	0.0	0.0	24.5	7.3	-	31.8	0.0	9.1	12.7	6.4	-	28.2	-
PHF	0.000	0.500	0.375	0.250	-	0.750	0.250	0.500	0.792	0.357	-	0.727	0.000	0.000	0.844	0.667	-	0.795	0.000	0.833	0.500	0.438	-	0.775	0.809
Lights	0	8	3	1	-	12	1	2	16	10	-	29	0	0	27	7	-	34	0	10	14	7	-	31	106
% Lights	-	100.0	100.0	100.0	-	100.0	100.0	100.0	84.2	100.0	-	90.6	-	-	100.0	87.5	-	97.1	-	100.0	100.0	100.0	-	100.0	96.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	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
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	3	0	-	3	0	0	0	1	-	1	0	0	0	0	-	0	4
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	15.8	0.0	-	9.4	-	-	0.0	12.5	-	2.9	-	0.0	0.0	0.0	-	0.0	3.6
Pedestrians	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	16	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Wenonah Avenue with Monroe
Street
Site Code:
Start Date: 10/15/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Monroe Street Eastbound						Monroe Street Westbound						Wenonah Avenue Northbound						Wenonah Avenue Southbound								
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total		
5:00 PM	0	0	1	0	0	1	0	1	2	1	0	4	0	0	3	0	0	1	1	3	0	1	12	4	0	17	25
5:15 PM	0	1	1	0	0	2	0	1	4	3	0	8	0	0	0	1	1	1	1	0	1	10	2	0	13	24	
5:30 PM	0	2	0	2	0	4	0	1	3	1	2	5	0	1	4	2	5	7	0	5	13	1	1	19	35		
5:45 PM	0	3	3	2	1	8	0	1	1	2	2	4	0	0	6	0	2	6	0	2	10	4	0	16	34		
Total	0	6	5	4	1	15	0	4	10	7	4	21	0	1	13	3	9	17	0	9	45	11	1	65	118		
Approach %	0.0	40.0	33.3	26.7	-	-	0.0	19.0	47.6	33.3	-	-	0.0	5.9	76.5	17.6	-	-	0.0	13.8	69.2	16.9	-	-	-		
Total %	0.0	5.1	4.2	3.4	-	12.7	0.0	3.4	8.5	5.9	-	17.8	0.0	0.8	11.0	2.5	-	14.4	0.0	7.6	38.1	9.3	-	55.1	-		
PHF	0.000	0.500	0.417	0.500	-	0.469	0.000	1.000	0.625	0.583	-	0.656	0.000	0.250	0.542	0.375	-	0.607	0.000	0.450	0.865	0.688	-	0.855	0.843		
% Lights	0	6	4	4	-	14	0	4	10	7	-	21	0	0	13	3	-	16	0	9	45	10	-	64	115		
% Lights	-	100.0	80.0	100.0	-	93.3	-	100.0	100.0	100.0	-	100.0	-	0.0	100.0	100.0	-	94.1	-	100.0	100.0	90.9	-	98.5	97.5		
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0		
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0		
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	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		
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	1	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	1	-	1	3		
% Bicycles on Road	-	0.0	20.0	0.0	-	6.7	-	0.0	0.0	0.0	-	0.0	-	100.0	0.0	0.0	-	5.9	-	0.0	0.0	9.1	-	1.5	2.5		
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	1	-	-		
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-		



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Wenonah Avenue with Public Alley
Site Code:
Start Date: 10/15/2019
Page No: 1

Turning Movement Data

Start Time	Public Alley Eastbound					Public Alley Westbound					Wenonah Avenue Northbound					Wenonah Avenue Southbound																
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total							
6:00 AM	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	0	7	9
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	3	1	0	0	0	0	0	1	2	0	0	0	0	0	1	2	0	3	8
6:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	3	3	0	0	0	6	1	0	1	9	0	0	11	17					
6:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	14	1	0	0	0	15	1	0	3	10	0	0	14	29					
Hourly Total	0	0	0	1	2	1	0	0	0	1	1	1	0	21	5	0	0	0	26	3	1	7	24	0	0	35	63					
7:00 AM	0	1	0	1	0	2	0	0	0	1	0	1	0	12	1	0	0	0	13	0	0	2	9	1	1	11	27					
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	3	1	0	0	14	0	0	4	6	0	0	10	24					
7:30 AM	0	0	0	1	0	1	0	0	2	0	0	2	0	5	0	0	0	0	5	0	0	5	6	0	0	11	19					
7:45 AM	0	1	0	4	0	5	0	0	0	0	0	0	0	8	3	0	0	0	11	0	0	7	6	0	0	13	29					
Hourly Total	0	2	0	6	0	8	0	0	2	1	0	3	0	35	7	1	0	0	43	0	0	18	27	1	0	45	99					
8:00 AM	0	2	0	1	0	3	0	0	0	0	1	0	0	6	4	0	0	0	10	0	0	5	3	1	0	8	21					
8:15 AM	0	0	0	2	1	2	0	1	0	0	0	1	0	11	3	0	0	0	14	0	0	9	2	0	0	11	28					
8:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	4	1	0	0	0	5	0	0	5	2	0	0	7	12					
8:45 AM	0	0	0	2	2	2	0	0	0	1	0	1	0	2	3	0	0	0	5	0	0	3	1	0	0	4	12					
Hourly Total	0	2	0	5	6	7	0	1	0	1	1	2	0	23	11	0	0	0	34	0	0	22	8	1	0	30	73					
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
4:00 PM	0	3	0	5	4	8	0	0	0	0	0	0	0	1	4	0	0	0	5	0	0	7	1	0	0	8	21					
4:15 PM	0	4	0	4	0	8	0	0	0	0	0	0	0	1	5	0	0	0	6	0	1	6	0	0	0	7	21					
4:30 PM	0	4	3	9	0	16	0	0	0	0	0	0	0	4	7	1	0	0	12	0	1	6	0	0	0	7	35					
4:45 PM	0	8	1	5	0	14	0	0	0	1	0	1	0	2	3	0	0	0	5	0	2	6	0	0	0	8	28					
Hourly Total	0	19	4	23	4	46	0	0	0	1	0	1	0	8	19	1	0	0	28	0	4	25	1	0	0	30	105					
5:00 PM	0	1	3	6	0	10	0	0	0	2	0	2	0	0	3	1	0	0	4	0	0	14	1	0	0	15	31					
5:15 PM	0	2	1	5	2	8	0	1	0	0	1	1	0	0	5	0	0	0	5	0	1	6	0	0	0	7	21					
5:30 PM	0	1	0	5	1	6	0	1	0	0	0	1	0	0	5	1	0	0	6	0	1	11	1	0	0	13	26					
5:45 PM	0	1	2	2	0	5	0	1	1	0	0	2	0	0	10	0	0	0	10	0	0	15	2	0	0	17	34					
Hourly Total	0	5	6	18	3	29	0	3	1	2	1	6	0	0	23	2	0	0	25	0	2	46	4	0	0	52	112					
6:00 PM	0	1	0	3	2	4	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	12	0	0	0	14	19					
6:15 PM	0	0	1	1	1	2	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	5	0	0	0	5	14					
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	7	1	0	0	8	10					
6:45 PM	0	0	0	0	2	0	0	0	0	1	0	1	0	0	5	0	0	0	5	1	0	7	0	0	0	8	14					
Hourly Total	0	1	1	4	5	6	0	0	0	1	0	1	0	1	14	0	0	0	15	1	2	31	1	0	0	35	57					
Grand Total	0	29	11	57	20	97	0	4	3	7	3	14	0	88	79	4	0	0	171	4	9	149	65	2	0	227	509					
Approach %	0.0	29.9	11.3	58.8	-	-	0.0	28.6	21.4	50.0	-	-	0.0	51.5	46.2	2.3	-	-	-	1.8	4.0	65.6	28.6	-	-	-	-					
Total %	0.0	5.7	2.2	11.2	-	19.1	0.0	0.8	0.6	1.4	-	2.8	0.0	17.3	15.5	0.8	-	-	33.6	0.8	1.8	29.3	12.8	-	-	44.6	-					
Lights	0	29	11	55	-	95	0	3	3	6	-	12	0	88	79	4	-	-	171	4	8	148	63	-	-	223	501					

% Lights	-	100.0	100.0	96.5	-	97.9	-	75.0	100.0	85.7	-	85.7	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.9	99.3	96.9	-	98.2	98.4
Buses	0	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	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	-	0	0	0	0	0	0	0	0	1	2	-	3	4
% Single-Unit Trucks	-	0.0	0.0	1.8	-	1.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.1	-	1.3	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	1	-	1	0	1	0	1	-	2	-	0	0	0	0	0	0	0	1	0	0	-	1	4
% Bicycles on Road	-	0.0	0.0	1.8	-	1.0	-	25.0	0.0	14.3	-	14.3	-	0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	-	0.4	0.8
Pedestrians	-	-	-	-	20	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	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: Wenonah Avenue with Public Alley
Site Code:
Start Date: 10/15/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Public Alley Eastbound					Public Alley Westbound					Wenonah Avenue Northbound					Wenonah Avenue Southbound										
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
7:45 AM	0	1	0	4	0	5	0	0	0	0	0	0	0	8	3	0	0	0	0	0	0	7	6	0	13	29
8:00 AM	0	2	0	1	0	3	0	0	0	0	1	0	0	6	4	0	0	0	0	0	0	5	3	1	8	21
8:15 AM	0	0	0	2	1	2	0	1	0	0	0	1	0	11	3	0	0	0	14	0	0	9	2	0	11	28
8:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	4	1	0	0	0	5	0	0	5	2	0	7	12
Total	0	3	0	7	4	10	0	1	0	0	1	1	0	29	11	0	0	0	40	0	0	26	13	1	39	90
Approach %	0.0	30.0	0.0	70.0	-	-	0.0	100.0	0.0	0.0	-	-	0.0	72.5	27.5	0.0	0.0	-	-	0.0	0.0	66.7	33.3	-	-	-
Total %	0.0	3.3	0.0	7.8	-	11.1	0.0	1.1	0.0	0.0	-	1.1	0.0	32.2	12.2	0.0	0.0	-	44.4	0.0	0.0	28.9	14.4	-	43.3	-
PHF	0.000	0.375	0.000	0.438	-	0.500	0.000	0.250	0.000	0.000	-	0.250	0.000	0.659	0.688	0.000	0.000	-	0.714	0.000	0.000	0.722	0.542	-	0.750	0.776
Lights	0	3	0	7	-	10	0	1	0	0	-	1	0	29	11	0	0	-	40	0	0	26	13	-	39	90
% 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
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
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
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0	-	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0	-	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	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
Pedestrians	-	-	-	-	4	-	-	-	-	1	-	-	1	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
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Count Name: Wenonah Avenue with Public Alley
Site Code:
Start Date: 10/15/2019
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Public Alley Eastbound					Public Alley Westbound					Wenonah Avenue Northbound					Wenonah Avenue Southbound											
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total		
5:00 PM	0	1	3	6	0	10	0	0	0	2	0	2	0	0	3	1	0	0	4	0	0	14	1	0	0	15	31
5:15 PM	0	2	1	5	2	8	0	1	0	0	1	1	0	0	5	0	0	0	5	0	1	6	0	0	7	21	
5:30 PM	0	1	0	5	1	6	0	1	0	0	0	1	0	0	5	1	0	0	6	0	1	11	1	0	13	26	
5:45 PM	0	1	2	2	0	5	0	1	1	0	0	2	0	0	10	0	0	10	0	0	15	2	0	17	34		
Total	0	5	6	18	3	29	0	3	1	2	1	6	0	0	23	2	0	25	0	2	46	4	0	52	112		
Approach %	0.0	17.2	20.7	62.1	-	-	0.0	50.0	16.7	33.3	-	-	0.0	0.0	92.0	8.0	-	-	0.0	3.8	88.5	7.7	-	-	-		
Total %	0.0	4.5	5.4	16.1	-	25.9	0.0	2.7	0.9	1.8	-	5.4	0.0	0.0	20.5	1.8	-	22.3	0.0	1.8	41.1	3.6	-	46.4	-		
PHF	0.000	0.625	0.500	0.750	-	0.725	0.000	0.750	0.250	0.250	-	0.750	0.000	0.000	0.575	0.500	-	0.625	0.000	0.500	0.767	0.500	-	0.765	0.824		
Lights	0	5	6	17	-	28	0	2	1	2	-	5	0	0	23	2	-	25	0	2	46	4	-	52	110		
% Lights	-	100.0	100.0	94.4	-	96.6	-	66.7	100.0	100.0	-	83.3	-	-	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.2		
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		
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		
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	1	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2		
% Bicycles on Road	-	0.0	0.0	5.6	-	3.4	-	33.3	0.0	0.0	-	16.7	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.8		
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-		
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



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

Rosemont, Illinois, United States 60018
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Count Name: Wisconsin Avenue with Adams Street
Site Code:
Start Date: 10/15/2019
Page No: 1

Turning Movement Data

Start Time	Adams Street Eastbound					Adams Street Westbound					Wisconsin Avenue Northbound					Wisconsin Avenue Southbound														
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	Int. Total				
6:00 AM	0	0	0	0	0	0	0	2	1	0	3	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	1	7
6:15 AM	0	0	0	0	0	0	1	1	0	0	2	0	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	7
6:30 AM	0	0	1	0	1	0	0	4	0	0	4	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7
6:45 AM	0	0	1	0	1	0	0	6	0	0	6	0	0	1	0	0	1	0	0	2	3	0	5	0	0	2	3	0	5	13
Hourly Total	0	0	2	0	2	0	1	13	1	0	15	0	1	9	1	0	11	0	0	2	4	0	6	0	0	2	4	0	6	34
7:00 AM	0	2	1	1	4	0	0	7	0	0	7	0	0	1	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	15
7:15 AM	0	2	1	1	4	0	0	5	0	2	5	0	1	4	1	1	6	0	0	1	2	0	3	0	0	1	2	0	3	18
7:30 AM	0	0	3	0	3	0	2	6	1	7	9	0	1	0	2	4	3	0	0	0	1	0	1	0	0	0	1	0	1	16
7:45 AM	0	0	4	0	4	0	0	7	1	0	8	0	0	3	1	6	4	0	2	1	3	0	6	0	2	1	3	0	6	22
Hourly Total	0	4	9	2	15	0	2	25	2	9	29	0	3	9	5	11	17	0	2	2	6	0	10	0	2	2	6	0	10	71
8:00 AM	0	0	1	1	2	0	2	5	1	3	8	0	1	1	3	1	5	0	0	0	2	0	2	0	0	0	2	0	2	17
8:15 AM	0	0	2	1	3	0	1	4	0	0	5	0	3	1	0	0	4	0	0	0	2	0	2	0	0	0	2	0	2	14
8:30 AM	0	0	2	0	2	0	0	6	0	2	6	0	0	4	2	0	6	0	1	0	2	0	3	0	1	0	2	0	3	17
8:45 AM	0	3	5	0	8	0	1	8	1	0	10	0	2	1	1	1	4	0	1	1	2	0	4	0	1	1	2	0	4	26
Hourly Total	0	3	10	2	15	0	4	23	2	5	29	0	6	7	6	2	19	0	2	1	8	0	11	0	2	1	8	0	11	74
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	1	1	3	0	0	6	1	1	7	0	3	1	2	1	6	0	0	2	5	0	7	0	0	2	5	0	7	23
4:15 PM	0	1	3	1	5	0	0	5	2	0	7	0	2	0	1	1	3	1	0	1	2	0	4	1	0	1	2	0	4	19
4:30 PM	0	3	1	0	4	0	0	7	1	2	8	0	6	2	1	1	9	0	2	1	7	1	10	0	2	1	7	1	10	31
4:45 PM	0	0	0	0	0	0	3	7	1	1	11	0	10	2	2	0	14	0	0	1	6	0	7	0	0	1	6	0	7	32
Hourly Total	0	5	5	2	12	0	3	25	5	4	33	0	21	5	6	3	32	1	2	5	20	1	28	0	3	5	20	1	28	105
5:00 PM	0	0	0	0	0	0	2	7	0	1	9	0	1	1	0	1	2	0	3	1	4	0	8	0	0	1	4	0	8	19
5:15 PM	0	0	0	1	1	0	1	11	1	2	13	0	2	0	2	0	4	0	0	1	6	2	7	0	0	1	6	2	7	25
5:30 PM	0	0	2	0	2	0	1	6	0	0	7	0	1	3	3	0	7	0	0	1	2	0	3	0	0	1	2	0	3	19
5:45 PM	0	2	5	0	7	0	1	7	0	1	8	0	1	3	1	2	5	0	3	0	3	0	6	0	3	0	3	0	6	26
Hourly Total	0	2	7	1	10	0	5	31	1	4	37	0	5	7	6	3	18	0	6	3	15	2	24	0	6	3	15	2	24	89
6:00 PM	0	1	3	1	5	0	0	6	1	2	7	0	3	2	0	1	5	0	0	1	6	0	7	0	0	1	6	0	7	24
6:15 PM	0	0	3	0	3	0	0	9	0	3	9	0	3	2	0	1	5	0	1	0	0	0	1	0	1	0	0	0	1	18
6:30 PM	0	1	3	0	4	0	0	5	1	1	6	0	2	0	0	0	2	0	0	0	4	0	4	0	0	0	4	0	4	16
6:45 PM	0	1	0	1	2	0	0	6	1	1	7	0	1	1	1	0	3	0	0	1	2	0	3	0	0	1	2	0	3	15
Hourly Total	0	3	9	2	14	0	0	26	3	7	29	0	9	5	1	2	15	0	1	2	12	0	15	0	1	2	12	0	15	73
Grand Total	0	17	42	9	68	0	15	143	14	29	172	0	45	42	25	21	112	1	13	15	65	3	94	446	446					
Approach %	0.0	25.0	61.8	13.2	-	0.0	8.7	83.1	8.1	-	-	0.0	40.2	37.5	22.3	-	-	1.1	13.8	16.0	69.1	-	-	-	-	-	69.1	-	-	-
Total %	0.0	3.8	9.4	2.0	15.2	0.0	3.4	32.1	3.1	-	38.6	0.0	10.1	9.4	5.6	-	25.1	0.2	2.9	3.4	14.6	-	21.1	-	-	-	14.6	-	-	-
Lights	0	17	42	9	68	0	13	139	13	-	165	0	44	42	25	-	111	1	12	14	65	-	92	-	-	-	65	-	-	436

% Lights	-	100.0	100.0	100.0	-	100.0	92.9	95.9	-	97.8	100.0	100.0	93.3	92.3	100.0	97.9	97.8	
Buses	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	1.2	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
% 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	0.2
Articulated Trucks	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
Bicycles on Road	0	0	0	0	0	4	1	5	0	0	0	0	1	1	0	0	2	7
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	7.1	2.9	-	0.0	0.0	0.0	6.7	7.7	0.0	0.0	2.1	1.6
Pedestrians	-	-	-	5	-	-	-	29	-	-	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Wisconsin Avenue with Adams
Street
Site Code:
Start Date: 10/15/2019
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Adams Street Eastbound					Adams Street Westbound					Wisconsin Avenue Northbound					Wisconsin Avenue Southbound															
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total						
7:45 AM	0	0	4	0	0	4	0	0	7	1	0	8	0	0	3	1	6	4	0	2	1	3	0	6	0	2	1	3	0	6	22
8:00 AM	0	0	1	1	1	2	0	2	5	1	3	8	0	1	1	3	1	5	0	0	0	2	0	2	0	0	0	2	0	2	17
8:15 AM	0	0	2	1	0	3	0	1	4	0	0	5	0	3	1	0	0	4	0	0	0	2	0	2	0	0	0	2	0	2	14
8:30 AM	0	0	2	0	0	2	0	0	6	0	2	6	0	0	4	2	0	6	0	1	0	2	0	3	0	1	0	2	0	3	17
Total	0	0	9	2	1	11	0	3	22	2	5	27	0	4	9	6	7	19	0	3	1	9	0	13	0	3	1	9	0	13	70
Approach %	0.0	0.0	81.8	18.2	-	-	0.0	11.1	81.5	7.4	-	-	0.0	21.1	47.4	31.6	-	-	0.0	23.1	7.7	69.2	-	-	0.0	4.3	1.4	12.9	-	-	-
Total %	0.0	0.0	12.9	2.9	-	15.7	0.0	4.3	31.4	2.9	-	38.6	0.0	5.7	12.9	8.6	-	27.1	0.0	0.000	0.375	0.250	0.750	0.542	0.000	0.375	0.250	0.750	-	0.542	0.795
PHF	0.000	0.000	0.563	0.500	-	0.688	0.000	0.375	0.786	0.500	-	0.844	0.000	0.333	0.563	0.500	-	0.792	0.000	0.375	0.250	0.750	-	0.542	0.000	0.375	0.250	0.750	-	0.542	0.795
Lights	0	0	9	2	-	11	0	3	22	2	-	27	0	3	9	6	-	18	0	3	1	9	-	13	0	3	1	9	-	13	69
% Lights	-	-	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	75.0	100.0	100.0	-	94.7	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.6
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
% 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	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Single-Unit Trucks	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	25.0	0.0	0.0	-	5.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.4
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
% 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	-	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
% 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	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	7	-	-	-	-	-	7	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	0	-	-

Study Name Wisconsin Avenue with Public Alley
Start Date Tuesday, October 15, 2019 6:00 AM
End Date Tuesday, October 15, 2019 7:00 PM
Site Code

Report Summary

Time Period	Class.	Westbound							Northbound							Southbound							Northwestbound							Northeastbound							Crosswalk			
		U	HL	L	BL	R	I	O	U	HL	T	R	HR	I	O	U	L	BL	T	BR	I	O	U	HL	L	BR	HR	I	O	U	BL	BR	R	HR	I	O	Total	pedestria	Total	
Peak 1	Lights	0	28	10	0	2	40	11	1	0	33	4	0	38	83	3	7	92	71	6	179	60	0	1	0	22	0	23	120	0	0	0	0	0	0	6	280	E	4	4
Specified Period	%	0%	100%	100%	0%	100%	100%	100%	100%	0%	89%	100%	0%	90%	98%	100%	100%	100%	97%	86%	98%	94%	0%	100%	0%	100%	0%	100%	100%	0%	0%	0%	0%	0%	0%	86%	98%		100%	
7:45 AM - 8:45 AM	Buses	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	S	24	24
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	1%	0%	0%	0%	1%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
7:45 AM - 8:45 AM	Single-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	N	1	1
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	articulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SE	3	3
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	cycles on Road	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	SW	11	11
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	0%	7%	0%	0%	0%	0%	0%	14%	1%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	1%		100%	
	Total	0	28	10	0	2	40	11	1	0	37	4	0	42	85	3	7	92	73	7	182	64	0	1	0	22	0	23	120	0	0	0	0	0	0	7	287		43	43
	PHF	0	0.54	0.62	0	0.25	0.62	0.34	0.25	0	0.92	0.5	0	0.95	0.85	0.75	0.29	0.77	0.83	0.58	0.8	0.84	0	0.25	0	0.61	0	0.64	0.86	0	0	0	0	0	0	0.58	0.85			
	Approach %						14%	4%						15%	30%						63%	22%						8%	42%							0%	2%			
Peak 2	Lights	0	1	2	0	9	12	16	1	2	42	4	0	49	36	1	1	4	31	1	38	122	0	2	0	70	11	83	5	0	0	0	0	0	0	3	182	E	2	2
Specified Period	%	0%	100%	100%	0%	100%	100%	100%	100%	100%	95%	100%	0%	96%	92%	100%	100%	80%	91%	50%	88%	98%	0%	100%	0%	100%	100%	100%	83%	0%	0%	0%	0%	0%	0%	75%	96%		100%	
5:00 PM - 6:00 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	S	10	10
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	3%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
5:00 PM - 6:00 PM	Single-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	N	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	1%		0%	
	articulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SE	6	6
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	cycles on Road	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	1	2	0	3	3	0	0	0	0	0	0	1	0	1	0	0	0	1	0	6	SW	9	9
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	4%	5%	0%	0%	20%	6%	0%	7%	2%	0%	0%	0%	0%	0%	0%	17%	0%	100%	0%	0%	0%	100%	0%	3%		100%	
	Total	0	1	2	0	9	12	16	1	2	44	4	0	51	39	1	1	5	34	2	43	125	0	2	0	70	11	83	6	0	1	0	0	0	1	4	190		27	27
	PHF	0	0.25	0.25	0	0.56	0.6	0.67	0.25	0.25	0.79	0.5	0	0.75	0.7	0.25	0.25	0.62	0.77	0.5	0.83	0.87	0	0.5	0	0.8	0.46	0.8	0.75	0	0.25	0	0	0	0.25	0.33	0.9			
	Approach %						6%	8%						27%	21%						23%	66%						44%	3%						1%	2%				



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Count Name: Monroe Street East of Alley Two-
Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 1

Direction (Westbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	1	0	0	0	0	1
12:30 AM	1	0	0	0	0	1
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0
5:00 AM	1	0	0	0	0	1
5:15 AM	0	0	0	0	0	0
5:30 AM	1	0	0	0	0	1
5:45 AM	3	0	0	0	0	3
6:00 AM	2	0	0	0	0	2
6:15 AM	2	0	0	0	0	2
6:30 AM	1	0	0	0	0	1
6:45 AM	4	0	0	0	0	4
7:00 AM	1	0	0	0	1	2
7:15 AM	2	0	0	0	0	2
7:30 AM	1	0	0	0	0	1
7:45 AM	5	0	0	0	1	6
8:00 AM	5	0	0	0	1	6
8:15 AM	8	0	0	0	0	8
8:30 AM	5	0	0	0	1	6
8:45 AM	5	0	0	0	0	5
9:00 AM	6	0	1	0	0	7
9:15 AM	3	0	0	0	0	3
9:30 AM	1	0	0	0	0	1

10:45 PM	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0
Total	251	0	0	1	0	0	8	0	260
Total %	96.5	0.0	0.0	0.4	0.0	0.0	3.1	0.0	100.0
AM Times	7:45 AM	12:00 AM	8:15 AM	12:00 AM	12:00 AM	7:00 AM	7:45 AM		
AM Peaks	23	0	1	0	0	2	26		
PM Times	3:45 PM	2:30 PM	12:00 PM	12:00 PM	5:00 PM	3:45 PM			
PM Peaks	29	0	0	0	0	2	29		



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Count Name: Monroe Street East of Alley Two-
Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 4

Direction (Eastbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	1	0	0	0	0	1
12:30 AM	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	1	0	0	0	0	1
5:00 AM	0	0	0	0	0	0
5:15 AM	1	0	0	0	0	1
5:30 AM	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0
6:15 AM	5	0	0	0	0	5
6:30 AM	4	0	0	0	0	4
6:45 AM	0	0	0	0	0	0
7:00 AM	6	0	0	0	0	6
7:15 AM	6	0	0	0	1	7
7:30 AM	1	0	0	0	0	1
7:45 AM	4	0	0	0	0	4
8:00 AM	2	0	0	0	0	2
8:15 AM	2	0	0	0	0	2
8:30 AM	4	0	0	0	0	4
8:45 AM	3	0	0	0	0	3
9:00 AM	2	0	0	0	0	2
9:15 AM	3	0	0	0	0	3
9:30 AM	3	0	0	0	0	3

10:45 PM	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0
Total	176	1	1	1	0	5	2.7	100.0	183
Total %	96.2	0.5	0.5	0.5	0.0	2.7	100.0	100.0	183
AM Times	7:45 AM	12:00 AM	8:15 AM	12:00 AM	12:00 AM	7:00 AM	7:45 AM	7:45 AM	
AM Peaks	12	0	0	0	0	1	12	12	
PM Times	3:45 PM	2:30 PM	12:00 PM	12:00 PM	12:00 PM	5:00 PM	3:45 PM	3:45 PM	
PM Peaks	17	1	0	0	0	1	17	17	



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Count Name: Monroe Street east of Wenonah
Avenue Two-Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 1

Direction (Westbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0
12:30 AM	1	0	0	0	0	1
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0
5:00 AM	1	0	0	0	0	1
5:15 AM	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0
6:00 AM	0	0	0	0	1	1
6:15 AM	2	0	0	0	0	2
6:30 AM	0	0	0	0	0	0
6:45 AM	10	0	0	0	0	10
7:00 AM	4	0	0	0	0	4
7:15 AM	4	0	0	0	0	4
7:30 AM	1	0	0	0	0	1
7:45 AM	8	0	0	0	1	9
8:00 AM	6	0	0	0	1	7
8:15 AM	11	0	0	0	0	11
8:30 AM	4	0	0	0	0	4
8:45 AM	6	0	0	0	0	6
9:00 AM	6	0	0	0	0	6
9:15 AM	1	0	0	0	0	1
9:30 AM	2	0	0	0	0	2

10:45 PM	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0
Total	249	0	0	1	6	6	256		
Total %	97.3	0.0	0.0	0.4	2.3	2.3	100.0		
AM Times	7:45 AM	6:45 AM	6:45 AM	12:00 AM	7:30 AM	7:45 AM			
AM Peaks	29	0	0	0	2	31			
PM Times	3:45 PM	2:30 PM	12:00 PM	12:00 PM	2:15 PM	3:45 PM			
PM Peaks	25	0	0	1	1	25			



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Count Name: Monroe Street east of Wenonah
Avenue Two-Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 4

Direction (Eastbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	1	0	0	0	0	1
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0
6:30 AM	2	0	0	0	0	2
6:45 AM	0	0	0	0	0	0
7:00 AM	2	0	0	0	0	2
7:15 AM	2	0	0	0	0	2
7:30 AM	2	1	1	0	0	4
7:45 AM	5	0	0	0	0	5
8:00 AM	5	0	0	0	0	5
8:15 AM	5	0	0	0	1	6
8:30 AM	4	0	0	0	0	4
8:45 AM	2	0	0	0	0	2
9:00 AM	3	0	0	0	0	3
9:15 AM	0	0	0	0	0	0
9:30 AM	3	0	0	0	0	3

10:45 PM	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0
Total	156	4	1	1	0	10	10	171	100.0
Total %	91.2	2.3	0.6	0.6	0.0	5.8	5.8	100.0	
AM Times	7:45 AM	6:45 AM	6:45 AM	6:45 AM	12:00 AM	7:30 AM	7:30 AM	7:45 AM	
AM Peaks	19	1	1	1	0	1	1	20	
PM Times	3:45 PM	2:30 PM	12:00 PM	12:00 PM	12:00 PM	2:15 PM	2:15 PM	3:45 PM	
PM Peaks	21	3	0	0	0	3	3	21	



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Count Name: Monroe Street West of Alley Two-
Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 1

Direction (Westbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0
12:30 AM	1	0	0	0	0	1
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0
5:00 AM	1	0	0	0	0	1
5:15 AM	0	0	0	0	0	0
5:30 AM	1	0	0	0	0	1
5:45 AM	2	0	0	0	0	2
6:00 AM	1	0	0	0	0	1
6:15 AM	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0
6:45 AM	5	0	0	0	0	5
7:00 AM	0	0	0	0	0	0
7:15 AM	2	0	0	0	0	2
7:30 AM	1	0	0	0	0	1
7:45 AM	6	0	0	0	0	6
8:00 AM	3	0	0	0	0	3
8:15 AM	9	0	0	0	0	9
8:30 AM	4	0	0	0	0	4
8:45 AM	4	0	0	0	0	4
9:00 AM	6	0	1	0	0	7
9:15 AM	2	0	0	0	0	2
9:30 AM	1	0	0	0	0	1



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Count Name: Monroe Street West of Alley Two-
Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 4

Direction (Eastbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	1	0	0	0	0	1
12:30 AM	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	1	0	0	0	0	1
5:00 AM	0	0	0	0	0	0
5:15 AM	1	0	0	0	0	1
5:30 AM	0	0	0	0	0	0
5:45 AM	2	0	0	0	0	2
6:00 AM	3	0	0	0	0	3
6:15 AM	4	0	0	0	0	4
6:30 AM	2	0	0	0	0	2
6:45 AM	0	0	0	0	0	0
7:00 AM	4	0	0	0	0	4
7:15 AM	5	0	0	0	0	5
7:30 AM	1	0	0	0	0	1
7:45 AM	4	0	0	0	0	4
8:00 AM	1	0	0	0	1	2
8:15 AM	2	0	0	0	0	2
8:30 AM	3	0	0	0	0	3
8:45 AM	4	0	0	0	1	5
9:00 AM	1	0	0	0	0	1
9:15 AM	2	0	0	0	0	2
9:30 AM	2	0	0	0	0	2

9:45 AM	3	0	0	0	0	0	0	0	0	0	3
10:00 AM	3	0	0	0	0	0	0	0	0	0	3
10:15 AM	1	0	0	0	0	0	0	0	0	0	1
10:30 AM	4	0	0	0	0	0	0	0	0	0	4
10:45 AM	2	0	0	0	0	0	0	0	0	0	2
11:00 AM	1	0	0	0	0	0	0	0	0	0	1
11:15 AM	2	0	0	1	0	0	0	0	0	0	3
11:30 AM	6	0	0	0	0	0	0	0	1	0	7
11:45 AM	2	0	0	0	0	0	0	0	0	0	2
12:00 PM	3	0	0	0	0	0	0	0	1	0	4
12:15 PM	3	0	0	0	0	0	0	0	0	0	3
12:30 PM	1	0	0	0	0	0	0	0	0	0	1
12:45 PM	1	0	0	0	0	0	0	0	0	0	1
1:00 PM	1	0	0	0	0	0	0	0	0	0	1
1:15 PM	7	0	0	0	0	0	0	0	0	0	7
1:30 PM	4	0	0	0	0	0	0	0	0	0	4
1:45 PM	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	2	0	0	0	0	0	0	0	0	0	2
2:15 PM	1	0	0	0	0	0	0	0	2	0	3
2:30 PM	2	0	0	0	0	0	0	0	0	0	2
2:45 PM	4	0	0	0	0	0	0	0	0	0	4
3:00 PM	2	0	0	0	0	0	0	0	1	0	3
3:15 PM	3	1	0	0	0	0	0	0	0	0	4
3:30 PM	2	0	0	0	0	0	0	0	1	0	3
3:45 PM	3	0	0	0	0	0	0	0	0	0	3
4:00 PM	3	0	0	0	0	0	0	0	0	0	3
4:15 PM	4	0	0	0	0	0	0	0	0	0	4
4:30 PM	7	0	0	0	0	0	0	0	0	0	7
4:45 PM	2	0	0	0	0	0	0	0	0	0	2
5:00 PM	1	0	0	0	0	0	0	0	0	0	1
5:15 PM	2	0	0	0	0	0	0	0	0	0	2
5:30 PM	3	0	0	0	0	0	0	0	0	0	3
5:45 PM	5	0	0	0	0	0	0	0	0	0	5
6:00 PM	3	0	0	0	0	0	0	0	0	0	3
6:15 PM	2	0	0	0	0	0	0	0	0	0	2
6:30 PM	1	0	0	0	0	0	0	0	0	0	1
6:45 PM	5	0	0	0	0	0	0	0	1	0	6
7:00 PM	1	0	0	0	0	0	0	0	0	0	1
7:15 PM	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	6	0	0	0	0	0	0	0	0	0	6
7:45 PM	2	0	0	0	0	0	0	0	0	0	2
8:00 PM	3	0	0	0	0	0	0	0	0	0	3
8:15 PM	5	0	0	0	0	0	0	0	0	0	5
8:30 PM	3	0	0	0	0	0	0	0	0	0	3
8:45 PM	1	0	0	0	0	0	0	0	0	0	1
9:00 PM	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	1	0	0	0	0	0	0	0	0	0	1
10:30 PM	1	0	0	0	0	0	0	0	0	0	1

9:45 AM
10:00 AM
10:15 AM
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9:45 PM
10:00 PM
10:15 PM
10:30 PM

10:45 PM	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0
Total	167	1	1	1	1	9	9	178	100.0
Total %	93.8	0.6	0.6	0.6	0.6	5.1	5.1	100.0	
AM Times	8:15 AM	12:00 AM	8:15 AM	12:00 AM	12:00 AM	8:00 AM	8:15 AM	8:15 AM	
AM Peaks	10	0	0	0	0	2	2	11	
PM Times	3:45 PM	2:30 PM	12:00 PM	12:00 PM	12:00 PM	2:15 PM	2:15 PM	3:45 PM	
PM Peaks	17	1	0	0	0	3	3	17	



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Count Name: Wenonah Avenue Two-Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 1

Direction (Southbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0
12:45 AM	1	0	0	0	0	1
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	1	0	0	0	0	1
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	1	0	0	0	0	1
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	1	0	0	0	0	1
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	1	0	0	0	0	1
5:00 AM	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0
5:30 AM	1	0	0	0	0	1
5:45 AM	4	0	0	0	0	4
6:00 AM	3	0	0	0	0	3
6:15 AM	1	0	0	0	0	1
6:30 AM	1	0	0	0	0	1
6:45 AM	3	0	0	0	0	3
7:00 AM	3	0	0	0	0	3
7:15 AM	4	0	0	0	0	4
7:30 AM	4	1	1	0	0	6
7:45 AM	12	0	0	0	0	12
8:00 AM	5	0	0	0	0	5
8:15 AM	12	0	0	0	0	12
8:30 AM	5	0	0	0	0	5
8:45 AM	5	0	0	0	0	5
9:00 AM	7	0	1	0	0	8
9:15 AM	6	0	1	0	0	7
9:30 AM	4	1	0	0	0	5



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Count Name: Wenonah Avenue Two-Way Traffic
Site Code:
Start Date: 10/15/2019
Page No: 4

Direction (Northbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
10/15/2019 12:00 AM	0	0	0	0	0	0
12:15 AM	2	0	0	0	0	2
12:30 AM	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	1	0	0	0	0	1
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	1	0	0	0	0	1
4:30 AM	0	0	0	0	0	0
4:45 AM	2	0	0	0	0	2
5:00 AM	0	0	0	0	0	0
5:15 AM	1	0	0	0	0	1
5:30 AM	2	0	0	0	0	2
5:45 AM	2	0	0	0	0	2
6:00 AM	2	0	0	0	0	2
6:15 AM	4	0	0	0	0	4
6:30 AM	7	0	0	0	0	7
6:45 AM	16	0	0	0	0	16
7:00 AM	13	0	0	0	0	13
7:15 AM	14	0	0	0	0	14
7:30 AM	5	0	0	0	0	5
7:45 AM	11	0	0	0	0	11
8:00 AM	10	0	0	0	0	10
8:15 AM	14	0	0	0	0	14
8:30 AM	5	0	0	0	0	5
8:45 AM	5	0	0	0	0	5
9:00 AM	7	0	0	0	0	7
9:15 AM	3	0	1	0	0	4
9:30 AM	0	0	0	0	0	0

10:45 PM	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0
11:15 PM	1	0	0	0	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0
Total	366	0	0	6	0	2	0	2	374
Total %	97.9	0.0	1.6	0.0	0.0	0.5	0.0	0.5	100.0
AM Times	7:45 AM	6:45 AM	8:30 AM	12:00 AM	12:00 AM	12:00 AM	12:00 AM	12:00 AM	7:30 AM
AM Peaks	40	0	1	0	0	0	0	0	40
PM Times	5:00 PM	12:00 PM	1:45 PM	12:00 PM	12:00 PM	12:30 PM	12:00 PM	12:30 PM	5:00 PM
PM Peaks	27	0	2	0	0	1	0	1	27

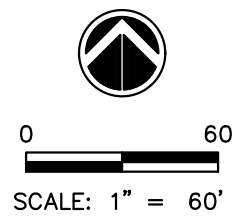
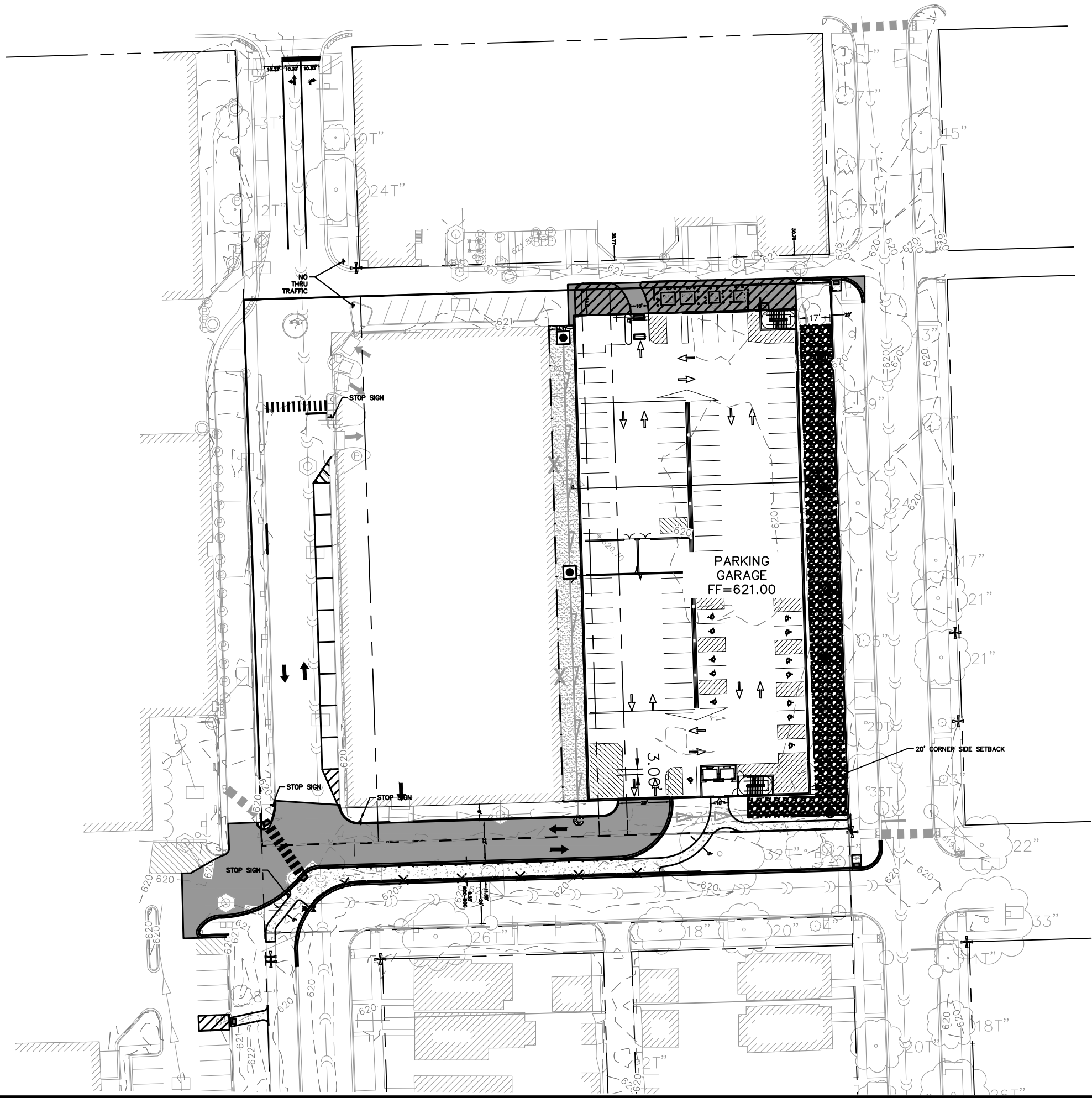
East-West Alley Average Daily Traffic

Table A
 TRAFFIC COUNT SUMMARY - EAST-WEST ALLEY WEST OF WENONAH AVENUE
 TUESDAY, OCTOBER 15, 2019

Time	Eastbound	Westbound	Total
12:00 AM	1	2	3
1:00 AM	1	0	1
2:00 AM	1	0	1
3:00 AM	1	0	1
4:00 AM	0	1	1
5:00 AM	1	4	5
6:00 AM	1	45	46
7:00 AM	8	64	72
8:00 AM	7	31	38
9:00 AM	5	5	10
10:00 AM	8	14	22
11:00 AM	2	19	21
12:00 PM	8	10	18
1:00 PM	10	15	25
2:00 PM	19	18	37
3:00 PM	26	9	35
4:00 PM	46	9	55
5:00 PM	29	5	34
6:00 PM	6	2	8
7:00 PM	8	4	12
8:00 PM	5	3	8
9:00 PM	4	1	5
10:00PM	5	4	9
11:00 PM	0	1	1
Total	202	266	468

Site Plan

Thursday, January 16, 2020 9:55:27 AM
 \\FILES\ACTIVE\PROJECTS\2019\19002340.00\CAD-BIM FOLDERS\CIVIL3D\DWG\DESIGN\19002340.00 RUSH OP SITE PLAN.DWG



H DISTRICT DIMENSIONAL STANDARDS		
BULK STANDARDS	REQUIREMENTS	PROVIDED
MIN. LOT AREA:	10,000 S.F.	37191.74
MAX. BUILDING HEIGHT:	80'	77'-2"
MAX. LOT COVERAGE:	80%	75%
FRONT SETBACK	20'	20'
CORNER SETBACK	20'	20'

EXISTING PARKING TABLE	
RUSH PARKING LOT:	107 SPACES
MONROE ST. PARKING:	20 SPACES

PROPOSED PARKING TABLE	
RUSH PARKING GARAGE:	713 SPACES
TOTAL PROPOSED INCREASE IN SPACES:	586 SPACES

PROPERTY OWNER:
 RUSH OAK PARK HOSPITAL
 520 S. MAPLE AVE.
 OAK PARK, IL 60304
 (708)660-6660

NO.	REVISIONS DESCRIPTION	DATE



RUSH OAK PARK HOSPITAL PARKING GARAGE
 OAK PARK, ILLINOIS
 SITE PLAN EXHIBIT

IMEG Project No:
 19002340.00
 File Name:
 19002340.00 Rush OP Site Plan.dwg
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 Field Book No: ####
 Drawn By: KK
 Checked By: SFG
 Date: 01/15/2020
EXHIBIT 6
 Sheet 1 of 1

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

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

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Reports

Lanes, Volumes, Timings
1: Harlem Avenue & Madison Street

10/25/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	437	15	249	440	300	40	756	248	256	979	79
Future Volume (vph)	58	437	15	249	440	300	40	756	248	256	979	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	125		0	351		247	170		0	130		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	60			75			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.85	0.95	1.00	*0.85	0.95
Ped Bike Factor	1.00	1.00		0.99	0.99		1.00	0.99			1.00	
Frt		0.995			0.939			0.963			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1225	3205	0	1468	3081	0	1671	2896	0	1752	3031	0
Flt Permitted	0.205			0.249			0.121			0.081		
Satd. Flow (perm)	264	3205	0	382	3081	0	213	2896	0	149	3031	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			137			33			8	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		220			366			1600			1945	
Travel Time (s)		6.0			10.0			36.4			44.2	
Confl. Peds. (#/hr)	4		14	14		4	7		12	12		7
Confl. Bikes (#/hr)									1			
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 (%)	21%	4%	20%	1%	2%	2%	8%	8%	3%	3%	5%	8%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	4	0	0	4
Parking (#/hr)	4		4	4								
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	466	0	257	763	0	41	1035	0	264	1090	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	35.0		10.0	37.0		10.0	46.0		10.0	40.0	
Total Split (s)	12.0	35.0		19.0	42.0		10.0	51.0		20.0	61.0	
Total Split (%)	9.6%	28.0%		15.2%	33.6%		8.0%	40.8%		16.0%	48.8%	
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)	1.0	-2.0		1.0	-2.0		1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.5	4.0		4.5	4.0		4.5	4.0		4.5	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	35.9	29.6		48.1	39.1		53.4	48.6		67.9	60.5	
Actuated g/C Ratio	0.29	0.24		0.38	0.31		0.43	0.39		0.54	0.48	

Lanes, Volumes, Timings
 1: Harlem Avenue & Madison Street

10/25/2019

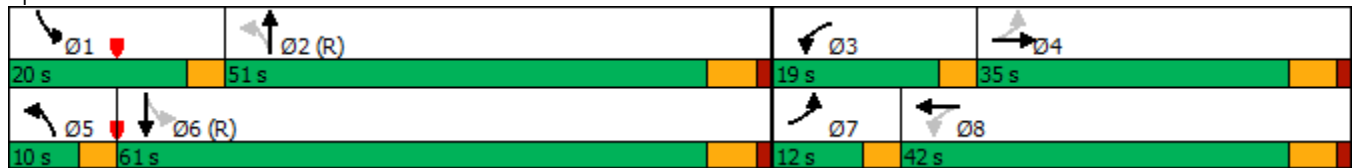


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.61		0.94	0.72		0.27	0.90		0.95	0.74	
Control Delay	37.3	46.1		73.4	35.8		19.8	47.2		76.6	30.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.3	46.1		73.4	35.8		19.8	47.2		76.6	30.7	
LOS	D	D		E	D		B	D		E	C	
Approach Delay		45.1			45.3			46.2			39.6	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	30	174		151	242		15	457		161	428	
Queue Length 95th (ft)	61	232		#277	318		34	#615		#331	529	
Internal Link Dist (ft)		140			286			1520			1865	
Turn Bay Length (ft)	125			351			170			130		
Base Capacity (vph)	134	796		272	1056		155	1147		280	1470	
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	0.45	0.59		0.94	0.72		0.26	0.90		0.94	0.74	

Intersection Summary

Area Type: Other
 Cycle Length: 125
 Actuated Cycle Length: 125
 Offset: 61 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 43.6 Intersection LOS: D
 Intersection Capacity Utilization 92.4% ICU Level of Service F
 Analysis Period (min) 15
 * User Entered Value
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & Madison Street



Lanes, Volumes, Timings
2: Wisconsin Avenue & Madison Street

10/25/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	975	95	74	1038	32	24	9	28	22	10	15
Future Volume (vph)	8	975	95	74	1038	32	24	9	28	22	10	15
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		44	50		41	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	75			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.97			0.95		0.97			0.98	
Frt			0.850			0.850		0.938			0.958	
Flt Protected	0.950			0.950				0.981			0.977	
Satd. Flow (prot)	1483	1795	1396	1425	1848	1369	0	1455	0	0	1659	0
Flt Permitted	0.183			0.157				0.887			0.849	
Satd. Flow (perm)	286	1795	1349	236	1848	1302	0	1297	0	0	1432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			71		29			15	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		298			344			177			134	
Travel Time (s)		8.1			9.4			4.8			3.7	
Confl. Peds. (#/hr)	10		5	5		10	18		7	7		18
Confl. Bikes (#/hr)			1			5			1			
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%	4%	1%	4%	1%	3%	10%	77%	7%	5%	14%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	1005	98	76	1070	33	0	63	0	0	48	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0	15.0	4.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	25.0	25.0	10.0	25.0	25.0	30.0	30.0		30.0	30.0	
Total Split (s)	10.0	60.0	60.0	10.0	60.0	60.0	30.0	30.0		30.0	30.0	
Total Split (%)	10.0%	60.0%	60.0%	10.0%	60.0%	60.0%	30.0%	30.0%		30.0%	30.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0	0.0	0.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	3.5	4.0	6.0	3.5	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?		Yes	Yes		Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	78.9	74.6	73.0	83.4	81.8	80.2		11.9			11.9	
Actuated g/C Ratio	0.79	0.75	0.73	0.83	0.82	0.80		0.12			0.12	

Lanes, Volumes, Timings
 2: Wisconsin Avenue & Madison Street

10/25/2019

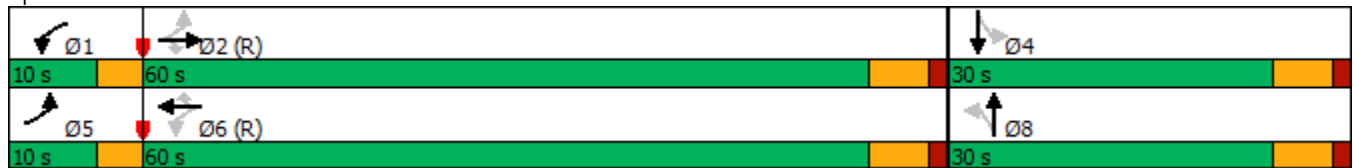


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.75	0.10	0.27	0.71	0.03		0.35				0.26
Control Delay	2.9	16.0	3.0	2.9	5.6	0.2		30.0				32.9
Queue Delay	0.0	1.3	0.0	0.0	0.2	0.0		0.0				0.0
Total Delay	2.9	17.3	3.0	2.9	5.7	0.2		30.0				32.9
LOS	A	B	A	A	A	A		C				C
Approach Delay		16.0			5.4			30.0				32.9
Approach LOS		B			A			C				C
Queue Length 50th (ft)	1	365	5	4	78	0		20				19
Queue Length 95th (ft)	4	#838	27	m7	m#204	m0		58				52
Internal Link Dist (ft)		218			264			97				54
Turn Bay Length (ft)	100		44	50		41						
Base Capacity (vph)	304	1339	1004	287	1512	1058		358				383
Starvation Cap Reductn	0	159	0	0	55	0		0				0
Spillback Cap Reductn	0	101	0	0	0	0		1				0
Storage Cap Reductn	0	0	0	0	0	0		0				0
Reduced v/c Ratio	0.03	0.85	0.10	0.26	0.73	0.03		0.18				0.13

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 68 (68%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 11.5 Intersection LOS: B
 Intersection Capacity Utilization 77.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Wisconsin Avenue & Madison Street



Lanes, Volumes, Timings
 3: Wenonah Avenue & Madison Street

10/25/2019



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1028	20	19	1137	7	8
Future Volume (vph)	1028	20	19	1137	7	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997				0.928	
Flt Protected				0.999	0.977	
Satd. Flow (prot)	1823	0	0	1880	1723	0
Flt Permitted				0.999	0.977	
Satd. Flow (perm)	1823	0	0	1880	1723	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	344			336	171	
Travel Time (s)	9.4			9.2	4.7	
Confl. Peds. (#/hr)					7	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1103	0	0	1217	15	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	85.0%			ICU Level of Service E		
Analysis Period (min)	15					

Lanes, Volumes, Timings
4: Home Avenue & Madison Street

10/25/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	1005	9	11	1003	81	23	88	8	68	76	93
Future Volume (vph)	22	1005	9	11	1003	81	23	88	8	68	76	93
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		46	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	50			90			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.96		1.00			0.98	
Frt		0.999				0.850		0.991			0.947	
Flt Protected	0.950			0.950				0.990			0.986	
Satd. Flow (prot)	1412	1703	0	1483	1830	1410	0	1718	0	0	1604	0
Flt Permitted	0.074			0.083				0.887			0.853	
Satd. Flow (perm)	110	1703	0	130	1830	1360	0	1536	0	0	1379	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				71		3			31	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		336			1558			176			224	
Travel Time (s)		9.2			42.5			4.8			6.1	
Confl. Peds. (#/hr)	5		4	4		5	8		13	13		8
Confl. Bikes (#/hr)			5			4						2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	4%	0%	0%	2%	0%	0%	11%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	1056	0	11	1045	84	0	124	0	0	247	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	25.0		10.0	25.0	25.0	28.0	28.0		28.0	28.0	
Total Split (s)	10.0	60.0		10.0	60.0	60.0	30.0	30.0		30.0	30.0	
Total Split (%)	10.0%	60.0%		10.0%	60.0%	60.0%	30.0%	30.0%		30.0%	30.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	3.5	4.0		3.5	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?		Yes			Yes	Yes						
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	70.0	68.2		69.1	66.2	64.2		21.9			21.9	
Actuated g/C Ratio	0.70	0.68		0.69	0.66	0.64		0.22			0.22	

Lanes, Volumes, Timings
 4: Home Avenue & Madison Street

10/25/2019

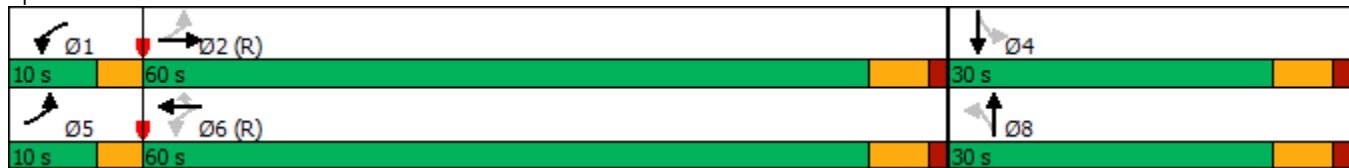


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.15	0.91		0.07	0.86	0.09		0.37				0.76
Control Delay	9.2	24.9		2.9	15.5	0.8		34.4				46.7
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0				0.0
Total Delay	9.2	24.9		2.9	15.5	0.8		34.4				46.7
LOS	A	C		A	B	A		C				D
Approach Delay		24.5			14.3			34.4				46.7
Approach LOS		C			B			C				D
Queue Length 50th (ft)	4	273		0	55	0		65				128
Queue Length 95th (ft)	m10	#1006		m1	m#722	m3		114				210
Internal Link Dist (ft)		256			1478			96				144
Turn Bay Length (ft)	120			90		46						
Base Capacity (vph)	161	1161		177	1210	898		401				381
Starvation Cap Reductn	0	0		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.14	0.91		0.06	0.86	0.09		0.31				0.65

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 22.6
 Intersection LOS: C
 Intersection Capacity Utilization 80.6%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Home Avenue & Madison Street



HCM 6th AWSC
18: Home Avenue & Monroe Street

10/25/2019

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	7	7	2	18	40	9	86	3	13	51	13
Future Vol, veh/h	6	7	7	2	18	40	9	86	3	13	51	13
Peak Hour Factor	0.94	0.94	0.94	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	2	0	0	0	8	2	0
Mvmt Flow	6	7	7	2	19	43	10	91	3	14	54	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.2	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	30%	3%	17%
Vol Thru, %	88%	35%	30%	66%
Vol Right, %	3%	35%	67%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	20	60	77
LT Vol	9	6	2	13
Through Vol	86	7	18	51
RT Vol	3	7	40	13
Lane Flow Rate	104	21	64	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.119	0.025	0.068	0.095
Departure Headway (Hd)	4.111	4.225	3.843	4.197
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	866	852	914	848
Service Time	2.164	2.225	1.94	2.254
HCM Lane V/C Ratio	0.12	0.025	0.07	0.097
HCM Control Delay	7.7	7.3	7.2	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2	0.3

HCM 6th TWSC
 11: West Parking Access & E-W Alley

10/25/2019

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	11	0	0	31	9	2
Future Vol, veh/h	11	0	0	31	9	2
Conflicting Peds, #/hr	0	2	2	0	6	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	0	0	57	17	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	22	0	85
Stage 1	-	-	-	-	22
Stage 2	-	-	-	-	63
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1607	-	921
Stage 1	-	-	-	-	1006
Stage 2	-	-	-	-	965
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1604	-	914
Mov Cap-2 Maneuver	-	-	-	-	914
Stage 1	-	-	-	-	1004
Stage 2	-	-	-	-	959

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	1604	-
HCM Lane V/C Ratio	0.022	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
 12: East Parking Access & E-W Alley

10/25/2019

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	7	16	29	2	5
Future Vol, veh/h	6	7	16	29	2	5
Conflicting Peds, #/hr	0	2	2	0	6	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	13	30	54	4	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	26	0	140 21
Stage 1	-	-	-	-	20 -
Stage 2	-	-	-	-	120 -
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	-	-	1601	-	858 1062
Stage 1	-	-	-	-	1008 -
Stage 2	-	-	-	-	910 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1598	-	835 1059
Mov Cap-2 Maneuver	-	-	-	-	835 -
Stage 1	-	-	-	-	987 -
Stage 2	-	-	-	-	905 -

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	1598	-
HCM Lane V/C Ratio	0.013	-	-	0.019	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

HCM 6th TWSC
 13: Wenonah Avenue & E-W Alley

10/25/2019

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	7	1	3	0	29	11	0	0	26	13
Future Vol, veh/h	4	0	7	1	3	0	29	11	0	0	26	13
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	1	1	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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	0	9	1	4	0	37	14	0	0	33	17

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	137	135	46	135	143	16	54	0	0	15	0	0
Stage 1	46	46	-	89	89	-	-	-	-	-	-	-
Stage 2	91	89	-	46	54	-	-	-	-	-	-	-
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	838	760	1029	841	752	1069	1564	-	-	1616	-	-
Stage 1	973	861	-	923	825	-	-	-	-	-	-	-
Stage 2	921	825	-	973	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	815	738	1025	817	730	1067	1558	-	-	1614	-	-
Mov Cap-2 Maneuver	815	738	-	817	730	-	-	-	-	-	-	-
Stage 1	946	858	-	900	804	-	-	-	-	-	-	-
Stage 2	894	804	-	964	851	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		9.8		5.3		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	937	750	1614	-
HCM Lane V/C Ratio	0.024	-	-	0.015	0.007	-	-
HCM Control Delay (s)	7.4	0	-	8.9	9.8	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0	-

HCM 6th TWSC
 16: N-S Alley & Monroe Street/Monroe Steet

10/25/2019

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	0	1	25	1	2
Future Vol, veh/h	10	0	1	25	1	2
Conflicting Peds, #/hr	0	15	15	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	0	1	26	1	2

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	25	0	53 26
Stage 1	-	-	-	-	25 -
Stage 2	-	-	-	-	28 -
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	-	-	1603	-	960 1056
Stage 1	-	-	-	-	1003 -
Stage 2	-	-	-	-	1000 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1580	-	946 1040
Mov Cap-2 Maneuver	-	-	-	-	946 -
Stage 1	-	-	-	-	988 -
Stage 2	-	-	-	-	1000 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1007	-	-	1580	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
 17: Wenonah Avenue & Monroe Steet/Monroe Street

10/25/2019

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	1	2	19	10	0	27	8	10	14	7
Future Vol, veh/h	8	3	1	2	19	10	0	27	8	10	14	7
Conflicting Peds, #/hr	3	0	16	16	0	3	0	0	6	6	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	4	1	2	23	12	0	33	10	12	17	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	21	0	0	87	83	27	88	77	32
Stage 1	-	-	-	-	-	-	41	41	-	36	36	-
Stage 2	-	-	-	-	-	-	46	42	-	52	41	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1585	-	-	1608	-	-	904	811	1054	902	817	1048
Stage 1	-	-	-	-	-	-	979	865	-	985	869	-
Stage 2	-	-	-	-	-	-	973	864	-	966	865	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1580	-	-	1583	-	-	863	791	1032	852	797	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	863	791	-	852	797	-
Stage 1	-	-	-	-	-	-	958	847	-	976	866	-
Stage 2	-	-	-	-	-	-	945	861	-	908	847	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.9			0.5			9.5			9.4		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	836	1580	-	-	1583	-	-	861
HCM Lane V/C Ratio	0.052	0.006	-	-	0.002	-	-	0.044
HCM Control Delay (s)	9.5	7.3	0	-	7.3	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 6th TWSC
19: Wisconsin Avenue & Adams Street

10/25/2019

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	2	3	21	2	4	9	6	3	1	9
Future Vol, veh/h	0	12	2	3	21	2	4	9	6	3	1	9
Conflicting Peds, #/hr	0	0	7	7	0	0	1	0	5	5	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	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	25	0	0	0	0	0
Mvmt Flow	0	15	3	4	26	3	5	11	8	4	1	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	56	50	15	61	51	20	13	0	0	24	0	0
Stage 1	16	16	-	30	30	-	-	-	-	-	-	-
Stage 2	40	34	-	31	21	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.35	-	-	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	2.425	-	-	2.2	-	-
Pot Cap-1 Maneuver	946	845	1070	939	844	1064	1468	-	-	1604	-	-
Stage 1	1009	886	-	992	874	-	-	-	-	-	-	-
Stage 2	980	871	-	991	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	916	835	1062	909	834	1059	1467	-	-	1596	-	-
Mov Cap-2 Maneuver	916	835	-	909	834	-	-	-	-	-	-	-
Stage 1	1005	882	-	984	867	-	-	-	-	-	-	-
Stage 2	945	864	-	962	878	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.3		9.4		1.6		1.7	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	861	856	1596	-
HCM Lane V/C Ratio	0.003	-	-	0.02	0.038	0.002	-
HCM Control Delay (s)	7.5	0	-	9.3	9.4	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

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	0	21	0	1	23	1	0	0	2	2	0	3
Future Vol, veh/h	0	21	0	1	23	1	0	0	2	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	22	0	1	24	1	0	0	2	2	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	22	0	0	50	49	22	50	49	25
Stage 1	-	-	-	-	-	-	22	22	-	27	27	-
Stage 2	-	-	-	-	-	-	28	27	-	23	22	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1603	-	-	1607	-	-	955	846	1061	955	846	1057
Stage 1	-	-	-	-	-	-	1002	881	-	996	877	-
Stage 2	-	-	-	-	-	-	994	877	-	1000	881	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1603	-	-	1607	-	-	951	845	1061	952	845	1057
Mov Cap-2 Maneuver	-	-	-	-	-	-	951	845	-	952	845	-
Stage 1	-	-	-	-	-	-	1002	881	-	996	876	-
Stage 2	-	-	-	-	-	-	990	876	-	998	881	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			8.4			8.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1061	1603	-	-	1607	-	-	1012
HCM Lane V/C Ratio	0.002	-	-	-	0.001	-	-	0.005
HCM Control Delay (s)	8.4	0	-	-	7.2	0	-	8.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 6th TWSC
21: Wenonah Avenue & Adams Street

10/25/2019

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	21	0	2	13	0	5	28	2	1	9	7
Future Vol, veh/h	4	21	0	2	13	0	5	28	2	1	9	7
Conflicting Peds, #/hr	13	0	6	6	0	13	5	0	7	7	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	28	0	3	18	0	7	38	3	1	12	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	34	0	0	84	81	41	103	81	36
Stage 1	-	-	-	-	-	-	44	44	-	37	37	-
Stage 2	-	-	-	-	-	-	40	37	-	66	44	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1595	-	-	1591	-	-	908	813	1036	882	813	1042
Stage 1	-	-	-	-	-	-	975	862	-	984	868	-
Stage 2	-	-	-	-	-	-	980	868	-	950	862	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1575	-	-	1582	-	-	876	794	1023	828	794	1024
Mov Cap-2 Maneuver	-	-	-	-	-	-	876	794	-	828	794	-
Stage 1	-	-	-	-	-	-	966	854	-	969	856	-
Stage 2	-	-	-	-	-	-	951	856	-	897	854	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	1	9.7	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	815	1575	-	-	1582	-	-	877
HCM Lane V/C Ratio	0.058	0.003	-	-	0.002	-	-	0.026
HCM Control Delay (s)	9.7	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection Capacity Utilization

10: Wisconsin Avenue & Parking Garage & Drop Off Lane/E-W Alley

10/25/2019



Movement	WBL2	WBL	WBT	WBR	NBT	NBR	SBL2	SBL	SBT	SBR	NWL2	NWL
Lane Configurations			↔		↔				↔			↔
Volume (vph)	28	10	0	2	37	4	7	92	73	7	1	0
Pedestrians	3	24		1		4	4	1		3	11	3
Ped Button			Yes		Yes				Yes			Yes
Pedestrian Timing (s)			16.0		16.0				16.0			16.0
Free Right				No		No				No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	40	0	41	0	0	0	179	0	0	23
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.95	0.85	0.99	0.85	0.95	0.95	0.97	0.85	0.95	0.85
Saturated Flow (vph)	0	0	1796	0	1872	0	0	0	1837	0	0	1624
Ped Intf Time (s)	0.0	0.0	0.0	0.1	0.1	0.5	0.0	0.0	0.0	0.4	0.0	0.5
Pedestrian Frequency (%)			0.03		0.12				0.10			0.12
Protected Option Allowed			No		No				No			No
Reference Time (s)				0.0		0.0				0.0		
Adj Reference Time (s)				0.0		0.0				0.0		
Permitted Option												
Adj Saturation A (vph)	0	0	124		1872		0	0	193		0	108
Reference Time A (s)	0.0	0.0	38.8		2.7		0.0	0.0	111.5		0.0	26.0
Adj Saturation B (vph)	0	0	0		1872		0	0	0		NA	NA
Reference Time B (s)	9.9	8.7	10.7		2.7		8.5	14.1	19.7		NA	NA
Reference Time (s)			10.7		2.7				19.7			
Adj Reference Time (s)			14.9		9.5				23.7			
Split Option												
Ref Time Combined (s)	0.0	0.0	2.7		2.7		0.0	0.0	11.7		0.0	2.2
Ref Time Separate (s)	1.9	0.7	0.0		2.4		0.5	6.1	4.7		0.1	0.5
Reference Time (s)	2.7	2.7	2.7		2.7		11.7	11.7	11.7		2.2	2.2
Adj Reference Time (s)	8.4	8.4	8.4		9.5		16.1	16.1	16.1		9.5	9.5
Summary	EB WB		NB SB		NW		Combined					
Protected Option (s)	NA		NA		NA							
Permitted Option (s)	14.9		23.7		Err							
Split Option (s)	23.0		25.6		9.5							
Minimum (s)	14.9		23.7		9.5		48.1					
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			40.1%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Harlem Avenue & Madison St.

10/25/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	381	55	232	365	243	62	853	164	133	1067	76
Future Volume (vph)	68	381	55	232	365	243	62	853	164	133	1067	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	125		0	351		247	170		0	130		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	60			75			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.85	0.95	1.00	*0.85	0.95
Ped Bike Factor	0.99	0.99		0.98	0.99			1.00		1.00	1.00	
Frt		0.981			0.940			0.976			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1386	3254	0	1483	3052	0	1805	3083	0	1770	3093	0
Flt Permitted	0.249			0.261			0.087			0.103		
Satd. Flow (perm)	361	3254	0	400	3052	0	165	3083	0	191	3093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			122			20			7	
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		220			366			1600			1945	
Travel Time (s)		6.0			8.3			36.4			44.2	
Confl. Peds. (#/hr)	13		33	33		13	31		14	14		31
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	1%	0%	0%	3%	2%	0%	2%	1%	2%	3%	4%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	4	0	0	4
Parking (#/hr)	4		4	4								
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	445	0	237	620	0	63	1037	0	136	1167	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	35.0		10.0	35.0		10.0	46.0		10.0	40.0	
Total Split (s)	14.0	35.0		14.0	35.0		14.0	62.0		14.0	62.0	
Total Split (%)	11.2%	28.0%		11.2%	28.0%		11.2%	49.6%		11.2%	49.6%	
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)	1.0	-2.0		1.0	-2.0		1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.5	4.0		4.5	4.0		4.5	4.0		4.5	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	36.6	29.0		42.0	34.9		64.5	58.6		69.0	62.4	
Actuated g/C Ratio	0.29	0.23		0.34	0.28		0.52	0.47		0.55	0.50	

Lanes, Volumes, Timings
 1: Harlem Avenue & Madison St.

10/25/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.40	0.58		1.00	0.66		0.37	0.71		0.64	0.75	
Control Delay	34.9	44.5		95.2	36.7		18.5	29.3		29.5	29.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	34.9	44.5		95.2	36.7		18.5	29.3		29.5	29.4	
LOS	C	D		F	D		B	C		C	C	
Approach Delay		43.2			52.9			28.7			29.4	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	38	161		~169	196		22	377		49	440	
Queue Length 95th (ft)	73	216		#302	267		42	473		97	559	
Internal Link Dist (ft)		140			286			1520			1865	
Turn Bay Length (ft)	125			351			170			130		
Base Capacity (vph)	187	816		238	939		214	1462		226	1548	
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	0.37	0.55		1.00	0.66		0.29	0.71		0.60	0.75	

Intersection Summary






















Area Type: Other
 Cycle Length: 125
 Actuated Cycle Length: 125
 Offset: 50 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 36.4 Intersection LOS: D
 Intersection Capacity Utilization 88.1% ICU Level of Service E
 Analysis Period (min) 15
 * User Entered Value
 ~ 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: Harlem Avenue & Madison St.



Lanes, Volumes, Timings
2: Wisconsin Ave. & Madison St.

10/25/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	750	12	25	775	65	65	10	50	20	4	14
Future Volume (vph)	13	750	12	25	775	65	65	10	50	20	4	14
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		44	50		41	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	75			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.92			0.94		0.95			0.96	
Frt			0.850			0.850		0.946			0.949	
Flt Protected	0.950			0.950				0.975			0.974	
Satd. Flow (prot)	1483	1830	1305	1425	1830	1410	0	1676	0	0	1591	0
Flt Permitted	0.252			0.247				0.824			0.837	
Satd. Flow (perm)	393	1830	1200	371	1830	1324	0	1381	0	0	1346	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		38			15	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		298			344			177			134	
Travel Time (s)		8.1			9.4			4.8			3.7	
Confl. Peds. (#/hr)	16		26	26		16	28		22	22		28
Confl. Bikes (#/hr)			1			5			1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	8%	4%	2%	0%	1%	9%	2%	0%	75%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	789	13	26	816	68	0	132	0	0	40	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0	15.0	4.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	25.0	25.0	10.0	25.0	25.0	31.0	31.0		31.0	31.0	
Total Split (s)	10.0	49.0	49.0	10.0	49.0	49.0	31.0	31.0		31.0	31.0	
Total Split (%)	11.1%	54.4%	54.4%	11.1%	54.4%	54.4%	34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0	0.0	0.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	3.5	4.0	6.0	3.5	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?		Yes	Yes		Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	66.2	63.3	61.3	67.2	65.3	63.3		14.7			14.7	
Actuated g/C Ratio	0.74	0.70	0.68	0.75	0.73	0.70		0.16			0.16	

Lanes, Volumes, Timings
2: Wisconsin Ave. & Madison St.

10/25/2019

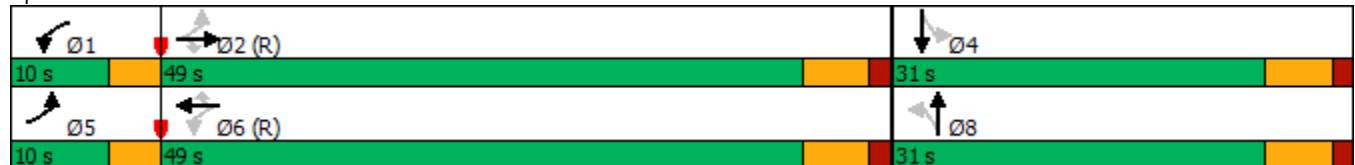


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.61	0.02	0.07	0.61	0.07		0.51				0.17
Control Delay	4.1	11.8	0.0	1.5	3.6	0.3		30.6				23.1
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0		0.0				0.0
Total Delay	4.1	12.4	0.0	1.5	3.6	0.3		30.6				23.1
LOS	A	B	A	A	A	A		C				C
Approach Delay		12.1			3.3			30.6				23.1
Approach LOS		B			A			C				C
Queue Length 50th (ft)	2	158	0	1	25	0		49				12
Queue Length 95th (ft)	8	471	0	m2	64	m0		98				38
Internal Link Dist (ft)		218			264			97				54
Turn Bay Length (ft)	100		44	50		41						
Base Capacity (vph)	368	1287	842	353	1328	955		440				414
Starvation Cap Reductn	0	191	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	0.04	0.72	0.02	0.07	0.61	0.07		0.30				0.10

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 14 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 9.4 Intersection LOS: A
 Intersection Capacity Utilization 60.9% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Wisconsin Ave. & Madison St.



Lanes, Volumes, Timings
4: Home Ave. & Madison St.

10/25/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	787	20	19	836	79	16	87	13	101	124	42
Future Volume (vph)	27	787	20	19	836	79	16	87	13	101	124	42
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		46	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	50			90			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.92		0.99			0.98	
Frt		0.996				0.850		0.985			0.979	
Flt Protected	0.950			0.950				0.993			0.981	
Satd. Flow (prot)	1425	1730	0	1483	1830	1410	0	1766	0	0	1641	0
Flt Permitted	0.127			0.147				0.943			0.812	
Satd. Flow (perm)	191	1730	0	229	1830	1299	0	1674	0	0	1343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				79		7			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		336			1558			172			224	
Travel Time (s)		9.2			42.5			4.7			6.1	
Confl. Peds. (#/hr)	24		15	15		24	14		20	20		14
Confl. Bikes (#/hr)			5			4						2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	0%	0%	2%	0%	0%	6%	0%	2%	4%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	849	0	20	880	83	0	123	0	0	281	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	25.0		10.0	25.0	25.0	28.0	28.0		28.0	28.0	
Total Split (s)	10.0	50.0		10.0	50.0	50.0	30.0	30.0		30.0	30.0	
Total Split (%)	11.1%	55.6%		11.1%	55.6%	55.6%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	3.5	4.0		3.5	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?		Yes			Yes	Yes						
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	57.9	54.8		57.8	54.8	52.8		23.2			23.2	
Actuated g/C Ratio	0.64	0.61		0.64	0.61	0.59		0.26			0.26	

Lanes, Volumes, Timings
4: Home Ave. & Madison St.

10/25/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.81		0.09	0.79	0.10		0.28				0.79
Control Delay	10.6	23.6		4.1	12.9	0.3		26.0				46.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0				0.0
Total Delay	10.6	23.6		4.1	12.9	0.3		26.0				46.8
LOS	B	C		A	B	A		C				D
Approach Delay		23.2			11.7			26.0				46.8
Approach LOS		C			B			C				D
Queue Length 50th (ft)	5	230		2	79	0		51				139
Queue Length 95th (ft)	m16	#698		m2	m547	m0		95				#250
Internal Link Dist (ft)		256			1478			92				144
Turn Bay Length (ft)	120			90		46						
Base Capacity (vph)	212	1054		237	1113	794		488				395
Starvation Cap Reductn	0	0		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.13	0.81		0.08	0.79	0.10		0.25				0.71

Intersection Summary

























Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 86 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 21.3 Intersection LOS: C
 Intersection Capacity Utilization 70.9% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Home Ave. & Madison St.



Lanes, Volumes, Timings
5: Oak Park Ave. & Madison St.

10/25/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	825	90	90	750	154	110	445	62	141	520	90
Future Volume (vph)	116	825	90	90	750	154	110	445	62	141	520	90
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	9	10	10	9
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		48	59		59	95		0	100		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	51			177			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.95	0.95	1.00	*0.95	0.95
Ped Bike Factor			0.96			0.96	0.97	0.99		0.98	0.98	
Frt			0.850			0.850		0.982			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1483	1848	1303	1483	1812	1480	1491	3220	0	1668	3186	0
Flt Permitted	0.111			0.114			0.248			0.326		
Satd. Flow (perm)	173	1848	1256	178	1812	1423	379	3220	0	559	3186	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1558			1374			244			272	
Travel Time (s)		42.5			37.5			6.7			7.4	
Confl. Peds. (#/hr)	21		19	19		21	35		25	25		35
Confl. Bikes (#/hr)						1			1			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%	0%	2%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4			3					3
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	851	93	93	773	159	113	523	0	145	629	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	6.0	29.0	29.0	6.0	29.0	29.0	6.0	25.0		6.0	25.0	
Total Split (s)	8.0	43.0	43.0	7.0	42.0	42.0	8.0	32.0		8.0	32.0	
Total Split (%)	8.9%	47.8%	47.8%	7.8%	46.7%	46.7%	8.9%	35.6%		8.9%	35.6%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	Min	Min	None	Min	Min	None	C-Max		None	C-Max	
Act Effect Green (s)	43.0	39.0	37.0	41.0	38.0	36.0	32.0	28.0		32.0	28.0	
Actuated g/C Ratio	0.48	0.43	0.41	0.46	0.42	0.40	0.36	0.31		0.36	0.31	

Lanes, Volumes, Timings
5: Oak Park Ave. & Madison St.

10/25/2019

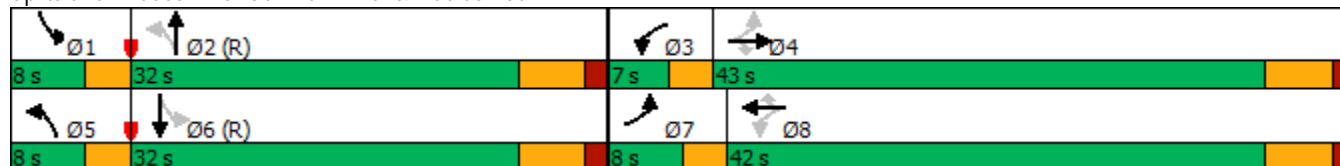


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.86	1.06	0.18	0.75	1.01	0.28	0.61	0.52		0.58	0.63	
Control Delay	56.6	66.4	12.7	37.5	48.4	10.0	35.8	27.8		30.6	30.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	56.6	66.4	12.7	37.5	48.4	10.0	35.8	27.8		30.6	30.1	
LOS	E	E	B	D	D	B	D	C		C	C	
Approach Delay		60.6			41.5			29.2			30.2	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	17	-545	22	9	-487	38	41	127		53	160	
Queue Length 95th (ft)	m#63	#753	m25	m16	m#690	m46	#89	177		95	218	
Internal Link Dist (ft)		1478			1294			164			192	
Turn Bay Length (ft)	100		48	59		59	95			100		
Base Capacity (vph)	140	800	516	124	765	569	184	1001		248	991	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.86	1.06	0.18	0.75	1.01	0.28	0.61	0.52		0.58	0.63	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green, Master Intersection
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 42.6
 Intersection LOS: D
 Intersection Capacity Utilization 83.4%
 ICU Level of Service E
 Analysis Period (min) 15
 * User Entered Value
 ~ 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Oak Park Ave. & Madison St.



Lanes, Volumes, Timings
6: East Ave. & Madison St.

10/25/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	894	58	47	894	54	49	200	45	42	285	86
Future Volume (vph)	73	894	58	47	894	54	49	200	45	42	285	86
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	10	11	10	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	157		37	125		59	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	93			135			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.95			0.89	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.972			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1468	1980	1326	1483	1895	1316	1588	1921	0	1557	1910	0
Flt Permitted	0.084			0.113			0.205			0.420		
Satd. Flow (perm)	130	1980	1261	176	1895	1173	339	1921	0	676	1910	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		13			17	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1374			1359			658			690	
Travel Time (s)		37.5			37.1			17.9			18.8	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			1			16						3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	912	59	48	912	55	50	250	0	43	379	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	6.5	24.0	24.0	6.5	24.0	24.0	30.0	30.0		30.0	30.0	
Total Split (s)	8.0	53.0	53.0	7.0	52.0	52.0	30.0	30.0		30.0	30.0	
Total Split (%)	8.9%	58.9%	58.9%	7.8%	57.8%	57.8%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	56.8	54.7	52.7	54.5	52.2	50.2	22.6	22.6		22.6	22.6	
Actuated g/C Ratio	0.63	0.61	0.59	0.61	0.58	0.56	0.25	0.25		0.25	0.25	

Lanes, Volumes, Timings
6: East Ave. & Madison St.

10/25/2019

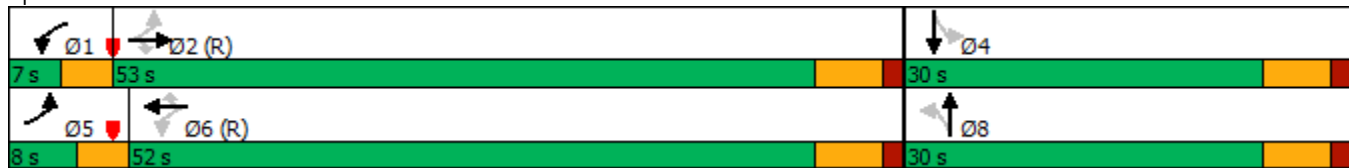


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.50	0.76	0.08	0.30	0.83	0.08	0.59	0.51		0.25	0.77	
Control Delay	20.6	9.4	0.1	5.0	10.0	0.0	58.0	30.5		29.7	40.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.6	9.4	0.1	5.0	10.0	0.0	58.0	30.5		29.7	40.5	
LOS	C	A	A	A	B	A	E	C		C	D	
Approach Delay		9.7			9.3			35.1			39.4	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	6	73	0	4	84	0	25	113		19	188	
Queue Length 95th (ft)	m8	m165	m0	m5	m92	m0	#75	179		47	280	
Internal Link Dist (ft)		1294			1279			578			610	
Turn Bay Length (ft)	157		37	125		59	25			25		
Base Capacity (vph)	147	1204	771	159	1099	689	97	564		195	563	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.50	0.76	0.08	0.30	0.83	0.08	0.52	0.44		0.22	0.67	

Intersection Summary

























Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 77 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 16.8
 Intersection LOS: B
 Intersection Capacity Utilization 91.4%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: East Ave. & Madison St.



Lanes, Volumes, Timings
7: Ridgeland & Madison St.

10/25/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	695	103	66	817	76	141	472	39	114	571	104
Future Volume (vph)	139	695	103	66	817	76	141	472	39	114	571	104
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	10	12	10	10	14	12	10	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	93		70	105		53	80		0	95		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	169			53			135			140		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.96	1.00		0.97	0.99	0.99		0.96	0.99	
Frt			0.850			0.850		0.989			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1980	1316	1516	1942	1316	1685	3739	0	1483	3697	0
Flt Permitted	0.126			0.133			0.208			0.364		
Satd. Flow (perm)	201	1980	1269	211	1942	1281	366	3739	0	545	3697	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1359			1384			225			225	
Travel Time (s)		37.1			37.7			6.1			6.1	
Confl. Peds. (#/hr)	13		27	27		13	14		49	49		14
Confl. Bikes (#/hr)						3			1			
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 (%)	0%	1%	0%	0%	3%	0%	0%	1%	0%	0%	1%	1%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	0		4	0		4				4		
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	702	104	67	825	77	142	516	0	115	682	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	36.0	36.0	10.0	34.0	34.0	10.0	28.0		10.0	28.0	
Total Split (s)	10.0	37.0	37.0	10.0	37.0	37.0	10.0	33.0		10.0	33.0	
Total Split (%)	11.1%	41.1%	41.1%	11.1%	41.1%	41.1%	11.1%	36.7%		11.1%	36.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.5	4.0		4.5	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	40.2	36.1	34.1	38.5	33.7	31.7	33.7	29.8		32.8	27.8	
Actuated g/C Ratio	0.45	0.40	0.38	0.43	0.37	0.35	0.37	0.33		0.36	0.31	

Lanes, Volumes, Timings
7: Ridgeland & Madison St.

10/25/2019

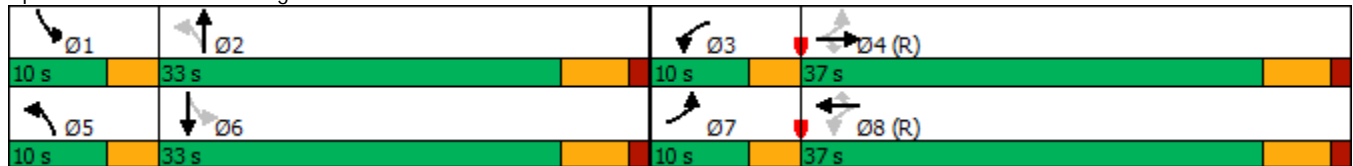


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.79	0.88	0.22	0.40	1.14	0.17	0.65	0.42		0.45	0.60	
Control Delay	41.9	30.2	10.8	15.1	94.7	12.4	33.7	24.9		23.1	28.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	41.9	30.2	10.8	15.1	94.7	12.4	33.7	24.9		23.1	28.6	
LOS	D	C	B	B	F	B	C	C		C	C	
Approach Delay		29.8			82.6			26.8			27.8	
Approach LOS		C			F			C			C	
Queue Length 50th (ft)	24	0	31	7	-567	15	49	120		39	167	
Queue Length 95th (ft)	m#79	#647	m38	m12	#775	m24	#101	166		75	224	
Internal Link Dist (ft)		1279			1304			145			145	
Turn Bay Length (ft)	93		70	105		53	80			95		
Base Capacity (vph)	177	795	481	170	726	450	217	1245		256	1191	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.79	0.88	0.22	0.39	1.14	0.17	0.65	0.41		0.45	0.57	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 44 (49%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 43.9
 Intersection LOS: D
 Intersection Capacity Utilization 89.8%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Ridgeland & Madison St.



Lanes, Volumes, Timings
8: Lombard & Madison St.

10/25/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	684	78	53	846	51	63	123	23	45	179	30
Future Volume (vph)	58	684	78	53	846	51	63	123	23	45	179	30
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	10	10	12	10	12	16	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	45		47	70		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	50			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.91		0.99			0.99	
Frt			0.850			0.850		0.985			0.984	
Flt Protected	0.950			0.950				0.985			0.991	
Satd. Flow (prot)	1462	1980	1480	1685	1961	1438	0	2042	0	0	1767	0
Flt Permitted	0.113			0.214				0.718			0.887	
Satd. Flow (perm)	174	1980	1480	379	1961	1315	0	1481	0	0	1577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			73		7			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1384			1120			707			681	
Travel Time (s)		37.7			30.5			19.3			18.6	
Confl. Peds. (#/hr)	24					24	16		14	14		16
Confl. Bikes (#/hr)						5			2			
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 (%)	0%	1%	1%	0%	2%	4%	2%	2%	0%	0%	6%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	0						0		0	0		0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	728	83	56	900	54	0	222	0	0	270	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	6.0	24.0	24.0	6.0	24.0	24.0	30.0	30.0		30.0	30.0	
Total Split (s)	7.0	51.0	51.0	9.0	53.0	53.0	30.0	30.0		30.0	30.0	
Total Split (%)	7.8%	56.7%	56.7%	10.0%	58.9%	58.9%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	56.3	52.8	50.8	57.7	53.5	51.5		21.8			21.8	
Actuated g/C Ratio	0.63	0.59	0.56	0.64	0.59	0.57		0.24			0.24	

Lanes, Volumes, Timings
8: Lombard & Madison St.

10/25/2019

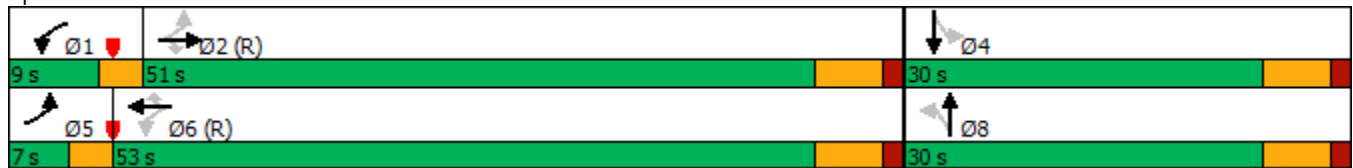


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.36	0.63	0.10	0.18	0.77	0.07		0.61				0.70
Control Delay	15.4	8.2	0.5	7.5	21.4	1.9		36.2				39.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0				0.0
Total Delay	15.4	8.2	0.5	7.5	21.4	1.9		36.2				39.6
LOS	B	A	A	A	C	A		D				D
Approach Delay		8.0			19.6			36.2				39.6
Approach LOS		A			B			D				D
Queue Length 50th (ft)	2	29	0	10	399	0		108				135
Queue Length 95th (ft)	m9	m471	m0	25	#628	12		173				209
Internal Link Dist (ft)		1304			1040			627				601
Turn Bay Length (ft)	45		47	70		50						
Base Capacity (vph)	172	1161	866	318	1164	783		432				461
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	0.36	0.63	0.10	0.18	0.77	0.07		0.51				0.59

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 86 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 19.2 Intersection LOS: B
 Intersection Capacity Utilization 74.3% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Lombard & Madison St.



Lanes, Volumes, Timings
9: Austin Boulevard & Madison St.

10/25/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	433	164	79	683	114	135	630	35	73	784	131
Future Volume (vph)	107	433	164	79	683	114	135	630	35	73	784	131
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	10	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	70		70	65		0	90		0	60		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	50			110			95			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.98		0.98	1.00	0.99		0.99	1.00		0.99	1.00	
Frt			0.850		0.979			0.992			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1540	3888	1357	1608	3369	0	1770	3499	0	1805	3453	0
Flt Permitted	0.197			0.498			0.220			0.357		
Satd. Flow (perm)	314	3888	1335	841	3369	0	408	3499	0	668	3453	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					25			8				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		232			416			1297			1213	
Travel Time (s)		5.3			9.5			29.5			27.6	
Confl. Peds. (#/hr)	55		4	4		55	27		50	50		27
Confl. Bikes (#/hr)									3			
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 (%)	2%	1%	0%	1%	3%	9%	2%	2%	3%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	2	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)	108	437	166	80	805	0	136	671	0	74	924	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2				6
Permitted Phases	4		4	8			2			6		
Detector Phase	7	4	4	3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	29.0	29.0	10.0	29.0		36.0	36.0		36.0	36.0	
Total Split (s)	10.0	29.0	29.0	10.0	29.0		36.0	36.0		36.0	36.0	
Total Split (%)	13.3%	38.7%	38.7%	13.3%	38.7%		48.0%	48.0%		48.0%	48.0%	
Yellow Time (s)	3.5	3.0	3.0	3.5	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	5.0	5.0	0.0	5.0		5.0	5.0		5.0	5.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	8.0	8.0	3.5	8.0		8.0	8.0		8.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	
Act Effect Green (s)	30.0	20.3	20.3	30.0	20.3		30.7	30.7		30.7	30.7	
Actuated g/C Ratio	0.40	0.27	0.27	0.40	0.27		0.41	0.41		0.41	0.41	

Lanes, Volumes, Timings
 9: Austin Boulevard & Madison St.

10/25/2019

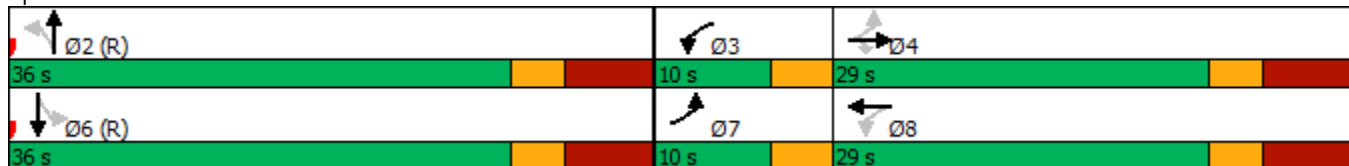


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.42	0.46	0.20	0.87		0.81	0.47		0.27	0.65	
Control Delay	18.6	23.7	27.3	12.4	36.6		62.0	18.3		20.1	21.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.6	23.7	27.3	12.4	36.6		62.0	18.3		20.1	21.6	
LOS	B	C	C	B	D		E	B		C	C	
Approach Delay		23.8			34.4			25.6			21.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	27	86	63	20	178		58	122		24	188	
Queue Length 95th (ft)	54	126	119	42	#273		#164	171		58	256	
Internal Link Dist (ft)		152			336			1217			1133	
Turn Bay Length (ft)	70		70	65			90			60		
Base Capacity (vph)	232	1088	373	403	961		167	1437		273	1413	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.47	0.40	0.45	0.20	0.84		0.81	0.47		0.27	0.65	

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 26.3 Intersection LOS: C
 Intersection Capacity Utilization 86.1% 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: 9: Austin Boulevard & Madison St.



Intersection Capacity Utilization
 10: Wisconsin Avenue & Parking Garage & Drop Off Lane/E-W Alley

10/25/2019



Movement	NWR
Lane Configurations	
Volume (vph)	22
Pedestrians	1
Ped Button	
Pedestrian Timing (s)	
Free Right	No
Ideal Flow	1900
Lost Time (s)	4.0
Minimum Green (s)	4.0
Refr Cycle Length (s)	120
Volume Combined (vph)	0
Lane Utilization Factor	1.00
Turning Factor (vph)	0.85
Saturated Flow (vph)	0
Ped Intf Time (s)	0.1
Pedestrian Frequency (%)	
Protected Option Allowed	
Reference Time (s)	0.0
Adj Reference Time (s)	0.0
Permitted Option	
Adj Saturation A (vph)	
Reference Time A (s)	
Adj Saturation B (vph)	
Reference Time B (s)	
Reference Time (s)	
Adj Reference Time (s)	
Split Option	
Ref Time Combined (s)	
Ref Time Seperate (s)	
Reference Time (s)	
Adj Reference Time (s)	
Summary	

HCM 6th AWSC
18: Home Avenue & Monroe Street

10/25/2019

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	5	3	8	24	3	75	2	25	108	8
Future Vol, veh/h	5	8	5	3	8	24	3	75	2	25	108	8
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	6	9	6	4	9	28	4	88	2	29	127	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.3	7.7	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	28%	9%	18%
Vol Thru, %	94%	44%	23%	77%
Vol Right, %	3%	28%	69%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	18	35	141
LT Vol	3	5	3	25
Through Vol	75	8	8	108
RT Vol	2	5	24	8
Lane Flow Rate	94	21	41	166
Geometry Grp	1	1	1	1
Degree of Util (X)	0.108	0.026	0.047	0.188
Departure Headway (Hd)	4.128	4.399	4.094	4.083
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	859	818	880	873
Service Time	2.197	2.401	2.095	2.137
HCM Lane V/C Ratio	0.109	0.026	0.047	0.19
HCM Control Delay	7.7	7.5	7.3	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.1	0.7

HCM 6th TWSC
 11: West Parking Access & E-W Alley

10/25/2019

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	0	0	12	0	0
Future Vol, veh/h	16	0	0	12	0	0
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	0	0	16	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	26	0	48
Stage 1	-	-	-	-	26
Stage 2	-	-	-	-	22
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1601	-	967
Stage 1	-	-	-	-	1002
Stage 2	-	-	-	-	1006
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1595	-	957
Mov Cap-2 Maneuver	-	-	-	-	957
Stage 1	-	-	-	-	998
Stage 2	-	-	-	-	1000

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1595	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

HCM 6th TWSC
 12: East Parking Access & E-W Alley

10/25/2019

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	0	0	10	2	13
Future Vol, veh/h	16	0	0	10	2	13
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	0	0	11	2	14

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	21	0	38
Stage 1	-	-	-	-	21
Stage 2	-	-	-	-	17
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1595	-	974
Stage 1	-	-	-	-	1002
Stage 2	-	-	-	-	1006
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1589	-	964
Mov Cap-2 Maneuver	-	-	-	-	964
Stage 1	-	-	-	-	998
Stage 2	-	-	-	-	1000

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1039	-	-	1589	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
13: Wenonah Avenue & E-W Alley

10/25/2019

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	6	18	3	3	2	3	23	2	2	46	4
Future Vol, veh/h	5	6	18	3	3	2	3	23	2	2	46	4
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	1	1	0	3
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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	7	22	4	4	2	4	28	2	2	56	5

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	106	105	62	115	106	30	64	0	0	31	0	0
Stage 1	66	66	-	38	38	-	-	-	-	-	-	-
Stage 2	40	39	-	77	68	-	-	-	-	-	-	-
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	878	789	1009	867	788	1050	1551	-	-	1595	-	-
Stage 1	950	844	-	982	867	-	-	-	-	-	-	-
Stage 2	980	866	-	937	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	867	783	1006	838	782	1049	1547	-	-	1593	-	-
Mov Cap-2 Maneuver	867	783	-	838	782	-	-	-	-	-	-	-
Stage 1	944	841	-	978	864	-	-	-	-	-	-	-
Stage 2	971	863	-	908	839	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9		9.2		0.8		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1547	-	-	926	858	1593	-
HCM Lane V/C Ratio	0.002	-	-	0.038	0.011	0.002	-
HCM Control Delay (s)	7.3	0	-	9	9.2	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-

HCM 6th TWSC
14: Home Avenue & E-W Alley

10/25/2019

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	5	5	4	111	159	4
Future Vol, veh/h	5	5	4	111	159	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	4	121	173	4

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	304	175	177	0	0
Stage 1	175	-	-	-	-
Stage 2	129	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	688	868	1399	-	-
Stage 1	855	-	-	-	-
Stage 2	897	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	686	868	1399	-	-
Mov Cap-2 Maneuver	686	-	-	-	-
Stage 1	852	-	-	-	-
Stage 2	897	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1399	-	766	-	-
HCM Lane V/C Ratio	0.003	-	0.014	-	-
HCM Control Delay (s)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 16: N-S Alley & Monroe Street/Monroe Steet

10/25/2019

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	1	8	14	0	1
Future Vol, veh/h	14	1	8	14	0	1
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	1	11	19	0	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	24	0	65
Stage 1	-	-	-	-	24
Stage 2	-	-	-	-	41
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1604	-	946
Stage 1	-	-	-	-	1004
Stage 2	-	-	-	-	987
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1598	-	936
Mov Cap-2 Maneuver	-	-	-	-	936
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	987

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1054	-	-	1598	-
HCM Lane V/C Ratio	0.001	-	-	0.007	-
HCM Control Delay (s)	8.4	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
 17: Wenonah Avenue & Monroe Steet/Monroe Street

10/25/2019

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	5	4	4	10	7	1	13	3	9	45	11
Future Vol, veh/h	6	5	4	4	10	7	1	13	3	9	45	11
Conflicting Peds, #/hr	1	0	9	9	0	1	1	0	4	4	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	6	5	5	12	8	1	15	4	11	54	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	20	0	0	93	63	22	63	61	18
Stage 1	-	-	-	-	-	-	32	32	-	27	27	-
Stage 2	-	-	-	-	-	-	61	31	-	36	34	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1608	-	-	1609	-	-	895	832	1061	936	834	1066
Stage 1	-	-	-	-	-	-	990	872	-	996	877	-
Stage 2	-	-	-	-	-	-	955	873	-	985	871	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1606	-	-	1595	-	-	828	818	1048	910	820	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	828	818	-	910	820	-
Stage 1	-	-	-	-	-	-	977	861	-	991	873	-
Stage 2	-	-	-	-	-	-	882	870	-	956	860	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			1.4			9.3			9.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	852	1606	-	-	1595	-	-	865
HCM Lane V/C Ratio	0.024	0.004	-	-	0.003	-	-	0.089
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

HCM 6th TWSC
19: Wisconsin Avenue & Adams Street

10/25/2019

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	14	1	5	39	1	5	7	6	6	3	15
Future Vol, veh/h	2	14	1	5	39	1	5	7	6	6	3	15
Conflicting Peds, #/hr	2	0	3	3	0	2	1	0	4	4	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	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	16	1	6	45	1	6	8	7	7	3	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	76	58	16	65	63	18	21	0	0	19	0	0
Stage 1	27	27	-	28	28	-	-	-	-	-	-	-
Stage 2	49	31	-	37	35	-	-	-	-	-	-	-
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	919	837	1069	934	832	1066	1608	-	-	1611	-	-
Stage 1	996	877	-	994	876	-	-	-	-	-	-	-
Stage 2	969	873	-	984	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	871	826	1065	907	821	1060	1606	-	-	1605	-	-
Mov Cap-2 Maneuver	871	826	-	907	821	-	-	-	-	-	-	-
Stage 1	991	873	-	986	869	-	-	-	-	-	-	-
Stage 2	912	866	-	958	866	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.4		9.6		2		1.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1606	-	-	842	834	1605	-
HCM Lane V/C Ratio	0.004	-	-	0.023	0.063	0.004	-
HCM Control Delay (s)	7.2	0	-	9.4	9.6	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-

HCM 6th TWSC
20: N-S Alley & Adams Street

10/25/2019

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	2	23	1	4	44	0	0	1	3	1	0	1
Future Vol, veh/h	2	23	1	4	44	0	0	1	3	1	0	1
Conflicting Peds, #/hr	9	0	3	3	0	9	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	25	1	4	48	0	0	1	3	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	57	0	0	29	0	0	90	98	30	98	98	57
Stage 1	-	-	-	-	-	-	33	33	-	65	65	-
Stage 2	-	-	-	-	-	-	57	65	-	33	33	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1560	-	-	1597	-	-	900	796	1050	889	796	1015
Stage 1	-	-	-	-	-	-	988	872	-	951	845	-
Stage 2	-	-	-	-	-	-	960	845	-	988	872	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1547	-	-	1592	-	-	894	783	1046	874	783	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	894	783	-	874	783	-
Stage 1	-	-	-	-	-	-	984	869	-	941	835	-
Stage 2	-	-	-	-	-	-	956	835	-	982	869	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.6			8.7			8.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	965	1547	-	-	1592	-	-	935
HCM Lane V/C Ratio	0.005	0.001	-	-	0.003	-	-	0.002
HCM Control Delay (s)	8.7	7.3	0	-	7.3	0	-	8.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 6th TWSC
21: Wenonah Avenue & Adams Street

10/25/2019

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	21	3	7	35	0	1	12	2	6	35	12
Future Vol, veh/h	3	21	3	7	35	0	1	12	2	6	35	12
Conflicting Peds, #/hr	8	0	2	2	0	8	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	23	3	8	38	0	1	13	2	7	38	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	28	0	0	118	95	32	105	96	51
Stage 1	-	-	-	-	-	-	33	33	-	62	62	-
Stage 2	-	-	-	-	-	-	85	62	-	43	34	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1575	-	-	1599	-	-	863	799	1048	880	798	1023
Stage 1	-	-	-	-	-	-	988	872	-	954	847	-
Stage 2	-	-	-	-	-	-	928	847	-	976	871	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1563	-	-	1596	-	-	810	785	1041	852	784	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	785	-	852	784	-
Stage 1	-	-	-	-	-	-	984	869	-	944	836	-
Stage 2	-	-	-	-	-	-	865	836	-	953	868	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			1.2			9.5			9.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	813	1563	-	-	1596	-	-	834
HCM Lane V/C Ratio	0.02	0.002	-	-	0.005	-	-	0.07
HCM Control Delay (s)	9.5	7.3	0	-	7.3	0	-	9.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection Capacity Utilization

10: Wisconsin Avenue & Parking Garage & Drop Off Lane/E-W Alley

10/25/2019



Movement	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL2
Lane Configurations			↔			↔				↔		
Volume (vph)	1	2	0	9	2	44	4	1	5	34	2	2
Pedestrians	10	10			9		2	2	6		9	10
Ped Button						Yes				Yes		
Pedestrian Timing (s)						16.0				16.0		
Free Right				No			No					No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	12	0	0	50	0	0	0	42	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.95	0.99	0.85	0.95
Saturated Flow (vph)	0	0	1665	0	0	1873	0	0	0	1873	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.1	1.1	0.0
Pedestrian Frequency (%)			0.00			0.18				0.26		
Protected Option Allowed			No			No				No		
Reference Time (s)				0.0			0.0				0.0	
Adj Reference Time (s)				0.0			0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	0	344		0	1735		0	0	951		0
Reference Time A (s)	0.0	0.0	4.2		0.0	3.5		0.0	0.0	5.4		0.0
Adj Saturation B (vph)	0	0	0		0	0		0	0	0		NA
Reference Time B (s)	8.1	8.1	8.9		8.1	11.3		8.1	8.3	10.7		NA
Reference Time (s)			4.2			3.5				5.4		
Adj Reference Time (s)			8.2			10.2				12.1		
Split Option												
Ref Time Combined (s)	0.0	0.0	0.9		0.0	3.3		0.0	0.0	2.7		0.0
Ref Time Separate (s)	0.1	0.1	0.0		0.1	2.9		0.1	0.3	2.2		0.1
Reference Time (s)	0.9	0.9	0.9		3.3	3.3		2.7	2.7	2.7		6.4
Adj Reference Time (s)	8.0	8.0	8.0		10.2	10.2		11.1	11.1	11.1		11.0
Summary	EB WB		NB SB		NW		Combined					
Protected Option (s)	NA		NA		NA							
Permitted Option (s)	11.4		12.1		Err							
Split Option (s)	19.4		21.3		11.0							
Minimum (s)	11.4		12.1		11.0		34.5					
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			28.8%		ICU Level of Service					A		
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings

2: Wisconsin Avenue & Madison Street

01/20/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	981	172	134	1045	32	39	10	56	22	19	15
Future Volume (vph)	8	981	172	134	1045	32	39	10	56	22	19	15
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		104	75		41	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	75			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.97			0.95		0.97	0.96		0.98	
Frt			0.850			0.850			0.850		0.965	
Flt Protected	0.950			0.950				0.962			0.981	
Satd. Flow (prot)	1483	1795	1396	1425	1848	1369	0	1481	1328	0	1659	0
Flt Permitted	0.188			0.099				0.769			0.860	
Satd. Flow (perm)	293	1795	1349	149	1848	1302	0	1152	1281	0	1447	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			71			58			15
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		298			344			177			134	
Travel Time (s)		8.1			9.4			4.8			3.7	
Confl. Peds. (#/hr)	10		5	5		10	18		7	7		18
Confl. Bikes (#/hr)			1			5			1			
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%	4%	1%	4%	1%	3%	10%	77%	7%	5%	14%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	1011	177	138	1077	33	0	50	58	0	58	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1			4
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0	15.0	4.0	15.0	15.0	8.0	8.0	4.0	8.0	8.0	
Minimum Split (s)	10.0	25.0	25.0	10.0	25.0	25.0	30.0	30.0	10.0	30.0	30.0	
Total Split (s)	10.0	60.0	60.0	10.0	60.0	60.0	30.0	30.0	10.0	30.0	30.0	
Total Split (%)	10.0%	60.0%	60.0%	10.0%	60.0%	60.0%	30.0%	30.0%	10.0%	30.0%	30.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5	0.0	1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0	0.0	0.0	-2.0	0.0		-2.0	0.0		-2.0	
Total Lost Time (s)	3.5	4.0	6.0	3.5	4.0	6.0		4.0	3.5		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?		Yes	Yes		Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effect Green (s)	72.3	66.2	64.2	82.4	80.8	79.2		12.9	23.5		12.9	
Actuated g/C Ratio	0.72	0.66	0.64	0.82	0.81	0.79		0.13	0.24		0.13	

Lanes, Volumes, Timings
 2: Wisconsin Avenue & Madison Street

01/20/2020

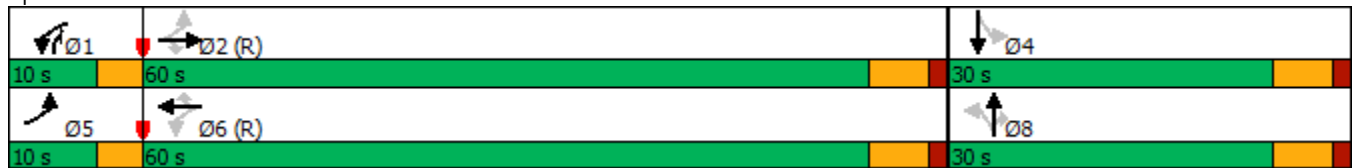


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.85	0.20	0.50	0.72	0.03		0.34	0.17		0.29	
Control Delay	3.8	25.2	6.6	21.4	5.8	0.2		45.0	7.2		33.9	
Queue Delay	0.0	3.6	0.0	0.0	0.3	0.0		0.0	0.0		0.0	
Total Delay	3.8	28.8	6.6	21.4	6.1	0.2		45.0	7.2		33.9	
LOS	A	C	A	C	A	A		D	A		C	
Approach Delay		25.3			7.6			24.7			33.9	
Approach LOS		C			A			C			C	
Queue Length 50th (ft)	1	492	26	24	80	0		30	0		25	
Queue Length 95th (ft)	4	#921	68	m52	m159	m0		64	26		61	
Internal Link Dist (ft)		218			264			97			54	
Turn Bay Length (ft)	100		104	75		41						
Base Capacity (vph)	291	1187	891	278	1493	1045		299	351		387	
Starvation Cap Reductn	0	108	0	0	74	0		0	0		0	
Spillback Cap Reductn	0	93	0	0	0	0		0	3		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.03	0.94	0.20	0.50	0.76	0.03		0.17	0.17		0.15	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 68 (68%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 17.0 Intersection LOS: B
 Intersection Capacity Utilization 81.1% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Wisconsin Avenue & Madison Street



Lanes, Volumes, Timings
4: Home Avenue & Madison Street

01/20/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	1028	9	11	1070	81	23	88	8	68	76	93
Future Volume (vph)	22	1028	9	11	1070	81	23	88	8	68	76	93
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		46	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	50			90			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.96		1.00				0.98
Frt		0.999				0.850		0.991				0.947
Flt Protected	0.950			0.950				0.990				0.986
Satd. Flow (prot)	1412	1703	0	1483	1830	1410	0	1718	0	0	1604	0
Flt Permitted	0.063			0.069				0.887				0.853
Satd. Flow (perm)	94	1703	0	108	1830	1360	0	1536	0	0	1379	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				71		3				31
Link Speed (mph)		25			25			25				25
Link Distance (ft)		336			1558			176				224
Travel Time (s)		9.2			42.5			4.8				6.1
Confl. Peds. (#/hr)	5		4	4		5	8		13	13		8
Confl. Bikes (#/hr)			5			4						2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	4%	0%	0%	2%	0%	0%	11%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	1080	0	11	1115	84	0	124	0	0	247	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	8	8		4		4
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0	15.0	8.0	8.0		8.0		8.0
Minimum Split (s)	10.0	25.0		10.0	25.0	25.0	28.0	28.0		28.0		28.0
Total Split (s)	10.0	60.0		10.0	60.0	60.0	30.0	30.0		30.0		30.0
Total Split (%)	10.0%	60.0%		10.0%	60.0%	60.0%	30.0%	30.0%		30.0%		30.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	4.5	4.5		4.5		4.5
All-Red Time (s)	0.0	1.5		0.0	1.5	1.5	1.5	1.5		1.5		1.5
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0	0.0		-2.0				-2.0
Total Lost Time (s)	3.5	4.0		3.5	4.0	6.0		4.0				4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?		Yes			Yes	Yes						
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None		None
Act Effect Green (s)	70.0	68.2		69.1	66.2	64.2		21.9				21.9
Actuated g/C Ratio	0.70	0.68		0.69	0.66	0.64		0.22				0.22

Lanes, Volumes, Timings
 4: Home Avenue & Madison Street

01/20/2020

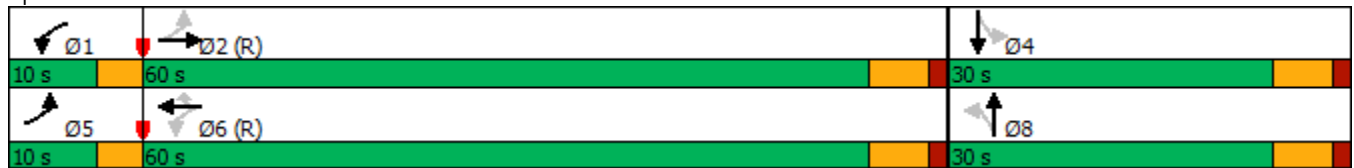


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.16	0.93		0.07	0.92	0.09		0.37				0.76
Control Delay	11.0	28.9		2.6	15.3	0.7		34.4				46.7
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0				0.0
Total Delay	11.0	28.9		2.6	15.3	0.7		34.4				46.7
LOS	B	C		A	B	A		C				D
Approach Delay		28.5			14.1			34.4				46.7
Approach LOS		C			B			C				D
Queue Length 50th (ft)	6	377		0	57	0		65				128
Queue Length 95th (ft)	m10	#1035		m1	m#737	m3		114				210
Internal Link Dist (ft)		256			1478			96				144
Turn Bay Length (ft)	120			90		46						
Base Capacity (vph)	151	1161		164	1210	898		401				381
Starvation Cap Reductn	0	0		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.15	0.93		0.07	0.92	0.09		0.31				0.65

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 24.0
 Intersection LOS: C
 Intersection Capacity Utilization 81.8%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Home Avenue & Madison Street



Intersection Capacity Utilization

10: Wisconsin Avenue & Parking Garage & Drop Off Lane/E-W Alley

10/25/2019



Movement	NWL	NWR	NWR2
Lane Configurations			
Volume (vph)	0	70	11
Pedestrians	9		2
Ped Button	Yes		
Pedestrian Timing (s)	16.0		
Free Right		No	No
Ideal Flow	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120
Volume Combined (vph)	83	0	0
Lane Utilization Factor	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.85
Saturated Flow (vph)	1620	0	0
Ped Intf Time (s)	0.3	0.0	0.3
Pedestrian Frequency (%)	0.06		
Protected Option Allowed	No		
Reference Time (s)		0.0	0.0
Adj Reference Time (s)		0.0	0.0
Permitted Option			
Adj Saturation A (vph)	108		
Reference Time A (s)	92.5		
Adj Saturation B (vph)	NA		
Reference Time B (s)	NA		
Reference Time (s)			
Adj Reference Time (s)			
Split Option			
Ref Time Combined (s)	6.4		
Ref Time Seperate (s)	0.3		
Reference Time (s)	6.4		
Adj Reference Time (s)	11.0		
Summary			

HCM 6th AWSC
18: Home Avenue & Monroe Street

01/20/2020

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	7	7	2	18	40	9	86	3	13	51	13
Future Vol, veh/h	6	7	7	2	18	40	9	86	3	13	51	13
Peak Hour Factor	0.94	0.94	0.94	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	2	0	0	0	8	2	0
Mvmt Flow	6	7	7	2	19	43	10	91	3	14	54	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.2	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	30%	3%	17%
Vol Thru, %	88%	35%	30%	66%
Vol Right, %	3%	35%	67%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	20	60	77
LT Vol	9	6	2	13
Through Vol	86	7	18	51
RT Vol	3	7	40	13
Lane Flow Rate	104	21	64	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.119	0.025	0.068	0.095
Departure Headway (Hd)	4.111	4.225	3.843	4.197
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	866	852	914	848
Service Time	2.164	2.225	1.94	2.254
HCM Lane V/C Ratio	0.12	0.025	0.07	0.097
HCM Control Delay	7.7	7.3	7.2	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2	0.3

HCM 6th TWSC
 13: Wenonah Avenue & E-W Alley

02/13/2020

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	0	1	3	0	55	11	0	0	26	13
Future Vol, veh/h	4	0	0	1	3	0	55	11	0	0	26	13
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	1	1	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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	0	0	1	4	0	71	14	0	0	33	17























Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	205	203	46	199	211	16	54	0	0	15	0	0
Stage 1	46	46	-	157	157	-	-	-	-	-	-	-
Stage 2	159	157	-	42	54	-	-	-	-	-	-	-
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	757	697	1029	764	690	1069	1564	-	-	1616	-	-
Stage 1	973	861	-	850	772	-	-	-	-	-	-	-
Stage 2	848	772	-	978	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	724	661	1025	736	655	1067	1558	-	-	1614	-	-
Mov Cap-2 Maneuver	724	661	-	736	655	-	-	-	-	-	-	-
Stage 1	924	858	-	810	736	-	-	-	-	-	-	-
Stage 2	804	736	-	978	851	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	10		10.4			6.2			0		
HCM LOS	B		B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	724	674	1614	-
HCM Lane V/C Ratio	0.045	-	-	0.007	0.008	-	-
HCM Control Delay (s)	7.4	0	-	10	10.4	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0	-

Lanes, Volumes, Timings
2: Wisconsin Ave. & Madison St.

01/20/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	758	16	28	785	65	119	16	139	20	4	14
Future Volume (vph)	13	758	16	28	785	65	119	16	139	20	4	14
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		104	75		41	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	75			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.92			0.94		0.96	0.94		0.96	
Frt			0.850			0.850			0.850		0.949	
Flt Protected	0.950			0.950				0.958			0.974	
Satd. Flow (prot)	1483	1830	1305	1425	1830	1410	0	1785	1393	0	1591	0
Flt Permitted	0.237			0.183				0.723			0.827	
Satd. Flow (perm)	370	1830	1200	275	1830	1324	0	1291	1310	0	1329	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79			115			15
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		298			344			177			134	
Travel Time (s)		8.1			9.4			4.8			3.7	
Confl. Peds. (#/hr)	16		26	26		16	28		22	22		28
Confl. Bikes (#/hr)			1			5			1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	8%	4%	2%	0%	1%	9%	2%	0%	75%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	798	17	29	826	68	0	142	146	0	40	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1		4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0	15.0	4.0	15.0	15.0	8.0	8.0	4.0	8.0	8.0	
Minimum Split (s)	10.0	25.0	25.0	10.0	25.0	25.0	31.0	31.0	10.0	31.0	31.0	
Total Split (s)	10.0	49.0	49.0	10.0	49.0	49.0	31.0	31.0	10.0	31.0	31.0	
Total Split (%)	11.1%	54.4%	54.4%	11.1%	54.4%	54.4%	34.4%	34.4%	11.1%	34.4%	34.4%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5	0.0	1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0	0.0	0.0	-2.0	0.0		-2.0	0.0		-2.0	
Total Lost Time (s)	3.5	4.0	6.0	3.5	4.0	6.0		4.0	3.5		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?		Yes	Yes		Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effect Green (s)	60.7	54.4	52.4	64.0	62.0	60.0		18.0	24.6		18.0	
Actuated g/C Ratio	0.67	0.60	0.58	0.71	0.69	0.67		0.20	0.27		0.20	

Lanes, Volumes, Timings
 2: Wisconsin Ave. & Madison St.

01/20/2020

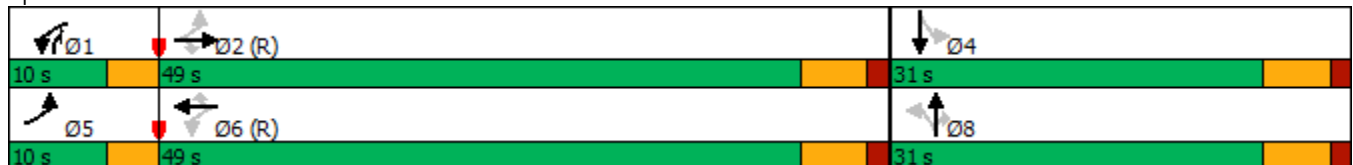


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.72	0.02	0.11	0.66	0.07		0.55	0.33		0.14	
Control Delay	5.4	19.1	0.1	1.9	4.8	0.3		39.6	8.1		20.3	
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	5.4	19.6	0.1	1.9	4.8	0.3		39.6	8.1		20.3	
LOS	A	B	A	A	A	A		D	A		C	
Approach Delay		19.0			4.4			23.6			20.3	
Approach LOS		B			A			C			C	
Queue Length 50th (ft)	2	290	0	1	31	0		73	12		12	
Queue Length 95th (ft)	9	#606	0	m2	#611	m0		121	48		35	
Internal Link Dist (ft)		218			264			97			54	
Turn Bay Length (ft)	100		104	75		41						
Base Capacity (vph)	332	1105	731	280	1261	909		387	454		409	
Starvation Cap Reductn	0	76	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.04	0.78	0.02	0.10	0.66	0.07		0.37	0.32		0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 14 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 13.2 Intersection LOS: B
 Intersection Capacity Utilization 73.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Wisconsin Ave. & Madison St.



Lanes, Volumes, Timings
4: Home Ave. & Madison St.

01/20/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	787	20	19	836	79	16	87	13	101	124	42
Future Volume (vph)	27	787	20	19	836	79	16	87	13	101	124	42
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		46	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	50			90			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.92		0.99			0.98	
Frt		0.996				0.850		0.985			0.979	
Flt Protected	0.950			0.950				0.993			0.981	
Satd. Flow (prot)	1425	1730	0	1483	1830	1410	0	1766	0	0	1641	0
Flt Permitted	0.127			0.147				0.943			0.812	
Satd. Flow (perm)	191	1730	0	229	1830	1299	0	1674	0	0	1343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				79		7			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		336			1558			172			224	
Travel Time (s)		9.2			42.5			4.7			6.1	
Confl. Peds. (#/hr)	24		15	15		24	14		20	20		14
Confl. Bikes (#/hr)			5			4						2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	0%	0%	2%	0%	0%	6%	0%	2%	4%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	849	0	20	880	83	0	123	0	0	281	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	25.0		10.0	25.0	25.0	28.0	28.0		28.0	28.0	
Total Split (s)	10.0	50.0		10.0	50.0	50.0	30.0	30.0		30.0	30.0	
Total Split (%)	11.1%	55.6%		11.1%	55.6%	55.6%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	3.5	4.0		3.5	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?		Yes			Yes	Yes						
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	57.9	54.8		57.8	54.8	52.8		23.2			23.2	
Actuated g/C Ratio	0.64	0.61		0.64	0.61	0.59		0.26			0.26	

Lanes, Volumes, Timings
4: Home Ave. & Madison St.

01/20/2020

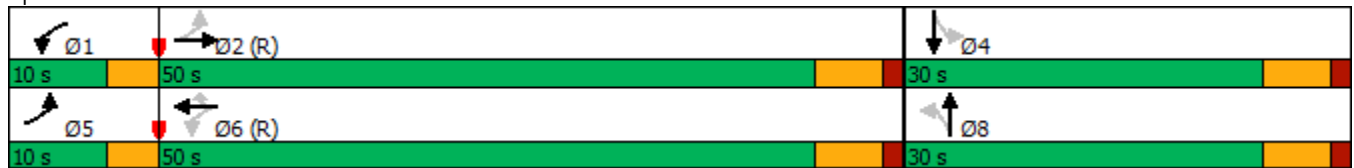


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.81		0.09	0.79	0.10		0.28				0.79
Control Delay	11.4	25.8		4.0	12.8	0.3		26.0				46.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0				0.0
Total Delay	11.4	25.8		4.0	12.8	0.3		26.0				46.8
LOS	B	C		A	B	A		C				D
Approach Delay		25.3			11.6			26.0				46.8
Approach LOS		C			B			C				D
Queue Length 50th (ft)	7	287		2	0	0		51				139
Queue Length 95th (ft)	m15	#695		m2	m0	m0		95				#250
Internal Link Dist (ft)		256			1478			92				144
Turn Bay Length (ft)	120			90		46						
Base Capacity (vph)	212	1054		237	1113	794		488				395
Starvation Cap Reductn	0	0		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.13	0.81		0.08	0.79	0.10		0.25				0.71

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 86 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 22.1
 Intersection LOS: C
 Intersection Capacity Utilization 70.9%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Home Ave. & Madison St.



HCM 6th TWSC
17: Wenonah Avenue & Monroe Street

01/20/2020

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	1	2	19	10	0	53	8	10	14	7
Future Vol, veh/h	8	3	1	2	19	10	0	53	8	10	14	7
Conflicting Peds, #/hr	3	0	16	16	0	3	0	0	6	6	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	4	1	2	23	12	0	65	10	12	17	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	21	0	0	87	83	27	104	77	32
Stage 1	-	-	-	-	-	-	41	41	-	36	36	-
Stage 2	-	-	-	-	-	-	46	42	-	68	41	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1585	-	-	1608	-	-	904	811	1054	881	817	1048
Stage 1	-	-	-	-	-	-	979	865	-	985	869	-
Stage 2	-	-	-	-	-	-	973	864	-	947	865	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1580	-	-	1583	-	-	864	791	1032	806	797	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	864	791	-	806	797	-
Stage 1	-	-	-	-	-	-	958	847	-	976	866	-
Stage 2	-	-	-	-	-	-	946	861	-	855	847	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.9			0.5			9.9			9.5		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	816	1580	-	-	1583	-	-	841
HCM Lane V/C Ratio	0.092	0.006	-	-	0.002	-	-	0.044
HCM Control Delay (s)	9.9	7.3	0	-	7.3	0	-	9.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

HCM 6th TWSC
19: Wisconsin Avenue & Adams Street

01/20/2020

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	2	3	21	2	4	9	6	3	1	9
Future Vol, veh/h	0	12	2	3	21	2	4	9	6	3	1	9
Conflicting Peds, #/hr	0	0	7	7	0	0	1	0	5	5	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	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	25	0	0	0	0	0
Mvmt Flow	0	15	3	4	26	3	5	11	8	4	1	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	56	50	15	61	51	20	13	0	0	24	0	0
Stage 1	16	16	-	30	30	-	-	-	-	-	-	-
Stage 2	40	34	-	31	21	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.35	-	-	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	2.425	-	-	2.2	-	-
Pot Cap-1 Maneuver	946	845	1070	939	844	1064	1468	-	-	1604	-	-
Stage 1	1009	886	-	992	874	-	-	-	-	-	-	-
Stage 2	980	871	-	991	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	916	835	1062	909	834	1059	1467	-	-	1596	-	-
Mov Cap-2 Maneuver	916	835	-	909	834	-	-	-	-	-	-	-
Stage 1	1005	882	-	984	867	-	-	-	-	-	-	-
Stage 2	945	864	-	962	878	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.3		9.4		1.6		1.7	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	861	856	1596	-
HCM Lane V/C Ratio	0.003	-	-	0.02	0.038	0.002	-
HCM Control Delay (s)	7.5	0	-	9.3	9.4	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM 6th TWSC
20: N-S Alley & Adams Street

01/20/2020

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	0	21	0	1	23	2	0	0	2	2	0	3
Future Vol, veh/h	0	21	0	1	23	2	0	0	2	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	22	0	1	24	2	0	0	2	2	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	26	0	0	22	0	0	51	50	22	50	49	25
Stage 1	-	-	-	-	-	-	22	22	-	27	27	-
Stage 2	-	-	-	-	-	-	29	28	-	23	22	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1601	-	-	1607	-	-	953	845	1061	955	846	1057
Stage 1	-	-	-	-	-	-	1002	881	-	996	877	-
Stage 2	-	-	-	-	-	-	993	876	-	1000	881	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1601	-	-	1607	-	-	949	844	1061	952	845	1057
Mov Cap-2 Maneuver	-	-	-	-	-	-	949	844	-	952	845	-
Stage 1	-	-	-	-	-	-	1002	881	-	996	876	-
Stage 2	-	-	-	-	-	-	989	875	-	998	881	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			8.4			8.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1061	1601	-	-	1607	-	-	1012
HCM Lane V/C Ratio	0.002	-	-	-	0.001	-	-	0.005
HCM Control Delay (s)	8.4	0	-	-	7.2	0	-	8.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 6th TWSC
21: Wenonah Avenue & Adams Street

01/20/2020

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	21	0	2	13	0	5	54	2	1	9	7
Future Vol, veh/h	4	21	0	2	13	0	5	54	2	1	9	7
Conflicting Peds, #/hr	13	0	6	6	0	13	5	0	7	7	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	28	0	3	18	0	7	73	3	1	12	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	34	0	0	84	81	41	120	81	36
Stage 1	-	-	-	-	-	-	44	44	-	37	37	-
Stage 2	-	-	-	-	-	-	40	37	-	83	44	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1595	-	-	1591	-	-	908	813	1036	860	813	1042
Stage 1	-	-	-	-	-	-	975	862	-	984	868	-
Stage 2	-	-	-	-	-	-	980	868	-	930	862	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1575	-	-	1582	-	-	876	794	1023	779	794	1024
Mov Cap-2 Maneuver	-	-	-	-	-	-	876	794	-	779	794	-
Stage 1	-	-	-	-	-	-	966	854	-	969	856	-
Stage 2	-	-	-	-	-	-	951	856	-	840	854	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	1	10	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	806	1575	-	-	1582	-	-	874
HCM Lane V/C Ratio	0.102	0.003	-	-	0.002	-	-	0.026
HCM Control Delay (s)	10	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	0	1	25	1	2
Future Vol, veh/h	10	0	1	25	1	2
Conflicting Peds, #/hr	0	15	15	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	0	1	26	1	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	25	0	53
Stage 1	-	-	-	-	25
Stage 2	-	-	-	-	28
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1603	-	960
Stage 1	-	-	-	-	1003
Stage 2	-	-	-	-	1000
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1580	-	946
Mov Cap-2 Maneuver	-	-	-	-	946
Stage 1	-	-	-	-	989
Stage 2	-	-	-	-	999

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1007	-	-	1580	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection Capacity Utilization

10: Wisconsin Avenue & Parking Garage & Drop Off Lane/E-W Alley























10/25/2019



Movement	WBL2	WBL	WBT	NBT	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations			↔	↔		↔			↔	
Volume (vph)	28	43	0	83	92	226	7	1	0	22
Pedestrians	3	24			1		3	11	3	1
Ped Button			Yes	Yes		Yes			Yes	
Pedestrian Timing (s)			16.0	16.0		16.0			16.0	
Free Right							No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	71	83	0	325	0	0	23	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.95	1.00	0.95	0.98	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	0	1805	1900	0	1867	0	0	1624	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5	0.1
Pedestrian Frequency (%)			0.03	0.12		0.10			0.12	
Protected Option Allowed			No	No		No			No	
Reference Time (s)							0.0			0.0
Adj Reference Time (s)							0.0			0.0
Permitted Option										
Adj Saturation A (vph)	0	0	120	1900	0	348		0	108	
Reference Time A (s)	0.0	0.0	70.8	5.2	0.0	112.1		0.0	26.0	
Adj Saturation B (vph)	0	0	0	NA	0	0		NA	NA	
Reference Time B (s)	9.9	10.9	12.7	NA	14.1	28.9		NA	NA	
Reference Time (s)			10.9	5.2		28.9				
Adj Reference Time (s)			15.0	10.6		32.9				
Split Option										
Ref Time Combined (s)	0.0	0.0	4.7	5.2	0.0	20.9		0.0	2.2	
Ref Time Separate (s)	1.9	2.9	0.0	5.2	6.1	14.3		0.1	0.5	
Reference Time (s)	4.7	4.7	4.7	5.2	20.9	20.9		2.2	2.2	
Adj Reference Time (s)	9.1	9.1	9.1	10.6	24.9	24.9		9.5	9.5	
Summary	EB WB		NB SB		NW		Combined			
Protected Option (s)	NA		NA		NA					
Permitted Option (s)	15.0		32.9		Err					
Split Option (s)	23.7		35.5		9.5					
Minimum (s)	15.0		32.9		9.5		57.4			
Right Turns										
Adj Reference Time (s)										
Cross Thru Ref Time (s)										
Oncoming Left Ref Time (s)										
Combined (s)										
Intersection Summary										
Intersection Capacity Utilization			47.9%		ICU Level of Service				A	
Reference Times and Phasing Options do not represent an optimized timing plan.										

Lanes, Volumes, Timings
2: Wisconsin Ave. & Madison St.

01/20/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	758	16	28	785	65	119	16	139	20	4	14
Future Volume (vph)	13	758	16	28	785	65	119	16	139	20	4	14
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		104	75		41	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	75			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.92			0.94		0.96	0.94		0.96	
Frt			0.850			0.850			0.850		0.949	
Flt Protected	0.950			0.950				0.958			0.974	
Satd. Flow (prot)	1483	1830	1305	1425	1830	1410	0	1785	1393	0	1591	0
Flt Permitted	0.237			0.183				0.723			0.827	
Satd. Flow (perm)	370	1830	1200	275	1830	1324	0	1291	1310	0	1329	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79			115			15
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		298			344			177			134	
Travel Time (s)		8.1			9.4			4.8			3.7	
Confl. Peds. (#/hr)	16		26	26		16	28		22	22		28
Confl. Bikes (#/hr)			1			5			1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	8%	4%	2%	0%	1%	9%	2%	0%	75%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	798	17	29	826	68	0	142	146	0	40	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1		4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0	15.0	4.0	15.0	15.0	8.0	8.0	4.0	8.0	8.0	
Minimum Split (s)	10.0	25.0	25.0	10.0	25.0	25.0	31.0	31.0	10.0	31.0	31.0	
Total Split (s)	10.0	49.0	49.0	10.0	49.0	49.0	31.0	31.0	10.0	31.0	31.0	
Total Split (%)	11.1%	54.4%	54.4%	11.1%	54.4%	54.4%	34.4%	34.4%	11.1%	34.4%	34.4%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5	0.0	1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0	0.0	0.0	-2.0	0.0		-2.0	0.0		-2.0	
Total Lost Time (s)	3.5	4.0	6.0	3.5	4.0	6.0		4.0	3.5		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?		Yes	Yes		Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effect Green (s)	60.7	54.4	52.4	64.0	62.0	60.0		18.0	24.6		18.0	
Actuated g/C Ratio	0.67	0.60	0.58	0.71	0.69	0.67		0.20	0.27		0.20	

Lanes, Volumes, Timings
 2: Wisconsin Ave. & Madison St.

01/20/2020

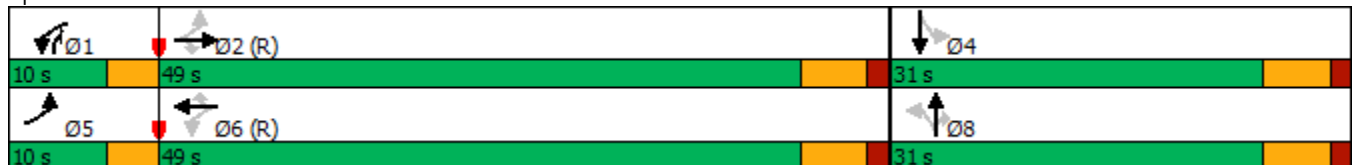


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.72	0.02	0.11	0.66	0.07		0.55	0.33		0.14	
Control Delay	5.4	19.1	0.1	1.9	4.8	0.3		39.6	8.1		20.3	
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	5.4	19.6	0.1	1.9	4.8	0.3		39.6	8.1		20.3	
LOS	A	B	A	A	A	A		D	A		C	
Approach Delay		19.0			4.4			23.6			20.3	
Approach LOS		B			A			C			C	
Queue Length 50th (ft)	2	290	0	1	31	0		73	12		12	
Queue Length 95th (ft)	9	#606	0	m2	#611	m0		121	48		35	
Internal Link Dist (ft)		218			264			97			54	
Turn Bay Length (ft)	100		104	75		41						
Base Capacity (vph)	332	1105	731	280	1261	909		387	454		409	
Starvation Cap Reductn	0	76	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.04	0.78	0.02	0.10	0.66	0.07		0.37	0.32		0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 14 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 13.2 Intersection LOS: B
 Intersection Capacity Utilization 73.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Wisconsin Ave. & Madison St.



Lanes, Volumes, Timings
4: Home Ave. & Madison St.

01/20/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	787	20	19	836	79	16	87	13	101	124	42
Future Volume (vph)	27	787	20	19	836	79	16	87	13	101	124	42
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	10	12	12	12	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	90		46	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	50			90			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.92		0.99			0.98	
Frt		0.996				0.850		0.985			0.979	
Flt Protected	0.950			0.950				0.993			0.981	
Satd. Flow (prot)	1425	1730	0	1483	1830	1410	0	1766	0	0	1641	0
Flt Permitted	0.127			0.147				0.943			0.812	
Satd. Flow (perm)	191	1730	0	229	1830	1299	0	1674	0	0	1343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				79		7			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		336			1558			172			224	
Travel Time (s)		9.2			42.5			4.7			6.1	
Confl. Peds. (#/hr)	24		15	15		24	14		20	20		14
Confl. Bikes (#/hr)			5			4						2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	0%	0%	2%	0%	0%	6%	0%	2%	4%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)	4		4	4		4	4		4	4		4
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	849	0	20	880	83	0	123	0	0	281	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0	15.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	25.0		10.0	25.0	25.0	28.0	28.0		28.0	28.0	
Total Split (s)	10.0	50.0		10.0	50.0	50.0	30.0	30.0		30.0	30.0	
Total Split (%)	11.1%	55.6%		11.1%	55.6%	55.6%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	3.5	4.0		3.5	4.0	6.0		4.0			4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?		Yes			Yes	Yes						
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	57.9	54.8		57.8	54.8	52.8		23.2			23.2	
Actuated g/C Ratio	0.64	0.61		0.64	0.61	0.59		0.26			0.26	

Lanes, Volumes, Timings
4: Home Ave. & Madison St.

01/20/2020

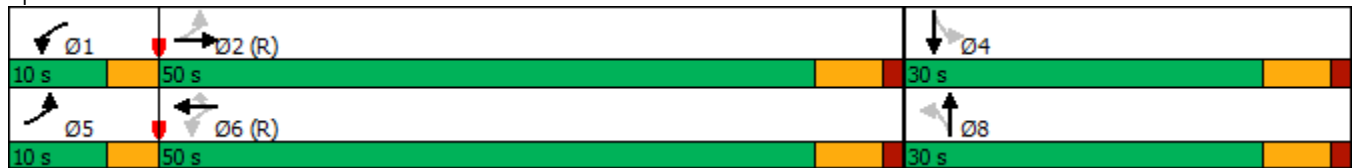


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.81		0.09	0.79	0.10		0.28				0.79
Control Delay	11.4	25.8		4.0	12.8	0.3		26.0				46.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0				0.0
Total Delay	11.4	25.8		4.0	12.8	0.3		26.0				46.8
LOS	B	C		A	B	A		C				D
Approach Delay		25.3			11.6			26.0				46.8
Approach LOS		C			B			C				D
Queue Length 50th (ft)	7	287		2	0	0		51				139
Queue Length 95th (ft)	m15	#695		m2	m0	m0		95				#250
Internal Link Dist (ft)		256			1478			92				144
Turn Bay Length (ft)	120			90		46						
Base Capacity (vph)	212	1054		237	1113	794		488				395
Starvation Cap Reductn	0	0		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.13	0.81		0.08	0.79	0.10		0.25				0.71

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 86 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 22.1
 Intersection LOS: C
 Intersection Capacity Utilization 70.9%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Home Ave. & Madison St.



HCM 6th AWSC
18: Home Avenue & Monroe Street

01/20/2020

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	5	3	8	24	3	75	2	25	108	8
Future Vol, veh/h	5	8	5	3	8	24	3	75	2	25	108	8
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	6	9	6	4	9	28	4	88	2	29	127	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.3	7.7	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	28%	9%	18%
Vol Thru, %	94%	44%	23%	77%
Vol Right, %	3%	28%	69%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	18	35	141
LT Vol	3	5	3	25
Through Vol	75	8	8	108
RT Vol	2	5	24	8
Lane Flow Rate	94	21	41	166
Geometry Grp	1	1	1	1
Degree of Util (X)	0.108	0.026	0.047	0.188
Departure Headway (Hd)	4.128	4.399	4.094	4.083
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	859	818	880	873
Service Time	2.197	2.401	2.095	2.137
HCM Lane V/C Ratio	0.109	0.026	0.047	0.19
HCM Control Delay	7.7	7.5	7.3	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.1	0.7

HCM 6th TWSC
13: Wenonah Avenue & E-W Alley

02/13/2020

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	10	3	3	2	5	23	2	2	46	4
Future Vol, veh/h	3	3	10	3	3	2	5	23	2	2	46	4
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	1	1	0	3
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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	4	12	4	4	2	6	28	2	2	56	5

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	110	109	62	113	110	30	64	0	0	31	0	0
Stage 1	66	66	-	42	42	-	-	-	-	-	-	-
Stage 2	44	43	-	71	68	-	-	-	-	-	-	-
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	873	785	1009	869	784	1050	1551	-	-	1595	-	-
Stage 1	950	844	-	978	864	-	-	-	-	-	-	-
Stage 2	975	863	-	944	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	862	778	1006	852	777	1049	1547	-	-	1593	-	-
Mov Cap-2 Maneuver	862	778	-	852	777	-	-	-	-	-	-	-
Stage 1	943	841	-	973	860	-	-	-	-	-	-	-
Stage 2	965	859	-	928	839	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9		9.2		1.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1547	-	-	926	861	1593	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.011	0.002	-
HCM Control Delay (s)	7.3	0	-	9	9.2	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-

HCM 6th TWSC
17: Wenonah Avenue & Monroe Street

01/20/2020

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	5	4	4	10	7	1	15	3	9	45	11
Future Vol, veh/h	6	5	4	4	10	7	1	15	3	9	45	11
Conflicting Peds, #/hr	1	0	9	9	0	1	1	0	4	4	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	6	5	5	12	8	1	18	4	11	54	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	20	0	0	93	63	22	65	61	18
Stage 1	-	-	-	-	-	-	32	32	-	27	27	-
Stage 2	-	-	-	-	-	-	61	31	-	38	34	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1608	-	-	1609	-	-	895	832	1061	934	834	1066
Stage 1	-	-	-	-	-	-	990	872	-	996	877	-
Stage 2	-	-	-	-	-	-	955	873	-	982	871	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1606	-	-	1595	-	-	828	818	1048	906	820	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	828	818	-	906	820	-
Stage 1	-	-	-	-	-	-	977	861	-	991	873	-
Stage 2	-	-	-	-	-	-	882	870	-	951	860	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			1.4			9.4			9.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	848	1606	-	-	1595	-	-	865
HCM Lane V/C Ratio	0.027	0.004	-	-	0.003	-	-	0.089
HCM Control Delay (s)	9.4	7.3	0	-	7.3	0	-	9.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

HCM 6th TWSC
 19: Wisconsin Avenue & Adams Street

01/20/2020

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	14	1	5	39	1	5	7	6	6	3	15
Future Vol, veh/h	2	14	1	5	39	1	5	7	6	6	3	15
Conflicting Peds, #/hr	2	0	3	3	0	2	1	0	4	4	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	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	16	1	6	45	1	6	8	7	7	3	17

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	76	58	16	65	63	18	21	0	0	19	0	0
Stage 1	27	27	-	28	28	-	-	-	-	-	-	-
Stage 2	49	31	-	37	35	-	-	-	-	-	-	-
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	919	837	1069	934	832	1066	1608	-	-	1611	-	-
Stage 1	996	877	-	994	876	-	-	-	-	-	-	-
Stage 2	969	873	-	984	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	871	826	1065	907	821	1060	1606	-	-	1605	-	-
Mov Cap-2 Maneuver	871	826	-	907	821	-	-	-	-	-	-	-
Stage 1	991	873	-	986	869	-	-	-	-	-	-	-
Stage 2	912	866	-	958	866	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	9.4		9.6		2		1.8			
HCM LOS	A		A							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1606	-	-	842	834	1605	-
HCM Lane V/C Ratio	0.004	-	-	0.023	0.063	0.004	-
HCM Control Delay (s)	7.2	0	-	9.4	9.6	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-

HCM 6th TWSC
20: N-S Alley & Adams Street

01/20/2020

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	2	23	1	4	44	8	0	1	3	1	0	1
Future Vol, veh/h	2	23	1	4	44	8	0	1	3	1	0	1
Conflicting Peds, #/hr	9	0	3	3	0	9	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	25	1	4	48	9	0	1	3	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	66	0	0	29	0	0	94	107	30	103	103	62
Stage 1	-	-	-	-	-	-	33	33	-	70	70	-
Stage 2	-	-	-	-	-	-	61	74	-	33	33	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1549	-	-	1597	-	-	894	787	1050	882	791	1009
Stage 1	-	-	-	-	-	-	988	872	-	945	841	-
Stage 2	-	-	-	-	-	-	955	837	-	988	872	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1536	-	-	1592	-	-	888	774	1046	867	778	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	888	774	-	867	778	-
Stage 1	-	-	-	-	-	-	984	869	-	936	831	-
Stage 2	-	-	-	-	-	-	951	827	-	982	869	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.5			8.8			8.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	962	1536	-	-	1592	-	-	929
HCM Lane V/C Ratio	0.005	0.001	-	-	0.003	-	-	0.002
HCM Control Delay (s)	8.8	7.3	0	-	7.3	0	-	8.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 6th TWSC
21: Wenonah Avenue & Adams Street

01/20/2020

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	21	3	7	35	0	2	14	2	6	35	12
Future Vol, veh/h	3	21	3	7	35	0	2	14	2	6	35	12
Conflicting Peds, #/hr	8	0	2	2	0	8	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	23	3	8	38	0	2	15	2	7	38	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	28	0	0	118	95	32	106	96	51
Stage 1	-	-	-	-	-	-	33	33	-	62	62	-
Stage 2	-	-	-	-	-	-	85	62	-	44	34	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1575	-	-	1599	-	-	863	799	1048	878	798	1023
Stage 1	-	-	-	-	-	-	988	872	-	954	847	-
Stage 2	-	-	-	-	-	-	928	847	-	975	871	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1563	-	-	1596	-	-	810	785	1041	848	784	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	785	-	848	784	-
Stage 1	-	-	-	-	-	-	984	869	-	944	836	-
Stage 2	-	-	-	-	-	-	865	836	-	949	868	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			1.2			9.6			9.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1563	-	-	1596	-	-	833
HCM Lane V/C Ratio	0.024	0.002	-	-	0.005	-	-	0.07
HCM Control Delay (s)	9.6	7.3	0	-	7.3	0	-	9.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	1	8	14	0	1
Future Vol, veh/h	14	1	8	14	0	1
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	1	11	19	0	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	24	0	65
Stage 1	-	-	-	-	24
Stage 2	-	-	-	-	41
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1604	-	946
Stage 1	-	-	-	-	1004
Stage 2	-	-	-	-	987
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1598	-	936
Mov Cap-2 Maneuver	-	-	-	-	936
Stage 1	-	-	-	-	1000
Stage 2	-	-	-	-	980

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1054	-	-	1598	-
HCM Lane V/C Ratio	0.001	-	-	0.007	-
HCM Control Delay (s)	8.4	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection Capacity Utilization

10: Wisconsin Avenue & Parking Garage & Drop Off Lane/E-W Alley

10/25/2019



Movement	WBL2	WBL	WBT	WBR	NBT	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations			↔		↔		↔			↔	
Volume (vph)	1	4	0	7	179	5	48	2	2	0	81
Pedestrians	10	10				6		9	10	9	
Ped Button					Yes		Yes			Yes	
Pedestrian Timing (s)					16.0		16.0			16.0	
Free Right				No				No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	12	0	179	0	55	0	0	83	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.89	0.85	1.00	0.95	0.99	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	0	1698	0	1900	0	1881	0	0	1620	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.3	0.0
Pedestrian Frequency (%)			0.00		0.18		0.26			0.06	
Protected Option Allowed			No		No		No			No	
Reference Time (s)				0.0				0.0			0.0
Adj Reference Time (s)				0.0				0.0			0.0
Permitted Option											
Adj Saturation A (vph)	0	0	227		1900	0	806		0	108	
Reference Time A (s)	0.0	0.0	6.3		11.3	0.0	8.2		0.0	92.5	
Adj Saturation B (vph)	0	0	0		1900	NA	NA		NA	NA	
Reference Time B (s)	8.1	8.3	8.8		11.3	NA	NA		NA	NA	
Reference Time (s)			6.3		11.3		8.2				
Adj Reference Time (s)			10.3		16.2		14.2				
Split Option											
Ref Time Combined (s)	0.0	0.0	0.8		11.3	0.0	3.5		0.0	6.4	
Ref Time Seperate (s)	0.1	0.3	0.0		11.3	0.3	3.1		0.1	0.3	
Reference Time (s)	0.8	0.8	0.8		11.3	3.5	3.5		6.4	6.4	
Adj Reference Time (s)	8.0	8.0	8.0		16.2	11.1	11.1		11.0	11.0	
Summary	EB WB		NB SB		NW		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	11.4		16.2		Err						
Split Option (s)	19.4		27.3		11.0						
Minimum (s)	11.4		16.2		11.0		38.6				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization			32.2%		ICU Level of Service				A		
Reference Times and Phasing Options do not represent an optimized timing plan.											